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ASTRO[®] 25
INTEGRATED VOICE AND DATA



Provisioning Manager

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Document History

Version	Description	Date
MN003343A01-A	Original release of the <i>Provisioning Manager</i> manual	November 2016
MN003343A01-B	This version includes the following updated and new topics: <ul style="list-style-type: none">Call Alert on page 89Configuring Call Alert on page 91Creating Custom Tone Tables on page 421Creating Custom Paging Formats on page 426	January 2017

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Contents

Copyrights	3
Contact Us	5
Document History	7
List of Figures	17
List of Tables	19
List of Processes	21
List of Procedures	23
About Provisioning Manager	25
What Is Covered in This Manual.....	25
Helpful Background Information.....	25
Related Information.....	25
Chapter 1: Provisioning Manager Description	27
1.1 Provisioning Manager Overview.....	27
1.2 Provisioning Manager Features.....	28
1.2.1 Radio System Configuration.....	28
1.2.2 Distribution (Provisioning) to Network Devices.....	29
1.2.2.1 Full Configuration Distribution.....	29
1.2.2.2 Configuration Change Distribution.....	29
1.2.2.3 Network Devices	29
1.2.2.4 Provisioning Manager and UNC.....	30
1.2.2.5 Provisioning Manager and ZDS.....	30
1.2.2.6 Home Zone Map Distribution.....	30
1.2.3 Security.....	31
1.2.3.1 User Authentication through Active Directory.....	31
1.2.3.2 Group-based User Access Management.....	31
1.2.3.3 Dynamic System Resilience.....	31
1.2.4 Provisioning Manager Auditing.....	32
1.2.5 Enhanced Data Services.....	35
Chapter 2: Provisioning Manager Installation	37
Chapter 3: Provisioning Manager Configuration	39
3.1 Setting Up User Accounts.....	39
3.2 Modifying the Session Timeout Duration.....	40
Chapter 4: Provisioning Manager Operation	41
4.1 Logging On to the Provisioning Manager.....	41

4.2 User Interface.....	42
4.2.1 Home Page.....	42
4.2.1.1 Main Menu.....	43
4.2.1.2 My Links Pane.....	44
4.2.1.3 Status Bar.....	44
4.2.1.4 Bulletins Display Menu.....	45
4.2.1.5 Category Page.....	45
4.2.2 Batch-Update Confirmation.....	47
4.2.3 Batch-Delete Confirmation.....	47
4.2.4 Batch Operation Status.....	48
4.3 User Interface Customization.....	48
4.3.1 Home Page Customization.....	48
4.3.1.1 Customizing My Links.....	48
4.3.1.2 Adding and Modifying Messages in the Bulletins Display Menu.....	50
4.3.1.3 Creating Links in the Bulletin Display Menu.....	50
4.3.2 The List View.....	51
4.3.2.1 Opening the List View.....	51
4.3.2.2 Filtering the List View and Audit View.....	52
4.3.2.3 Removing Filters from the List View.....	55
4.3.2.4 Sorting Records in the List View.....	55
4.3.2.5 Customizing the List View.....	55
4.3.3 The Chooser.....	56
4.3.3.1 Selecting Related Records in the Chooser.....	56
4.3.3.2 Selecting Related Records with Quick Search.....	57
4.3.3.3 Filtering Records in the Chooser.....	58
4.3.3.4 Sorting Records in the Chooser.....	58
4.3.3.5 Removing Related Records from Record Forms.....	58
4.3.4 Searching Categories.....	59
4.3.4.1 Searching Trunking Subscribers.....	60
4.3.4.2 Searching Conventional Subscribers.....	61
4.3.4.3 Category Search Criteria.....	62
4.4 Data Records Configuration.....	64
4.4.1 Creating Records.....	64
4.4.2 Batch Create Functionality.....	66
4.4.2.1 Creating Multiple Records at Once.....	68
4.4.3 Cloning Records.....	69
4.4.4 Viewing Records.....	69
4.4.5 Editing Records.....	70
4.4.6 Editing Multiple Records at Once.....	70

4.4.7 Deleting Records.....	71
4.4.8 Deleting Multiple Records at Once.....	71
4.4.9 Viewing Audit Records.....	71
4.5 Configuration Profiles.....	72
4.5.1 Applying Profiles to Records.....	72
4.5.2 Restoring Default Preferences.....	73
4.6 Data Records Import and Export.....	74
4.6.1 Importing Data Records.....	74
4.6.2 Exporting Data Records from Provisioning Manager.....	75
4.6.3 Importing and Exporting Data Records as XLS Files	76
4.6.4 Exporting All Data Records as XLS Files	77
4.6.5 Information on Editing Imported XLS Files.....	77
4.7 User Access and Security Management.....	78
4.7.1 Data Partitioning.....	78
4.7.2 Application Users and Accounts Management.....	79
4.7.2.1 Modifying Access Rights Defined in User Groups.....	79
4.7.3 Configuring Subscriber ID Restriction.....	80
4.8 Distribution (Provisioning) Management.....	80
4.8.1 Adding Managed Devices to the Provisioning Manager.....	80
4.8.2 Device List.....	81
4.8.3 Status Indication.....	82
4.8.4 Viewing Tasks in the Jobs View.....	84
4.9 Data Configuration Distribution.....	84
4.9.1 Distributing Full Configuration (Force Initialize Configuration).....	85
4.9.2 Distributing Configuration Changes.....	86
4.9.3 Distributing Home Zone Maps and Conventional Home Zone Maps.....	86
4.9.4 Generating Configuration Changes Reports.....	87
4.10 System Level Scenarios.....	87
4.11 Configuring the System for Radio Command Usability.....	88
4.12 Configuring HPD Base Station Identification Monitoring.....	89
4.13 Creating Storm Plans.....	89
4.14 Call Alert.....	89
4.14.1 Configuring Call Alert.....	91
4.15 Configuring Repeater Site Objects.....	92
4.16 Group Objects.....	92
4.16.1 Talkgroup IDs.....	92
4.16.2 Talkgroup Ranges.....	93
4.16.3 Creating Talkgroups.....	93
4.16.4 Creating Multigroups.....	94

4.16.5 Creating Agencygroups.....	94
4.16.6 Attaching Talkgroup to Radios.....	95
4.16.7 Creating Conventional Talkgroups.....	95
4.17 Provisioning Manager Database Backup and Restore.....	96
4.18 Logging Out of the Provisioning Manager.....	96
Chapter 5: Provisioning Manager Troubleshooting.....	97
5.1 Troubleshooting Procedures.....	97
5.2 Disabling Internet Explorer Compatibility View.....	101
5.3 Restoring Force Initialize Ability After a DSR Switchover.....	101
5.4 Improper Home Zone Mappings.....	102
Chapter 6: Provisioning Manager Reference.....	103
6.1 System Parameters.....	103
6.1.1 Radio System.....	103
6.1.1.1 System.....	103
6.1.1.2 Conventional System.....	106
6.1.1.3 Conventional Subsystem.....	108
6.1.1.4 Console System.....	109
6.1.1.5 Console Alias Manager.....	111
6.1.2 Secure.....	112
6.1.2.1 Common Key Reference.....	112
6.1.2.2 Key Management Facility.....	114
6.1.3 Data.....	115
6.1.3.1 Data Agency Group.....	115
6.1.3.2 Data Steering Profile.....	116
6.1.3.3 Access Point Name.....	117
6.1.3.4 Unified Network Services.....	118
6.1.4 Conventional.....	119
6.1.4.1 Conventional Channel Group.....	119
6.1.4.2 Tone Command.....	121
6.1.4.3 Tone Segment.....	122
6.1.4.4 Tone Sequence.....	124
6.1.4.5 Tone Table.....	126
6.2 Zone Parameters.....	128
6.2.1 Zone Core.....	128
6.2.1.1 Zone.....	128
6.2.1.2 Interconnect Subsystem.....	130
6.2.1.3 Transcoder.....	131
6.2.1.4 Group Data Gateway.....	132
6.2.2 Trunking.....	134

6.2.2.1 RF Site.....	134
6.2.2.2 Channel.....	136
6.2.3 Conventional.....	137
6.2.3.1 Conventional Site.....	137
6.2.3.2 CCGW-HD.....	139
6.2.3.3 Conventional Channel Gateway.....	144
6.2.3.4 Conventional Channel Talkgroup.....	145
6.2.3.5 Analog Conventional Channel.....	146
6.2.3.6 Digital Conventional Channel.....	163
6.2.3.7 MDC1200 Conventional Channel.....	176
6.2.3.8 Mixed Mode Conventional Channel.....	195
6.2.3.9 ACIM Conventional Channel.....	211
6.2.3.10 Conventional Talkgroup Channel.....	225
6.2.4 Auxiliary I/O.....	228
6.2.4.1 Interlocked Group.....	228
6.2.4.2 AuxIO Server.....	229
6.3 Consoles Parameters.....	233
6.3.1 Site.....	234
6.3.1.1 Console Site.....	234
6.3.1.2 Fallback Controller.....	237
6.3.1.3 MCC 7500 Dispatch Console (VPM-based)/MCC 7100 Dispatch Console.....	239
6.3.1.4 MCC7500 AIS (VPM-Based).....	247
6.3.2 Application.....	250
6.3.2.1 Application to Unit ID Map.....	250
6.3.2.2 Application to Conventional Unit Mapping.....	252
6.3.2.3 Console Acoustic Cross Mute.....	253
6.3.2.4 RF Cross Busy Cross Mute.....	254
6.3.2.5 Conventional Talkgroup Channel RF Cross Busy Group.....	256
6.3.2.6 Console Private Call Resource.....	257
6.3.2.7 Console TG/MG Capabilities Profile.....	258
6.3.2.8 Console User Capabilities Profile.....	262
6.3.2.9 Console User	268
6.3.3 Integrated Paging.....	270
6.3.3.1 Paging Tone Group.....	271
6.3.3.2 Paging Format.....	273
6.3.3.3 Page.....	276
6.3.3.4 Page Group.....	279
6.4 Subscriber Parameters.....	281
6.4.1 Profiles.....	281

6.4.1.1 Radio Capabilities Profile.....	281
6.4.1.2 Radio Site Access Profile.....	284
6.4.1.3 Radio Interconnect Profile.....	285
6.4.1.4 TG/MG Capabilities Profile.....	287
6.4.1.5 TG/MG Site Access Profile	292
6.4.1.6 Status Set.....	294
6.4.1.7 User Group.....	296
6.4.2 Radio.....	297
6.4.2.1 IVD Radio.....	297
6.4.2.2 HPD Radio.....	303
6.4.2.3 Broadcast Data Agency.....	305
6.4.2.4 Default Radio Access Permissions.....	307
6.4.3 Group.....	310
6.4.3.1 Talkgroup.....	310
6.4.3.2 Multigroup.....	313
6.4.3.3 Agencygroup.....	317
6.4.3.4 Default TG Access Permissions.....	320
6.4.3.5 Conventional Talkgroup.....	323
6.4.3.6 Trunking Data Group.....	325
6.4.3.7 Radio to Trunking Data Group Assignment.....	326
6.4.4 Conventional Units.....	326
6.4.4.1 Conventional Voice Unit.....	326
6.4.4.2 Conventional Voice and Data Unit.....	328
6.4.4.3 Conventional Talkgroup Unit.....	333
6.4.4.4 Message Set.....	337
6.4.4.5 Conventional Broadcast Data Agency.....	338
6.4.5 Maps.....	340
6.4.5.1 Home Zone Map.....	340
6.4.5.2 Conventional Home Zone Map.....	345
6.4.5.3 Subscriber Modulation Map.....	346
6.4.5.4 Sub-Band Restricted Map.....	347
6.5 Foreign Parameters.....	349
6.5.1 Foreign System.....	349
6.5.1.1 Foreign System.....	349
6.5.2 Foreign Subscribers.....	352
6.5.2.1 Foreign Group.....	353
6.5.2.2 Foreign Group Site Access Profile.....	356
6.5.2.3 Foreign Group Capabilities Profile.....	357
6.5.2.4 Foreign Subscriber Data Profile.....	361

6.5.3 External Subsystem.....	363
6.5.3.1 External Conventional Talkgroup Channel.....	363
6.6 Applications Parameters.....	364
6.6.1 Provisioning Manager.....	365
6.6.1.1 Security Group.....	365
6.6.1.2 Provisioning Manager Group.....	366
6.6.1.3 Provisioning Manager User.....	369
6.6.1.4 ID Restriction.....	371
6.6.2 RCM/CAD.....	373
6.6.2.1 Radio Traffic Application User.....	373
6.6.2.2 CAD User.....	375
6.6.2.3 Storm Plan.....	379
6.6.3 Zone Watch.....	381
6.6.3.1 Zonewatch Profile.....	381
6.6.3.2 Site Watch Window.....	382
6.6.3.3 Channel Grid Watch Window.....	387
6.6.3.4 Raw Display Watch Window.....	391
6.6.3.5 Multisite Scroll Watch Window.....	396
6.6.3.6 Busy Queue Watch Window.....	401
6.6.3.7 Site Filter.....	406
6.6.3.8 Channel Filter.....	407
6.6.3.9 Radio ID Filter.....	408
6.6.3.10 Radio Range Filter.....	409
6.6.3.11 Talkgroup/Multigroup ID Filter.....	410
6.6.3.12 Talkgroup/Multigroup Range Filter.....	411
6.6.3.13 Raw Data Filter.....	412
6.6.3.14 System Filter.....	416
6.6.3.15 Transcoder Filter.....	417
Appendix A: Viewing the ADS Connections Report.....	419
Appendix B: Custom Settings.....	421
B.1 Creating Custom Tone Tables.....	421
Planning a Custom Tone Table.....	421
Creating Custom Tone Sequences.....	423
Creating a Tone Table.....	424
Removing the Channel from the CCGW-HD.....	425
Adding the Custom Tone Table to the Channel.....	425
Reassigning the Channel to the CCGW-HD.....	426
Distributing the Configuration Changes.....	426
Verifying that the CCGW-HD Database Has Been Updated.....	426

B.2 Creating Custom Paging Formats.....	426
Creating the Custom Paging Tone Group.....	427
Adding the Custom Paging Tone Group to the Custom Paging Format.....	427
Assigning the Custom Paging Format to the CCGW Channel	428
Distributing the Configuration Changes.....	428

List of Figures

Figure 1: Audit View – Example.....	33
Figure 2: Audit Record – Example.....	33
Figure 3: Login Page.....	42
Figure 4: Home Page.....	43
Figure 5: Main Menu.....	43
Figure 6: My Links Pane.....	44
Figure 7: Status Bar.....	45
Figure 8: Bulletins Display Menu.....	45
Figure 9: Category Page.....	46
Figure 10: Object Menu – Example.....	47
Figure 11: Batch-Update Confirmation Message – Example.....	47
Figure 12: Batch-Delete Confirmation Message – Example.....	48
Figure 13: Batch Operation Status Message – Example.....	48
Figure 14: My Links Window.....	49
Figure 15: Bulletins Edit Pane.....	50
Figure 16: List View – Example.....	52
Figure 17: Filtered List View – Example.....	53
Figure 18: Related Records Section – Example.....	56
Figure 19: Chooser Window – Example.....	57
Figure 20: Chooser Filters – Example.....	58
Figure 21: Category Search Menu.....	59
Figure 22: Click to find Trunking Subscribers Icon.....	60
Figure 23: Trunking Subscribers Search Page Options.....	60
Figure 24: Trunking Subscribers Search Page Navigation.....	61
Figure 25: Click to find Conventional Subscribers Icon.....	61
Figure 26: Conventional Units Search Page Options.....	61
Figure 27: Conventional Units Search Page Navigation.....	62
Figure 28: Configuration Window – Example.....	65
Figure 29: Confirmation Message – Example.....	65
Figure 30: Error Message – Example.....	66
Figure 31: Profile Section – Example.....	73
Figure 32: Device List.....	81
Figure 33: Device List Record – Example.....	82
Figure 34: Home Page – Status Indicators	83
Figure 35: Update Manager – Status Indicators.....	83
Figure 36: System-Level Scenarios.....	88

Figure 37: ADS Connections Report..... 419
Figure 38: Custom Sequence 2175 Key Freq5 SP1..... 424

List of Tables

Table 1: List View Filtering Options.....	54
Table 2: Category Search Criteria.....	62
Table 3: Mapping of the Provisioning Manager Internal Object Name to the Name of the Object on the User Interface.....	78
Table 4: Assignable Talkgroup ID Ranges.....	93
Table 5: Reserved Talkgroup ID Ranges.....	93
Table 6: Provisioning Manager Troubleshooting Actions.....	97
Table 7: CCGW-HD Channel Interface - Valid Channel Associations.....	143
Table 8: Valid Tone Table IDs for Remote Control Tables.....	162
Table 9: Identity.....	243
Table 10: Configuration.....	243
Table 11: Record Identifier.....	244
Table 12: Character Ranges for Paging Codes.....	278
Table 13: Reserved Talkgroup IDs.....	310
Table 14: Reference Default Tone Commands.....	422
Table 15: Reference Default Tone Segments.....	422
Table 16: Reference Default Tone Sequences.....	423
Table 17: Planned Custom Tone Sequence.....	423

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List of Processes

Setting Up User Accounts	39
Adding Managed Devices to the Provisioning Manager	80
Configuring the System for Radio Command Usability	88
Configuring HPD Base Station Identification Monitoring	89
Creating Storm Plans	89
Configuring Call Alert	91
Configuring Repeater Site Objects	92
Creating Talkgroups	93
Creating Multigroups	94
Creating Agencygroups	94
Creating Conventional Talkgroups	95
Restoring Force Initialize Ability After a DSR Switchover	101

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List of Procedures

Logging On to the Provisioning Manager	41
Customizing My Links	48
Adding and Modifying Messages in the Bulletins Display Menu	50
Creating Links in the Bulletin Display Menu	50
Opening the List View	51
Filtering the List View and Audit View	52
Removing Filters from the List View	55
Sorting Records in the List View	55
Customizing the List View	55
Selecting Related Records in the Chooser	56
Selecting Related Records with Quick Search	57
Filtering Records in the Chooser	58
Sorting Records in the Chooser	58
Removing Related Records from Record Forms	58
Searching Categories	59
Searching Trunking Subscribers	60
Searching Conventional Subscribers	61
Creating Records	64
Creating Multiple Records at Once	68
Cloning Records	69
Viewing Records	69
Editing Records	70
Editing Multiple Records at Once	70
Deleting Records	71
Deleting Multiple Records at Once	71
Viewing Audit Records	71
Applying Profiles to Records	72
Restoring Default Preferences	73
Importing Data Records	74
Exporting Data Records from Provisioning Manager	75
Importing and Exporting Data Records as XLS Files	76
Exporting All Data Records as XLS Files	77
Modifying Access Rights Defined in User Groups	79
Configuring Subscriber ID Restriction	80
Viewing Tasks in the Jobs View	84
Distributing Full Configuration (Force Initialize Configuration)	85

Distributing Configuration Changes	86
Distributing Home Zone Maps and Conventional Home Zone Maps	86
Generating Configuration Changes Reports	87
Attaching Talkgroup to Radios	95
Logging Out of the Provisioning Manager	96
Disabling Internet Explorer Compatibility View	101
Viewing the ADS Connections Report	419
Creating Custom Tone Tables	421
Planning a Custom Tone Table	421
Creating Custom Tone Sequences	423
Creating a Tone Table	424
Removing the Channel from the CCGW-HD	425
Adding the Custom Tone Table to the Channel	425
Reassigning the Channel to the CCGW-HD	426
Distributing the Configuration Changes	426
Verifying that the CCGW-HD Database Has Been Updated	426
Creating Custom Paging Formats	426
Creating the Custom Paging Tone Group	427
Adding the Custom Paging Tone Group to the Custom Paging Format	427
Assigning the Custom Paging Format to the CCGW Channel	428
Distributing the Configuration Changes	428

About Provisioning Manager

This manual describes how to use the Provisioning Manager (PM) to create and configure radio, console, group, and user objects, and to conventionally configure and provision the ASTRO® 25 network devices.

What Is Covered in This Manual

This manual contains the following chapters:

- [Provisioning Manager Description on page 27](#) provides a description of the Provisioning Manager and the objects within the application.
- [Provisioning Manager Installation on page 37](#) describes procedures for system level installation.
- [Provisioning Manager Configuration on page 39](#) details procedures for system level configuration, presented in the order recommended for initial system configuration.
- [Provisioning Manager Operation on page 41](#) contains procedures that can be performed on the Provisioning Manager.
- [Provisioning Manager Troubleshooting on page 97](#) lists problems that can occur when using the Provisioning Manager and provides information on how to deal with them.
- [Provisioning Manager Reference on page 103](#) provides parameter tables for all object classes in the Provisioning Manager.
- [Viewing the ADS Connections Report on page 419](#) provides information about viewing the network elements connected to the Provisioning Manager via the Advanced Distribution Service (ADS).
- [Custom Settings on page 421](#) provides instructions for creating custom tone tables and paging formats for use with equipment that requires different settings than the Provisioning Manager default options.

Helpful Background Information

Motorola Solutions offers various courses designed to assist in learning about the system. For information, go to <http://www.motorolasolutions.com/training> to view the current course offerings and technology paths.

Related Information

Refer to the following documents for associated information about the radio system.

Related Information	Purpose
<i>Standards and Guidelines for Communication Sites</i>	Provides standards and guidelines that should be followed when setting up a Motorola Solutions communications site. Also known as the R56 manual. This manual may be purchased on CD 9880384V83, by calling the North America Parts Organization at 800-422-4210 (or the international number: 302-444-9842).
<i>System Overview and Documentation</i>	Provides an overview of the ASTRO® 25 new system features, documentation set, technical illustrations, and system-level disaster recovery that support the ASTRO® 25 radio communication system.

Table continued...

Related Information	Purpose
<i>Motorola GGM 8000 Hardware User Guide</i> <i>Motorola Network Router (MNR) S2500 Hardware User Guide</i>	Provides information about the GGM 8000 or MNR S2500 hardware. Available on the Motorola Online website (https://businessonline.motorolasolutions.com). To access the manual, select Resource Center → Product Information → Manuals → Network Infrastructure → Routers and Gateways .
<i>Provisioning Manager Interface Developer and User Guide</i>	Provides an operational description of the ASTRO® 25 Provisioning Manager Interface and contains information to support development of applications designed to import and export subscriber configuration data into and out of the Provisioning Manager application using an API (application programming interface) and CSV (comma separated values) files. The API provides third-party solution vendors, such as Asset Management solutions, CAD, or Fleet Mapping, with the ability to integrate their applications with the Provisioning Manager to keep information across systems in synch. With the Provisioning Manager Interface, data can be imported and exported in the form of spreadsheets that can be modified with common-off-the-shelf software applications.

Chapter 1

Provisioning Manager Description

This chapter provides a description of the Provisioning Manager application and its features. It includes an overview of the concepts required to understand the application, and a description of software controls used to operate the Provisioning Manager.

1.1

Provisioning Manager Overview

The Provisioning Manager is an ASTRO® 25 system application that enables centralized provisioning of ASTRO® 25 system with various system-level, user-level, and device-level configuration required for proper system operation. Specifically, the application allows you to configure subscriber radios, consoles, system infrastructure, and radio traffic applications.



NOTICE: In this manual, the terms *device*, *network device*, and *network element* are used interchangeably.

With the Provisioning Manager, you can perform the following tasks:

- Configure system-level parameters for Trunked Radio System (Voice and Data Systems), Console System, Conventional System, and Foreign System.
- Configure subscriber information, such as radios, talkgroups, multigroups, agencygroups, foreign groups, and Broadcast Data Agencies.
- Configure conventional system infrastructure at the zone that includes conventional sites and channels.
- Configure Console infrastructure that includes console sites, dispatch consoles and its peripherals and AIS consoles.
- Configure Auxiliary I/O (inputs/outputs) that allow a console operator to both control external devices (to perform tasks such as turning on lights, closing doors, or overriding channels) and monitor inputs (to enable detection of door-open alarms, and so on).
- Configure security policies to control access to data and capabilities for the users on the system.
- Configure the type of ZoneWatch windows that users want to monitor and configure capabilities for the users of Radio Control Manager and CAD applications.

The Provisioning Manager is a web-based application hosted on the User Configuration Server. Through the intuitive browser-based user interface, the configuration data is established for the ASTRO® 25 system in the Provisioning Manager database on the UCS Server.



NOTICE: To setup a virtual environment to host the Provisioning Manager application, see the *Virtual Management Server Hardware* and *Virtual Management Server Software* manuals. The Provisioning Manager is accessible from an NM client.

The Provisioning Manager also supports an optional Application Programming Interface called Provisioning Manager Interface (PMI) for external applications to provision data for the ASTRO® 25 system in the Provisioning Manager.

To compliment the Provisioning Manager, the Unified Network Configurator (UNC) and the Zone Data Server (ZDS) applications are used to support the distribution, maintenance, and synchronization of configuration data in the system.

1.2

Provisioning Manager Features

The Provisioning Manager provides rich feature set to create, manage, and distribute system configuration. In addition, the application has intuitive user interface with various customization capabilities.

The Provisioning Manager is hosted on a Virtual Management Server (VMS Host) in a Virtual Machine (VM), and it is accessible via a browser-based interface.

1.2.1

Radio System Configuration

The ASTRO® 25 system configuration information is represented as configuration records or configuration objects on the Provisioning Manager. For example, Talkgroup, Multigroup, Analog Conventional Channel, and so on, are configuration record objects on the Provisioning Manager that represent the configuration of the Talkgroup, Multigroup, and Analog Conventional Channel on the ASTRO® 25 system.

In the Provisioning Manager User interface, the configuration objects are logically grouped into the following categories, for ease of data management and navigation:

System

A category containing objects to set up common system level configuration.

Zone

A category containing objects to set up infrastructure in a zone, like Conventional Sites and Channels, Auxiliary I/O, and other zone level configuration.

Consoles

A category containing objects to set up Console Sites, Dispatch and AIS Consoles, Console Users, and other console-related configuration.

Subscriber

A category containing objects to set up Radios, Talkgroups, Multigroups, Conventional Subscribers, Home Zone Map, and other subscriber-related configuration.

Applications

A category containing objects to set up security policies on the Provisioning Manager and configure applications like Zonewatch, RCM and CAD.

Update Manager

A category containing user controls to manage network devices and distribute configuration to network elements.

The Provisioning Manager provides the *batch configuration* (or *bulk configuration*) feature where new configuration or updates to existing configuration can be performed in bulk at a time. This feature saves cost and effort and enhances user experience when configuring changes for multiple records of the same kind. For example, if 100 Radios having similar capabilities need be added to the network, users can use the bulk configuration feature to save Operations and Maintenance cost and effort. Bulk Configuration can be achieved by either using the Batch-Create, the Batch-Update, or the Import mechanism.



NOTICE:

You can create a maximum of 2000 records at a time using the Batch-Create feature.

Batch-Create and Import mechanisms are supported for record types that can be large in number within the system, such as Radios or Talkgroups. Batch-Updating is supported for all record types, where applicable.

1.2.2

Distribution (Provisioning) to Network Devices

One of the key functions of the Provisioning Manager is the ability to provision the network devices in ASTRO® 25 system by distributing configuration data to network elements.

1.2.2.1

Full Configuration Distribution

The mechanism of generating entire configuration for a network device and distributing it to the device is called Force Initialization or Full Configuration Distribution. This distribution mechanism is typically used when commissioning new network devices, replacing failed network devices, restoring the Provisioning Manager database during disaster recovery, and so on. This mechanism is rarely used in daily operations and maintenance of the network.

1.2.2.2

Configuration Change Distribution

The mechanism of identifying configuration that has been changed since the last successful distribution for all impacted network devices and distributing only the changed configuration is called Configuration Change Distribution. This efficient distribution mechanism is used most often in day-to-day operations and maintenance of the network. You can perform all related configuration changes for a period of time and choose to distribute them at once. All configuration changes are identified for the network devices and distributed in bulk. Bulk distribution is an optimal and efficient way of distributing configuration changes to the devices.

1.2.2.3

Network Devices

The Provisioning Manager supports the distribution of configuration data to the following network devices:

- Zone Controller (ZC)
- High Performance Data Packet Data Router (HPD PDR)
- Integrated Voice and Data Packet Data Router (IVD PDR)
- Air Traffic Router (ATR)
- Conventional Voice and Data Packet Data Router (CIVD PDR)
- Conventional Site Controller
- Conventional Channel Gateway (CCGW)
- Authentication Center (AuC) Server
- MCC 7500 Dispatch Console (VPM-based)/MCC 7100 IP Dispatch Console
- MCC 7500 AIS (VPM-based)
- Transcoder

The Provisioning Manager does not directly communicate with the network devices to distribute configuration data. To compliment the Provisioning Manager, the Unified Network Configurator (UNC) and Zone Data Server (ZDS) applications are used to support the distribution, maintenance, and synchronization of configuration data in the system.

1.2.2.4

Provisioning Manager and UNC

The Provisioning Manager distributes configuration data to the following devices through the UNC:

- Zone Controller (ZC)
- High Performance Data Packet Data Router (HPD PDR)
- Integrated Voice and Data Packet Data Router (IVD PDR)
- Conventional Voice and Data Packet Data Router (CVD PDR)
- Air Traffic Router (ATR)
- Conventional Site Controller

The Provisioning Manager requires having an inventory of available network devices to produce configuration data for those devices. The Provisioning Manager learns the existence of the listed network devices from the UNC. After the discovery of network devices on the UNC, the infrastructure (network devices) data is published to the Provisioning Manager. This mechanism is called Publish Infrastructure Data.

During Force Initialization or Configuration Change Distribution operations, the Provisioning Manager determines the impacted devices, generates appropriate configuration data, and sends the configuration data to UNC for the listed devices. The configuration data delivery status to UNC is provided on the Provisioning Manager for each distribution operation.

1.2.2.5

Provisioning Manager and ZDS

The Provisioning Manager distributes configuration data to the following devices through the ZDS:

- Console Devices:
 - Dispatch Consoles
 - Archiving Interface Servers
- Conventional Channel GateWay (CCGW)
- Authentication Center (AuC) Server
- Transcoder

The Provisioning Manager requires having an inventory of ZDSs to send configuration data for the listed devices. The ZDS serves as the data server. The network devices fetch the data from the ZDS. The ZDS automatically registers its existence to the Provisioning Manager.

During Force Initialization or Configuration Change Distribution operations, the Provisioning Manager determines the impacted devices, generates appropriate configuration data, and sends the configuration data to the ZDS for the listed devices. The configuration data delivery status to the ZDS and the status of the ZDS notifying the devices about the availability of the data is provided on the Provisioning Manager for each distribution operation.

1.2.2.6

Home Zone Map Distribution

Devices like Zone Controller and Packet Data Gateway need to be configured with the range of radios and talkgroups that are home to the zone. A Home Zone Map defines the range of Radios and Talkgroups that belong to each zone in the system. The Provisioning Manager supports the configuration and distribution of Home Zone Maps to all Zone Controllers and PDGs in the system.

1.2.3

Security

The Provisioning Manager supports user authentication and access management for secure use of the application.

1.2.3.1

User Authentication through Active Directory

The Provisioning Manager is an application accessible from a browser running on a Network Management (NM) client, integrated with the centralized authentication system. User authentication is conducted through Active Directory. To log on to the application and perform operations on configuration objects, a user needs to be registered in Active Directory.

Active Directory is a combination of a specialized database and protocol for accessing the database. It is used to centrally manage and control access to various information, such as user accounts and physical assets.

With the user credentials registered in the Active Directory, the Single Sign-On function is possible, which means that a user logged on to the NM client is automatically logged in to the PM when they access the application URL without requiring the entry of the username and password.

**NOTICE:**

The data stored in Active Directory may be accessed by using the actual credentials of the Provisioning Manager client user.

Active Directory and the Provisioning Manager database are coupled by the login name, the user full name, and the domain name information.

For security reasons, the application session is limited to 30 minutes since the logon. After the inactivity time, the user needs to log on again.

1.2.3.2

Group-based User Access Management

The Provisioning Manager uses group-based access control to provide authorized users the ability to perform operations based on their user groups.

Application users are created in Active Directory as members of a defined set of role groups. These groups are by default mapped to application level groups in Active Directory. A user, being a member of a role group, is ascribed to associated application groups by default.

See the “Domain Groups” and “Domain Users” sections in the *Authentication Services* manual for a list of roles and operations that can be performed by particular groups and users.

In addition to application access control through the Active Directory, the Provisioning Manager provides Group-based Access Control feature for system managers to control access to configuration data and user operations within the application. System Managers can partition the data based on agencies and create groups based on system management needs (such as Technician or Subscriber Manager) that have access to specific set of data. Users can then be assigned to the Groups to control access to data and operations within the Provisioning Manager.

1.2.3.3

Dynamic System Resilience

The PM, the UNC, and the ZDS support redundant network management services, which means that configuration management performed through these services is supported by Dynamic System Resilience (DSR). DSR is an add-on system feature.

In a system with DSR, a redundant User Configuration Server (UCS) is added to the backup core of the master site that contains the primary UCS. If the system contains more than two master site pairs, the UCS may be located at any one zone primary/backup master sites.

The UCS hosts the PM for subscriber access control records, console profiles, and Site Gateway (Conventional Channel Interface) conventional channel data for system infrastructure configuration. The ZDS is an LDAP server that contains data from the UCS, obtained through database synchronization between the UCS and the ZDS.

Only one PM/UNC can be active at a time, determined by the network management or operator. Therefore, one PM/UNC is configured to be in the active state and the other in warm standby state. The active PM must be in the same master site core (either primary or backup) as the active UNC. In the event of failure of either one, both applications must switchover to the backup core. The switchover is manual. It requires the PM and the UNC on the backup core to be switched from the warm standby state to active. After a switchover, network management client computers must launch the PM client for the newly active PM as well as the UNC client for the newly active UNC. If a switchover is known to be a short-duration event, a user may choose not to bring the backup configuration subsystem online.

Periodic secure synchronization over the InterZone link from the primary PM and UNC to its corresponding backup ensures that up-to-date configuration data is available in the backup core. Configuration databases are synchronized at configurable intervals, between 30 minutes and 24 hours (the default), in one direction, from active to the standby. Typically, a full configuration baseline is transferred the first time and subsequent transfers include only changed data from the previous transfers. Manual synchronization can be performed by a system operator as well.

A redundant ZDS is installed in the backup core for a zone. Both the primary core ZDS and the backup core ZDS pull data from the active PM, so there is no need for synchronization between the two ZDS LDAP services. The PM relies on the ZDS LDAP service in each zone for distributing some configuration data. The ZDS is the low-level LDAP server for the LDAP clients in console sites and Conventional Channel Gateway (CCGW). The LDAP server on each ZDS is active at all times, so ZDS LDAP clients can pull configuration data from either ZDS in a zone.

After a Provisioning Manager switchover, the Force Initialize operation is necessary. The time taken for this download depends on the number of records and the number of consoles. Dispatch consoles must be restarted for the new database to take effect. The Site Gateway (CCI) LDAP server IP address must be modified to the backup core ZDS and then must be reset to complete the switchover. Because the configuration data is unlikely to change, this manual switchover is not usually required.

1.2.4

Provisioning Manager Auditing

System configuration auditing provides a convenient way of recording changes to the configuration data, including detailed information on what changed, who performed the update and when.

Auditing Feature Overview

The Provisioning Manager displays the records registering the changes in the system, which allows the administrator to track configuration data modifications and audit the system configuration data and its users. Audit records store the details of a user action, such as a description of the event, the time and date of the action, its initiator, source, type, or agency, providing the values from before and after the action. You can access audit data for a given record either from its category page, or from the record itself.

The following figures show sample pages with an audit list view and a single audit record.

Figure 1: Audit View – Example

The screenshot shows the 'Audit' view in the Provisioning Manager. The target is 'HPD Radio'. The table below represents the data shown in the interface:

User	Source	Target	Audit Type	Details	Security Group Alias	Date and Time
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio	Import Configuration	PM Job 5 COMPLETED The import of...		Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3123	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3122	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3121	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3120	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3119	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3118	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3117	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3116	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3115	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3114	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3113	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3112	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3111	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3110	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3109	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41
localsupermgr (BootstrapUser)	173.1.50.135	HPD Radio - 3108	Configuration Modification	Service Type: CSV Import Date Modified: Jul-26-2013,...	SYSTEM	Jul-26-2013,21:09:41

Available: 4256 Selected: 1 Rows per page 30 Page 1 of 142

Figure 2: Audit Record – Example

The screenshot shows the 'Audit / View' record for a specific audit entry. The details are as follows:

User	localsupermgr (BootstrapUser)
Source	173.1.50.135
Audit Type	Import Configuration
Target	HPD Radio
Details	PM Job 5 COMPLETED The import of the records in C:\takepath\HpdRadio_import_20130726140217.csv is in progress. 2,124 records have been imported successfully. 0 records failed to be imported.
Security Group	
Security Group Alias	
Audit Creation Time	
Date and Time	Jul-26-2013,21:09:41
Record Identifier	
Record Identifier	44297

After logging on as Audit Manager, you can display, organize, and filter up to the last 1,200,000 audit records. When the number of audit records reaches the limit of 1.2 million, the latest entries overwrite

the oldest logs. To retain audit records beyond this limit, the Provisioning Manager allows you to export the audit data to a file using `.CSV` report.

Audit records are part of critical data backup and restore. Also, during system upgrade, audit data migrates to the new system version, alike the configuration data.

You cannot modify, delete, or purge audit records.

Audit Record Types

The Provisioning Manager stores all the audit records locally on the UCS, but forwards some of the events to the central location on the syslog server. The system logs the following audit record types:

- Configuration Audit (local):
 - Creation
 - Deletion
 - Modification
- User Login and Logout Audit (local and syslog)
- User Account Configuration Audit (local and syslog):
 - Creation
 - Deletion
 - Modification
- Administrative Operation Audit (local and syslog):
 - Configuration Distribution
 - Home Zone Map Distribution
 - Force Initialize
 - Configuration Data Export
 - Configuration Data Import
 - Audit Data Export
 - Data Backup
 - Data Restore

Audit Agency Partitioning

Audit records display is partitioned between agencies that the data belongs to. Access to viewing or exporting audit data is based on security group membership and is restricted to users with appropriate role assignments in Active Directory. For example, when the security group of a configuration record, and therefore its ownership, changes, the event logs as two audit records. One audit record shows the original agency of a configuration record, while the second audit record shows the new agency, the security group change, and any additional parameter changes that are part of this event.

For information on the roles, see the *Authentication Services* manual.

Audit Data Operations

With the Provisioning Manager Auditing feature, Audit Manager can:

- View information about the configuration parameter values before and after a system event.
- View logon and logout events.
- View provisioning and administrative actions of all users.
- Search and filter the audit data records.

- Navigate from an audit record to a corresponding configuration record, and the other way round.
- Export the audit records as a CSV (Comma Separated Values) file.

Audit Records in DSR Systems

In Dynamic System Resilience (DSR) system configuration, a complete set of audit records is available on both primary and backup Provisioning Manager servers, as audit data is periodically synchronized between them.

1.2.5

Enhanced Data Services

Enhanced Data is a Manufacturer specific (not P25 standard) inbound-only packet data service optimized for applications that periodically send short messages from a subscriber or attached device to a host in the Customer Enterprise Network (CEN). Enhanced Data is only supported on ASTRO® 25 Trunked IV&D systems with GTR series site equipment and APX subscriber units. Datagrams carried via Enhanced Data must use UDP/IPv4 for network transport between the subscriber or attached device and the CEN. The subscriber uses the Enhanced Data service when the following conditions are met:

- The radio has the Enhanced Data option.
- Radio is enabled for Enhanced Data in the Provisioning Manager application.
- The UDP Destination Port number in an inbound datagram matches one of the Enhanced Data Port numbers in the subscriber, configured through Customer Programming Software (CPS).
- The site includes a channel enabled for Reserved Access capability, which means that the channel supports Enhanced Data.
- Message size does not exceed the maximum packet size allowed for Enhanced Data. If the message is over the limit, it can be sent via classic, depending on a radio setting.

Neither TCP nor IPv6 are supported for datagram transport. Optionally, either Header Compression (UDP/IP) or IPSec encryption via the Encrypted Integrated Data (EID) feature can be used together with Enhanced Data. An Enhanced Data message can contain a maximum of 384 bytes of data, including user payload and all headers. Any data messages larger than this size are sent using Classic Data.

Enhanced Data introduces a new type of data channel to support short, periodic inbound data messages, such as Location (supported systems: GNSS, BeiDou, Glonass, Galileo). The Enhanced Data channel is a trunked resource at a Radio Frequency (RF) site and is allocated on first request from an Enhanced Data subscriber, then dynamically based on a periodic evaluation of the Enhanced Data load at the site. The Enhanced Data channel is based on the timing and signaling characteristics of the Phase 2 TDMA channel. However, both logical TDMA channels are used in tandem to provide Enhanced Data service. It is not possible to run Enhanced Data on one logical channel and voice on the other logical channel. Only inbound packet data messaging is supported. No outbound packet data messaging is supported on Enhanced Data channels. Context activation on a Classic Data channel is required before Enhanced Data messaging can be performed.

An inbound datagram is sent using a reservation scheme where the subscriber computes the number of TDMA time slots required to send the message and makes a request to the infrastructure for the slots. The infrastructure schedules the requested slots, and the scheduling is communicated to the subscriber via outbound signaling on the Enhanced Data channel. The subscriber then sends its message using the assigned scheduling, and each slot is acknowledged by the infrastructure over the air. Any slots of data that are not successfully acknowledged are retransmitted by the subscriber. Retries are performed until the infrastructure indicates the entire message has been successfully received or a predefined retry limit has been reached.

The Enhanced Data feature increases the safety of field users, by providing a practical outdoor tracking solution. The feature provides each active subscriber with an inbound data service for sending in periodic location and status updates. These short messages are used by dispatchers to track the radio users' status and location on Computer Aided Dispatch (CAD) consoles. Enhanced Data ensures a wide-area, mission-critical, portable and mobile coverage and offers a better utilization of the system resources. Enhanced Data is optimized for variable reporting rates and designed to support applications with message profiles similar to Location, such as PremierOne™ Responder Location.

The Enhanced Data feature can be used by Public Safety agencies, including police, fire, and EMS, as well as Transit agencies and city services, such as snow plow fleets.

Chapter 2

Provisioning Manager Installation

The Provisioning Manager is a PNM Server application installed with the User Configuration Server (UCS) software. To install the UCS and Provisioning Manager on a virtual machine, see the *Private Network Management Servers* manual.

Depending on your system version and configuration, hardware, and software requirements for establishing the virtual environment for the Provisioning Manager application differ. For detailed hardware and software specifications required to run the application, see the following manuals:

- *Virtual Management Server Hardware* (host)
- *Virtual Management Server Software* (host)
- *Private Network Management Client* (NM client)

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Chapter 3

Provisioning Manager Configuration

This chapter details the configuration and customization procedures relating to the Provisioning Manager application.

3.1

Setting Up User Accounts

During the initial system installation, only the super manager user (*supermgr*), the user account with the administrator login name, can access the Provisioning Manager application. After the initial system installation, anyone with proper permissions can create additional accounts as necessary.

The super manager administers and maintains the system with special access permissions until other users are created. The administrator can access all files and perform all tasks within the capabilities of the NM applications. The super manager user is created in Active Directory.

As the highest-level user, the administrator can perform the following operations:

- Create management application user records
- Configure system devices
- Assign functions and authorizations



WARNING: The administrator account has access to perform all procedures on the application impacting proper system operation. Use the administrator login privileges only as needed. Do not use this account for routine work in the system.

Process:

- 1 In Active Directory, enable the default *supermgr* account and set the user password.

See the *Authentication Services* manual.



NOTICE: For security purposes, change the default administrator password and only give the new password to the users who need the administrator login to perform their work.

- 2 In Active Directory, create user accounts. Set the login and password for each user.

See the *Authentication Services* manual.

- 3 Log on to the Provisioning Manager application using the *supermgr* account credentials.

See [Logging On to the Provisioning Manager on page 41](#).

- 4 Create Provisioning Manager Group records. In each of the records, define user access rights to operate the application.

See:

- [Creating Records on page 64](#)
- [Provisioning Manager Group on page 366](#)
- [Modifying Access Rights Defined in User Groups on page 79](#)

- 5 Create Provisioning Manager User records. In each of the records, assign groups to a user.

See [Creating Records on page 64](#) and [Provisioning Manager User on page 369](#).

User accounts are set up. You can now log on to the application using the credentials of one of the new accounts and customize the user interface for your needs.

Related Links

[User Interface Customization](#) on page 48

[Troubleshooting Procedures](#) on page 97

3.2

Modifying the Session Timeout Duration

The application session is by default limited to 30 minutes since the logon. To modify the session timeout duration, administrative access to the User Configuration Server is required. For details, see the *Private Network Management Servers* manual.



IMPORTANT: The invocation of this administrative operation affects current active sessions and should only be performed as part of planned downtime of the User Configuration Server and Provisioning Manager application services. Disable and re-enable the User Configuration Server after executing this procedure, even if the timeout value does not change (that is, even if you cancel the operation).

Chapter 4

Provisioning Manager Operation

This chapter consists of procedures that can be performed on the Provisioning Manager.

4.1

Logging On to the Provisioning Manager

The Provisioning Manager supports two methods of logging on to the application. The Single Sign-On enables automatic access to all Network Manager (NM) client applications with a Windows user credentials. The password-based authentication provides the access to the Provisioning Manager application with the credentials of any user registered in Active Directory.



IMPORTANT: You can only have one active session per user (identified by the domain and the login name) from a client workstation. An attempt to open a second session automatically terminates the first session.

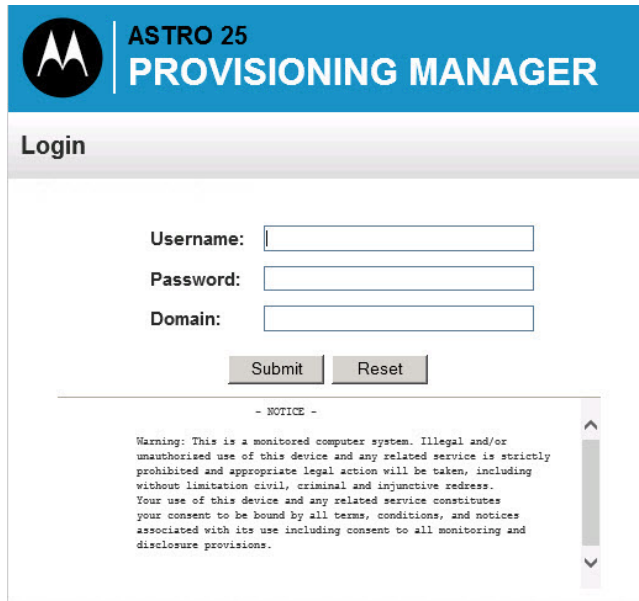
Always close your user session using the **Logout** option available in the drop-down list in the upper right corner of the window. Do not close the application tab/window using the browser close button, because it causes the user session to be active and the user session license not to be released until the session times out.

Procedure:

- 1 On the client PC, open Internet Explorer.
- 2 In Internet Explorer, perform one of the following actions:

If...	Then...
If you want to use the Single Sign-On,	perform the following actions: <ol style="list-style-type: none"> a In the browser address field, enter the following address: <code>https://ucs01.ucs:49308/pm</code> b If a blank page appears, disable the Internet Explorer Compatibility View. See Disabling Internet Explorer Compatibility View on page 101. The Provisioning Manager home page appears. Skip the following steps.
If you want to use password-based authentication,	perform the following actions: <ol style="list-style-type: none"> a In the browser address field, enter the following address: <code>https://ucs01.ucs:49309/pm</code> b If a warning message appears, click OK. The Provisioning Manager login page appears.

Figure 3: Login Page



- 3 In the Provisioning Manager login page, enter the username, password, and domain. Click **Submit**.

The Provisioning Manager home page appears.

- 4 If a blank page appears, disable the Compatibility View in Internet Explorer.
See [Disabling Internet Explorer Compatibility View on page 101](#).
- 5 Optional: On your desktop, create a shortcut to the Provisioning Manager application:
 - a Right-click on the desktop.
 - b Select **New** → **Shortcut**.
 - c In the **Create Shortcut** window, enter one of the addresses from [step 2](#). Click **Next**.
 - d Insert a shortcut name. Click **Finish**.

The shortcut appears on the desktop. You can now access the Provisioning Manager login page by double-clicking the shortcut.

4.2

User Interface

The Provisioning Manager browser-based components and controls enable intuitive navigation in the application.

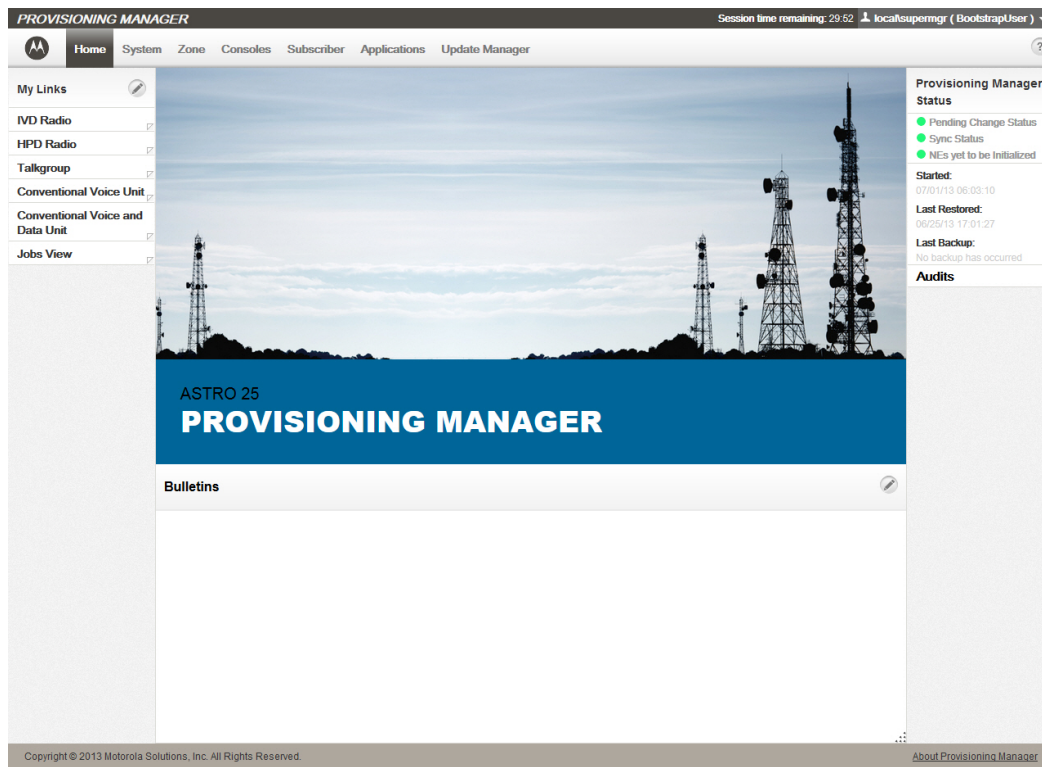
4.2.1

Home Page

The Provisioning Manager **Home** page consists of four main elements:

- Main Menu
- My Links pane
- Status bar
- Bulletins display menu

Figure 4: Home Page



You can customize the Provisioning Manager Home page as needed.

Related Links

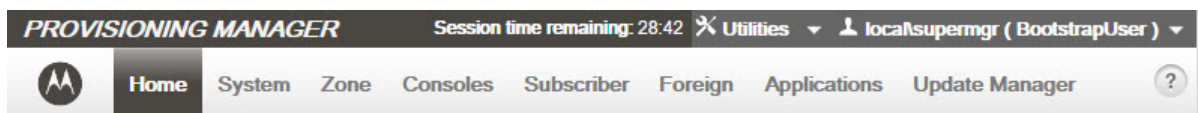
[Home Page Customization](#) on page 48

4.2.1.1

Main Menu

The Provisioning Manager **Main Menu** is located at the top of the application window. It has navigation tabs and a link to the Online Help. Additionally, in the upper right corner of the Main Menu, there are user account options available in a drop-down list, along with a timer displaying the time remaining until the end of the session.

Figure 5: Main Menu



The **Main Menu** contains the following tabs:

Home

Directs you to the application Home Page.

System

Directs you to configuration objects that define system-wide settings and infrastructure objects that are shared across zones.

Zone

Directs you to configuration objects that define zone-level infrastructure settings.

Consoles

Directs you to configuration objects that define Dispatch Consoles and Archiving Interface Server platform settings.

Subscriber

Directs you to configuration objects that define radio and group settings.

Foreign

Directs you to configuration objects that define external system settings.

Applications

Directs you to configuration objects that define Network Management application settings.

Update Manager

Directs you to the controls for management and troubleshooting of provisioning operations.

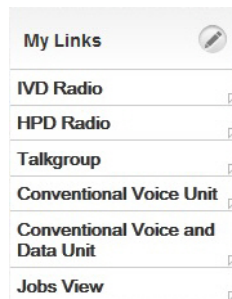
4.2.1.2

My Links Pane

The My links pane, located in the top left-hand corner of the Home Page, contains a customized list of quick links to configuration objects. It ensures instant access to the objects needed most often.

The **My Links** pane is located in the top left-hand corner of the Provisioning Manager **Home** Page. It lists quick links to configuration objects, intended to provide instant access to the objects needed most often.

Figure 6: My Links Pane



You can customize the pane by adding and removing links from the list.

Related Links

[Customizing My Links](#) on page 48

4.2.1.3

Status Bar

The **Provisioning Manager Status** bar is located in the top right-hand corner. It displays the Provisioning Manager status parameters and a link to the Audit Viewer.

Figure 7: Status Bar

Provisioning Manager Status
● Pending Change Status
● Sync Status
● NEs yet to be Initialized
Started: 07/01/13 06:03:10
Last Restored: 06/25/13 17:01:27
Last Backup: No backup has occurred
Audits

Related Links

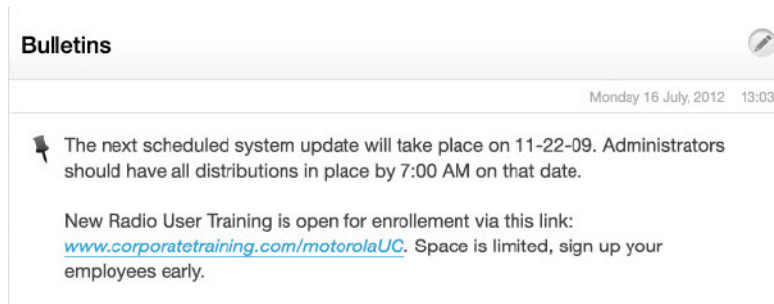
[Status Indication](#) on page 82

4.2.1.4

Bulletins Display Menu

The **Bulletins** display menu presents messages from the system administrator.

Figure 8: Bulletins Display Menu



NOTICE: Only users assigned to the system-defined System Manager group can update the Bulletin.

Related Links

[Adding and Modifying Messages in the Bulletins Display Menu](#) on page 50

[Creating Links in the Bulletin Display Menu](#) on page 50

4.2.1.5

Category Page

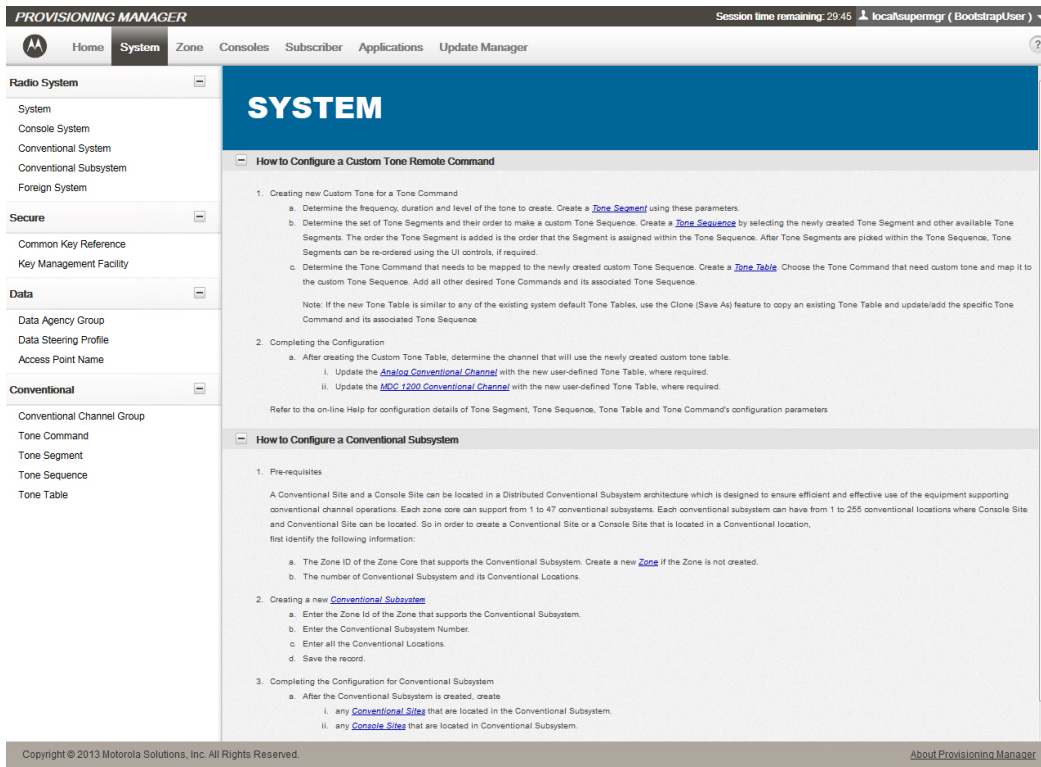
A category home page includes procedures for completing complex configuration.

A category is a grouping of related configuration record types that helps navigate and find configuration information effectively. When you select a category from the Main Menu, a corresponding **Category Page** displays.

Each configuration category includes configuration objects organized in groups. A category home page includes procedures for completing complex configuration. The procedures contain references to other configuration objects within the same category or under a different category.

You can expand or collapse the sections in a category page as necessary.

Figure 9: Category Page



Related Links

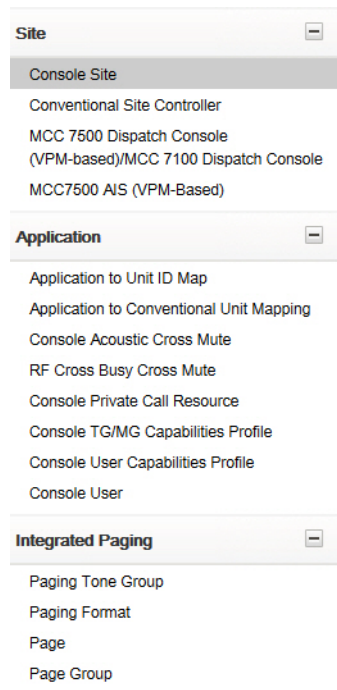
[Main Menu](#) on page 43

4.2.1.5.1

Object Menu

The Object Menu is located in the top left-hand corner of any configuration tab. It presents the configuration objects of the Provisioning Manager and allows you to navigate to the object and select the operations. When you click a specific object, all functions of the object become visible.

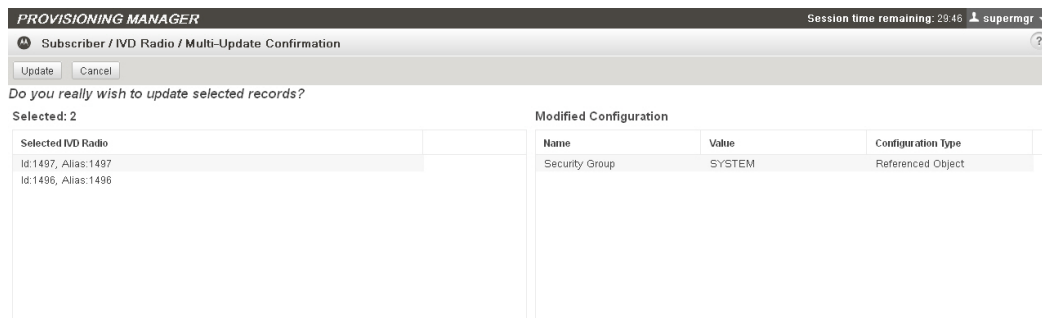
Figure 10: Object Menu – Example



4.2.2 Batch-Update Confirmation

The Batch-Update Confirmation message appears during an attempt to update multiple records at a time. It lists the requested changes and the records affected by the update. You can either confirm the action, or cancel it.

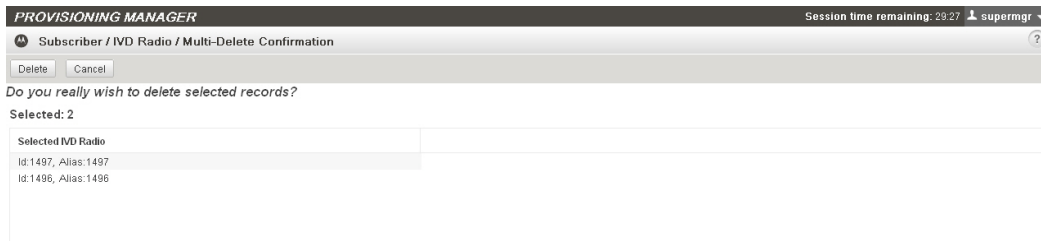
Figure 11: Batch-Update Confirmation Message – Example



4.2.3 Batch-Delete Confirmation

The Batch-Delete Confirmation message appears while attempting to delete multiple records at a time. It lists the records to be deleted. You can either confirm the action, or cancel it.

Figure 12: Batch-Delete Confirmation Message – Example



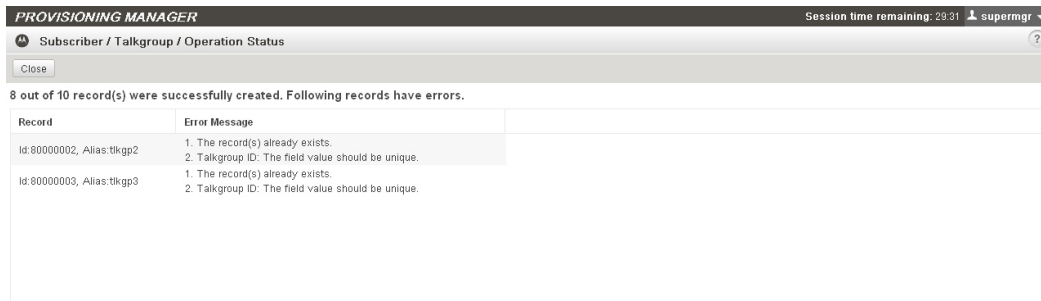
4.2.4 Batch Operation Status

The Batch Operation Status message appears during an attempt to perform one of the following operations:

- CSV Import
- Batch-Create
- Batch-Update
- Batch-Delete

The message lists the number of successfully updated records, the total number of records requested in the operation, and errors, if any.

Figure 13: Batch Operation Status Message – Example



4.3 User Interface Customization

The Provisioning Manager allows you to customize the browser-based controls to your needs.

4.3.1 Home Page Customization

The Provisioning Manager Home Page displays adjustable shortcuts and messages for all application users.

Related Links

[Home Page](#) on page 42

4.3.1.1 Customizing My Links

Modify shortcuts to configuration objects in the My Links pane to provide instant access to configuration records or objects used most often. You can add or delete multiple shortcuts at a time.

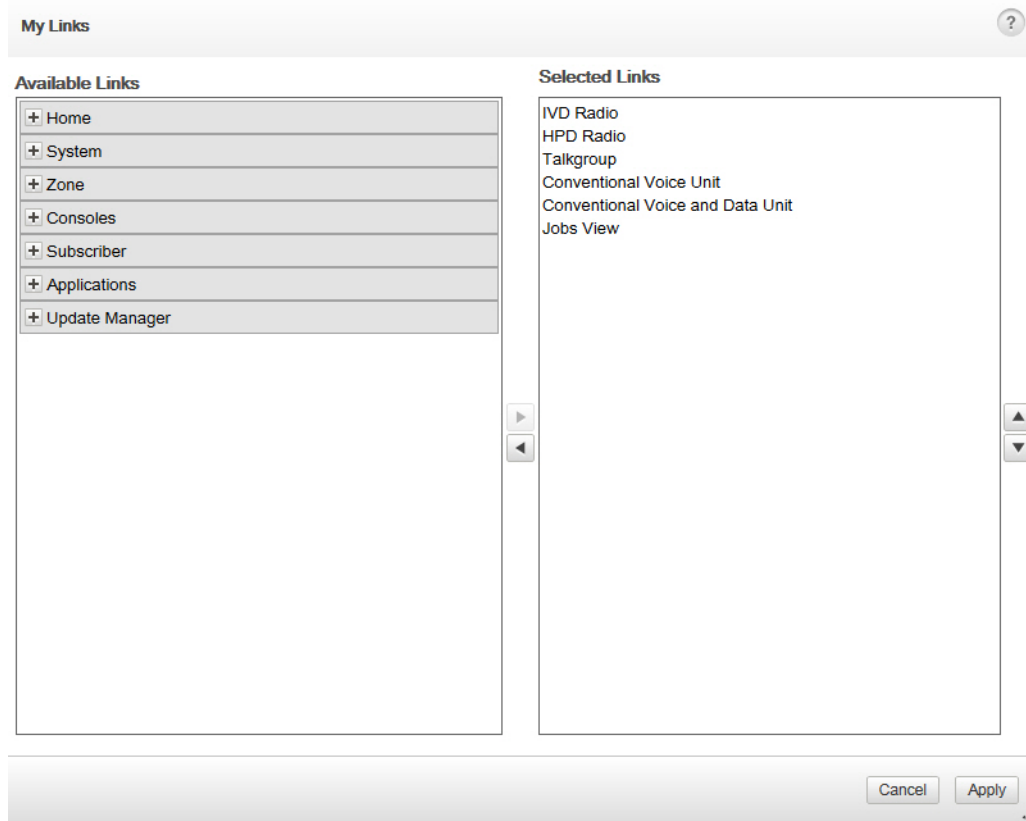


NOTICE: The maximum number of items in My Links is 10.



Procedure:

- 1 In the Provisioning Manager **Home** page, in the **My Links** pane, click  (**Edit**).

Figure 14: My Links Window





- 2 In the **My Links** window, perform one of the following actions for every shortcut you want to modify:

- To add shortcuts, from the list on the left, select the object you want to add to **My Links**. Click  (**Add**).
- To delete shortcuts, from the list on the right, select the object you want to delete from **My Links**. Click  (**Remove**).

The list on the right updates according to your selection.

- 3 Optional: Modify the order in which the links appear on the **Home** page:

- To move an object up the list, from the list on the right, select the object. Click  (**Move selected column(s) up**).
- To move an object down the list, from the list on the right, select the object. Click  (**Move selected column(s) down**).

4 Click **Apply**.

The Provisioning Manager **Home** page appears with the updated list of shortcuts in the **My Links** pane.

Related Links

[My Links Pane](#) on page 44

4.3.1.2

Adding and Modifying Messages in the Bulletins Display Menu

Use the Bulletins display menu to create, edit, or erase messages visible for all users logging on to the Provisioning Manager.



IMPORTANT: Only users assigned to the System Manager group can create or edit the message in the Bulletins display menu.

Procedure:


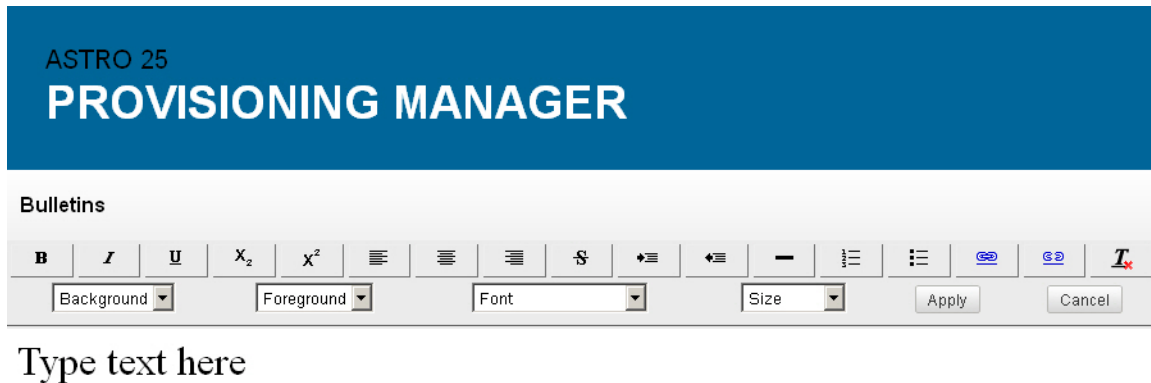
- 1 In the Provisioning Manager **Home** page, in the **Bulletins** display menu, click  (**Edit**).
- 2 In the message editing pane, write the message you want display for all users, using the available text editing tools. Click **Apply**.

Figure 15: Bulletins Edit Pane



The modified message displays for new users logging on to the application and for users already logged on, after refreshing the **Home** page.

Related Links


[Bulletins Display Menu](#) on page 45

4.3.1.3

Creating Links in the Bulletin Display Menu

Follow these steps to insert a link while editing text in the Bulletins.

Procedure:

- 1 In the Bulletins, type the display text for the link.
 - If your display text for the link is the URL you refer to, the link is ready and you can skip the rest of the procedure.
 - If your display text for the link is different from the URL you refer to, continue to the next step
- 2 Highlight the text.
- 3 Click the Create Link icon on the toolbar ().
- 4 Enter the URL for the link. Click OK.

Related Links

[Bulletins Display Menu](#) on page 45

4.3.2

The List View

The List View enables you to view and filter the list of all configuration records.

4.3.2.1

Opening the List View

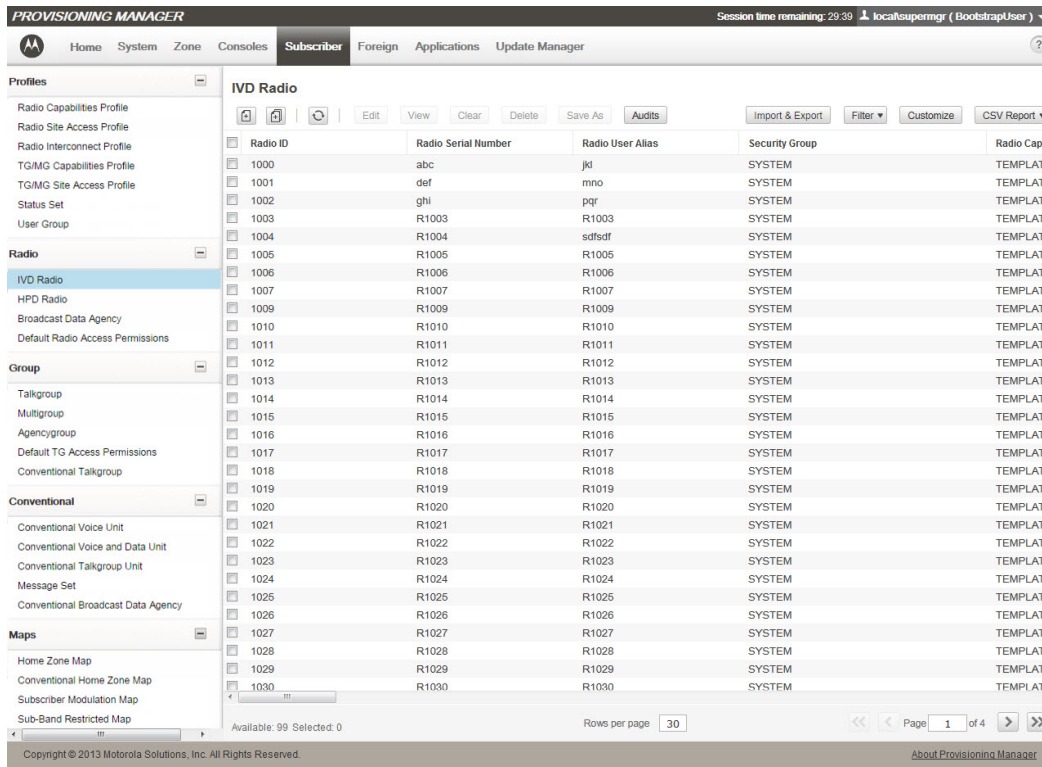
Use the List View to display all configuration records of a given object.

Procedure:

- 1 From the main menu, select a category of objects you want to view.
- 2 From the object menu on the left, select an object.

A list of records appears. Any previously applied filters for the object are restored.

Figure 16: List View – Example



Related Links

[Filtering the List View and Audit View on page 52](#)

**4.3.2.2
 Filtering the List View and Audit View**

Filter any list of records displayed in the List View by entering criteria for one or more fields in a popup window or adding additional criteria by right-clicking on individual parameter columns.

Alike configuration records, audit records display in the List View and as such offer the same searching capabilities. Additionally, to improve audit data management, the filtering window for audit records offers an increased set of filtering options.



NOTICE: The filtering criteria entered for the field of objects and its relationships are preserved across different views until removed.

Procedure:

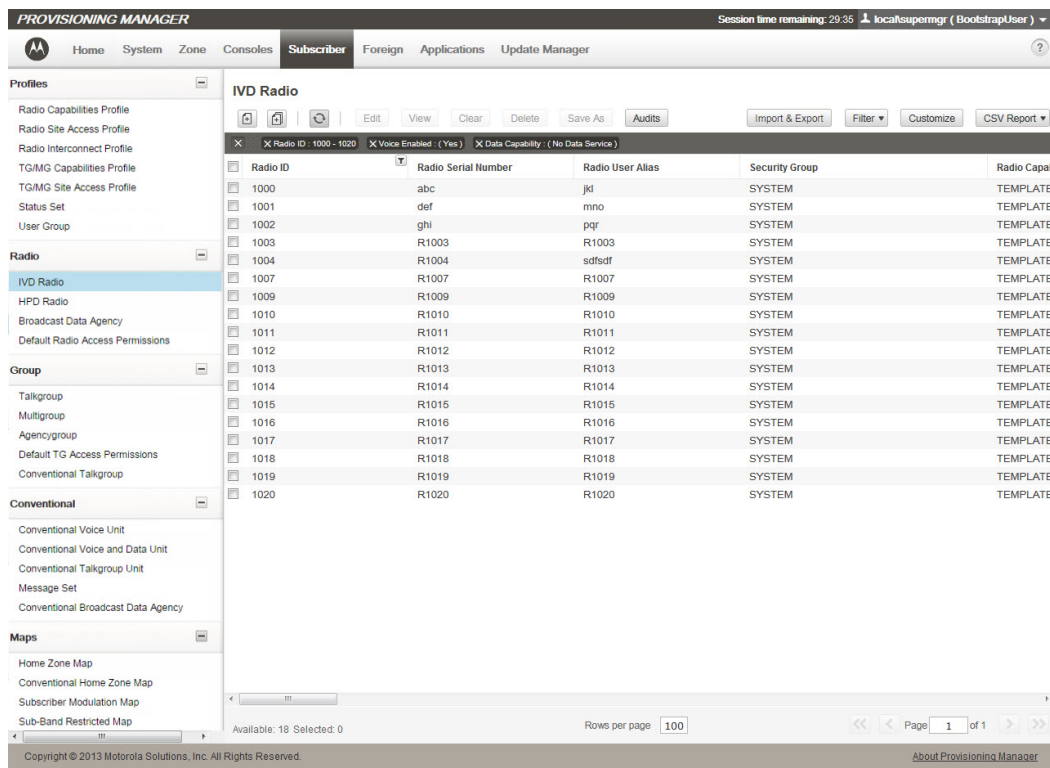
- 1 View a list of records.
 See [Opening the List View on page 51](#) and [Viewing Audit Records on page 71](#).
- 2 In the List View, perform one of the following actions:

If...	Then...
<p>If you want to apply a filter to a specific parameter,</p>	<p>perform the following actions:</p> <ol style="list-style-type: none"> a Right-click the column heading that corresponds to the desired parameter. Select Add/Edit Filter for <parameter name>.

If...	Then...
	<p>b In the filtering window, specify the filter criteria. Click Apply.</p>
<p>If you want to apply filters to many parameters of the viewed object or its related objects,</p>	<p>perform the following actions:</p> <p>a From the list view menu, select Filter → By <object name>.</p> <p>b In the filtering window, specify the filter criteria for the desired parameters. Click Apply.</p>

The selected filters are applied to the List View. The names of applied filters appear above the records list.

Figure 17: Filtered List View – Example



Related Links

[List View Filtering Options](#) on page 54

4.3.2.2.1

List View Filtering Options

The List View of the Provisioning Manager provides various filtering options. You can use wildcards for any of the search criteria.

Table 1: List View Filtering Options

Filtering option	Result
Contains	Returns any field in the database that contains a particular pattern of characters.
Does Not Contain	Returns any field in the database that does not contain a particular pattern of characters.
Begins With	Returns any field in the database that starts with a particular pattern of characters.
Does Not Begin With	Returns any field in the database that does not start with a particular pattern of characters.
Ends With	Returns any field in the database that ends with a particular pattern of characters.
Does Not End With	Returns any field in the database that does not end with a particular pattern of characters.
Equals	Returns any field in the database that exactly matches the pattern of characters.
Does Not Equal	Returns any field in the database that does not exactly match a particular pattern of characters.
Between	Returns any field in the database that falls in a specified integer value range.
Not Between	Returns any field in the database that does not fall in a specified integer value range.
Time Range	(Date Modified only) Returns any field in the database modified in the specified time period. The following time range filtering options are available from the Date Modified column of any list view: <ul style="list-style-type: none">• Today• This Week• This Month• This Year

Wildcard Search Syntax – Special and Escape Characters

When filtering text fields using wildcards, you can use the following special characters:

- The asterisk character * matches zero or more characters
- The question mark ? matches exactly one character.



NOTICE: Use an escape character if you want to match the wildcard characters exactly. A wildcard character, if preceded by an escape character, is interpreted as a regular character and not as a wildcard. Use the escape characters as follows:

- Use \`*` to match the `*` character exactly
- Use \`?` to match the `?` character exactly
- Use \`\` to match the `\` character exactly.

Related Links

[Filtering the List View and Audit View](#) on page 52

4.3.2.3

Removing Filters from the List View

Remove the filters applied to the List View of a given object either separately or all at the same time.

Procedure:

- 1 View a filtered list of records.
See [Opening the List View on page 51](#) and [Filtering the List View and Audit View on page 52](#).
- 2 In the List View, perform one of the following actions:
 - To remove an individual filter, click the **X** to the left from the filter you want to remove.
 - To remove all filters at once, click the **X** on the left side of the filter bar.

The filters are removed from the List View.

4.3.2.4

Sorting Records in the List View

Use the column headings of the List View to sort configuration records according to their parameter values.

Procedure:

- 1 View a list of records. See [Opening the List View on page 51](#).
- 2 Select the sorting parameter by clicking its column header.


The records in a table are sorted by the selected parameter. The arrow next to the header of a specific column shows if the records are sorted ascending or descending.




4.3.2.5

Customizing the List View

Customize a list of records to view only the desired parameters.

Procedure:

- 1 View a list of records.
See [Opening the List View on page 51](#).
- 2 In the List View, click **Customize**.
- 3 In the customization window, perform one of the following actions:
 - To add parameter columns to the list view, from the list on the left, select the parameters you want to see. Click  (**Add**).

- To remove parameter columns from the list view, from the list on the right, select the parameters you want to hide. Click  (**Remove**).
- To modify the order of the parameter columns in the list view, select the columns you want to move. Click  (**Move selected column(s) up**) or  (**Move selected column(s) down**).

4 Click **Apply**.

The List View displays records with the selected parameters in the given order.

4.3.3

The Chooser

Use the Chooser to select related records when creating or updating a record.

4.3.3.1

Selecting Related Records in the Chooser

The Chooser provides filtering capabilities similar to the List View. Only objects with related records have the Chooser functionality.

Some Choosers contain a predefined filter criteria that limit the displayed records based on system rules. For example, Data Capable Conventional Channels can only be associated with a predefined channel group with the ID of 2001. In such cases, the filter limits the choice and displays the string representation of the predefined criteria at the top. The Provisioning Manager also prevents you from removing such predefined criteria from the Chooser.

Procedure:

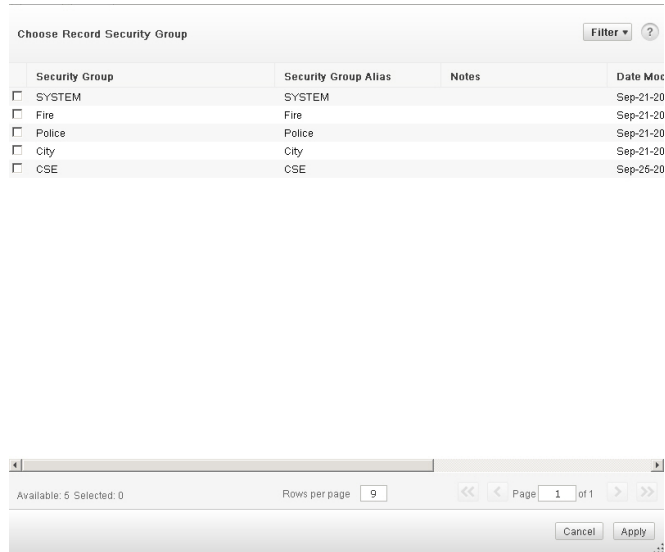
- 1 In the configuration page of a new or existing record, in a related records section, click **Choose Record**.

Figure 18: Related Records Section – Example




- 2 In the Chooser window, perform one of the following actions:
 - To choose a single record, double-click a record name.
 - To choose multiple records, select the check boxes on the left of the records to add. Click **Apply**.

Figure 19: Chooser Window – Example



The selected related record appears in the related records form.

- Optional: View the details of the object added to the record. In the configuration page, click .

Related Links

[Provisioning Manager Reference](#) on page 103

4.3.3.2


Selecting Related Records with Quick Search

Use Quick Search to select related records by entering the parameter values in the search box.

Procedure:

- In the configuration page of a new or existing record, in a related records section, from the drop-down list, select a parameter to search for.
- In the search box, enter the beginning characters of the desired parameter value.
- Perform one of the following actions:
 - If there are no related records that match the searching criteria, go to [step 1](#).
 - If a list of records with matching parameter values appears, click the name of the related record you want to assign in the configuration.

The selected related record appears in the related records form.

- Optional: View the details of the object added to the record. In the configuration page, click .

4.3.3.3 Filtering Records in the Chooser

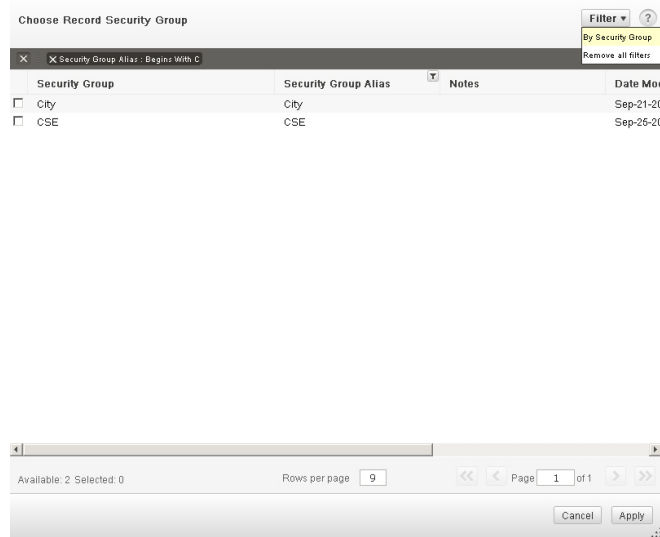
Filter a list in the Chooser window to view only the records with the specified parameter values.

Procedure:

- 1 In the configuration window of a new or existing record, in a related records section, click **Choose Record**.
- 2 In the Chooser window, click **Filter**. Select a filter.

A list of filtered records appears.

Figure 20: Chooser Filters – Example



4.3.3.4 Sorting Records in the Chooser

Procedure:


- 1 In a Chooser window, filter the list of records.
See [Filtering Records in the Chooser on page 58](#).
- 2 Select the sorting parameter by clicking its column header.

The records in a table are sorted by the selected parameter. The arrow next to the column header shows if the records are sorted ascending or descending.

4.3.3.5 Removing Related Records from Record Forms

After selecting related records using the Chooser, you can remove them from the related record table and change your selection.

Procedure:

- 1 In a configuration window of a new or existing record, in a related records section, expand the related records table by clicking .

- 2 In the related record table, on the left of the record you want to remove from selection, click **Remove this record**.

The record is removed from the related record table.

- 3 Optional: If the selection of a related record is obligatory for the section, select another record.
See [Selecting Related Records in the Chooser on page 56](#) and [Selecting Related Records with Quick Search on page 57](#).

4.3.4

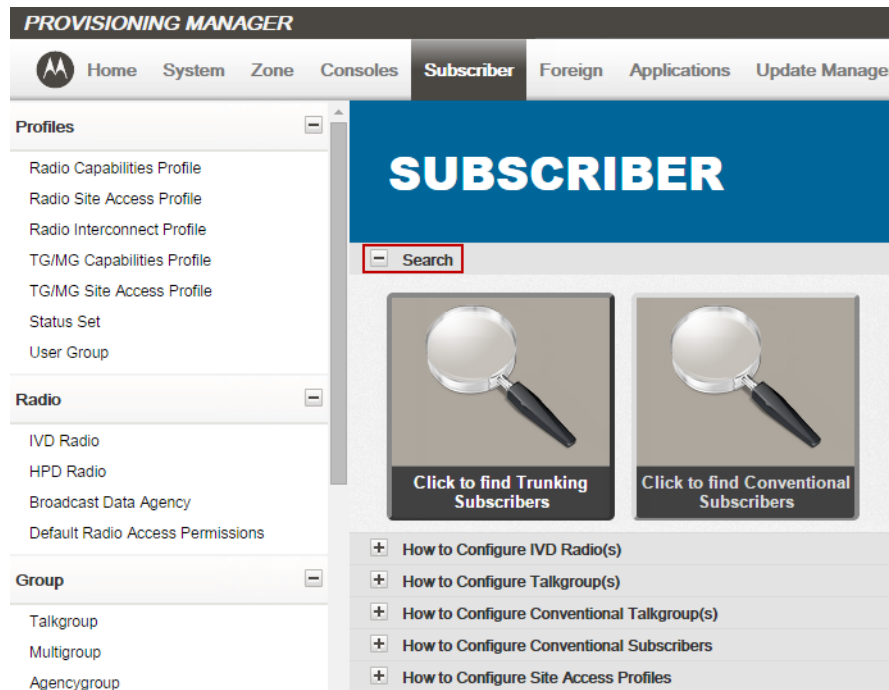
Searching Categories

Use the Category Search to search across many different types of records within a given category.

Procedure:

- 1 From the main menu, choose the category you want to view.
- 2 In the category page, click **Search**.

Figure 21: Category Search Menu



- 3 In the list of objects available for searching, click the link corresponding to the search object:

- **Conventional Channels** in the **Zone** category.
- **MCC7500 Platforms** in the **Consoles** category.
- **Trunking Subscribers** in the **Subscriber** category.
- **Conventional Subscribers** in the **Subscriber** category.

- 4 In the search page, enter the search criteria. If required, click **Search**.

Search results appear in a table.

- 5 **For Conventional Channels and MCC7500 Platforms search pages:** To open a record listed in the search results, double-click the record name.

Related Links

[Category Search Criteria](#) on page 62

4.3.4.1

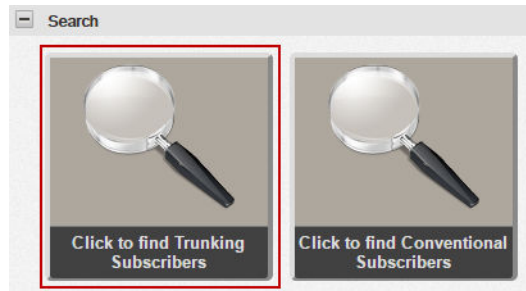
Searching Trunking Subscribers

Use the **Trunking Subscribers** search page to browse IVD radio records by their parameters, identify radios that have duplicate radio aliases, identify radios that have an alias length that is too long for the Radio Alias Update feature, and to change aliases for radios.

Procedure:

- 1 From the main menu, select **Subscriber**.
- 2 In the **Subscriber** category page, click the icon with the text: **Click to find Trunking Subscribers**.

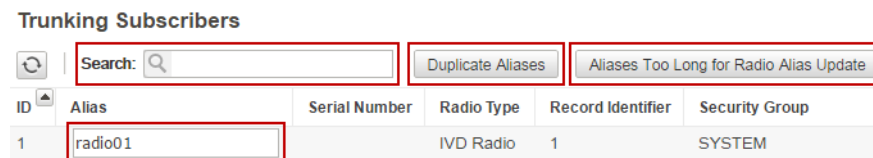
Figure 22: Click to find Trunking Subscribers Icon



The **Trunking Subscribers** search page shows the list of all IVD radios in the system.

- 3 On the search page, you can perform the following operations:
 - To search radios by their parameters, such as radio ID, alias, or serial number, in the **Search** field, enter the search term.
 - To find all radios with duplicate aliases, click **Duplicate Aliases**.
 - To find all radios that have an alias length that is too long for the Radio Alias Update feature, click **Aliases Too Long for Radio Alias Update**.
 - To update the alias of a radio listed in the search results, click the **Alias** field for that radio and enter a new alias.

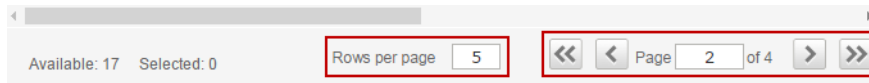
Figure 23: Trunking Subscribers Search Page Options



The list of radios is updated to meet your criteria.

- 4 To change how the search results are displayed, you can perform the following operations:
 - Change the number of rows displayed per page by entering a different number in the **Rows per page** field at the bottom.
 - Go to a different page by clicking the arrows or entering a page number in the **Page** field in the bottom-right corner.

Figure 24: Trunking Subscribers Search Page Navigation



Related Links

- [Category Search Criteria](#) on page 62
- [Provisioning Manager Group](#) on page 366

4.3.4.2

Searching Conventional Subscribers

Use the **Conventional Subscribers** search page to browse conventional units by their parameters and to identify duplicate conventional unit aliases.

Procedure:

- 1 From the main menu, select **Subscriber**.
- 2 In the **Subscriber** category page, click the icon with the text: **Click to find Conventional Subscribers**.

Figure 25: Click to find Conventional Subscribers Icon



The **Conventional Units** search page shows the list of all conventional units in the system.

- 3 On the search page, you can perform the following operations:
 - To search conventional units by their parameters, such as ID or alias, in the **Search** field, enter the search term.
 - To find all conventional units with duplicate aliases, click **Duplicate Aliases**.
 - To update the alias of a conventional unit listed in the search results, click the **Alias** field for that unit and enter a new alias.

Figure 26: Conventional Units Search Page Options

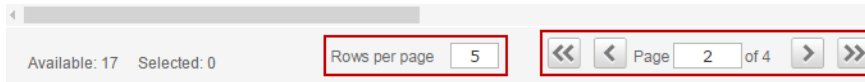


The list of conventional units is updated to meet your criteria.

- 4 To change how the search results are displayed, you can perform the following operations:
 - Change the number of rows displayed per page by entering a different number in the **Rows per page** field at the bottom.

- Go to a different page by clicking the arrows or entering a page number in the **Page** field in the bottom-right corner.

Figure 27: Conventional Units Search Page Navigation



Related Links

- [Category Search Criteria](#) on page 62
- [Provisioning Manager Group](#) on page 366

4.3.4.3

Category Search Criteria

The following table lists the details of the object group, the menu bar category, the objects included in the search, and the attributes available for searching.

Table 2: Category Search Criteria

Re-record type	Category	Objects included in the search	Filtering attributes	Data type	Attributes to search on
Radio	Subscriber	IVD Radio	ID	Integer	IVD/HPD Radio: Radio ID
		HPD Radio			Conventional Talkgroup/ Conventional Voice Unit/ Conventional Voice and Data Unit: Conventional Unit ID
		Conventional Talkgroup Unit		Application to Unit ID Map: Unit ID	
		Conventional Voice Unit			
		Conventional Voice and Data Unit	Serial Number	String	IVD/HPD Radio: Radio Serial Number
		Application to Unit ID Map			Conventional Talkgroup/ Conventional Voice/Conventional Voice and Data Unit: n/a
					Application to Unit ID Map : n/a
		Alias		String	IVD/HPD Radio: Radio User Alias
		Duplicate Aliases		N/A	Conventional Talkgroup/ Conventional Voice/Conventional Voice and Data Unit: Conventional Unit Alias
		Aliases Too Long for Radio Alias Update		N/A	Application to Unit ID Map: Console Platform or User Alias
		Security Group		String	Security Group: Security Group Alias

Table continued...

Record type	Category	Objects included in the search	Filtering attributes	Data type	Attributes to search on
			Radio Capabilities Profile	Integer	Radio Capabilities Profile: Radio User Capabilities Profile ID Radio Capabilities Profile: Radio User Capabilities Profile Alias Radio Capabilities Profile: Dispatch/PC Priority Level
			Console Alias Manager	Integer, string	Console Alias Manager: FQDN, Console Alias Manager: Alias
Conventional Unit	Subscriber	Conventional Voice Unit Conventional Voice and Data Unit Conventional Talkgroup Unit Application to Conventional Unit Mapping	ID	Integer or Hex	Conventional Voice Unit/Application to Conventional Unit Mapping: ID Conventional Voice and Data/Conventional Talkgroup Unit: Conventional Unit ID (Integer)
			Alias	String	Conventional Unit Alias
			Duplicate Aliases	N/A	
			Conventional Channel Group ID	Integer	Conventional Channel Group ID
			Conventional Usage	String	Conventional Voice/Conventional Voice and Data Unit: Conventional Usage Conventional Talkgroup Unit: fixed to Conventional Talkgroup Application to Conventional Unit Mapping: n/a
			Security Group	String	Security Group: Security Group Alias
			Radio Capabilities Profile	Integer	Radio Capabilities Profile: Radio User Capabilities Profile ID Radio Capabilities Profile: Radio User Capabilities Profile Alias Radio Capabilities Profile: Dispatch/PC Priority Level

Table continued...

Record type	Category	Objects included in the search	Filtering attributes	Data type	Attributes to search on
			Console Alias Manager	Integer, string	Console Alias Manager: FQDN Console Alias Manager: Alias
MCC 7500 Platform	Console	MCC 7500 Dispatch Console (VPM-based)/MCC 7100 Dispatch Console MCC7500 AIS (VPM-based)	Dispatch Console or AIS ID	Integer	MCC 7500 Dispatch Console: Dispatch Console ID MCC7500 AIS: AIS ID
			Full Computer Name	String	Full Computer Name
			Dispatch Console or AIS Alias	String	MCC 7500 Dispatch Console: Dispatch Console Alias MCC7500 AIS: AIS Alias
Conventional Channel	Zone	Analog Conventional Channel Digital Conventional Channel MDC1200 Conventional Channel Mixed Mode Conventional Channel ACIM Conventional Channel Conventional Talk-group Channel	ID	Integer	Conventional Channel ID
			Alias	String	Conventional Alias
			Conventional Site ID	Integer	Conventional Site ID
			Zone ID	Integer	Zone ID

Related Links

- [Searching Categories](#) on page 59
- [Searching Trunking Subscribers](#) on page 60
- [Searching Conventional Subscribers](#) on page 61

4.4

Data Records Configuration

The basic procedures performed in the Provisioning Manager are such operations as creating, cloning, editing, deleting, or viewing the configuration records.

4.4.1

Creating Records

Create new records to specify a set of configuration parameters for a given object type.

Procedure:

- 1 From the main menu, click the category you want to configure.
- 2 From the object menu on the left, click the object you want to create.


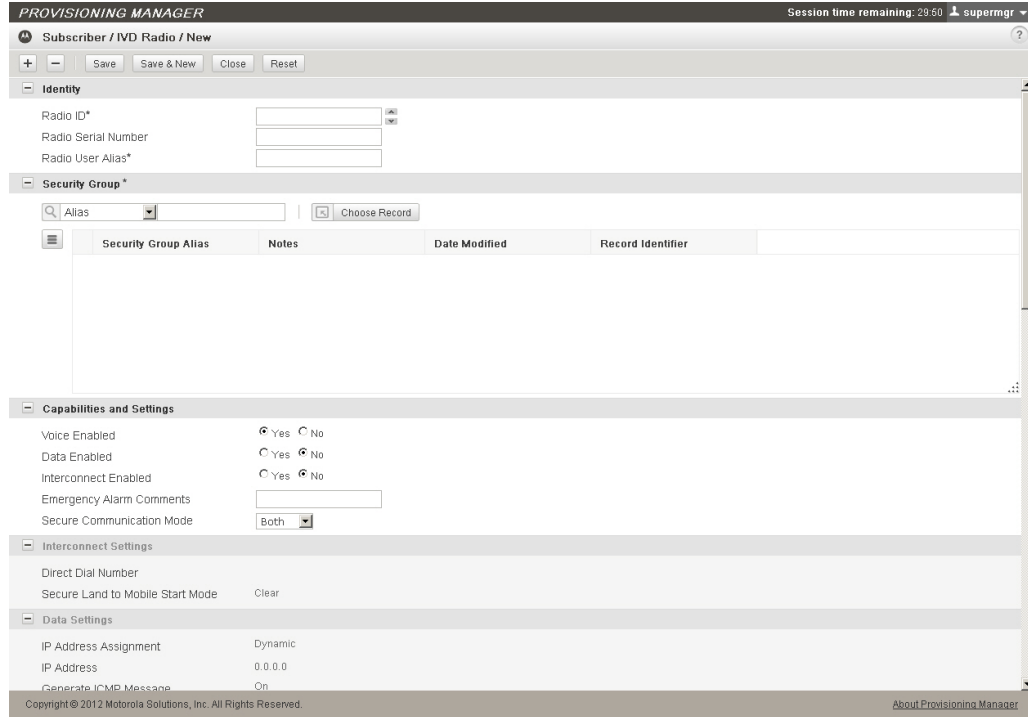
- In the records list, from the List View menu, click  (**New**).
A configuration window of the selected object appears.

Figure 28: Configuration Window – Example



- In the configuration window, fill in the fields.
If you check the **Tooltip** box in the upper-right corner of the window, a help message appears informing you about the valid range of values for a given field.
If you enter an incorrect value, an error message appears, informing you about the valid range of values for the field.
- Save the new configuration:

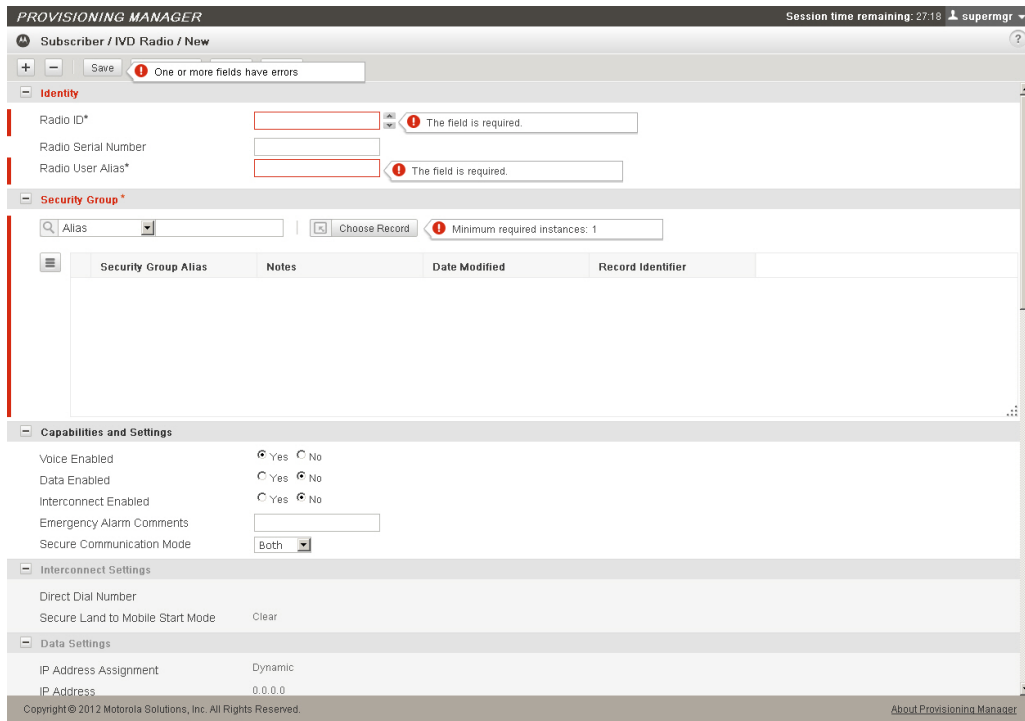
If...	Then...
If you want to save the new record,	click Save . A confirmation message appears. You can now modify the settings of the new record.
If you want to save the new record and create another record with the same configuration,	click Save & New . A confirmation message appears. You can now create another record with the same settings, providing new values only for the parameters that identify the record, such as ID or Alias.

Figure 29: Confirmation Message – Example



- Optional: If you receive an error message, update the sections highlighted in red and go to [step 4](#).

Figure 30: Error Message – Example



7 Click **Close**.

Related Links

[Selecting Related Records in the Chooser](#) on page 56
[Provisioning Manager Reference](#) on page 103

4.4.2

Batch Create Functionality

The batch create functionality allows you to create multiple radio and talkgroup records at once. It also lets you control the IDs and aliases for the new records. You can use the following parameters to create a list of records named according to your preferences.

Radio/Talkgroup ID Range(s)

In this field, you can enter one or more ID ranges. Disjoint ranges are allowed.

For talkgroup records, 80 000 000 is added automatically to the value of the ID.

Example:

```
Radio ID range(s)*: 201-205
```

This setting creates the following radio IDs:

```
201
202
203
204
205
```

Example:

```
Radio ID range(s)*: 201-203,1010-1013
```

If you enter the disjoint range separated with a comma as in the presented example, the application creates the following radio IDs:

```
201
202
203
1010
1011
1012
1013
```

Example:

```
Talkgroup ID range(s)*: 201-203
```

This setting creates the following talgroup IDs:

```
80000201
80000202
80000203
```

Radio User/Talkgroup Alias

By using parameters in this section, you can create a list of aliases with prefixes and suffixes of your choice. You can use the radio/talkgroup ID as the suffix, or create a suffix pattern with or without 0 padding.

Example:

```
Radio User Alias Prefix: BatchAlias
```

```
Radio User Alias Suffix Calculation: Use Radio ID
```

```
Suffix ID Digit pattern: no 0 padding
```

Assuming the radio IDs from the previous example, this setting creates the following aliases:

```
BatchAlias201
BatchAlias202
BatchAlias203
BatchAlias1010
BatchAlias1011
BatchAlias1012
BatchAlias1013
```

Example:

```
Radio User Alias Prefix: BatchAlias
```

```
Radio User Alias Suffix Calculation: Use Radio ID
```

```
Suffix ID Digit pattern: 5 digits with leading 0 pad
```

Assuming the radio IDs from the previous example, this setting creates the following aliases:

```
BatchAlias00201
BatchAlias00202
BatchAlias00203
BatchAlias01010
BatchAlias01011
BatchAlias01012
```

BatchAlias01013

Example:

```
Radio User Alias Prefix: BatchAlias  
Radio User Alias Suffix Calculation: Use Suffix ID  
Suffix ID Digit pattern: 3 digits with leading 0 pad  
Radio User Alias Suffix ID: 11  
Any leading 0's are ignored
```

This setting creates aliases independent from radio IDs:

BatchAlias011
BatchAlias012
BatchAlias013
BatchAlias014
BatchAlias015
BatchAlias016
BatchAlias017



NOTICE: Even if the radio/talkgroup ID is disjoint, the alias created by using the **Use Suffix ID** option creates sequential IDs, using consecutive numbers.

Radio Serial Number

This group of parameters is available for creating radio records. The serial number is optional. You can set a prefix of your choice, followed by a suffix with or without 0 padding. If you leave the prefix and suffix fields blank, the serial number is not added to the records.

Example:

```
Radio Serial Number Prefix: BatchSN  
Suffix ID Digit pattern: no 0 padding  
Radio Serial Number Suffix ID: 99  
Any leading 0's are ignored
```

This setting creates the following serial numbers:

BatchSN99
BatchSN100
BatchSN101
BatchSN102
and so on.

Related Links

[Creating Multiple Records at Once](#) on page 68

[HPD Radio](#) on page 303

[IVD Radio](#) on page 297

[Talkgroup](#) on page 310

4.4.2.1


Creating Multiple Records at Once

Create multiple configuration records with the parameters set in the Batch-Create form common to all the records.

You can create a maximum of 2000 records at a time using the Batch-Create feature. The following objects support this operation:

- IVD Radio
- HPD Radio
- Talkgroup

Procedure:

- 1 From the main menu, click the category you want to view.
- 2 From the object menu on the left, click the object you want to create.
- 3 In the records list, from the List View menu, click  (**Batch Create**).
- 4 In the configuration page, fill in the fields. Click **Save**.
A confirmation message appears.
- 5 Optional: If you receive an error message, update the sections highlighted in red. Click **Save**.

Related Links

- [IVD Radio](#) on page 297
- [HPD Radio](#) on page 303
- [Talkgroup](#) on page 310
- [Batch Create Functionality](#) on page 66

4.4.3

Cloning Records

Use the cloning function to create new records with the same parameters as the records already in the system.

Not all objects support this feature.

Procedure:

- 1 From the main menu, click the category you want to configure.
- 2 From the object menu on the left, click the object you want to create.
- 3 In the records list, select the record you want to clone.
- 4 From the List View menu, click **Save As**.
A configuration window of the selected object appears with some of the fields filled in.
- 5 In the configuration window, fill in the empty fields. Click **Save**.
A confirmation message appears.
- 6 Optional: If you receive an error message, update the sections highlighted in red. Click **Save**.

Related Links

- [Provisioning Manager Reference](#) on page 103

4.4.4

Viewing Records

View the records already in the system to verify the configuration parameters.

Procedure:

- 1 From the main menu, click the category you want to configure.

- 2 From the object menu on the left, click the object you want to view.
- 3 In the records list, select the record you want to view.
- 4 From the List View menu, click **View**.

The selected record appears in a new page.

4.4.5

Editing Records

Edit the records already in the system to change configuration parameters.

Procedure:

- 1 From the main menu, click the category you want to configure.
- 2 From the object menu on the left, click the object you want to edit.
- 3 In the records list, select the record you want to edit.
- 4 From the List View menu, click **Edit**.
- 5 In the configuration page, perform all edits on the record. Click **Update**.

If you check the **Tooltip** box in the upper-right corner of the window, a help message appears informing you about the valid range of values for a given field.

If you enter an incorrect value, an error message appears, informing you about the valid range of values for the field.

Related Links

[Provisioning Manager Reference](#) on page 103

4.4.6

Editing Multiple Records at Once

Edit many records at the same time to apply the changes to all the selected records.

Not all objects support this operation.

Procedure:

- 1 From the main menu, click the category you want to configure.
- 2 From the object menu on the left, click the object you want to edit.
- 3 In the records list, select the records you want to update.
- 4 From the List View menu, click **Edit**.
- 5 In the configuration page, update the desired fields.

The editable fields are marked with a check box on the left-hand side. The check box on the left-hand side is automatically selected when you enter or choose a new value. If you enter an incorrect value, an error message appears, informing you about the valid range of values for the field.

- 6 Optional: Cancel an update of any parameter value by clearing the check box next to that parameter.
- 7 Click **Update**.

The update operation starts and a result page displays on completion. This page shows the number of records updated. If one or more records cannot be updated, the reason for the failure of every record displays.

- 8 In the confirmation page, click **Update**. Click **Close**.

4.4.7

Deleting Records

Procedure:

- 1 From the main menu, click the category you want to configure.
- 2 From the object menu on the left, click the object you want to delete.
- 3 In the records list, select the record you want to delete.
- 4 From the List View menu, click **Delete**.
- 5 In the confirmation window, click **Continue**.

4.4.8

Deleting Multiple Records at Once

Use the Batch-Delete function to delete many records at a time.

Procedure:

- 1 From the main menu, click the category you want to configure.
- 2 From the object menu on the left, click the object you want to delete.
- 3 In the records list, select the boxes next to the records you want to delete.
- 4 From the List View menu, click **Delete**.
- 5 In the confirmation window, click **Continue**.
- 6 In the batch-delete confirmation page, click **Close**.

4.4.9

Viewing Audit Records

Audit records display in the List View. You can easily navigate between the List View of a given object, a specific record, and a corresponding audit record.

Procedure:

- 1 Perform one of the following actions:

If...	Then...
If you want to view the latest audit records without entering the filtering criteria,	in the Provisioning Manager Home page, in the Provisioning Manager Status bar, click Audits .
If you want to view audits of a specific object,	perform the following actions: <ol style="list-style-type: none"> a From the main menu, select a category of objects you want to view. b From the object menu on the left, select an object. c In the records list, from the List View menu, click Audits.

- 2 Optional: In the Audit View, perform one of the following actions:
 - To view a specific audit record, select the record. Click **View**.

- To go to a configuration record that corresponds to a specific audit, select the audit record. Click **View Object**.

4.5

Configuration Profiles

The Profile objects allow you to map a group of common attributes to one or more subscribers at one time instead of having to enter the information into each subscriber record individually. Profiles act as a way to configure a set of templates that can then be assigned to multiple records. They are useful because classes of users in the system can share a common configuration.

You can create and edit profiles the way you configure other records.

Master List of Attributes and Capabilities

A profile is a master list of common attributes or capabilities for radio users, talkgroups, multigroups, and agencygroups. Creating a profile allows you to enter the information one time and reference the profile from an individual record. You do not have to enter the information separately into each record. You can create a different profile for each type of function and group of users in your system.

Using a profile helps to ensure data accuracy. It also reduces the amount of data that has to flow through the network between the PM and the zone controller. Profile information includes data that relates to radios, radio users, and talkgroups who perform the same function. For example, all radio users associated with the Fire Department require the same resources, so you can use a profile to create a master file for their records.

Object and Profile Mapping

One record can have a one-to-one relation with a profile, or many records can be mapped to the same profile. When you configure a Talkgroup, a Multigroup, or a Radio record, you must assign profiles to each record.

Related Links

[Creating Records](#) on page 64

[Editing Records](#) on page 70

4.5.1

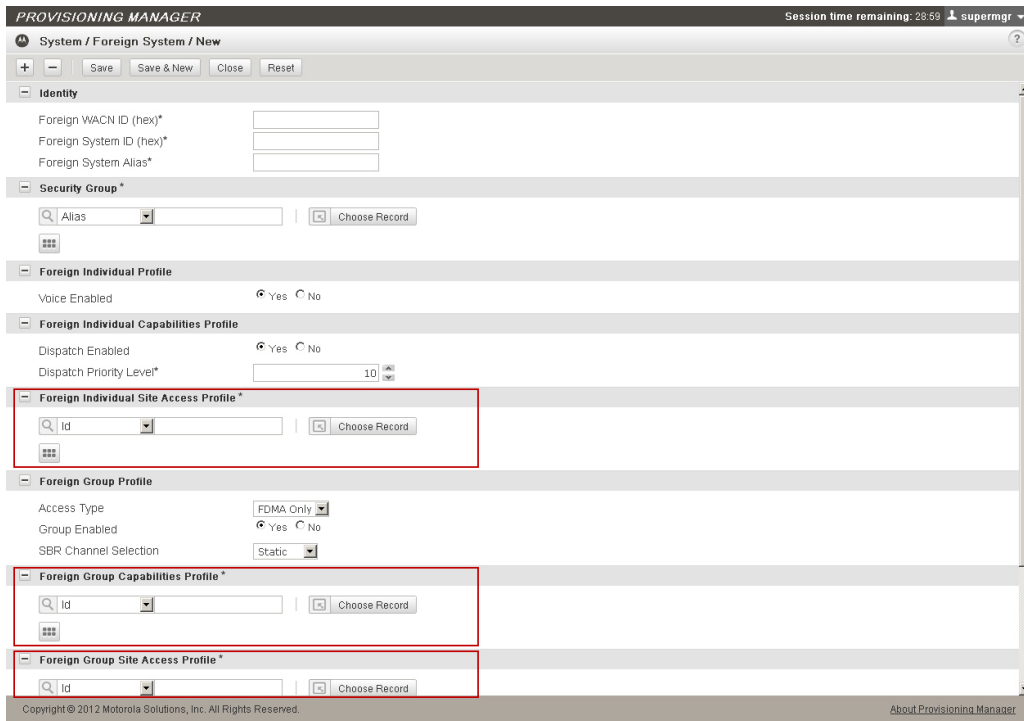
Applying Profiles to Records

Prerequisites: Configure profile records. See [Creating Records on page 64](#) and [Editing Records on page 70](#).

Procedure:

- 1 From the main menu, click the category you want to configure.
- 2 From the object menu on the left, click the object you want to edit.
- 3 In the records list, select the record you want to apply a profile to.
- 4 From the List View menu, click **Edit**.
- 5 In the configuration page, in a profile section, click **Choose Record**.

Figure 31: Profile Section – Example



- 6 In the Chooser window, select the profile you want to assign to the record. Click **Apply**.
- 7 Click **Save** and **Close**.

The record is updated with the selected profile.

Related Links

- [Selecting Related Records in the Chooser](#) on page 56
- [Provisioning Manager Reference](#) on page 103

4.5.2


Restoring Default Preferences

Perform this procedure to restore default preferences to all or selected object types in Provision Manager.

Procedure:

- 1 Navigate to <username> → **Reset Preferences**.
- 2 In the **Reset Preferences** window, depending on your goal, perform the following actions:

If...	Then...
If you want to restore default preferences for all object types,	click Restore Defaults .
If you want to restore default preferences for selected object types,	perform the following actions: <ol style="list-style-type: none"> a From the Preferences Customized box, select the object types for which you want to restore default preferences.

If...	Then...
	<p>b Click Add .</p> <p>c Click Apply.</p>

Default preferences are restored for selected object types. The changes take effect on your next logon.

4.6

Data Records Import and Export

Use the Import and Export features to save and upload configuration records as CSV files.

4.6.1

Importing Data Records

Use this procedure to download, modify, and upload a .csv file to import object records to the Provisioning Manager.

The Provisioning Manager allows you to import configuration data from a previously created .csv file. This operation requires a specific format of the .csv file for each configuration object, available as a template. You can download either an empty template or a template with configuration data currently viewed in the List View. Before preparing the .csv file for Import, one of the two templates must be downloaded to ensure that the format of the .csv file used is correct.

For a list of objects supporting the Import operation, see [Objects Available for Import and Export](#).

Procedure:

- 1 From the main menu, select the category you want to configure.
- 2 From the object menu on the left, click the object you want to view.
- 3 In the records list, from the List View menu, click **Import & Export**.
- 4 **Only if you do not have an import file with the same format as the template:** In the **Import & Export** window, download a template for the import file:
 - a In the **Download Template** tab, perform one of the following actions:
 - To download an empty template, select **Template**.
 - To download a template with the data from the current List View, select **Template with records from current view**.



NOTICE: Filters and sorting specification applied to the List View are reflected in the downloaded template. However, column customization is ignored.

- b In the dialog window, select **Save file**. Click **OK**.
- c Open the downloaded .csv file, perform all edits on the template, and save the changes.

Step example: Modify the existing records or add new records by inserting data in the empty rows in the .csv file.



IMPORTANT: To specify a reference to other records, use the **Record Identifier** value of the referenced record. For example, to assign the SYSTEM security group with the Record Identifier of 1 to a record, enter 1 in the related cell.

The following annotations provide additional information about attributes:

- * indicates that the attribute is mandatory in a new or to-be-updated record.
- + indicates that the attribute is mandatory in a new record.

- **[*]** indicates that multiple columns in the sheet represent the same attribute. You must enter a value in one of the columns.
- 5 In the **Import** tab, select one of the three available options:
 - **Create and update records**
 - **Create new records only**
 - **Update existing records only**
 - 6 In the **Import** tab, click **Choose File**.
 - 7 In the **File Upload** window, browse to the `.csv` file to import. Click **Open**.



IMPORTANT: You cannot use the `.csv` file created by the Export function for importing, as the format of the export file is different.

- 8 Click **Upload**.

A window appears displaying the progress of the import operation. A confirmation message displays on completion.



NOTICE: You can also view the import operation progress in the Jobs View.

- 9 Return to the List View by clicking **Close**.

Related Links

[Viewing Tasks in the Jobs View](#) on page 84

4.6.2

Exporting Data Records from Provisioning Manager

Use the Export function to save the object records in a file. The contents of the file are formatted using Comma Separated Variables (CSV).

Procedure:

- 1 Log on to the Provisioning Manager application.
- 2 From the main menu, select the category you want to configure.
- 3 From the object menu on the left, click the object you want to view.
- 4 Optional: Filter the List View to only display the records you want to export.
- 5 In the records list, from the List View menu, click **CSV Report**.
- 6 From the drop-down list, select the export option you want to use.
Different export options create separate CSV files.
- 7 Optional: If a warning message about a blocked pop-up window appears, click the message and select **Always Allow Pop-ups**.
- 8 In the download window, perform one of the following actions:

If...	Then...
If you want to open the export file,	select Open with and click OK . Result: The CSV file opens.
If you want to save the export file on the hard disc,	perform the following actions: a Select Save file .

If...	Then...
	<p>b Choose the destination folder and specify a name for the CSV file. Click Save.</p> <p>Result: The file is saved in the selected destination.</p>

Related Links

[Filtering the List View and Audit View](#) on page 52

4.6.3

Importing and Exporting Data Records as XLS Files



Use this procedure to download, modify, and upload an Excel `.xls` file to import object records to the Provisioning Manager. You can download and upload records for one or more objects.

The Provisioning Manager allows you to import configuration data from a previously created Excel file. This operation requires a specific format of the Excel file for each configuration object, available as a template. You can download either an empty template or a template with configuration data. The template with configuration data can be downloaded with either all configuration data for the object (an unfiltered view), or with configuration data filtered with the filters applied in the List view. Before preparing the Excel file for Import, one of the two templates must be downloaded to ensure that the format of the Excel file used is correct.

If you select several object types to download their records, records for each object type are saved in a separate worksheet.

Prerequisites: Log on to the Provisioning Manager.

Procedure:

- 1 From the main menu, select **Utilities** → **Excel Import and Export**.
The **Excel Import and Export** window opens.
- 2 In the **Download Template** section, from the **Available Record Types** list select an object to be downloaded. Click .
You can select more than one object.
To remove an object from the **Selected Record Type** list, click .
The selected object or objects appear in the **Selected Record Types** list.
- 3 Select an appropriate download option:
 - To download a template with records with current filters applied, select the **Template with records from current filters** check box.
 - To download a template with all records, select the **Template with all records** check box.
 - To download an empty template, select the **Empty Template** check box.
- 4 Click **Download**.
The **Opening Workbook** dialog box appears.
- 5 Select **Save File**. Click **OK**.
The `.xls` file with configuration records is saved on the PC from which you access **Configuration Manager**.
- 6 Open the downloaded `.xls` file, perform all edits on the template, and save the changes.

See [Information on Editing Imported XLS Files on page 77](#).



NOTICE:

You can only create or update records using `.xls` Import. Records cannot be deleted using the import operation.

- 7 In the **Import** window, select the appropriate **Import** option.
 - To create records that do not already exist and update records that already exist in the Manager, select **Create and update records**.
 - To create records that do not already exist, select **Create new records only**. If records contained in the import file already exist in the Manager, these records in the import file are ignored.
 - To update records that already exist in the Manager, select **Update existing records only**. If records contained in the import file do not already exist in the Manager, these records in the import file are ignored.
- 8 Under **Import** options, leave **Continue with the operation, ignoring the warning** checkbox selected. This allows the operation to continue, even if there are issues that cause a warning to appear. This option does not have an impact on the Configuration Manager.
- 9 Click **Browse** and navigate to the `.xls` file to import.
- 10 Click **Upload**.

The **Opening importWorkbook.xls** window appears.



NOTICE: You can also view the import operation progress in the **Active Job View**.

- 11 Return to the List View by clicking **Close**.

4.6.4

Exporting All Data Records as XLS Files

Follow this procedure to export object records to an `.xls` file that you can save on the PC from which you access Provisioning Manager. For a full list of objects supported by this functionality, see [Information on Editing Imported XLS Files on page 77](#).

Prerequisites: Log on to the Provisioning Manager.

Procedure:

- 1 From the main menu, select **Utilities** → **Export all to Excel**.
The **Opening Workbook** dialog box appears.
- 2 Select **Save File**. Click **OK**.
The `.xls` file with configuration records is saved on the PC from which you access Provisioning Manager. You can open it, perform all edits, and upload the `.xls` file to Provisioning Manager.

4.6.5

Information on Editing Imported XLS Files

Detailed information on the tab naming and annotations of column headings in an imported `.xls` spreadsheet.



NOTICE:

You can only create or update records using `.xls` Import. Records cannot be deleted using the import operation.

Before making edits to the `.xls` file read the following information:

- The first row of each `.xls` worksheet contains the name of the object that is presented on the User Interface.
- Column headings that have an `*` are field(s) that uniquely identify the object. If there are multiple columns with an `*`, then the combination of these fields uniquely identify the object. Field with an `*` must be filled in for New and Edit operations.
- Column headings that have an `[*]` are field(s) that uniquely identify the object but only one of the columns with an `[*]` must be filled in. One of the field(s) with an `[*]` must be filled in for New and Edit operations.
- Column headings that have a `+` are fields that must be filled in for New operations. For Edit operations, if the field is filled in, this value will be used to update the field in the Manager. If the field is left blank, then the existing value for this field will be left unchanged in the Manager.
- To specify a reference to other records, use the Record Identifier value of the referenced record. For example, if the user is configuring an AuxIO that will be associated to AuxIO Server with the Record Identifier = 1, enter 1 in the AuxIO Server cell in the AuxIO file.
- If you want to enter an empty string, a NULL value, or clear the configured value for a field or association, you must enter `#null#` or `#NULL#` for the field in the `.xls` file. A blank field in the `.xls` file is ignored by the Manager.
- The tab name of each `.xls` worksheet contains the Provisioning Manager internal name for the object. You can modify this tab name if desired. The following table contains the mapping of the Provisioning Manager internal object name to the name of the object presented on the User Interface.

Table 3: Mapping of the Provisioning Manager Internal Object Name to the Name of the Object on the User Interface

User Interface Name for the Object	Provisioning Manager internal name for the Object
Conventional Voice Unit	ConvVoiceUnit
Conventional Voice and Data Unit	ConvVoiceAndDataUnit
Application to Conventional Unit Mapping	ConvConsoleUnit
AuxIO Server	AuxIoServer
AuxIO	AuxIo
Page	Page

4.7

User Access and Security Management

The Provisioning Manager provides access and security control by partitioning data configurations in Security Groups, assigning access privileges in Groups ascribed to Users, and limiting the creation of Radio and Group records in configured Subscriber ID blocks.

4.7.1

Data Partitioning

The Provisioning Manager supports partitioning of configuration data using security groups. Security Groups are the names of partitions which can be based on agencies. However, System Administrators can base the security groups to any partition grouping as required to fit to the system. Each

configuration record is associated with a security group. Application Users having access to security groups can either view, add, update, or delete configuration within the security groups based on the access configuration.

Related Links

[Application Users and Accounts Management](#) on page 79

[Security Group](#) on page 365

4.7.2

Application Users and Accounts Management

The Provisioning Manager uses Group-based Access Control scheme to define authorization settings (that is, record and operation permissions) for the application users.

The basic access control involves the following high-level steps:

- The creation of the user account on the Domain Controller.
- The definition of a Provisioning Manager Group records with the appropriate settings, including permissions to create various record types, fine-grained control (Read, Insert, Update, Delete, and Attach) to security groups defined within the PM, and permissions for executing the provisioning operations.
- The creation of Provisioning Manager User records with appropriate role assignments.

All these operations must be performed for the user to log in and use the application. Upon successful logon, the application enforces the settings assigned to the user, which enables viewing, creating, updating, and deleting records for the security groups that the user has access to, based on the groups assignment. System Managers can achieve Agency Partitioning using these operations and features.



NOTICE: When more than one group is assigned to a user, the least restrictive setting from all assigned groups is applied.

Related Links

[Creating Records](#) on page 64

[Provisioning Manager Group](#) on page 366

[Provisioning Manager User](#) on page 369

4.7.2.1

Modifying Access Rights Defined in User Groups

Modify user groups to edit permissions to perform operations in the system.



IMPORTANT:

Only users with privileges to update records in the Security Group of the Provisioning Manager Group record can edit the access rights.

You cannot modify the System Manager group.

Procedure:

- 1 From the main menu, select **Applications**.
- 2 From the object menu on the left, select **Provisioning Manager Group**.
- 3 In the records list, select the group you want to modify. Click **Edit**.
- 4 In the configuration window, perform all edits. In the **User Configuration Permissions** and **User Distribution Permissions** sections, select access rights for the group.

5 Click **Update**.

A confirmation message appears.

6 Optional: If you receive an error message, update the sections highlighted in red. Click **Save**.

Related Links

[Provisioning Manager Group](#) on page 366

4.7.3

Configuring Subscriber ID Restriction

System Administrators can configure the Provisioning Manager to restrict users to create Radios, Talkgroups, Multigroups, and Agencygroups within the allocated block of IDs.

Ranges of Radio, Talkgroup, Multigroup, and Agencygroup IDs can be allocated to a desired Security Group. A Security Group can represent an agency name. Only users with access to a given Security Group can create Radios, Talkgroups, Multigroups, and Agencygroups within the allocated range. ID ranges can be shared across Security Groups (agencies).

Procedure:

1 From the main menu, select **Applications**.

2 From the object menu on the left, select **ID Restriction**.

3 In the records list, from the List View menu, click  **(New)**.

4 In the configuration window, perform the following actions:

a Choose the Agency Name (Security Group) to allocate ID ranges.

b Add Radio and Group ID ranges.

c Click **Save**.

A confirmation message appears.

5 Optional: If you receive an error message, update the sections highlighted in red. Click **Save**.

Related Links

[ID Restriction](#) on page 371

4.8

Distribution (Provisioning) Management

To manage the provisioning of network devices, the Provisioning Manager uses such tools as the Device List, the Jobs View, or distribution status indication.

4.8.1

Adding Managed Devices to the Provisioning Manager

The Provisioning Manager learns the device and infrastructure configuration information from Unified Network Configurator (UNC) and the Zone Database Server (ZDS).

After discovering devices on the UNC, publish the device information to the Provisioning Manager using the Publish Infrastructure Data operation on the UNC Wizard (UNCW). The ZDS registers with the Provisioning Manager when the services are enabled on this server.

Process:

- 1 In the Provisioning Manager, in the **Provisioning Manager User** object, set up the UNC access. Alternatively, the UNC user name and password can be entered when invoking provisioning operations from the Provisioning Manager.
- 2 In the UNCW, copy the list of devices to be initialized from the Provisioning Manager by performing **Publish Infrastructure Data**.
- 3 Enable services on all the ZDSs, including the server in the backup core in a Dynamic System Resilience (DSR) configuration.

The ZDSs are added to the list of managed devices in the Provisioning Manager.

4.8.2

Device List

The Device List item of the Update Manager tab displays all devices registered on the Provisioning Manager. The list contains information on the name of the device, its IP address, status of initialization, and so on.

Figure 32: Device List

NE Name	NE Type	IP Address	Is Initialized	Interface Version	Zone Id	Configuration Baseline Version	Date Modified
atr01.zone1	ATR	10.1.233.120	No	ATR-1713000	1	0	Sep-28-2012, 18:24:06
atr01.zone2	ATR	10.2.233.120	No	ATR-1713000	2	0	Sep-28-2012, 18:24:06
convpdr01.zone1	CIVD PDR	10.1.233.22	No	CIVDPDG-101	1	0	Sep-28-2012, 18:24:06
convpdr01.zone2	CIVD PDR	10.2.233.22	No	CIVDPDG-101	2	0	Sep-28-2012, 18:24:06
z001s020csc01.nmd20.zone1	CSC	10.1.20.95	No	1713001	1	0	Sep-28-2012, 18:24:06
z001s021csc01.nmd21.zone1	CSC	10.1.21.95	No	1713001	1	0	Sep-28-2012, 18:24:06
hpdpdr01.zone1	HPD PDR	10.1.233.21	No	HPDPDG-51	1	0	Sep-28-2012, 20:49:44
hpdpdr01.zone2	HPD PDR	10.2.233.21	No	HPDPDG-51	2	0	Sep-28-2012, 20:49:44
pdr01.zone1	IVD PDR	10.1.233.20	No	IVDPDG-51	1	0	Sep-28-2012, 20:49:44
pdr01.zone2	IVD PDR	10.2.233.20	No	IVDPDG-51	2	0	Sep-28-2012, 20:49:44
zc01.zone1	ZC	10.1.233.100	No	ZCAPP-12401	1	0	Sep-28-2012, 20:49:44
zc01.zone2	ZC	10.2.233.100	No	ZCAPP-12401	2	0	Sep-28-2012, 20:49:44
zc02.zone1	ZC	10.1.233.102	No	ZCAPP-12401	1	0	Sep-28-2012, 20:49:44
zc02.zone2	ZC	10.2.233.102	No	ZCAPP-12401	2	0	Sep-28-2012, 20:49:44

The Device List enables you to verify if all the required devices are registered.

The fact that a given device appears on the list means that it is successfully registered on the Provisioning Manager application. For proper working, a device requires not only registration, but also initialization. If the value in the **Is Initialized** column is **Yes**, this means that the device is initialized and that it can be provisioned through the **Distribute Changes** operation.

If the value in the **Is Initialized** column is **No**, a given device requires initialization.



IMPORTANT: After the switch over of the DSR, all devices in the list require initialization.

Additionally, the Device List provides information on the Configuration Baseline Version of devices, indicating whether the network elements are synchronized. If the value of the **Configuration Baseline Version** is the same for all devices in the list, the devices are in full synchronization. If the **Configuration Baseline Version** value of a device is lower than the values of other elements in the list, the distribution of configuration changes or Force Initialization has not reached this device, and you need to repeat the procedure.

A device record, apart from the information available in the Device List, contains a list of objects which the device is connected with, in the **Configuration Unit** section. The list provides information on the time of the last successful configuration distribution to the object.

All records in the Device List are read only.

You can access a record on the Device List by double-clicking it.

Figure 33: Device List Record – Example

The screenshot shows the Provisioning Manager interface. The top bar indicates the user is 'localasupermgr (BootstrapUser)' and the session time remaining is 17:17. The main window title is 'Update Manager / Device List / View'. Below the title bar, there are navigation buttons: '+', '-', 'Edit', 'Save As', 'Close', and 'Audits'. The 'Identity' section shows the following details:

- NE Name: zc01.zone1
- NE Type: ZC
- IP Address: 10.1.233.100
- Is Initialized: No
- Interface Version: ZCAPP-12401
- Zone Id: 1
- Configuration Baseline Version: 0

The 'Configuration Units' section is highlighted with a red box and contains a table with the following data:

	NE Configuration Object Name	Last Modification Time	Record Identifier
<input checked="" type="checkbox"/>	com.mot.jma.beam.zc.amp.ZcSul	Sep-28-2012,20:49:40	11
<input checked="" type="checkbox"/>	com.mot.jma.beam.zc.amp.ZcTg	Sep-28-2012,20:49:40	12
<input checked="" type="checkbox"/>	com.mot.jma.beam.zc.smp.ZcSul	Sep-28-2012,20:49:40	9
<input checked="" type="checkbox"/>	com.mot.jma.beam.zc.smp.ZcTg	Sep-28-2012,20:49:40	10

Below the table, there are 'Remove All' and 'Rows per page: 30' options. The 'Change Audit' section shows 'Date Modified: Sep-28-2012,20:49:44'. The 'Record Identifier' section shows 'Record Identifier: 11'. The footer contains 'Copyright © 2013 Motorola Solutions, Inc. All Rights Reserved.' and 'About Provisioning Manager'.

Related Links

[Distributing Full Configuration \(Force Initialize Configuration\)](#) on page 85

4.8.3

Status Indication

The Provisioning Manager allows you to check the status of configuration changes distribution. It allows you to verify successful configuration changes distribution and full synchronization of UNC and

ZDS. You can verify the Provisioning Manager status using three types of status indicators, each one displaying one of the four colors – red, green, yellow, or gray.

Figure 34: Home Page – Status Indicators

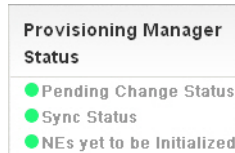
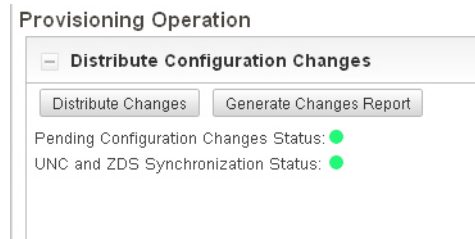


Figure 35: Update Manager – Status Indicators



Pending Change Status / Pending Configuration Changes Status

- **Yellow** means that there have been configuration changes made since the last successful configuration change distribution.
- **Green** means that no new changes have been made since the last successful configuration change distribution
- **Gray** means that the PM fails to check the status.



IMPORTANT: Do not initiate the Distribute Changes operation every time the **Pending Change Status** displays **Yellow**. This is a typical state when the application users make changes which are waiting for distribution. Plan your configuration changes in advance and distribute them in bulk only when all of them are completed.



NOTICE: If you click the icon, the **Distribute Changes** page of the **Update Manager** tab appears.

Sync Status / UNC and ZDS Synchronization Status

- **Yellow** means that the configuration versions of some network elements are different.
- **Green** means that the configuration versions of all network elements are synchronized.
- **Gray** means that the PM fails to check the status.



NOTICE: If you click the icon, the **Active Jobs** view of the **Update Manager** tab opens.

NEs yet to be initialized

- **Red** means that all NEs need to be initialized since the PM has been installed or restored.
- **Yellow** means that at least one NE is newly discovered and needs to be initialized.
- **Green** means that all NEs have been initialized.
- **Gray** means that the PM fails to check the status.



NOTICE: If you click the icon, the **Force Initialize Configuration** page of the **Update Manager** tab opens.

Status indicators are automatically refreshed every 10 seconds.

You can check the distribution and synchronization status either in the **Provisioning Manager Status** bar of the **Home** page, or in the **Distribute Configuration Changes** tab.

Related Links

[Status Bar](#) on page 44

[Generating Configuration Changes Reports](#) on page 87

4.8.4

Viewing Tasks in the Jobs View

The Provisioning Manager provides a list view that displays all the jobs that are currently in progress in the **Active Job View** section of the **Manage** object menu. In addition to the target device information and start time, the active jobs are automatically updated to display the status, progress, and comments.

Within a few seconds after a job completion, the page refreshes and the job is automatically moved to the **Jobs View** of the **Troubleshooting** object menu, where all the completed jobs are displayed. The Provisioning Manager displays the most recent 250 jobs in the job history view.

You can view the progress of the following jobs using the Jobs View:

- Distribution Operations
 - Changes Distribution
 - Force Initialization
 - Home Zone Map Distribution
 - Changes Report Generation
- Batch Operations
 - Batch-Create
 - Batch-Update
 - Batch-Delete
- Import

If the **Target** for a job is UNC, and the job has been created on the UNC, a **UNC** button is displayed in the **Target** column. When you click the button, Provisioning Manager queries the UNC for the status of this job and a dialog box appears, displaying the job status.

Procedure:

- 1 From the main menu, select **Update Manager**.
- 2 In the **Update Manager** page, perform one of the following actions:
 - To view the active jobs, from the **Provisioning** object menu, click **Manage**.
 - To view the completed jobs, from the **Troubleshooting** object menu, click **Jobs View**.

The selected Jobs View page opens.

4.9

Data Configuration Distribution

One of the critical functions of the Provisioning Manager is distributing configuration to network elements.

There are three types of configuration data distribution supported by the Provisioning Manager:

Force Initialize (Full Configuration Distribution)

Force initialization to all network elements (devices) is required whenever the database on the Provisioning Manager is replaced. This includes installation, restoration from an archive, and migration from an older release. It is also necessary to force initialize a new device or a device that

replaces a failed one. Once a configuration baseline is established via successful force initialization, all future configuration changes should be distributed using the Distribute Configuration Changes function.

Distribute Configuration Changes (Delta Configuration Distribution)

Distribute changes function allows you to send only the changes in the current subscriber configuration to already initialized devices. It is performed whenever you need to distribute the changes in the current subscriber configuration. Sending only the changes, and not the full configuration set, enables the transfer of the smaller size files.

Home Zone Map Distribution

Configures home subscribers for the zone.

While the configuration distribution is ongoing, it is visible in the **Active Jobs** section of the **Update Manager** tab. The status of configuration distribution is actively indicated both on the Provisioning Manager Home page, and in the **Distribute Changes** section of the **Update Manager** tab.

Related Links

[Status Indication](#) on page 82

[Viewing Tasks in the Jobs View](#) on page 84

4.9.1

Distributing Full Configuration (Force Initialize Configuration)

Perform the Force Initialize Configuration operation to replace the active (running) configuration data on the device with the data downloaded from the Provisioning Manager.





IMPORTANT:

Perform the Force Initialize Configuration operation only in exceptional cases, for example after a device replacement or when a device is not synchronized. Do not use it for everyday configuration updates. The Force Initialize Configuration operation sends all configuration data to the targeted devices, which takes longer to complete than the distributing Delta Configuration.

A Force Initialize Configuration operation to the Zone Database Server (ZDS) causes all clients: consoles, Zone Controller, Air Traffic Router (ATR), and Authentication Center (AuC) to drop links to the Advanced Distribution Service and send alerts to Unified Event Manager (UEM). This condition should last a few minutes.

Procedure:

- 1 From the main menu, select **Update Manager**.
- 2 From the object menu on the left, select **Manage**.
- 3 From the list of distribution types, select **Force Initialize Configuration**.
- 4 In the list of agents on the left, select the devices for full configuration distribution:
 - a On the left of a device type, click .
 - b Double-click the network elements you want to distribute the full configuration download to. To add all devices of a given type to the distribution list, double-click the device type. The selected agents appear on the distribution list on the right.
- 5 Optional: Delete a device from the distribution list by selecting a given device and clicking  (**Remove**).

6 Click Force Initialize Configuration.

One or more jobs are scheduled and a message with the IDs of the jobs appears.

7 Optional: If the **UNC User Configuration** window appears, perform the following actions:

- a** In the **UNC User Configuration** window, enter the UNC login and password.
- b** Select the **Remember for this session** check box. Click **Apply**.

This operation enables you to Force Initialize Configuration without entering the UNC user credentials many times while your session is still active.



NOTICE: To prevent this window from appearing in future sessions, enter the UNC user credentials in the **UNC User Configuration** section of your **Provisioning Manager User** record.

4.9.2

Distributing Configuration Changes

For the ASTRO[®] 25 system to function properly it is important that certain parameters are consistent across the network. The Distribute Configuration Changes (Delta Distribution) option in the Provisioning Manager enforces this consistency.

Its function is to synchronize the configuration changes made in the Provisioning Manager with the configuration on devices. It allows you to distribute all new configuration changes to the devices. In the delta configuration download, only configuration changes performed since the last successful download are distributed. Therefore, the delta download is much faster than the full configuration download.



NOTICE: Changes to the Home Zone Maps are not distributed.

Plan updates and distribute them in batches when the updates are completed.

Prerequisites: Perform [Adding Managed Devices to the Provisioning Manager on page 80](#).

Procedure:

- 1** From the main menu, select **Update Manager**.
- 2** From the object menu on the left, select **Manage**.
- 3** From the list of distribution types, select **Distribute Configuration Changes** tab.
- 4** In the distribution menu, click **Distribute Changes**.

One or more jobs are scheduled and a message with the IDs of the jobs scheduled appears.



NOTICE: The Provisioning Manager tracks the configuration changes (that is, additions, modifications, and deletions) made for each record type, determines the device types impacted by the change, and schedules one or more jobs for these devices when the Distribute Changes operation is executed. See individual configuration records sections in [Provisioning Manager Reference on page 103](#) for the list of impacted device types.

4.9.3

Distributing Home Zone Maps and Conventional Home Zone Maps

There can be several maps defined in the system, however only one of them can be active at a time. Home Zone Map Download Distribution is a process of sending an active map to all initialized devices in the system.



WARNING: Home Zone Map updates are disruptive to system operation.



NOTICE: You cannot modify the active map. If changes to the home zone map are required, submit a new map.

Procedure:

- 1 From the main menu, select **Update Manager**.
- 2 From the object menu on the left, select **Manage**.
- 3 From the list of distribution types, select **Distribute Home Zone Map**.
- 4 In the **Distribute Home Zone Map** tab, locate the section with the map type you want to distribute.
- 5 From a drop-down list, select the map to be distributed. Click **Distribute** on the right of the list.
A job is scheduled and a message with the ID of the job appears.

Postrequisites: In the UNC, verify that the distributed Home Zone Map is activated in the devices. For details, see the *Unified Network Configurator* manual.

4.9.4

Generating Configuration Changes Reports

In the Provisioning Manager, configuration changes can be created by many users at a time, but they can be distributed only by one of them. The Provisioning Manager allows you to generate a report of all configuration changes made and distributed in the system. Generate the report to ensure which configuration changes can be distributed.

Procedure:

- 1 From the main menu, select **Update Manager**.
- 2 From the object menu on the left, select **Manage**.
- 3 From the list of distribution types, select **Distribute Configuration Changes**.
- 4 In the **Distribute Configuration Changes** tab, click **Generate Changes Report**.

The configuration changes report appears.



NOTICE: The Provisioning Manager tracks the configuration changes (that is, additions, modifications, and deletions) made for each record type, determines the device types impacted by the change, and schedules one or more jobs for these devices when the Distribute Changes operation is executed. See individual configuration records sections in [Provisioning Manager Reference on page 103](#) for the list of impacted device types.

4.10

System Level Scenarios

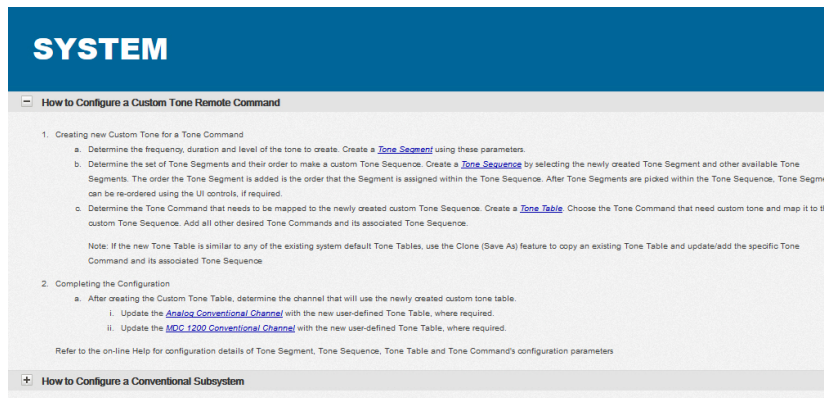
Each category home page of the Provisioning Manager contains a list of several system-level scenarios. They are the most common procedures for system level configuration of objects in a given tab, requiring the completion of a number of operations. Scenarios provide quick access to guidelines on how to perform the most common system level operations. This way you can access the procedure steps directly in the application.

In the category pages, you can find detailed instructions on how to configure the following objects and capabilities:

- For the **System** tab:
 - 1 Custom Tones. See [Creating Custom Tone Tables on page 421](#).
 - 2 Conventional Subsystems

- For the **Zone** tab:
 - 1 Analog and MDC 1200 Conventional Channels
 - 2 Digital and Mixed Mode Conventional Channels
 - 3 ACIM Conventional Channels
 - 4 Conventional Sites
 - 5 Conventional Talkgroup Channel
- For the **Consoles** tab:
 - 1 Dispatch Consoles
 - 2 Custom Pages
 - 3 Custom Page Format. See [Creating Custom Paging Formats on page 426](#).
- For the **Subscribers** tab:
 - 1 IVD Radios
 - 2 Talkgroups
 - 3 Conventional Subscribers
 - 4 Site Access Profiles
 - 5 Conventional Talkgroups
- For the **Applications** tab:
 - 1 Access Control
 - 2 ID Partitioning for Agencies
 - 3 ZoneWatch Profile Filters

Figure 36: System-Level Scenarios



4.11

Configuring the System for Radio Command Usability

Radio commands require configuration at the subscriber and system level. Apply this process for system level configuration in the order recommended for initial system configuration.

Process:

- 1 In the Provisioning Manager, create Talkgroup and Multigroup records.
- 2 Create IVD Radio records.
- 3 In the IVD Radio records, enter the Primary Talkgroup in the designated field.



NOTICE: Primary talkgroups and corresponding radio records are identified during the system fleet map design.

- 4 Create Console User records.
- 5 Create the Radio Traffic Application (RTA) User records with proper application and system access permissions.
- 6 Attach the talkgroups designated in the system fleet map to each RTA User.
- 7 Assign each RTA User login to the appropriate individual.

4.12

Configuring HPD Base Station Identification Monitoring

An HPD Base Radio transmits Base Station Identification (BSI) every 15 minutes. To enable the monitoring of the BSI message, configure the UNC and Provisioning Manager applications, as well as HPD subscriber equipment.

Process:

- 1 In the UNC, perform “Adding a New HPD Channel” during system installation, and set the **BSI Enable** parameter to **Yes**.

This step may not be necessary for an HPD system that is in operation.

- 2 In the Provisioning Manager, create an HPD Radio record with the following settings:
 - a In the **Radio ID** field, enter **16,777,211**.
 - b For **Security Group**, select **SYSTEM**.
 - c In the **Radio User Alias** field, enter **BSI-MSU**.
- 3 Configure HPD subscriber equipment.

See the *HPD Standalone System Infrastructure* or the *HPD Overlay System Infrastructure* manuals.
- 4 When BSI validation is complete, in the Provisioning Manager, delete the HPD Radio record.

4.13

Creating Storm Plans

Create a storm plan for disaster management to dynamically regroup different radios or groups of people, except for talkgroups, so that they can communicate with each other.

Process:

- 1 In the Storm Plan object, define the Storm Plan Alias and a list of authorized Radio Traffic Application (RTA) Users who can activate the storm plan.
- 2 Create the storm plan:
 - a Create Storm Plan commands.
 - b Define the talkgroup to which radios are regrouped.
 - c Define the radio users associated with the storm plan.

4.14

Call Alert

Call Alert is a Private Radio Network Management (PRNM) Suite functionality that allows an authorized caller to leave a notification in an unattended radio or a radio in a voice call to indicate that a system

user wishes to communicate with the user of the alerted radio. The initiator may be a dispatcher or another subscriber unit user. There is no voice communication involved in Call Alert.

Call Alert Methods

Call Alert paging can be done using two different methods:

- You can go to the **Consoles** → **Console Private Call Resource** and configure the console to send and receive Call Alerts for private calls on trunked resources. A successful Call Alert emits four beeps at the initiating radio.
- You can go to **Consoles** → **Page** and create pre-configured Call Alert pages for specific radios on a specific talkgroup. Then, configure the console to send and receive Call Alert pages to and from radios on the talkgroup. When this Call Alert page is sent, the radio beeps (two times every 15 seconds) until acknowledged manually by the target radio user (unless the radio is configured for Call Alert Tone Auto Reset in the Radio Wide/Alert Tone field).

Call Alert Usage

This paging feature provides benefits in the following situations:

- If a user is temporarily away from the radio, a Call Alert page can be sent to the radio. The radio continues to emit call-received tones (four tones every 15 seconds) until acknowledged manually by the target radio user.
- If a user operates in a noisy environment, a Call Alert can be sent to the radio. When the user leaves the high-noise area, the tones inform that the user has missed a call while in the high-noise environment.
- If verifying user activity on the system, a Call Alert is needed. A successful Call Alert emits four beeps at the initiating radio, informing the caller that the target radio is active on the system and has received the page.
- If a user is in a voice call, a Call Alert can be sent to the radio. To enable the Call Alert paging in this situation, In-Call User Alert must be enabled in the Unified Network Configurator (UNC).

Call Alert Processing

The Call Alert feature encompasses the ability to encode and send a Call Alert page, or to decode an incoming page. Call Alerts can be initiated from and received by consoles and subscribers.

The console sends the Call Alert to its local zone controller, which processes the Call Alert. This includes the case where the destination is in another zone. The zone controller of the destination zone sends the Call Alert to the site where the subscriber is located.

Call Alert Processing involves the following actions:

- 1 A Call Alert destined for a radio is initiated by a user at a dispatch console position. An alternate scenario is that the Call Alert is initiated by a radio user.
- 2 The Call Alert is sent from the console to the local zone controller.
- 3 The zone controller subsystem determines the destination zone and destination site for the Call Alert, based on the current location of the radio.
- 4 The zone controller subsystem sends the Call Alert to the destination site and sends a response back to the console, informing about sending the Call Alert to the site.
- 5 The site controller at the destination site receives the Call Alert from the zone controller and sends the Call Alert to the Control Channel (also to voice channels and data channels if In-Call User Alert is enabled) for transmission over the air. The channel transmits the Call Alert to the radio using APCO standard messaging.
- 6 Upon the receipt of the Call Alert, the radio alerts the user both visually and audibly of the receipt of the Call Alert. The visual and audible notifications persist until the user responds to the Alert.

Pressing any key or button, switching a channel, and changing a switch (except for the light key/dim button and the volume knob), all respond to the Call Alert and stop the visual and audible alerts.

- 7 When the user responds to the Call Alert, the radio sends an acknowledgment on the Control Channel to the site.
- 8 The site controller receives the Call Alert acknowledgment from the Control Channel and forwards it to the zone controller.
- 9 The zone controller subsystem sends the Call Alert acknowledgment to the originating console.
- 10 The console then displays the success or failure of the Call Alert to the console dispatcher.

Call Alert in Site Trunking

Site Trunking is a mode of operation when the link to the zone controller fails and the site controller operates the site as if it were an independent single site system. When operating in Site Trunking mode, the site has the same Call Alert functionality as in Wide Trunking mode, but call alerts are processed within one site.

4.14.1

Configuring Call Alert

Configure Call Alert to activate call notifications for unattended radios or radios in a voice call.

Process:

- 1 Optional: In the Unified Network Configurator (UNC), enable call alerts for radios in a call:
 - a Enable **In-Call User Alert**.
See "Updating a System-Level Setting" in the *Unified Network Configurator* manual.
 - b Synchronize the data with the Provisioning Manager.
See "Publishing Infrastructure Data to the PM" in the *Unified Network Configurator* manual.
- 2 In the Provisioning Manager, create a Console User Capabilities Profile record:
 - a For the **Call Alert Receive Enabled** parameter, select **Yes**.
 - b For the **Call Alert Transmit Enabled** parameter, select **Yes**.
- 3 Create a Console User record. Apply the Console User Capabilities Profile to the record.
- 4 Create a Radio Capabilities Profile record.
 - a For the **Call Alert Enabled** parameter, select **Yes**.
- 5 Create an IVD Radio record. Apply the Radio Capabilities Profile to the record.
- 6 Create a Default Radio Access Permissions record. Apply the Radio Capabilities Profile to the record.
- 7 Create one of the Channel objects: ACIM Conventional Channel, Mixed Mode Conventional Channel, or Digital Conventional Channel.
 - a For the **Inbound Call Alert** parameter, select **Yes**.
 - b For the **Outbound Call Alert** parameter, select **Yes**.

Call Alerts functionality is enabled for the selected radio.

4.15

Configuring Repeater Site Objects

Repeater Site operations within a zone are configured through setting the parameters for the Repeater Site objects.

Process:

Configure an RF Trunking Site record.

See [Creating Records on page 64](#) and [RF Site on page 134](#).

4.16

Group Objects

The talkgroup object consists of the information identifying a group of radios that communicate and interact together on the system. This group can also be a part of a multigroup. The highest level is called the agencygroup and is composed of a set of multigroups.

- There can be up to 255 talkgroups in a multigroup.
- There can be up to 16 multigroups in an agencygroup.
- There can be up to 16 agencygroups on the system.



CAUTION: System administrators should be certain that talkgroups and multigroups are only assigned to channels that are capable of supporting the FDMA or TDMA mode required for that talkgroup or multigroup. There are no business rules in place, for example, to prevent an operator from configuring a TDMA-only talkgroup or multigroup to operate on a set of channels that are only capable of FDMA operation. The same caution applies to the configuration of individual radios and TDMA/FDMA channel resources used for individual calls. A radio that is capable of FDMA-only operation is not able to make an individual call if it is assigned to a user group containing exclusively TDMA-only channels.

4.16.1

Talkgroup IDs

Talkgroup IDs are 8-digit decimal numbers beginning with 80,000,000. Talkgroups and multigroups are created from the same pool of 8-digit decimal numbers. A system using this set of decimal numbers supports the creation of 16,000 talkgroups and multigroups. They can be anywhere in the range from 80,000,001 to 80,065,534.

The following numbers are reserved:

- 80,000,000 and 80,065,536 are reserved for system functions.
- 80,065,535 is reserved for addressing all groups in a zone-wide call.



NOTICE: APCO Project 25 reserves this number, but a Motorola Solutions system does not support system-wide calls.

The system has four types of groups: talkgroup, foreign group, multigroup, and agencygroup. A talkgroup is usually designed around a functional group or an organization. For example, a special squad inside the state police or a state Department of Natural Resources (DNR) could each be a talkgroup. A foreign group is a talkgroup from an associated foreign system. A multigroup lets you combine a number of talkgroups for communication, such as grouping the state police with the DNR in a multigroup to allow communication between the two organizations. Above that is an agencygroup which is composed of a set of multigroups.

When planning to add a group, consider the effects this operation has on system resources. Large talkgroups, multigroups, agencygroups, and foreign groups require resources at all sites with affiliated

members and could cause busies, especially if all members are in the same site. Usually only one channel is needed when all members of a talkgroup are in one site. Consider the system channel availability. The infrastructure must be in place to support the traffic of added groups.

4.16.2

Talkgroup Ranges

When adding a talkgroup, consider the normal roaming area of the talkgroup members. Assign the talkgroup's home zone as the zone where the majority of the members spend most of their time. All talkgroups in a multigroup must share the home zone as the multigroup.



IMPORTANT:

The system ensures that SBR talkgroups are not added to non-SBR multigroups, and that SBR multigroups are not added to non-SBR agencygroups.

The following tables show the user-assignable talkgroup IDs and the reserved talkgroup IDs in the system (number 800 is added to the ID as a prefix to flag it as a talkgroup ID to the system).

Table 4: Assignable Talkgroup ID Ranges

ID	Assignable
80,000,001 - 80,065,534	Yes

Only 16,384 talkgroup IDs can be assigned.

Table 5: Reserved Talkgroup ID Ranges

ID	Reserved by Motorola Solutions	Reserved by APCO (Association of Public-Safety Communication Officials)
80,065,536	Initialization record	Not Applicable
80,065,535	All Groups	All Groups
80,000,001 - 80,065,534	Valid talkgroup ID	Valid talkgroup ID
80,000,000	Null	Null

4.16.3

Creating Talkgroups

The talkgroup record consists of information that identifies a group of radios that communicate and interact together on the system.

When creating a talkgroup keep in mind that:

- For a talkgroup configured as FDMA only, calls are processed by the system in the FDMA mode.
- For a talkgroup configured as TDMA only, calls are processed by the system in the TDMA mode. RF subsystems with members affiliated to such groups must be TDMA-capable RF sub-systems.
- All talkgroups that are part of TDMA multigroup must be configured as TDMA only talkgroups or DDM talkgroups.
- Radios that are affiliated to TDMA only talkgroups are capable of receiving FDMA multigroup calls. Although the manager allows such configuration, it is not recommended.

- All talkgroups that are part of any multigroup associated with TDMA agencygroup must be configured as TDMA only talkgroups or DDM talkgroups.

Process:

- 1 In the Talkgroup object of the Provisioning Manager, create a record.
- 2 In the Customer Programming Software (CPS), program the talkgroups in the subscribers.

4.16.4

Creating Multigroups

A multigroup is made up of several talkgroups whose members occasionally need to communicate as a group. Create a multigroup in a similar way as a talkgroup, and associate one or more talkgroups with the multigroup.

When creating a multigroup, keep in mind that:

- A multigroup call requires a channel at each site with an affiliated multigroup member, resulting in a potentially large impact on system resources.
- The home zone of the multigroup must be the same as the home zone of all the talkgroups included in the multigroup.
- PM supports up to 255 talkgroups in one multigroup.
- A talkgroup can belong to only one multigroup.
- For a multigroup configured as FDMA only multigroup, calls are processed by the system in the FDMA mode.
- For a multigroup configured as TDMA only, calls are processed by the system in the TDMA mode. RF subsystems with members affiliated to such groups must be TDMA capable RF sub-systems.
- All talkgroups that are part of TDMA multigroup must be configured either as TDMA only talkgroups or as DDM talkgroups.
- Radios that are affiliated to TDMA only talkgroups are capable of receiving FDMA Multigroup calls. Although the manager allows for such a configuration, it is not recommended.
- All talkgroups that are part of any multigroup associated with TDMA agencygroup must be configured as TDMA only talkgroups or DDM talkgroups.
- All multigroups that are grouped in TDMA only agencygroup must be configured as TDMA only multigroups or DDM multigroups.

Process:

- 1 In the Multigroup object of the Provisioning Manager, create a record.
- 2 In the Customer Programming Software (CPS), program the multigroup in the radio and assign it to a position in the selector.

CPS uses *announcement group* to refer to a multigroup.

4.16.5

Creating Agencygroups

An agencygroup is made up of several multigroups whose members occasionally need to communicate as a group. The groups relationship is strictly hierarchical and thus a multigroup cannot contain an agencygroup. Create an agencygroup in the same way as a multigroup or talkgroup, and associate one or more multigroups with the agencygroup.

When creating an agencygroup, keep in mind that:

- Provisioning Manager supports up to 16 multigroups in one agencygroup.

- All talkgroups that are part of any multigroup associated with TDMA agencygroup must be configured as TDMA only talkgroups or DDM talkgroups.
- All multigroups that are grouped in TDMA only agencygroup must be configured as TDMA only multigroups or DDM multigroups.
- All agencygroups can have the highest interrupt priority for calls with the exception of Emergency Calls if configured this way.
- All agencygroups can support Emergency Calls and alarms if configured this way.
- All agencygroups support the same encryption as talkgroups.
- Home Zone Mapping must be configured and submitted before multigroups are added to the agencygroup.
- Agencygroups are distributed to Zone Controller and consoles, and are treated as multigroups.

Process:

- 1 In the Agencygroup object of the Provisioning Manager, create a record.
- 2 In the Customer Programming Software (CPS), program the agencygroup to be the highest priority talkgroup in the scan list.

4.16.6

Attaching Talkgroup to Radios

Procedure:

- 1 From the main menu, select the **Subscriber** tab.
- 2 From the **Radio** object menu on the left, click **IVD Radio**.
- 3 In the records list, select the record you want to edit. Click **Edit**.
- 4 In the configuration page, in the **Primary Talkgroup** section, click **Choose Record**.
- 5 In the list of talkgroups, select the talkgroup you want to attach to the radio. Click **Apply**.
- 6 In the configuration page, click **Update**.

The selected talkgroups are assigned to the radio.

4.16.7

Creating Conventional Talkgroups

The talkgroup record consists of information that identifies a group of radios that communicate and interact together on a Conventional Talkgroup Channel.

When creating a Conventional Talkgroup keep in mind that it must be associated with a configured Conventional Talkgroup Channel.

Process:

- 1 In the Conventional Talkgroup object of the Provisioning Manager, create a record.
- 2 In the Customer Programming Software (CPS), program the conventional talkgroups in the subscribers.

4.17

Provisioning Manager Database Backup and Restore

The Provisioning Manager database resides on the UCS/PM server, one of the Private Network Management (PNM) Servers. For detailed instructions on how to back up and restore the Provisioning Manager database, see the *Private Network Management Servers* manual.

4.18

Logging Out of the Provisioning Manager

Procedure:

From the main menu, in the top right-hand corner, click the user name. Click **Logout**.

You are logged out of the Provisioning Manager. The login page appears.

Chapter 5

Provisioning Manager Troubleshooting

This chapter contains fault management and troubleshooting information relating to the Provisioning Manager.

5.1 Troubleshooting Procedures

The following table presents problems that may occur while operating the Provisioning Manager application, their possible causes, and solutions.

Table 6: Provisioning Manager Troubleshooting Actions

Problem	Possible Cause	Suggested Solution
Unable to log on	User credentials are not set up in Active Directory.	Ensure that the username, password, and role groups permissions are configured properly on Active Directory.
	The account is disabled or locked in Active Directory.	Ensure that the account is not locked or disabled. Entering the incorrect password more than 3 times may cause the account to be locked.
	The account does not exist in the Provisioning Manager.	Ensure that the account is created in the Provisioning Manager. See Setting Up User Accounts on page 39 .
	No license available	See <i>License Manager</i> for more information about license usage.

Table continued...



Problem	Possible Cause	Suggested Solution
		 NOTICE: To close the client session and release the license immediately, always use the Log-out option in the upper-right corner of the window. Closing all open PM application browser windows without logging out causes the user session license to be held until the session times out.
After logon, a blank page appears	The Compatibility View in Internet Explorer is active.	Disable the Compatibility View functionality. See Disabling Internet Explorer Compatibility View on page 101 .
Request Status message appears	The services are not running.	Verify connectivity of the services.
Error 404 Page Not Found message appears	The web address for a page is incorrect.	Ensure that the URL in the address pane is correct.
	Too many Internet Explorer windows or tabs are currently open.	Close all Internet Explorer windows or tabs and log on to the Provisioning Manager again.
	(Only for upgraded software) The page is cached in Internet Explorer prior to software upgrade.	Press CTRL + F5 to download the updated page from the UCS server.
New pages, menus, or fields do not display correctly or do not appear at all after upgrade	The page is cached in Internet Explorer prior to software upgrade and the UI updates do not load.	Press CTRL + F5 to download the updated page from the UCS server.
Unable to download configuration to a device managed via the UNC	The interface version for the device is outdated on the Provisioning Manager or the configuration data format is incorrect.	After a new device (Zone Controller, Air Traffic Router, all types of Packet Data Gateways, and Conventional Site Controller) is discovered on the UNC, or after upgrading the software on one of these devices, ensure that all hardware and configuration information is pulled and that the Publish Infrastructure operation is performed via the UNC Wizard. This is to ensure that the interface version for the

Table continued...

Problem	Possible Cause	Suggested Solution
New affiliated IVD Radio or talkgroup is not created	When Default Subscriber Access Control (default SAC) permissions are enabled via the UNC and a new Radio or Talkgroup affiliates, a record for the Radio or Talkgroup should be automatically created on the Provisioning Manager. If a record is not created, it may be due to a mis-configuration of certificates between the Zone Controller and the User Configuration Server. If such mis-configuration occurs, the syslog on either the ZC or the UCS reports such an error. This is rare and may happen if the certificates are refreshed on these servers periodically.	device is up-to-date on the Provisioning Manager and that the proper format of the configuration data is downloaded to the device. See the <i>Private Network Management Servers</i> manual.
Unable to perform Force Initialize after a DSR switchover	Force initialization of all devices managed by the Provisioning Manager is a required step after a DSR switchover. If the standby UCS is never synchronized before this switchover, force initialization is not possible.	Restore the ability to force initialize the devices from the Provisioning Manager. See Restoring Force Initialize Ability After a DSR Switchover on page 101 . For more information on DSR synchronization, see the <i>Private Network Management Servers</i> manual.
Reduced capabilities and functionality of radios or groups roaming to different zones	Improper home zone mappings	Plan and configure the home zone maps more efficiently. See Improper Home Zone Mappings on page 102 .
Longer call setup times and general slowness of radios in access to the system	Improper home zone mappings	Plan and configure the home zone maps more efficiently. See Improper Home Zone Mappings on page 102 .
Slow operation	High memory usage by the browser	Close all Internet Explorer windows and log on to the Provisioning Manager again.
	Slow network connection due to high call load	Troubleshoot the network configuration and hardware.

Table continued...

Problem	Possible Cause	Suggested Solution
Devices that connect to the Provisioning Manager via the Advanced Distribution Service (ADS) do not get alias configuration data	ADS devices cannot connect to the ADS.	<p>Verify if the impacted devices are visible in the ADS Connections Report. See Viewing the ADS Connections Report on page 419.</p> <p>If the impacted devices are missing from the connections report, verify the following settings and operations. Resolve any issues that you find.</p> <ul style="list-style-type: none">• The console is using a correct user name.• The user is added to the domain.• The user is added in the Provisioning Manager.• The device from which the console is connecting to the ADS is added to the domain (if SSO authentication is used).• The console is using a correct password (if non-SSO authentication is used).• The console has successfully finished downloading data from the ZDS (LDAP database). <p> NOTICE: The console connects to the ADS only after it has successfully downloaded the configuration from the ZDS.</p> <ul style="list-style-type: none">• A Force Initialization Configuration operation has been performed in the Provisioning Manager.• The ZDS is added to the domain.

5.2

Disabling Internet Explorer Compatibility View

If a blank page appears after logging on to the Provisioning Manager, this means that the Compatibility View in Internet Explorer is active. To solve this problem, disable the Compatibility View functionality.

Procedure:

- 1 In Internet Explorer, in the **Menu bar**, select **Tools** → **Compatibility View settings**.
- 2 In the **Compatibility View Settings** window, in the **Websites you've added to Compatibility View** pane, delete all instances of the fully qualified name of the UCS or its IP address, if listed:
 - a Select **ucs01.ucs** and click **Remove**.
 - b Select **ucs02.ucs** and click **Remove**.
 - c Select **10.0.0.1** and click **Remove**.
 - d Select **10.0.1.1** and click **Remove**.
- 3 Clear the **Display all websites in Compatibility View** check box.
- 4 Clear the **Display intranet sites in Compatibility View** check box.
- 5 Click **Close**. Close all Internet Explorer windows and restart the application.

Related Links

[Troubleshooting Procedures](#) on page 97

5.3

Restoring Force Initialize Ability After a DSR Switchover

Force initialization of all devices managed by the Provisioning Manager is a required step after a DSR switchover. If the standby UCS is never synchronized before this switchover, force initialization is not possible. If so, use the following procedure to restore the ability to force initialize the devices from the Provisioning Manager. For more information on DSR synchronization, see the *Private Network Management Servers* manual.

Process:

- 1 Log on to the UCS virtual device as the root user.
See “Logging on to PNM Servers Applications” in the *Private Network Management Servers* manual.
- 2 Enter the corresponding number for **Application Administration**. Press ENTER.
- 3 Enter the corresponding number for **Manage Application Status**. Press ENTER.
- 4 Enter the corresponding number for **Display Application Status**. Press ENTER.
The server status appears.
- 5 Verify the UCS server status:

If...	Then...
If the UCS server status is Enabled,	go to step 6 .
If the UCS server status is Disabled,	perform the following actions: <ol style="list-style-type: none"> a Enable the UCS application.

If...	Then...
	See “Enabling PNM Server Applications” in the <i>Private Network Management Servers</i> manual. b Go to step 6 .

- 6** Exit the **Application Administration** menu.
- 7** In the command prompt, enter: `/opt/Motorola/bin/restoreForceInitAfterSwitchover.sh`
- 8** Log off from the UCS virtual device.
See “Logging Off PNM Servers Applications” in the *Private Network Management Servers* manual.

Related Links

[Troubleshooting Procedures](#) on page 97

5.4

Improper Home Zone Mappings

The home zone map is an allocation that shows the individual and talkgroup ID ranges assigned to each zone. Because you assign the ranges ahead of time, any radio or talkgroup that you configure with an ID in one of these ranges automatically has the zone with that ID allocation assigned as its home zone. IDs are assigned to each zone in ranges to avoid the need to assign more IDs when new users or talkgroups are added to the system.



CAUTION: Do not map Working Unit IDs to zones other than ISSI 8000/CSSI 8000.



IMPORTANT: The group maps must be set up so that all talkgroups, consoles, and logging recorders that belong to a multigroup are mapped to the same home zone. In order to avoid improper system operation, you must assign Talkgroup Home Zone Map ranges that include Conventional Talkgroups to the zone which contains the Conventional Talkgroup Channel to which the Conventional Talkgroup is assigned.

The Radio/Group Home Zone Mappings table specifies up to 256 radio or group ID ranges. Each range specifies the home location for radios and talkgroups/multigroups.

Because home zone maps are a critical piece of the system, they must be planned and configured with extreme care. Improper maps result in the following:

- Radios or groups roaming to different zones may experience reduced capabilities and functionality.
- Radios may experience longer call setup times and general slowness in access to the system.
- The Provisioning Manager may experience sluggishness in operation.

Related Links

[Troubleshooting Procedures](#) on page 97

Chapter 6

Provisioning Manager Reference

This chapter contains supplemental reference information relating to the system configuration performed in the Provisioning Manager.

6.1

System Parameters

The System category contains objects used to set up common system level configuration.

6.1.1

Radio System

6.1.1.1

System

The System object enables you to configure some parameters at the system level that are common for every zone in the system.

System engineers set up the initial System record when they configure the system for the first time. Subsequent users with the proper rights can only open and modify the existing record.



CAUTION: Before changing the initial System record and introducing any changes, be sure that you fully understand their impact on the system. Carefully consider the changes before making them.

The configuration of this object impacts the following devices:

- AUC
- CCGW
- CCGW HD
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
System Alias	SYSTEM1	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
System ID (hex)	1	1 to FFE	The factory assigned number that identifies a specific system.
WACN ID (hex)	1	1 to FFFFE	The factory assigned wide-area communications network identifier that references a particular network of systems that are connected to one another.
Route Trunked Status Events to Console	Yes	<ul style="list-style-type: none"> • Yes • No 	(Read only) Enables the console to receive status event notices. This field is set in the system configuration tab using the UNC.
Emergency Acknowledged By	RCM	<ul style="list-style-type: none"> • Console • CADI • TG Selectable • RCM 	<p>Select an entity in the system for acknowledging emergencies. If you choose RCM, Console, or CADI, the Emergency Acknowledged By setting of all TG/MG Capabilities Profile records must match this selection.</p> <p>RCM selects Radio Control Manager (RCM) software for acknowledging emergencies.</p> <p>Console selects the console for acknowledging emergencies.</p> <p>CADI selects the Computer Aided Dispatch Interface (CADI) software for acknowledging emergencies.</p> <p>TG Selectable enables you to select the device for acknowledging emergencies independently for each TG/MG Capabilities Profile record.</p>
Require Unique Trunking Radio Serial Numbers	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables this capability. All trunking radio serial numbers in the system are unique.</p> <p>No disables this capability.</p>

Private Call Secure Key Reference

Identifies the Common Key Reference to be used for all secure private calls. Click **Choose Record** to display a list of available options.


See [Common Key Reference on page 112](#).

SuperGroup Call Secure Key Reference

The Common Key Reference to be used for all secure supergroup calls. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Data Configuration

Field	Default	Allowed Values	Description
APN Operator ID	N/A	0 to 133 characters. Use the following characters: A to Z, a to z, 0 to 9, space - . / _ (No leading and trailing spaces)	(Read only) Displays an alias that represents the APN (Access Point Name) Operator for this data system.  NOTICE: Motorola Solutions recommends that the APN Operator ID consists of three labels separated by "." of which the last one should be "gprs".
Conventional IVD Data Broadcast Capability	Enable	<ul style="list-style-type: none"> Enable Disable 	Choose if the Conventional IVD Broadcast Service is Enabled or Disabled.
Reserved Access Mode	Enhanced Data	<ul style="list-style-type: none"> Enhanced Data Transit25 	Indicates which Reserved Access Data method is used by the system.
Allow IVD Duplicate IP Address	Yes	<ul style="list-style-type: none"> Yes No 	This parameter is used to specify at the system level whether or not you can assign the same IP address for data services for multiple IVD radios. If you set it to Yes , the system allows duplicate IP addresses for IVD radios. If you set it to No , the system does not allow duplicate IP addresses for IVD radios.

Transcoder Configuration

Field	Default	Allowed Values	Description
Transcoder Jitter Buffer	35	0 to 100	Jitter buffer to use for the transcoder. The Zone Controller uses the value to calculate the deque delay.
Transcoder Secure Processing Capability	Enable	<ul style="list-style-type: none"> Enable Disable 	Determines whether the transcoder reports the "no keys" state.
Dynamic Transcoding Capability	Enable	<ul style="list-style-type: none"> Enable Disable 	(Read only) Defines whether transcoding is used in the system.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.1.2

Conventional System

The Conventional System object configuration data is common to all Conventional Subsystems within the radio communication system managed by the Provisioning Manager.

There is only one instance of a Conventional System object and you can modify only this Conventional System instance.



CAUTION: System engineers set up the initial Conventional System record when they configure the system for the first time. Subsequent users with the proper rights can only open and modify the existing record. Before changing the initial Console System record and making any changes, be sure that you fully understand their impact on the system and carefully consider the changes before making them.

The configuration of this object impacts the following devices:

- CCGW
- CCGW HD
- VPM AIS
- CONSOLE

System Information

Field	Default	Allowed Values	Description
Analog Conventional System Alias	Conv Sys Params	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group](#) on page 365.

Console Subsystem Information

Field	Default	Allowed Values	Description
Begin Encode Buffering for Console (msec)	0	0 to 500	Select the amount of time from the receipt of the grant from the zone controller to the beginning of the transmission. When this time expires, the most current buffered audio is used as part of the first encoded audio packet sent on the network. This parameter is used by the consoles for outbound calls.

Conventional Subsystem Information

Field	Default	Allowed Values	Description
Conventional Talkgroup External Operation	Disable	<ul style="list-style-type: none"> Enable Disable 	Enables or disables external third party console operation on conventional talkgroups and external conventional talkgroup channel operation.
Packet Transmission HoldOff Time (msec)	100	0 to 300	Select the amount of time between the receipt of the grant for transmission from the zone controller and sending the first audio packet on the network. This parameter is used by the Conventional Channel Gateway (CCGW) for radio initiated calls.
Conventional Packet Transmission HoldOff Time (msec)	100	0 to 300	Select the amount of time from the receipt of a grant from the zone controller for a transmission before sending the first audio packet on the network. This parameter is used by the consoles for console initiated calls.
Incremental Interzone Packet Transmission HoldOff Time (msec)	0	0 to 300	Select the additional amount of time (beyond the Packet Transmission HoldOff Time) between the receipt of the grant for transmission from the zone controller and sending the first audio packet on the network. This parameter is used by the Conventional Channel Gateway (CCGW) for radio initiated calls that are being delivered to consoles in another zone.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.1.3

Conventional Subsystem

The Conventional Subsystem object is a logical representation of the high-level grouping of devices that enable conventional calls. Conventional Subsystem includes Conventional Locations. This configuration is used to determine the IP address of the devices configured within this network topology.

Identity

Field	Default	Allowed Values	Description
Conventional Subsystem Number	N/A	1 to 64	Enter a unique number that refers to a conventional subsystem grouping for the device.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Zone

Identifies the Zone that the devices grouped under this Conventional Subsystem are associated with. Click **Choose Record** to display a list of available options.

See [Zone on page 128](#).

Conventional Locations

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Table continued...

Field	Default	Allowed Values	Description
Conventional Location Number	N/A	1 to 255	The location number associated with the Conventional Subsystem.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.1.4

Console System

The Console System object contains configuration data common for all Console Subsystems within the radio communication system managed by the Provisioning Manager.

The information controlled by the Console System object includes Digital Maintenance Tone Talkgroup ID and Audio Processing parameter configuration. There is only one instance of a Console System object and the application user can only modify the configuration within the Console System instance.



CAUTION: System engineers set up the initial Console System record when they configure the system for the first time. Subsequent users with the proper rights can only open and modify the existing record. Before changing the initial Console System record and making any changes, be sure that you fully understand their impact on the system and carefully consider the changes before making them.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Console System Parameters Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\]	Enter a unique name.

Field	Default	Allowed Values	Description
		^ ` ~ (No leading and trailing spaces)	

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).


Configuration

Field	Default	Allowed Values	Description
Maximum Channels For Group Text	1	<ul style="list-style-type: none"> 1-20 All 	The maximum number of voice channels simultaneously used for group text messaging.

Console Vocoder Parameters

Field	Default	Allowed Values	Description
Packet Transmission Hold Off Time (msec)	80	0 to 300	Select the amount of time between the receipt of the grant for transmission from the zone controller and sending the first audio packet on the network. This parameter is used by the Conventional Channel Gateway (CCGW) for radio initiated calls.
Begin Encode Buffering (msec)	60	0 to 500	Select the time in milliseconds from when a console platform receives a call start grant until audio starts being buffered.
Encode Audio Bundling per Frame for Group Call	3	1 to 4	Select the number of audio frames to bundle into each audio packet for a group call.
Encode Audio Bundling per Frame for Full Duplex Private Call	3	1 to 3	Select the number of audio frames to bundle into each audio packet for a full duplex private call.
Number of Mute Audio Packets	0	0 to 10	Select the number of audio packets containing encoded silence that are sent before sending audio for an encoded session.

Table continued...

Field	Default	Allowed Values	Description
IGMP Hello Time (msec)	80	0 to 500	Select the time in milliseconds at the beginning of an encoded call, during which the Digital Signal Processor (DSP) sources dummy multicast packets into the network to assure that the multicast tree is established quickly, and that the receivers have joined the tree.
G.711 Encoding Format	mu-law	<ul style="list-style-type: none"> mu-law A-law 	The parameter indicates the expected G.711 encoding format for console telephony audio.  NOTICE: This parameter is only used by VPM-based consoles.

Digital Maintenance Tone Talkgroup

The Digital Maintenance Tone Talkgroup is used to verify audio path continuity and end-to-end audio gain from a Console User to a Radio. Click **Choose Record** to display a list of available options.

See [Talkgroup on page 310](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.1.5

Console Alias Manager

The Console Alias Manager (CAM) allows you to manage aliases locally at a console site.

Identity

Field	Default	Allowed Values	Description
FQDN	N/A	Entire length: 1 to 255 characters. Character strings separated by a dot . cannot exceed 63 characters. Use the	This parameter indicates the Fully Qualified Domain Name (FQDN) of the CAM servers in a system.

Table continued...

Field	Default	Allowed Values	Description
		following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces).	
Alias	N/A	1 to 255 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	This parameter indicates an alias assigned by the user to the CAM servers.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.2

Secure

6.1.2.1

Common Key Reference

The Common Key Reference (CKR) object hosts all the references used by the console to identify the actual encryption/decryption material used in secure communication.

Each secure digital conventional channel is assigned a Default Talkgroup CKR for outbound transmissions. You do not choose a key for the transmission; the console looks it up in a database and uses the one assigned to the talkgroup.

For secure digital conventional non-talkgroup-partitioned channels, CKRs are not assigned to talkgroups. The dispatcher selects the CKR from a list of keys for transmission. The mapping of the channel ID to a list of CKRs is done in the Radio Network Management Subsystem and is downloaded to the Console Subsystem. However, if the Console Subsystem User does not select the CKR, the default CKR for a given channel is used. Also, for secure digital conventional non-talkgroup-partitioned channels with Advanced SECURENET® enabled, a list of CKRs can be defined for use at the console, in addition to the default CKR.

The Console User Profile's Momentary Override capability allows the Console User to select the key from a list of CKRs. The key is used for transmissions when Momentary Override is activated at the console.



NOTICE: The CKR list for the system can have up to 4,095 entries. Only 250 of them, though, can be used at one time in a given Key Management System. You can select a separate range of 250 CKRs for the Momentary Override feature and 250 different CKRs for a digital channel. A single CKR can also be assigned to data capable Conventional Units and Conventional BDAs.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
CKR Index	N/A	1 to 4,095	Enter the Common Key Reference (CKR) Index that points to the actual secure key information.
CKR Alias		1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name associated with the CKR.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.2.2

Key Management Facility

The Key Management Facility is responsible for key distribution to PDGs. The object is managed by the Unified Network Configurator and synchronized to the Provisioning Manager.



NOTICE: The Key Management Facility is configured in the UNC, but Security Groups can be viewed and changed in the Provisioning Manager.

Identity

Field	Default	Allowed Values	Description
KMF ID	N/A	1 to 20	Define the ID of the KMF to be used in OTAR Communication.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
KMF Network Address (FQDN)	N/A	0 to 255 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	Enter the fully qualified domain name of the Key Management Facility (KMF) that the console or AIS communicates with for OTEK.
OTEK Service Port Number	64416	50,152 to 65,535	Enter the TCP Port to which the console/AIS sends OTEK messages.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.3

Data

6.1.3.1

Data Agency Group

A Data Agency Group (DAG) is an organizational group for Enhanced Data subscribers. All Enhanced Data subscribers must be members of only one DAG. Contention for Enhanced Data site utilization is based on DAG membership.

Identity

Field	Default	Allowed Values	Description
ID	N/A	1 to 6	Enter a unique number associated with the Data Agency Group.
Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name associated with the Data Agency Group.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier


Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.3.2

Data Steering Profile

The Data Steering Profile is used to limit the use of channels by radio users, especially when too many data messages are sent by the radio users. 16 data steering profiles are predefined in the system, and you cannot add any new ones.

Identity

Field	Default	Allowed Values	Description
Data Steering Profile ID	1	1 to 16	(Read only) Displays the Data Steering Profile ID.  NOTICE: Sixteen Data Steering Profiles are automatically created by the system. There is no possibility to create new or remove any of those profiles.
Data Steering Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name associated with the Data Steering Profile.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.3.3

Access Point Name

The Access Point Name is the name of the network access points that provides GGSN services.

The object is managed by the Unified Network Configurator and synchronized to the Provisioning Manager.



NOTICE: The Access Point Name is configured in the UNC, but Security Groups can be viewed and changed in the Provisioning Manager.

Identity

Field	Default	Allowed Values	Description
APN Network ID	N/A	1 to 63 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	This field describes which external network a mobile computer connects with for data service.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.3.4

Unified Network Services

Unified Network Services (UNS) is a communication platform and data processing solution for the integration of Customer Enterprise Network (CEN) services and subscriber radio networks. It provides translation, format, and interface services between the CEN applications and associated radio systems.

Identity

Field	Default	Allowed Values	Description
UNS ID	N/A	1 to 65535	This parameter is an identifier for a UNS IP address and UNS port pair.
UNS Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	This parameter is an alias of UNS.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
UNS IP Address	N/A	Four numbers separated by periods. Each number can be 0 to 255. Use the following characters: 0 to 9, . (No leading and trailing spaces)	This parameter specifies the UNS IP address that a home subscriber uses.
UNS Port	4001	1 to 65535	This parameter specifies the UNS port that a home subscriber uses.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.4

Conventional

6.1.4.1

Conventional Channel Group

Conventional channels in a zone are logically grouped into conventional channel groups. Grouping conventional channels allows the entire conventional unit ID range to be used within the conventional channel group.

This solution is convenient in a shared system, where agencies/organizations want to use the same ID space. In the shared systems without conventional channel groups, the conventional unit ID range would have to be partitioned among the agencies/organizations sharing the system.

The entire individual ID range can be allocated within each conventional channel group, which means that there can be duplicate IDs among the system.

For every conventional channel group, the console is allocated an individual ID, which is unique within its associated conventional channel group.

All channels assigned to a conventional channel group must be of the same type except for the Digital Conventional Channels and Mixed-Mode Channels which may be assigned to the same group. Analog conventional channels are automatically assigned a channel group ID of zero. This is because analog conventional channels do not support IDs required for channel groups, and this information cannot be set by the Provisioning Manager user. ACIM channel can be grouped in the following way:

- Digital or Mixed Mode or ACIM
- MDC or ACIM

Data capable Conventional Channels and data capable Conventional Units are automatically assigned to a channel group ID of 2001.



NOTICE: You cannot modify the channel to a conventional channel group assignment once it is configured. Delete the channel first and then add it as a new one.

The configuration of this object impacts the following devices:

- CCGW
- CCGW HD
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
ID	N/A	1 to 2,001	Enter a number that uniquely identifies a group of channels and Conventional Units.
Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name associated with the Conventional Channel Group.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

MDC Channel Group Configuration

Field	Default	Allowed Values	Description
MDC Signaling	No	<ul style="list-style-type: none"> Yes No 	<p>Yes indicates that only MDC 1200 Capable Channels, and Conventional Units that utilize MDC Signaling, should be assigned to this Conventional Channel Group. Setting this flag to Yes enables the MDC ID Range option.</p> <p>No disables the MDC ID Range option.</p>
MDC ID Range	Standard	<ul style="list-style-type: none"> Standard Non-Standard 	<p>Defines the range of Unit ID values that can be used for Conventional Units that utilize MDC Signaling.</p> <p>Standard means that the Unit ID cannot start with E or contain F.</p> <p>Non-Standard means that the MDC Unit ID is extended and can be from 1 to FFFF.</p>

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.4.2

Tone Command

Tone remote control is a mechanism by which the Conventional Channel Gateway (CCGW) generates a sequence of tones on the 4-Wire analog interface.

This sequence is generated for the conventional channel to command an entity (such as a base station) attached to the conventional channel to perform a function (such as turn repeat on). A tone sequence that consists of up to four tone segments defines a Tone Command object. Each tone segment is characterized by a level (dB), duration (ms/infinite), and frequency (Hz).



NOTICE: Parallel console Tone of ASTRO® 25 Conventional is not supported even though parallel dispatch consoles are supported.

The configuration of this object impacts the following devices:

- CCGW
- CCGW HD

Identity

Field	Default	Allowed Values	Description
Command Alias	N/A	1 to 25 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Specifies a name that uniquely identifies the Command.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.4.3

Tone Segment

The Tone Segment is used to define a single tone.

It consists of the following information:

- Type of tone:
 - High-level Guard Tone (HLGT)
 - Low-level Guard Tone (LLGT)
 - Function Tone (FT)
- Frequency of the tone in Hertz (Hz)
- Tone duration in milliseconds (ms)
- Tone Offset (only selectable for LLGT) in Decibels (dB)




NOTICE: The system ships with a set of pre-configured Tone Segments which cannot be modified.

The configuration of this object impacts the following devices:

- CCGW
- CCGW HD

Identity

Field	Default	Allowed Values	Description
Tone Segment ID	N/A	1 to 999	Enter a unique identifier for the tone segment.  NOTICE: The following ID numbers are reserved for pre-defined Tone Segments: <ul style="list-style-type: none"> • 1 to 48 • 501 to 999 Use ID numbers 49 to 500 for custom Tone Segments.
Tone Segment Alias	N/A	1 to 32 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () *	Enter a unique name associated with the Tone Remote Control Segment resource. The alias cannot start with <code>Mot Def</code> in any case configuration, as this prefix is reserved for default Tone Segments.

Field	Default	Allowed Values	Description
		+ = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration




Field	Default	Allowed Values	Description
Tone Type	FT	<ul style="list-style-type: none"> HLGT LLGT FT 	<p>This parameter alerts the CCGW to the tone type in a specific segment and uses this parameter to set the level on the tone generator.</p> <p>HLGT - High Level Guard Tone, the first tone segment in a tone sequence or tone command.</p> <p>LLGT - Low Level Guard Tone, the third tone segment in a key frequency type command.</p> <p>FT - Function Tone, the second tone segment in a tone sequence or tone command.</p> <p> NOTICE: When the Tone Type parameter is set to LLGT, then the Tone Segment Offset Level parameter is editable, and the set range is 35dB to -10dB.</p>
Tone Segment Duration (msec)	40	60 to 600 40 9,999 (increments of 20)	<p>Enter the duration for the tone segment.</p> <p> IMPORTANT: The HLGT range up to 600ms is only supported on the GGM 8000. The range remains restricted to 120 for S2500-based CCGWs.</p>
Tone Segment Offset Level (dB)	-10	-35 to -10 6 -10	<p>Enter the offset level for the tone segment. This offset level is usually referenced to the HLGT level for the FT and the LLGT.</p> <p> NOTICE: This parameter is editable when the Tone Type parameter is set to LLGT. The set range is 35dB to -10dB. When the Tone Type parameter is set to HLGT, this parameter is not editable and set to +6dB. When the Tone Type parameter is set to FT, this parameter is not editable and set to -10dB.</p>

Table continued...

Field	Default	Allowed Values	Description
Tone Segment Frequency (Hz)	650	<ul style="list-style-type: none">• 450• 550• 650• 750• 850• 950• 1050• 1150• 1250• 1350• 1450• 1550• 1650• 1750• 1850• 1950• 2050• 2100• 2175• 2325	Enter the frequency for the tone segment.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.4.4

Tone Sequence

The Tone Sequence defines the sequence of tones necessary to execute a command and contains the order in which the tones are played for a command. It consists of one to four tone segments.

Each tone segment has a tone type, frequency, level, and duration assigned to define that tone. Generally, a tone sequence consists of a high guard tone, and the function tone. When it is a single tone command, sometimes there is a third tone assigned for a low guard tone to be executed at the end of the command. If it is a dual function tone command, the fourth tone executed is LLGT (Low Level Guard Tone). Four tone sequences are sometimes referred to as dual tones.



IMPORTANT: Dual tones are not supported. You can create tone tables containing dual function tone sequences, but nothing else in the radio system accepts dual function tones.




NOTICE: The system ships with a set of pre-configured Tone Sequences which cannot be modified, but they can be copied and the copies can be modified.

The configuration of this object impacts the following devices:

- CCGW
- CCGW HD

Identification

Field	Default	Allowed Values	Description
Tone Sequence ID	N/A	1 to 999	<p>Enter a unique number that refers to a specific Tone Remote Control Sequence defined on the system.</p> <p> NOTICE: The following ID numbers are reserved for pre-defined Tone Sequences:</p> <ul style="list-style-type: none"> • 1 to 189 • 501 to 999 <p>Use ID numbers 190 to 500 for custom Tone Sequences.</p>
Tone Sequence Alias	N/A	<p>1 to 32 characters.</p> <p>Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)</p>	<p>Enter a unique name associated with the Tone Remote Control Sequence resource.</p> <p>The alias cannot start with <code>Mot Def</code> in any case configuration, as this prefix is reserved for default Tone Sequences.</p>

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group](#) on page 365.

Tone Segment

Field	Default	Allowed Values	Description
Segment Order	N/A	1 to 999	(Read only) Displays the number of the segment.
Tone Segment Selection	N/A	Click Choose Record to display a list of available options.	A Tone Sequence is an ordered list of 1 to 4 Tone Segments. More than one Tone Sequence can reference the same Tone Segment. See Tone Segment on page 122 .
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.1.4.5

Tone Table

The Tone Table object defines tone sequences used for each station control command.

The Tone Table associates a station command alias with a tone sequence used by the Analog Conventional Channel Gateway (CCGW) to execute that command on a channel. The system ships with a set of pre-configured Tone Tables which cannot be modified.




IMPORTANT: When using Custom Tone Table, ensure that the correct Tone Table is associated with the correct channel.

The configuration of this object impacts the following devices:

- CCGW
- CCGW HD

For instructions for creating custom tone tables, see [Creating Custom Tone Tables on page 421](#).

Identification

Field	Default	Allowed Values	Description
Table ID	N/A	1 to 999	<p>Enter a number that uniquely identifies a specific Tone Table on the system.</p> <p> NOTICE: The following ID numbers are reserved for pre-defined Tone Tables:</p> <ul style="list-style-type: none"> • 1 to 30 • 531 to 999 <p>Use ID numbers 31 to 530 for custom Tone Tables.</p>
Table Alias	N/A	<p>1 to 32 characters.</p> <p>Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)</p>	<p>Enter a unique name associated with the Tone Remote Control Table resource.</p> <p>The alias cannot start with <code>Mot Def</code> in any case configuration, as this prefix is reserved for default Tone Tables.</p>

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Tone Table Row

A Tone Table Row consists of a Tone Command and Tone Sequence pair.

Field	Default	Allowed Values	Description
Tone Command	N/A	Click Choose Record to display a list of available options.	<p>The tone command component of a Tone Table Row. A Tone Command may only appear once in the table.</p> <p>See Tone Command on page 121.</p>
Tone Sequence	N/A	Click Choose Record to display a list of available options.	<p>The tone sequence component of a Tone Table Row. A Tone Sequence may appear more than once in the table.</p> <p>See Tone Sequence on page 124.</p>
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2

Zone Parameters

The Zone category contains objects used to set up infrastructure in a zone, like Conventional Sites and Channels, Auxiliary I/O, and other zone level configuration.

6.2.1

Zone Core

6.2.1.1

Zone

The Zone object configures and manages the attributes relating to a zone. A Zone record is generally created by the Unified Network Configuration (UNC) during the publish infrastructure data operation.

The configuration of this object impacts the following devices:

- CSC
- AUC
- CCGW
- CCGW HD
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Zone ID	N/A	1 to 7	Enter a number that uniquely identifies a zone.
Zone Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space !	Enter a unique name that refers to a zone.

Field	Default	Allowed Values	Description
		# \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
RNG IP Address	N/A	Use the following characters: 0 to 9, . (No leading and trailing spaces)	Enter the IP address of the multicast group that the RNG uses to send Broadcast Data messages in the following format: xxx.xxxx.xxxx.xxxx The Broadcast Data Multicast IP address is unique per zone.
DSR Voice Mobility Services	Disable	<ul style="list-style-type: none"> Enable Disable 	(Read only) Indicates whether the zone is enabled for DSR configuration for voice and mobility services.
DSR Data Capability	Disable	<ul style="list-style-type: none"> Enable Disable 	(Read only) Indicates whether the zone is enabled for DSR configuration for data services.
DSR Conventional Data Capability	Disable	<ul style="list-style-type: none"> Enable Disable 	(Read only) Indicates whether the zone is enabled for DSR configuration for conventional data services.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.1.2

Interconnect Subsystem

The Interconnect Subsystem object references the telephone interconnect equipment in the zone. Telephone interconnect capability allows radio users to access the Public Switched Telephone Network (PSTN).

The PSTN is the traditional landline telephone network to which most telephones are connected. In order to have interconnect capabilities in a zone, you must configure an interconnect subsystem. The following applies to creating and deleting the Interconnect Subsystem record:

- You can only create one Interconnect Subsystem record per zone.
- You can delete the record.



NOTICE:

You can only delete an Interconnect Subsystem record if the IVD Radio and Radio Interconnect Profile do not contain any references to this record. In cases where interconnect references exist, you must remove them first to delete the Interconnect Subsystem record.

This object needs to be published from the Unified Network Configurator (UNC) to maintain data consistency. For details, see the “Publish Infrastructure Data Wizard” section in the *Unified Network Configurator* manual.

A related feature is Direct Inward Dialing (DID). DID enables radios to receive land-to-mobile calls through a DID trunk interface. DID configuration is only required with the use of TELCO DID lines.

Zone

Identifies the Zone that this Interconnect Subsystem is associated with.

Click **Choose Record** to display a list of available options.
See [Zone on page 128](#).


Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Number of DID Digits	2	2 to 5	Select the number of DID digits, which should match the number of DID digits sent by the PSTN as specified in the DID interface order placed with the phone company. This value determines how many digits of the radio user's configured DID number field are stored in the zone controller and used to look up the target radio ID when a land-to-mobile call is received on a DID trunk interface. For example, if the number of DID digits is set to 3 and the DID number 5,555,321 is already in use, the DID number 4,444,321 would not be acceptable because the last 3 digits are not unique. The PM also uses the Number of DID digits parameter to ensure that DID digits stored in the zone con-

Field	Default	Allowed Values	Description
			<p>troller are unique per PBX. If the Number of DID digits setting were to be decreased, the stored DID numbers in the zone controller database might no longer be unique. For this reason, the Number of DID digits parameter has been designed such that the setting can only be increased, not decreased. For more information on configuring the radio system for DID operation, see <i>Master Site Infrastructure Reference Guide</i>.</p> <p> IMPORTANT: If you increase the number of DID digits, you cannot later decrease the number without contacting the Motorola Solutions Support Center (SSC) for help. Do not increase this parameter without careful consideration.</p>

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.


Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.1.3

Transcoder

Identity

Field	Default	Allowed Values	Description
Transcoder ID	N/A	1 to 8; 101 to 108	<p>Enter a number that uniquely identifies a transcoder.</p> <p> NOTICE: Transcoder ID in a Trunking Subsystem (Tsub) should always be 1.</p>

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.


See [Security Group on page 365](#).

Zone

Click **Choose Record** to display a list of available options.

See [Zone on page 128](#).

Configuration

Field	Default	Allowed Values	Description
Tsub ID	N/A	1 to 64	Enter a unique identifier of a Tsub within a zone.  NOTICE: If the Transcoder is not in a Tsub, the value of Tsub ID should be blank.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.1.4

Group Data Gateway

The Group Data Gateway fragments and encodes larger files into smaller packets for group services delivery.

Identity

Field	Default	Allowed Values	Description
Group Data Gateway Name	N/A	2 to 48 characters.	This parameter indicates the Fully Qualified Domain Name (FQDN) of the Group Data Gateway.
Unit ID	N/A	1 to 16,777,211	This parameter specifies the Group Data Gateway Trunking Unit ID.

Table continued...

Field	Default	Allowed Values	Description
Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	This parameter specifies the unique alias for the Group Data Gateway.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Console Site

The Console Site that this Group Data Gateway is associated with. Click **Choose Record** to display a list of available options.

See [Console Site on page 234](#).

Configuration

Field	Default	Allowed Values	Description
Maximum Simultaneous Channels Per Firmware Download	2	1 to 6	This parameter specifies the maximum number of group data channels that the Group Data Gateway will use when processing a Firmware Download delivery.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.2 Trunking

6.2.2.1 RF Site

The RF Site object enables you to configure RF sites operations within a zone by setting the parameters for a site so that it functions correctly in the system.

The following Site Types can be configured within this object:

- Repeater Site
- Multisite Subsystem
- HPD (High Performance Data) Site
- Trunked 3600 Site



NOTICE: This object needs to be published from the Unified Network Configurator (UNC) to maintain data consistency. For details, see the “Publish Infrastructure Data Wizard” section in the *Unified Network Configurator* manual.

Identity

Field	Default	Allowed Values	Description
Site ID	N/A	1 to 64 1 to 150	Enter an ID number that represents this Site. The following ranges apply: <ul style="list-style-type: none"> • 1 to 64 for Multisite Subsystems and Trunked 3600 Sites • 1 to 150 for G-Series based Repeater Sites and HPD Sites
Site Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name for the Site.
Site Type	Repeater Site	<ul style="list-style-type: none"> • Repeater Site • Multisite Subsystem • HPD Site • Trunked 3600 Site 	Select the appropriate type.
Voice Transport Type	Ethernet	<ul style="list-style-type: none"> • V.24 • Ethernet 	Select V24 for analog transmission or Ethernet for Ethernet transmission (only for IP Simulcast Sites where all devices have their own IP address).

Zone

Identifies the Zone that this RF Site is associated with.

Click **Choose Record** to display a list of available options.



See [Zone on page 128](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Remote Sites

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.
Remote Site ID	N/A	1 to 32	Enter a number that refers to a specific remote site within a zone.  NOTICE: Remote Site ID is editable only if the Site Type is set to Multisite Subsystem.
Remote Site Alias	N/A	0 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a name that refers to a specific remote site within a zone.  NOTICE: Remote Site Alias is editable only if the Site Type is set to Multisite Subsystem.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.2.2

Channel

The Channel object sets the parameters for the RF operations at the site.


The maximum number of channels per site depends on the Site Type. The maximum number of channels per site depends on the site type:

- Repeater Site contains up to 28 channels
- Multi Site contains up to 30 channels
- HPD Site contains up to 5 channels
- Trunked Site contains up to 28 channels



NOTICE: This object needs to be published from the Unified Network Configurator (UNC) to maintain data consistency. For details, see the “Publish Infrastructure Data Wizard” section in the *Unified Network Configurator* manual.

Identity

Field	Default	Allowed Values	Description
Channel ID	N/A	1 to 30	Enter a unique number that refers to a specific channel within a site. Must be unique within the same site.  NOTICE: The maximum number of channels per site depends on the Site type, chosen during the RF Site object configuration, and is as follows: <ul style="list-style-type: none">• Repeater Site contains up to 28 channels• Multi Site contains up to 30 channels• HPD Site contains up to 5 channels• Trunked 3600 Site contains up to 28 channels
Channel Access Type	FDMA Only	<ul style="list-style-type: none">• FDMA Only• Dynamic Channel• TDMA Only	This attribute indicates whether the channel is FDMA Only, TDMA Only or a Dynamic Channel.

Site

The RF Site that this Channel is associated with. Click **Choose Record** to display a list of available options.

See [RF Site on page 134](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group](#) on page 365.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3

Conventional

6.2.3.1

Conventional Site


The Conventional Site object configures the conventional site operations within a zone, setting the parameters for a site so that it functions correctly in the system.

Conventional Site object provides access to Conventional Channel Gateway (CCGW) object.

The configuration of this object impacts the following devices:

- ZC
- ATR
- CCGW
- CCGW HD
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Conventional Site ID	N/A	2,001 to 2,300	Enter a unique number that refers to the conventional site.
Site Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + =	Enter a unique name for the conventional site.  NOTICE: All Console Sites and Conventional Sites in the system must have a unique site alias field.

Field	Default	Allowed Values	Description
		_ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	

Zone

(Read only) The Zone that this Conventional Site is associated with. This is determined based on the Zone that the co-located site or conventional subsystem is in.

See [Zone on page 128](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Conventional Site Configuration

Field	Default	Allowed Values	Description
Conventional Gateway Type	Combina- tion-HD (GGM 8000)	<ul style="list-style-type: none"> Analog (S2500) Digital (2500) Combination (GGM 8000) Combination-HD (GGM 8000) 	Select the hardware model and capabilities of the Conventional Channel Gateway that services this Conventional Site.
Colocated Site Type	Console Site	<ul style="list-style-type: none"> Conventional Subsystem Console Site Repeater Site Remote Site 	<p>Select the type of site (subnet) that this conventional site co-locates with.</p> <p>A single conventional location can have up to 10 co-located conventional sites. A single site of any other type can be co-located with up to 3 conventional sites. Once co-located with a conventional site in zone X, a conventional subsystem cannot be co-located with any other zone (unless all co-locations to zone X are deleted).</p>
CCGW Jitter Buffer Aging (msec)	40	40	(Read only) Displays the amount of time that a packet sits in the jitter buffer before being decoded.

Co-located Console Site

The Console Site that this Conventional Site is co-located with.

If you set the **Colocated Site Type** parameter to **Console Site**, select an existing Console Site record. Click **Choose Record** to display a list of available options.

See [Console Site on page 234](#).

Co-located RF Site

The RF Site that this Conventional Site is co-located with.

If you set the **Colocated Site Type** parameter to **Repeater Site**, select an existing RF Site record. Click **Choose Record** to display a list of available options.

See [RF Site on page 134](#).

Co-located Sub Site

The Remote Site of a Multisite Subsystem that this Conventional Site is co-located with.

If you set the **Colocated Site Type** parameter to **Remote Site**, select an appropriate record. Click **Choose Record** to display a list of available options.

Co-located Conventional Subsystem Location

The Conventional Subsystem Location that this Conventional Site is associated with.

If you set the **Colocated Site Type** parameter to **Conventional Subsystem**, select an appropriate record. Click **Choose Record** to display a list of available options.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3.2


CCGW-HD

The CCGW-HD object represents the Conventional Channel Gateway which controls the conventional site channels.

Identity


Field	Default	Allowed Values	Description
ID	N/A	1 to 10	Enter a unique number that refers to the Conventional Channel Gateway (CCGW-HD).

Table continued...

Field	Default	Allowed Values	Description
			 NOTICE: The CCGW cannot share the same ID as another CCGW from a separate Conventional Site that is colocated with the same prime site (repeater site, Console Site, and so on).
IP Address	N/A	0 to 15 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	A number calculated using the co-located site type, the site alias, and the CCGW-HD ID parameters along with the system IP plan. The CCGW-HD uses the IP address (received from TNCT) as an index to retrieve its own configuration on the LDAP server.

Conventional Site

A Conventional Site with Site Type set to **Combination-HD** that this CCGW-HD is associated with. Each Conventional Site is serviced by one CCGW-HD.

 **NOTICE:** If the ID of the CCGW-HD is greater than 3, then the associated site must be colocated with a Console Site or at a Conventional Subsystem Location.

Click **Choose Record** to display a list of available options.

See [Conventional Site on page 137](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
CCGW-HD Number of Channel Interfaces	0 Channel Interfaces	<ul style="list-style-type: none"> 0 Channel Interfaces 4 Channel Interfaces 8 Channel Interfaces 	<p>Select the number of channel interfaces on the CCGW-HD. The base module has zero channel interfaces. The Low Density Enhanced Conventional Gateway has four channel interfaces and the High Density Enhanced Conventional Gateway has eight channel interfaces.</p> <p>When the number of the channel interfaces is saved, the corresponding number of records appears in the Channel Interface Configuration table.</p> <p>You cannot reduce the number of channel interfaces without recreating the CCGW-HD record.</p>

Digital Ethernet Channels

The list of Digital Conventional Channels or Conventional Talkgroup Channels with the Channel Interface Type set to Ethernet, supported by this CCGW-HD. Click **Choose Records** to display a list of available options.

See:

- [Digital Conventional Channel on page 163](#)
- [Conventional Talkgroup Channel on page 225](#)

Channel Interface Configuration



NOTICE: A conventional channel or a conventional talkgroup channel may only be assigned to one channel interface.

A Channel Interface may only have one of two following configuration assignments:

- **Associated Channel using both Analog and Digital Ports** is set to one ACIM, V.24 Mixed Mode, or DigitalAndRelay V.24 Conventional or Conventional Talkgroup Channel.
- **Associated Channel using both Analog Ports** is set to one Analog, MDC1200 or Ethernet Mixed Mode Conventional Channel, and/or **Associated Channel using Digital Port** is set to one Digital V.24 Conventional Channel or Conventional Talkgroup Channel.

See [CCGW-HD – Valid Channel to Port Assignments on page 143](#) for all valid channel to port assignments on a CCGW-HD:

Field	Default	Allowed Values	Description
Channel In- terface ID	N/A	1 to 8	A number that identifies the channel interface. Provides direct mapping to the hardware ports on the CCGW.
Analog In- terface Port 1	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	(Read only) Identifies the physical connector on the Conventional Channel Gateway Interface Module for the Conventional Channels configured for this Channel Interface.
Analog In- terface Port 2	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	(Read only) Identifies the physical connector on the Conventional Channel Gateway Interface Module for the Conventional Channels configured for this Channel Interface.
Digital In- terface Port	N/A	1 to 16 characters. Use the following charac-	(Read only) Identifies the physical connector on the Conventional Channel Gateway Interface

Table continued...

Field	Default	Allowed Values	Description
		ters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Module for the Conventional Channels configured for this Channel Interface.
Associated Channel Using Digital Port	N/A	Click Choose Record to display a list of available options.	A Digital Conventional Channel or a Conventional Talkgroup Channel with the Channel's Interface Type set to V24 and Method to Key Transmitter set to Digital that is serviced by the CCGW-HD's Digital Port on the CCGW-HD's Channel Interface card. See: <ul style="list-style-type: none"> • Digital Conventional Channel on page 163 • Conventional Talkgroup Channel on page 225
Associated Channel using both Analog Ports	N/A	Click Choose Record to display a list of available options.	An Analog, MDC1200 or Mixed Model Conventional Channel with Interface Type set to Ethernet that is serviced by the CCGW-HD's Analog Ports on the CCGW-HD's Channel Interface card. See: <ul style="list-style-type: none"> • Analog Conventional Channel on page 146 • MDC1200 Conventional Channel on page 176 • Mixed Mode Conventional Channel on page 195
Analog Interface to Mute	No Mute	<ul style="list-style-type: none"> • No Mute • 2-Wire • 4-Wire • Both 	Indicates the interface to apply the external mute input.
Associated Channel using both Analog and Digital Ports	N/A	Click Choose Record to display a list of available options.	An ACIM Conventional Channel, Mixed Mode Conventional Channel with Interface Type set to V24 or Digital Conventional Channel / Conventional Talkgroup Channel with Interface Type set to V24 and Method to Key Transmitter set to Digital and Relay that is serviced by the CCGW-HD's Digital and Analog Ports on the CCGW-HD's Channel Interface Card. See: <ul style="list-style-type: none"> • ACIM Conventional Channel on page 211 • Mixed Mode Conventional Channel on page 195

Table continued...

Field	Default	Allowed Values	Description
			<ul style="list-style-type: none"> Digital Conventional Channel on page 163 Conventional Talkgroup Channel on page 225
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3.2.1

CCGW-HD – Valid Channel to Port Assignments

The following table describes all the valid channel to port assignments on a CCGW-HD.

Table 7: CCGW-HD Channel Interface - Valid Channel Associations

If you have already associated an...	Then...
Analog Conventional Channel	You can only have a Digital V.24 Conventional Channel or Conventional Talkgroup Channel with Method to Key Transmitter set to Digital associated in addition to the Analog Conventional Channel.
MDC1200 Conventional Channel	You can only have a Digital V.24 Conventional Channel or Conventional Talkgroup Channel with Method to Key Transmitter set to Digital associated in addition to the MDC1200 Conventional Channel.
ACIM Conventional Channel	No other associated channels allowed.
Mixed Mode Ethernet Conventional Channel	You can only have a Digital V.24 Conventional Channel or Conventional Talkgroup Channel with Method to Key Transmitter set to Digital associated in addition to the Mixed Mode Ethernet Conventional Channel.

Table continued...

Mixed Mode V.24 Conventional Channel	No other associated channels allowed.
Digital V.24 Conventional Channel or Conventional Talkgroup Channel with Method to Key Transmitter set to Digital and Relay	No other associated channels allowed.
Digital V.24 Conventional Channel or Conventional Talkgroup Channel with Method to Key Transmitter set to Digital	You can only have either an Analog, MDC1200, or Mixed Mode Ethernet Conventional Channel associated in addition to the Digital V.24 Conventional Channel.

6.2.3.3

Conventional Channel Gateway

The CCGW object represents the Conventional Channel Gateway which controls the conventional site channels. Only one CCGW can be associated with a conventional site.


CCGW object provides access to Analog, Digital, Mixed Mode, MDC1200, and ACIM Conventional Channels.



NOTICE: The Site Gateway (Conventional Channel Interface), based on the GGM 8000 platform and MNR routers based on the S2500 platform, provide a Conventional Channel Interface to conventional base radios in the system. This conventional channel interface may be shown in the Provisioning Manager as CCGW-HD or Conventional Channel Gateway.

The configuration of this object impacts the CCGW.

Identity

Field	Default	Allowed Values	Description
ID	N/A	1 to 10	Enter a unique number that refers to the conventional channel gateway (CCGW).  NOTICE: The CCGW ID cannot share the same ID as another CCGW from a separate Conventional Site that is colocated with the same prime site (repeater site, Console Site, and so on).
IP Address	N/A	0 to 15 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	A number calculated using the co-located site type, the site alias, and the CCGW ID parameters along with the system IP plan. The CCGW uses the IP address (received from TNCT) as an index to retrieve its own configuration on the LDAP server.

Conventional Site

A Conventional Site with **Site Type** set to **Analog**, **Digital** or **Combination** that this CCGW is associated with.



NOTICE: If the ID of the CCGW is greater than 3, then the associated site must be co-located with a Console Site or at a Conventional Subsystem Location.

Click **Choose Record** to display a list of available options.

See [Conventional Site on page 137](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3.4

Conventional Channel Talkgroup

A Conventional Channel Talkgroup is the talkgroup that is defined for and used on conventional channels. It must not be confused with the Conventional Talkgroup Channel, which is the channel on which a conventional talkgroup resides.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE



NOTICE: The number of talkgroups that can be established for conventional talkgroup is based on the call rates. See the “Conventional Talkgroups” section in the *Conventional Operations* manual for details.

Identity

Field	Default	Allowed Values	Description
Talkgroup ID	N/A	1 to 65,535	Enter a unique number that identifies a conventional talkgroup on the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3.5


Analog Conventional Channel

The Analog Conventional Channel for the Dispatch Console refers to the IP-based analog conventional channel that interfaces to the network subsystem through the site gateway (conventional channel interface). This mode of operation is different from the circuit-based analog and digital mutual aid. This functionality allows analog conventional operation with dispatch consoles.

The configuration of this object impacts the following devices:

- ZC
- CSC
- VPM AIS
- CONSOLE
- CCGW-S2500
- CCGW
- CCGW HD

Identity

Field	Default	Allowed Values	Description
Conventional Channel ID	N/A	1 to 32	Enter a unique number that refers to a specific channel within a site. Must be unique within the same site.  NOTICE: The channel ID range depends on the type of Conventional Gateway Type being employed.
Conventional Channel Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\]	Enter a unique name that refers to the channel for the conventional site.

Field	Default	Allowed Values	Description
		^ ` ~ (No leading and trailing spaces)	

Conventional Site

A Conventional Site with **Site Type** set to **Analog**, **Combination** or **Combination-HD** that this channel is associated with. Click **Choose Record** to display a list of available options.

See [Conventional Site on page 137](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Channel Configuration


Field	Default	Allowed Values	Description
Ethernet Channel Interface			Reserved for future use.
Hostname/IP Address			Reserved for future use.
Inbound Call	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the Console to show the speaker icon to the dispatcher when an inbound call starts.</p> <p>No specifies that the Console does not show the speaker icon to the dispatcher, but the audio is still heard at the Console position.</p>
Conventional Channel Priority	10	1 to 10	<p>Select the priority to determine which conventional channel calls the console can drop when the voice and secure card resources are busy.</p> <p> NOTICE: The value 1 indicates the highest priority.</p>
Half Duplex Conventional Channel	No	<ul style="list-style-type: none"> Yes No 	<p>A conventional channel identified as a Half-Duplex channel needs to ignore any incoming BOMTs for determining a change in the patch source audio while the channel has an outgoing patch transmission in progress. This will ensure that the Console Patch Source Audio rules do not change the patch source audio to an incoming call on a Half-Duplex channel since a Half-Duplex channel cannot be both transmitting and receiving at the same time. So if the channel has an ongoing outbound patch transmission, then any inbound audio to the console cannot</p>

Table continued...




Field	Default	Allowed Values	Description
			be captured by the base station, but rather is locally generated by the station. The Half-Duplex designation will keep the console from trying to switch the source of the patch to be the incoming locally-generated audio represented in the BOMT. Examples of this would be a locally-generated talk-permit tone generated by a console base station. If the channel is not configured as a Half-Duplex channel, then it will follow its existing patch source audio rules and switch the source of the patch to be the incoming audio from the channel. For channels that have locally generated tones upon being keyed up, this is undesirable.
Node Type	T1R1	<ul style="list-style-type: none"> • R1 • T1R1 • T2R2 • T4R4 • T6R6 • T8R8 • T12R12 • T14R14 • T16R16 	<p>Select the node type being used for this conventional channel.</p> <p> NOTICE: Node Type T16R16 is not supported on S2500-based CCGWs.</p> <p>When the method to key the transmitter is Relay, you cannot associate a Tone Table to the channel.</p> <p>The node type of a Main/Alternate channel cannot be changed.</p>
Base Type	T1 Standard	<ul style="list-style-type: none"> • Null • T1 Standard • T1 Paging • T1 4PL • T1 8PL • T2 Standard • T2 4PL • T2 8PL • T4 Standard • T8 Standard • T14 Standard • T16 Standard • T1Securenet • T2Securenet • T4Securenet 	<p>Select the base type being used for this conventional channel. Node Type must have previously been selected.</p> <p> NOTICE: Depending on the chosen Node Type or Channel, the range of the Base Type parameter may vary.</p> <p> IMPORTANT: T1Securenet, T2Securenet, T4Securenet, and T16 Standard are not supported on the S2500-based CCGWs.</p>
Conventional Frequencies	N/A	<p>0</p> <p>0 to 2</p>	Set the number of frequencies this channel uses.

Table continued...




Field	Default	Allowed Values	Description
Frequency Select		<ul style="list-style-type: none"> 0 to 4 0 to 6 0 to 8 0 to 12 0 to 14 0 to 16 	 <p>NOTICE: The default and allowed values for the number of frequencies used by this channel depend on the selected Node Type. The range of 0 to 16 does not apply to CCGW-S2500.</p>
Method to Key the Transmitter	ToneAndRelay	<ul style="list-style-type: none"> • Tone • Relay • ToneAndRelay 	<p>Select the method used to key the transmitter on this conventional channel.</p>  <p>NOTICE: Setting the Method to Key the Transmitter parameter to ToneAndRelay configures the channel to use both TRC and relay keying. This setting allows TRC and relay keying of the transmitter on Analog and MDC channels.</p>
Transmit Mode	Analog	<ul style="list-style-type: none"> • Analog 	(Read Only) Displays the Transmit Mode for the Channel.
Channel Marker Enabled	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the Channel Marker feature for the selected profile.</p> <p>No disables the Channel Marker feature.</p>
Logging	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the channel to be logged.</p> <p>No disables this capability.</p>
Patch	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to add a resource to a patchgroup.</p> <p>No disables the console user from adding a resource to a patchgroup.</p> <p>If a Console TG/MG Capabilities Profile is already assigned to a multigroup, the Patch field cannot be set to Yes. Also, if the Patch field of a Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup.</p>
Duplex Patch Capable	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to use Duplex Patch when patching this channel with another Duplex Patch capable resource (either another Analog or MDC conventional channel or a console telephone resource).</p> <p>No disables this capability for this channel.</p>  <p>IMPORTANT: The Duplex Patch does not work if you set the Analog Interface Type parameter to 2-Wire.</p>

Table continued...




Field	Default	Allowed Values	Description
PL Select	0	0 to 8 0 to 4 0	Enter the number of Private Lines (PLs) this channel uses. Base Type must be selected before this field can be edited.
Method to Detect In-bound Radio Transmission	VOX	<ul style="list-style-type: none"> • VOX • COR 	Select the method for voice detection on the conventional channel: VOX for voice detection or COR for carrier-operated relay detection.  NOTICE: COR is not supported on Advanced SECURENET® channels.
VOX hold-off Delay (msec)	1000	500 to 10,000 (increments of 500)	Select the amount of time the channel remains active after the voice level received by the CCGW falls below the threshold that initially caused the channel to be considered active.
VOX Threshold Adjustment	0	-25 to 15	Select the adjustment to the VOX threshold. This value is used by the CCGW to calculate the actual VOX Threshold. The formula is: VOX Threshold = Knee - 15 + VOX_Threshold_Adjustment. The total VOX Threshold value cannot be lower than -55 dBm.  NOTICE: For CCGW and CCGW-s2500, only the range of 0 to 15 applies.
Proper Channel Feedback	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes indicates that the CCGW reports the presence of detected channel feedback audio in a bit in the Digital Conventional Radio Call Request and only passes feedback tones from the channel to the console that the operator should hear. This is considered "proper channel feedback" function.</p> <p>No indicates that the CCGW behaves the same in terms of detection and reporting of feedback tones, but passes all such tones to the console as audio.</p>
Tone Pre-time Delay (msec)	0	0 to 3,300 (increments of 100)	The number of milliseconds of pretime that must precede transmissions, such as Channel Marker and Alert Tones. This allows channel devices, such as CIUs, consolettes, or comparators, to complete other signaling operations that may conflict with immediate receipt of audio from the console. For example, if a channel has MDC signaling Pre-time Delay configured such that channel marker or alert tones are being truncated, the Tone Pre-time Delay should be set equal to, or greater than the MDC signaling Pre-time Delay .

Table continued...

Field	Default	Allowed Values	Description
			 <p>IMPORTANT: A long Tone Pre-time Delay associated with a short Channel Marker Repeat Interval makes the channel unusable. For instance, a 3,300 ms tone pre-time with a 5 second channel marker interval results in the channel keyed for nearly 80% of the time. Consider longer channel marker intervals when using long pre-time values. The default Channel Marker Repeat Interval is 10 seconds.</p> <p>For Analog channels with ASN, the value must account for CIU configuration.</p>
Channel Role	Standalone	<ul style="list-style-type: none"> Standalone Main Alternate 	<p>Specify the role of a channel in a Main/Alternate pair.</p> <p>Standalone indicates that no Main/Alternate relationship is set for this channel.</p> <p>Main indicates the active role of the channel at any given time.</p> <p>Alternate indicates the standby role of the channel at any given time.</p>

Main/Alternate Configuration

The other channel participating in the Main/Alternate pairing.

MAIN	ALTERNATE				
	MDC 1200	Digital	Analog	Mixed Mode	ACIM
MDC 1200	Supported	Blocked	Supported	Blocked	Blocked
Digital	Blocked	Supported	Supported	Supported	Blocked
Analog	Blocked	Blocked	Supported	Blocked	Blocked
Mixed Mode	Blocked	Supported	Supported	Supported	Blocked
ACIM	Blocked	Blocked	Blocked	Blocked	Supported



IMPORTANT: The following parameters further determine the compatibility of main/alternate pairings:

- Console Supervisory Takeover
- Security Group assigned to the Channel
- Conventional Channel Group
- Signaling scheme
- Secure Communication Mode
- Key Number – must be the same for Analog and MDC 1200 Channels
- Auto Key (only for Digital and Mixed Mode channels)
- Common Key Reference (Default and List) – must be the same for Digital, Mixed Mode, and ACIM Channels
- Node Type

Channel Frequencies

Field	Default	Allowed Values	Description
Conventional Frequency Id	N/A	1 to 255	(Read only) Displays the conventional frequency identifiers.
Conventional Frequency Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	(Read only) Displays the aliases for the conventional frequencies this conventional channel uses.
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Channel Private Lines

Field	Default	Allowed Values	Description
PL ID	N/A	1 to 8	(Read only) Displays the Private Line (PL) identifiers.
PL Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter the aliases for the Private Lines (PLs) this conventional channel uses.

Table continued...

Field	Default	Allowed Values	Description
		^ ` ~ (No leading and trailing spaces)	
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Signaling Features

Field	Default	Allowed Values	Description
Repeat On/Off	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the user can set in-cabinet repeat to be on or off.</p> <p>No specifies that the user cannot set in-cabinet repeat to be on or off.</p>
COR hold-off Delay (msec)	6600	0 to 6,600 (increments of 50)	<p>Select the amount of time this Conventional Channel waits for activity (LOBL, MDC, voice VOX detect) for channel to be considered active with a voice call by default.</p> <p>Even though 0-500 msec delay should work well, here are reasons to adjust COR Holdoff Delay to longer or shorter values:</p> <ol style="list-style-type: none"> 1 Console that receives a call indication is driven by COR detection on a channel configured for COR. COR Holdoff Delay should be set to equal subscriber pre-time used on the channel for Supplementary data messages to be properly indicated on consoles. However, this can also delay call indication on consoles for the duration of the delay. <ol style="list-style-type: none"> a If COR Holdoff Delay is set to a lower value, any inbound transmission (including supplementary data) is indicated as a voice call (displayed an Unknown ID) while the transmission may be a Call Alert or Emergency signal, etc. b Setting the COR Holdoff Delay high means that station unmute is not indicated on consoles until voice, TRC, or MDC signaling traffic is detected on the channel or 6.6 seconds elapses whichever happens first. Any voice, TRC or MDC signaling detected is always indicated on the console regardless of COR Holdoff Delay, only silent calls cause the entire COR Holdoff Delay to elapse.

Field	Default	Allowed Values	Description
			<p>2 Patch setup is initiated by call start detection, so the longer COR Holdoff Delay delays patch setup.</p> <p>3 Console Cross Busy/Cross Mute is not enforced while a silent inbound call is in progress during COR Holdoff Delay, so interference can take place on conflicting channels normally prohibited by Cross Busy/Cross Mute.</p> <p>4 Voting Display can show inbound activity prior to console showing inbound activity due to COR Holdoff Delay in starting a call with the console.</p> <p>5 During COR Holdoff Delay calls can be starting but not yet indicated on consoles. Consoles are able to make outbound calls, supplementary signaling, or station control commands on the channel which can disrupt the inbound call in progress.</p>

Analog Interface Configuration




Field	Default	Allowed Values	Description
Average Inbound G.728 Audio Level (dBm0)	-26	-26 to -20	<p>Select the analog conventional channel's average inbound G.728 audio level. This parameter value is sent to dispatch consoles.</p> <p> IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.</p>
Average Outbound G.728 Audio Level (dBm0)	-26	-26 to -20	<p>Select the analog conventional channel's average outbound G.728 audio level. This parameter value is received from dispatch consoles.</p> <p> IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.</p>
Inbound AGC Knee Setting	-25	-40 to 0	<p>Select the analog conventional channel inbound AGC Knee setting.</p> <p>The Inbound AGC Knee Setting affects the Voice Detection (VOX) Threshold even when the Inbound AGC Type is set to AGC Off.</p> <p> IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.</p>

Table continued...








Field	Default	Allowed Values	Description
			 NOTICE: For CCGW and CCGW-s2500, only the range of -40 to -10 applies.
LOBL Detect Threshold	-25	-40 to 0	<p>Specifies the lowest detection level of the High Guard Tone in an identification of a transmission by a parallel, non-MCC 7500 console (LOBL console) connected to an analog station in parallel with the system.</p> <p>For CCGW, the value must be set the same as for the Inbound AGC Knee Setting of the channel. The setting does not apply to CCGW-s2500.</p>
Inbound AGC Type	AGC Off	<ul style="list-style-type: none"> AGC Off AGC On DLM 	<p>AGC Off means that the gain is fixed, regardless of the level of the input signal. The gain is never adjusted.</p> <p>AGC On means that the gain is adjusted based on the level of the input signal. The lower the input signal, the higher the gain.</p> <p>DLM means that the gain is varied dynamically during active speech, but during speech pauses the gain is frozen. Dynamic gain adjustment resumes when the next syllable of active speech is received.</p>  NOTICE: DLM is only supported when the conventional gateway type is Combination-HD.
Outbound Alignment Tone Level (dBm)	-10	-20 to 5	<p>Select the outbound path alignment tone level.</p> <p>If the Conventional Gateway type is Combination-HD, the maximum value is 2.</p>  IMPORTANT: It is strongly recommended not to change this value except under the guidance and direction of a service technician.
4 Wire Impedance (Ohms)	600 Ohms	<ul style="list-style-type: none"> 600 Ohms high impedance (10K Ohms) 	Impedance value for the 4-wire receive line.
Analog Interface Type	4-Wire	<ul style="list-style-type: none"> 2-Wire 4-Wire Both 	<p>The interface type for the channel: 2-wire, 4-wire, or 2-wire and 4-wire.</p>  NOTICE: The 2-wire interface is only available when the Conventional Gateway type is Combination-HD.
2 Wire Tx/Rx or 4	600	<ul style="list-style-type: none"> 600 	Impedance value for the 2-wire transmit/receive or the 4-wire transmit connector.

Table continued...

Field	Default	Allowed Values	Description
Wire Tx Impedance (Ohms)		<ul style="list-style-type: none"> 900 10k 	 NOTICE: This parameter is only configurable when the Conventional Gateway type is Combination-HD.
Hardware Interface Type	Current Level Input Detector	<ul style="list-style-type: none"> Current Level Input Detector Distance Input Buffer Voltage Level Input Detector 	<p>If you set the Secure Communications Mode parameter to Clear, select the Hardware Interface Type to define the CCGW input type for both the COR- and the base-station-provided coded/clear signals.</p> <p>The base-station-provided coded/clear input does not support Current Level Input Detector. If you set the parameter to Current Level Input Detector, the base-station-provided coded/clear signal uses Voltage Level Input Detector and the COR input uses the Current Level Input Detector.</p> <p>For more information, see the <i>Motorola GGM 8000 Hardware User Guide</i>.</p>

Secure Communication Configuration

Field	Default	Allowed Values	Description
Secure Communication Mode	Clear	<ul style="list-style-type: none"> Clear Secure Both 	<p>Clear allows a radio user to transmit clear (non-secure) talkgroup calls only.</p> <p>Secure allows the radio user to transmit secure (encrypted) talkgroup calls only.</p> <p>Both allows the radio user to transmit both clear and secure talkgroup calls.</p>
Secure Communication Mode Default	Analog Clear	<ul style="list-style-type: none"> Analog Clear Analog Secure 	Specifies the default security mode for a channel.
Advanced SecureNet	No	<ul style="list-style-type: none"> Yes No 	<p>The Advanced SecureNet parameter determines if the channel has advanced secure options.</p> <p>Yes enables the Advanced SECURENET® features to be configured.</p> <p>No disables this capability.</p> <p> NOTICE: If the Secure Communication Mode parameter is set to Secure or Both, this parameter is editable.</p>
Number of Keys	0	<ul style="list-style-type: none"> 0 to 8 0 to 6 0 to 4 	Select number of keys to configure for a channel.

Field	Default	Allowed Values	Description
			 NOTICE: This parameter applies only to Advanced SECURENET® on Analog and MDC 1200 12kbit secure.

Channel Key Numbers

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.
Key Number ID	N/A	1 to 8	Enter the Key Number ID. The IDs are a reference to the secure key used for conventional SECURENET® dispatch calls on Analog or MDC 1200 channels.
Key Number Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter an Alias for each Key Number selected. The Alias is displayed on the channel list of selectable key numbers.

Console Capabilities

Field	Default	Allowed Values	Description
Critical Resource Select	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to select the criticality setting of a resource in the communication system.</p> <p>No disables the console user from selecting the criticality setting of a resource in the communication system.</p>
Instant Transmit	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to initiate a transmission on the resource.</p> <p>No disables the console user from initiating a transmission on the resource.</p>
High Priority Console Patch Transmission	Normal	<ul style="list-style-type: none"> Normal High 	<p>Normal gives inbound radio audio priority over a simultaneous console patch transmission on the channel when the patch audio source is radio audio from a different resource.</p> <p>The console patch transmission has priority over simultaneous inbound radio audio when the patch audio source is a console.</p>

Table continued...


Field	Default	Allowed Values	Description
			<p>High gives a console patch transmission priority over simultaneous inbound radio audio on the channel when the patch audio source is either radio audio from a different resource or console audio.</p> <p>This setting is useful when the channel is an analog/MDC channel using a console base station and the inbound radio audio is talk permit tone. The High setting stops the talk permit tone from causing the system to end the console patch transmission.</p>
PTT ID Status	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that PTT ID status can be displayed to the user for this channel.</p> <p>No specifies that PTT ID status cannot be displayed to the user for this channel.</p>
Volume Control	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to control the volume level of individual resources.</p> <p>No disables the console user from controlling the volume level of individual resources.</p>
Transmit without PL	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the user can key the channel without a PL.</p> <p>No specifies that the user cannot key the channel without a PL.</p> <p> NOTICE: Transmit without PL is used for T1-Paging stations.</p>
Page De-emphasis	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the channel normally applies pre-emphasis to transmitted audio and pages should be sent with compensating de-emphasis applied.</p> <p>No specifies that the channel normally does not apply pre-emphasis to the transmitted audio and pages do not require the application of compensating de-emphasis.</p>
Mute R2	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the channel is able to mute the second receiver so that users can hear higher priority audio on receiver 1.</p> <p>No specifies that the channel is not able to mute the second receiver so that users can hear higher priority audio on receiver 1.</p>

Table continued...


Field	Default	Allowed Values	Description
			 NOTICE: This parameter is used on Advanced SECURENET® channels to enable Keypset changes on the CIU. YES allows the console operator to change from one Keypset to the other for the channel. When Key Index Select has been enabled (via Mute R2), the Number of Keys configurable for that channel is also limited to 4.
Wildcard I	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that wildcard processing is allowed.</p> <p>No specifies that wildcard processing is not allowed.</p>
Inhibit Wildcard I Refresh	No	<ul style="list-style-type: none"> • Yes • No 	Determines whether the console should refrain from refreshing the Wildcard I feature when a main/alt switch occurs which results in this channel being the active channel.
Wildcard II	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that wildcard processing is allowed.</p> <p>No specifies that wildcard processing is not allowed.</p>
Inhibit Wildcard II Refresh	No	<ul style="list-style-type: none"> • Yes • No 	Determines whether the console should refrain from refreshing the Wildcard II feature when a main/alt switch occurs which results in this channel being the active channel.
Supervisor Takeover Capability Enabled	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that a supervisor takeover is allowed.</p> <p>No specifies that supervisor takeover is not allowed.</p>
Single Select	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to select the resource for performing various console operations.</p> <p>No disables the console user from selecting the resource for performing various console operations.</p>
LOBL	Tone Only	<ul style="list-style-type: none"> • Tone Only • None • Voltage Only • Contact Closure Only • Tone and Voltage 	<p>None means that LOBL is disabled for the channel.</p> <p>Tone means that LOBL can be triggered by Tone Remote Control tones.</p> <p>Contact closure and Voltage are LOBL modes for the I/O LOBL input line on the CCGW. The I/O LOBL input line is only available when the Conventional Gateway type is Combination-HD.</p>

Table continued...

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none">Tone and Contact Closure	
Console Repeat Capable	No	<ul style="list-style-type: none">NoLatched Console RepeatNon-Latched Console Repeat	Determines whether the channel has the Console Repeat feature, and if it does, whether it has Latched or Non-Latched Console Repeat.

Tone Tables

The Tone remote control table that is appropriate for the station associated with this channel. A TRC table must be assigned to the channel when the Method to Key Transmitter parameter is set to Tone or Tone and Relay. For valid pre-defined Tone Table IDs, see [Pre-defined Tone Remote Control Tables on page 162](#).



NOTICE: User defined (Custom) TRC tables are always accepted as valid configuration.

Click **Choose Record** to display a list of available options. See [Tone Table on page 126](#).

Paging Format QuickCall I

The QuickCall I Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II B

The QuickCall II B Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II C

The QuickCall II C Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II D

The QuickCall II D Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II E

The QuickCall II E Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format DTMF Touch Code

The DTMF Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Knox Touch Code

The Knox Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 0.5

The Single Tone 0.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 1.5

The Single Tone 1.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Motorola 5/6 Tone

The Motorola 5/6 Tone Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

AuxIO

The AuxIO assigned to this channel when **Supervisor Takeover Capability Enabled** field is set to **Yes**. A valid assignment includes Latched/Output Aux I/Os with the same AuxIO Server Security Group as the Analog Conventional Channel. Click **Choose Record** to display a list of available options.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3.5.1

Pre-defined Tone Remote Control Tables

Use the following table for valid Tone Table IDs for particular Base Types when configuring a channel. The valid pre-defined table that can be associated is dependent on the Node Type and Base Type setting of the channel and is as follows:

Table 8: Valid Tone Table IDs for Remote Control Tables

Base Type	Valid pre-defined Tone Table Id
Null	N/A
T1 Standard	1
	11
	21
T1 Paging	2
	12
	22
T1 4PL	3
	13
	33
T1 8PL	4
	14
	24
T2 Standard	5
	15
	25
T2 4PL	6
	16
	26
T2 8PL	7
	17
	27
T4 Standard	8
	18
	28
T8 Standard	9
	19
	29
T14 Standard	10
	20

Table continued...

Base Type	Valid pre-defined Tone Table Id
T1Securenet	30
	531
	532
T2Securenet	533
	534
	535
T4Securenet	536
	537
	538
T16 Standard	539
	540
	541
	542

6.2.3.6

Digital Conventional Channel

The Digital Conventional Channel object configures parameters to support digital conventional calls.

Digital Conventional Channels (non-IP connectivity) interface directly to a Conventional Channel Gateway (Site Gateway with the analog/V.24 interface kit) to support the interface between the digital conventional channel and the dispatch console for digital conventional calls. Signaling capabilities for digital conventional channels include Unit IDs, Emergency, Call Alert, and other functions.

For secure digital conventional calls, encryption key management and provisioning is accomplished at the dispatch console and AIS (Archiving Interface Server) and is no longer implemented on a per channel basis which allows for flexible and easy key provisioning per operator position, not per physical digital conventional channel.


Digital IP Conventional Channels interface directly to IP-based network transport equipment (Ethernet LAN Switch, or Ethernet ports on the Site Gateway).

For digital conventional secure calls in an ASTRO® 25 system, encryption key management and provisioning is accomplished at the dispatch console and AIS (Archiving Interface Server) and is no longer implemented on a per channel basis which allows for flexible and easy key provisioning per operator position, not per physical digital conventional channel. A phone patch interface is not supported for IP-based Digital Conventional Channels.

The configuration of this object impacts the following devices:

- ZC
- CSC
- CIVD PDR
- CCGW-S2500
- VPM AIS
- CONSOLE
- CCGW
- CCGW HD

Identity

Field	Default	Allowed Values	Description
Conventional Channel ID	N/A	1 to 32	<p>Enter a unique number that refers to a specific channel within a site. Must be unique within the same site.</p> <p> NOTICE: The channel ID range depends on the type of Conventional Gateway Type being employed.</p> <p>If the channel is Data Capable, the ID range is from 1 to 30.</p>
Conventional Channel Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that refers to the channel for the conventional site.

Conventional Site

A Conventional Site with **Site Type** set to **Digital**, **Combination** or **Combination-HD** that this channel is associated with. Click **Choose Record** to display a list of available options.

See [Conventional Site on page 137](#).

Conventional Channel Group

A Conventional Channel Group that this channel is associated with. A Digital channel can only be grouped with other Digital, ACIM and/or Mixed Mode channels.



NOTICE: Data capable channels must be assigned to channel group 2001.

Click **Choose Record** to display a list of available options.

See [Conventional Channel Group on page 119](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Channel Configuration

Field	Default	Allowed Values	Description
Inbound Call	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the Console to show the speaker icon to the dispatcher when an inbound call starts.

Table continued...






Field	Default	Allowed Values	Description
			No specifies that the Console does not show the speaker icon to the dispatcher, but the audio is still heard at the Console position.
Conventional Channel Priority	10	1 to 10	Select the priority to determine which conventional channel calls can be dropped by the console when the voice and secure card resources are busy.  NOTICE: The value 1 indicates the highest priority.
Node Type	T1R1	<ul style="list-style-type: none"> • R1 • T1R1 • T2R2 • T4R4 • T6R6 • T8R8 • T12R12 • T14R14 • T16R16 	Select the node type being used for this conventional channel.  NOTICE: Node Type T16R16 is not supported on S2500-based CCGWs. The node type of a Main/Alternate channel cannot be changed.
Base Type	T1 Standard	<ul style="list-style-type: none"> • Null • T1 Standard • T1 Paging • T1 4PL • T1 8PL • T2 Standard • T2 4PL • T2 8PL • T4 Standard • T8 Standard • T14 Standard • T16 Standard 	Select the base type being used for this conventional channel. Node Type must have previously been selected.  IMPORTANT: T1Securenet, T2Securenet, T4Securenet, and T16 Standard are not supported on the S2500-based CCGWs.  NOTICE: Depending on the chosen Node Type or Channel, the range of the Base Type parameter may vary.
Conventional Frequency Select	N/A	<ul style="list-style-type: none"> 0 0 to 2 0 to 4 0 to 6 0 to 8 0 to 12 0 to 14 	Set the number of frequencies used by this channel.  NOTICE: The default and allowed values for the number of frequencies used by this channel depend on the selected Node Type. The range of 0 to 16 does not apply to CCGW-S2500.

Table continued...



Field	Default	Allowed Values	Description
		0 to 16	
Interface Type	Ethernet	<ul style="list-style-type: none"> V.24 Ethernet 	Specify whether the Ethernet or V24 interface is used between the conventional channel gateway and the site device.
Clock Source	Not Applicable	<ul style="list-style-type: none"> Not Applicable Internal External 	<p>Selects the TX clock source for the V24 communication link.</p> <p>Internal enables the TX clock to be generated internally in the CCGW.</p> <p>External enables the TX clock to be generated by an external device.</p> <p> NOTICE: This field is editable when the Interface Type is set to V.24.</p>
Hostname/IP Address	N/A	0 to 255 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	<p>Enter the value that indicates the hostname or IP address of the digital channel.</p> <p>The value cannot be 0 or 0.0.0.0</p> <p> NOTICE: The channel IP Address parameter becomes editable if the Interface Type is set as Ethernet.</p>
Method to Key the Transmitter	Digital	<ul style="list-style-type: none"> Digital DigitalAndRelay 	Select the method used to key the transmitter on this conventional channel.

Table continued...


Field	Default	Allowed Values	Description
			 <p>NOTICE: For Digital Conventional, Mixed Mode, and ACIM channels, setting the Method to Key the Transmitter parameter to DigitalAndRelay configures the channel to use both digital and relay keying of the transmitter. This setting allows relay keying on digital conventional, mixed mode, and ACIM channels. Since this relay mechanism uses an analog port to test the outbound call status, the analog port associated with the V.24 port on which the digital conventional channel is configured is assigned to the channel interface when the Method to Key the Transmitter parameter is set to DigitalAndRelay. If the associated analog port is already allocated to a different channel, you are not allowed to select DigitalAndRelay. Also, once a digital conventional, mixed mode, or ACIM channel is created, you cannot add or remove relay functionality (by changing the Method to Key the Transmitter parameter setting) over the associated analog port at run time. Instead, first delete the channel, then add the channel back with the desired Method to Key the Transmitter parameter setting. For details about how to delete a channel, see Deleting Records on page 71.</p>
Transmit Mode	Digital	<ul style="list-style-type: none"> Digital 	(Read Only) Displays the Transmit Mode for the Channel.
Channel Marker Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the Channel Marker feature for the selected profile.</p> <p>No disables the Channel Marker feature.</p>
Logging	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes specifies that the channel is able to be logged.</p> <p>No specifies that the channel is not able to be logged.</p>
Patch	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to add a resource to a patchgroup.</p> <p>No disables the console user from adding a resource to a patchgroup.</p>

Table continued...

Field	Default	Allowed Values	Description
			If a Console TG/MG Capabilities Profile is already assigned to a multigroup, the Patch field cannot be set to Yes . Also, if the Patch field of a Console TG/MG Capabilities Profile is set to Yes , it cannot be assigned to a multigroup.
Channel Role	Standalone	<ul style="list-style-type: none"> Standalone Main Alternate 	<p>Specify the role of a channel in a Main/Alternate pair.</p> <p>Standalone indicates that no Main/Alternate relationship is set for this channel.</p> <p>Main indicates the active role of the channel at any given time.</p> <p>Alternate indicates the standby role of the channel at any given time.</p>

Main/Alternate Channel

The other channel participating in the Main/Alternate pairing.

MAIN	ALTERNATE				
	MDC 1200	Digital	Analog	Mixed Mode	ACIM
MDC 1200	Supported	Blocked	Supported	Blocked	Blocked
Digital	Blocked	Supported	Supported	Supported	Blocked
Analog	Blocked	Blocked	Supported	Blocked	Blocked
Mixed Mode	Blocked	Supported	Supported	Supported	Blocked
ACIM	Blocked	Blocked	Blocked	Blocked	Supported



IMPORTANT: The following parameters further determine the compatibility of main/alternate pairings:

- Console Supervisory Takeover
- Security Group assigned to the Channel
- Conventional Channel Group
- Signaling scheme
- Secure Communication Mode
- Key Number – must be the same for Analog and MDC 1200 Channels
- Auto Key (only for Digital and Mixed Mode channels)
- Common Key Reference (Default and List) – must be the same for Digital, Mixed Mode, and ACIM Channels
- Node Type

Channel Frequencies

Field	Default	Allowed Values	Description
Conventional Frequency Id	N/A	1 to 255	(Read only) Displays the conventional frequency identifiers.
Conventional Frequency Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	(Read only) Displays the aliases for the conventional frequencies this conventional channel uses.
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Conventional Talkgroup

The Conventional Channel Talkgroup assigned to this channel.



NOTICE: Group 65535 (0xFFFF) is the Channel Wide group and every unit on the channel is considered a member of it.

Click **Choose Record** to display a list of available options.

See [Conventional Channel Talkgroup on page 145](#).

Signaling Features

Field	Default	Allowed Values	Description
Status Update	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Status Update feature.</p> <p>No disables the support of the Status Update feature.</p>
Status Request	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Status Request feature.</p> <p>No disables the support of the Status Request feature.</p>
Message Update	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Message Update feature.</p> <p>No disables the support of the Message Update feature.</p>
Radio Check	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Radio Check feature.</p>

Table continued...





Field	Default	Allowed Values	Description
			No disables the support of the Radio Check feature.
Radio Disable	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of the Radio Disable feature.</p> <p>No disables the support of the Radio Disable feature.</p>
Remote Monitor	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to send the "Enhanced Remote Unit Monitor" command to a radio in a talkgroup with the assigned Console TG/MG Capability Profile. This parameter must be turned on for the console to direct the target radio to transmit on this talkgroup. Otherwise, the console cannot remote monitor any radio in this talkgroup.</p> <p>No disables this capability.</p> <p>If a Console TG/MG Capabilities Profile is already assigned to a multigroup or agencygroup, the Remote Monitor field cannot be set to Yes. Also, if the Remote Monitor field of the Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup or agencygroup.</p>
Inbound Call Alert	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the capability to receive the inbound call alert.</p> <p>No disables the capability to receive the inbound call alert.</p>
Outbound Call Alert	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the capability to send the outbound call alert.</p> <p>No disables the capability to send the outbound call alert.</p> <p> NOTICE: For Digital or Mixed Mode channels, Call Alerts can be sent to an individual or talk group. The individual call alert is acknowledged, the group call alert is not. The group call alert is a Motorola Solutions proprietary message.</p>
Inbound Emergency	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to be informed when there is an incoming emergency call.</p> <p>No disables the console user from being informed when there is an incoming emergency call.</p>
Emergency Recognize	Yes	<ul style="list-style-type: none"> • Yes • No 	Yes enables the capability to recognize an emergency alarm.

Table continued...

Field	Default	Allowed Values	Description
			<p>No disables the capability to recognize an emergency alarm.</p> <p> NOTICE: For Digital and Mixed Mode channels, if the Emergency Recognize parameter is set to No, then the Inbound Emergency and Emergency Alarm parameters are set to No.</p>
End Emergency	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to end any emergency activity that has been acknowledged.</p> <p>No disables the console user from ending any emergency activity that has been acknowledged.</p>
Emergency Alarm	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user Emergency Alarm indications.</p> <p>No disables the console user Emergency Alarm indications.</p>
Acknowledgement Delay Timer (dsec)	0	0 to 19	Enter the Acknowledgement Delay Timer (in 1/10th of a second) which controls how long the console or Zone Controller waits after a signaling event is received before sending an acknowledgement.
Retry Delay Timer (dsec)	2	2 to 17	<p>Enter the Retry Delay Timer (in 1/10th of a second) which determines how soon the console retries after attempting a signaling operation without receiving an acknowledgement.</p> <p> IMPORTANT: MDC 1200 signaling may require a longer Retry Delay timer than the default value (2). For this reason, a value of 5, which provides for about 2.5 seconds of wait time before a signaling retry or page delivery failure occurs, is recommended.</p>
Repeat On/Off	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the user can set in-cabinet repeat to be on or off.</p> <p>No specifies that the user cannot set in-cabinet repeat to be on or off.</p>
Inbound Voice Selective Call	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of Inbound Voice Selective Call.</p> <p>No disables the support of Inbound Voice Selective Call.</p>
Outbound Voice Selective Call	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of Outbound Voice Selective Call.</p> <p>No disables the support of Outbound Voice Selective Call.</p>

Secure Communication Configuration

Field	Default	Allowed Values	Description
Secure Communication Mode	Clear	<ul style="list-style-type: none"> Clear Secure Both 	<p>Clear allows a radio user to transmit clear (non-secure) talkgroup calls only.</p> <p>Secure allows the radio user to transmit secure (encrypted) talkgroup calls only.</p> <p>Both allows the radio user to transmit both clear and secure talkgroup calls.</p>
Secure Communication Mode Default	Digital Clear	<ul style="list-style-type: none"> Digital Clear Digital Secure 	Specifies the default security mode for a channel.
Advanced SecureNet	No	<ul style="list-style-type: none"> Yes No 	<p>The Advanced SecureNet parameter determines if the channel has advanced secure options.</p> <p>Yes enables the Advanced SECURENET® features to be configured.</p> <p>No disables this capability.</p> <p> NOTICE: If the Secure Communication Mode parameter is set to Secure or Both, this parameter is editable.</p>
Auto Key	No	<ul style="list-style-type: none"> Yes No 	<p>Auto Key determines whether the Console uses the last received key for the next console transmission. When Auto Key is enabled, the Console overwrites the value of the last CKR in the CKR list with the auto key.</p> <p>Yes enables this capability.</p> <p>No disables this capability.</p>
Secure Key In	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the Console to display the alias of the CKR for the received call.</p> <p>No disables this capability.</p>

Default CKR

The default Key index used for secure communication. If you set the **Secure Communication Mode** parameter to **Secure** or **Both**, select an existing Common Reference Key record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Non-Default CKR List

A list of up to 250 Key indices used for secure communication. If you set the **Advanced SecureNet** parameter to **Yes**, select an existing Common Reference Key record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Console Capability Configuration

Field	Default	Allowed Values	Description
Critical Resource Select	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to select the criticality setting of a resource in the communication system.</p> <p>No disables the console user from selecting the criticality setting of a resource in the communication system.</p>
Fast Unmute	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the Console subsystem to not wait for an ESYNC update before unmuting.</p> <p>No disables the Console subsystem to not wait for an ESYNC update before unmuting.</p>
Ignore Call To Other	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console to ignore mobile to mobile calls.</p> <p>No disables the console to ignore mobile to mobile calls.</p>
Instant Transmit	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to initiate a transmission on the resource.</p> <p>No disables the console user from initiating a transmission on the resource.</p>
High Priority Console Patch Transmission	Normal	<ul style="list-style-type: none"> Normal High 	<p>Normal gives inbound radio audio priority over a simultaneous console patch transmission on the channel when the patch audio source is radio audio from a different resource.</p> <p>The console patch transmission has priority over simultaneous inbound radio audio when the patch audio source is a console.</p> <p>High gives a console patch transmission priority over simultaneous inbound radio audio on the channel when the patch audio source is either radio audio from a different resource or console audio.</p> <p>This setting is useful when the channel is an analog/MDC channel using a console base station and the inbound radio audio is talk permit tone. The High setting stops the talk permit tone from causing the system to end the console patch transmission.</p>
PTT ID Status	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes specifies that PTT ID status can be displayed to the user for this channel.</p> <p>No specifies that PTT ID status cannot be displayed to the user for this channel.</p>

Table continued...

Field	Default	Allowed Values	Description
Single Select	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to select the resource for performing various console operations.</p> <p>No disables the console user from selecting the resource for performing various console operations.</p>
Volume Control	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to control the volume level of individual resources.</p> <p>No disables the console user from controlling the volume level of individual resources.</p>

Data Capability Configuration

Field	Default	Allowed Values	Description
Data Capable	False	<ul style="list-style-type: none"> True False 	<p>Select whether you want the Digital Conventional channel parameter set as data capable or not.</p> <p>True enables data capability.</p> <p>False disables data capability.</p>
Voice Repeat	Disable	<ul style="list-style-type: none"> Enable Disable 	<p>This parameter is used in Conventional IV&D to prevent outbound data from being sent when there is inbound voice on a channel configured with voice repeat enabled.</p> <p>Enable enables voice repeat.</p> <p>Disable disables voice repeat.</p>
Conventional Vote Scan	Disable	<ul style="list-style-type: none"> Enable Disable 	<p>This parameter designates a channel as Vote Scan enabled or disabled. This parameter is used when sending outbound data to the channel.</p> <p>Enable enables preamble to be transmitted before the start of every data transaction to a scan enabled subscriber.</p> <p>Disable enables a preamble to be transmitted when Scan Suspend Timer has expired for a scan enable subscriber.</p>
Control Station Pacing Interval (msec)	0	0 to 10,000	<p>This parameter defines the amount of time the infrastructure prohibits outbound data on a channel designated as a Control Station. This functionality is triggered after an outbound unconfirmed message is sent to outbound to the control station. Units are milliseconds.</p>
Conventional Channel Data Mode	ASTRO25 Normal	<ul style="list-style-type: none"> ASTRO25 Normal 	<p>This parameter defines the mode of a digital conventional channel.</p>

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> ASTRO25 Subsite Steered ASTRO25 Control Station 	<p>ASTRO25 Normal is used for a normal AS-TRO25 Full duplex, non-subsite steered conventional channel.</p> <p>ASTRO25 Subsite Steered causes the Conventional PDG to steer outbound data to the correct subsite.</p> <p>ASTRO25 Control Station causes the Conventional PDG to pause outbound data transmission while waiting for confirmed outbound data to be acknowledged from Control Station (half duplex) channels in Conventional IV&D.</p>

Paging Format QuickCall I

The QuickCall I Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II B

The QuickCall II B Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II C

The QuickCall II C Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II D

The QuickCall II D Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II E

The QuickCall II E Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format DTMF Touch Code

The DTMF Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Knox Touch Code

The Knox Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 0.5

The Single Tone 0.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 1.5

The Single Tone 1.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Motorola 5/6 Tone

The Motorola 5/6 Tone Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3.7


MDC1200 Conventional Channel

MDC 1200 provides digital signaling over an analog channel. The signaling is used for both status and control messaging between Radios and Dispatchers. PTT ID, Emergency, and Status are examples of the signaling types available on an MDC 1200 channel.

The configuration of this object impacts the following devices:

- ZC
- CSC
- VPM AIS
- CONSOLE
- CCGW
- CCGW HD

Identity

Field	Default	Allowed Values	Description
Ethernet Channel Interface			Reserved for future use.
Hostname/IP Address			Reserved for future use.
Conventional Channel ID	N/A	1 to 32	Enter a unique number that refers to a specific channel within a site. Must be unique within the same site.  NOTICE: The channel ID range depends on the type of Conventional Gateway Type being employed.
Conventional Channel Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that refers to the channel for the conventional site.

Conventional Site

A Conventional Site with **Site Type** set to **Combination** or **Combination-HD** that this channel is associated with. Click **Choose Record** to display a list of available options.

See [Conventional Site on page 137](#).

Conventional Channel Group

A Conventional Channel Group that this channel is associated with. A MDC1200 channel can only be grouped with other MDC1200 and/or ACIM channels. Click **Choose Record** to display a list of available options.

See [Conventional Channel Group on page 119](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Channel Configuration



Field	Default	Allowed Values	Description
Inbound Call	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the Console to show the speaker icon to the dispatcher when an inbound call starts.</p> <p>No specifies that the Console does not show the speaker icon to the dispatcher, but the audio is still heard at the Console position.</p>
Conventional Channel Priority	10	1 to 10	<p>Select the priority to determine which conventional channel calls can be dropped by the console when the voice and secure card resources are busy.</p> <p> NOTICE: The value 1 indicates the highest priority.</p>
Half Duplex Conventional Channel	No	<ul style="list-style-type: none"> Yes No 	<p>A conventional channel identified as a Half-Duplex channel needs to ignore any incoming BOMTs for determining a change in the patch source audio while the channel has an outgoing patch transmission in progress. This will ensure that the Console Patch Source Audio rules do not change the patch source audio to an incoming call on a Half-Duplex channel since a Half-Duplex channel cannot be both transmitting and receiving at the same time. So if the channel has an ongoing outbound patch transmission, then any inbound audio to the console cannot be captured by the base station, but rather is locally generated by the station. The Half-Duplex designation will keep the console from trying to switch the source of the patch to be the incoming locally-generated audio represented in the BOMT. Examples of this would be a locally-generated talk-permit tone generated by a console base station. If the channel is not configured as a Half-Duplex channel, then it will follow its existing patch source audio rules and switch the source of the patch to be the incoming audio from the channel. For channels that have locally generated tones upon being keyed up, this is undesirable.</p>
Node Type	T1R1	<ul style="list-style-type: none"> R1 T1R1 T2R2 T4R4 T6R6 T8R8 	<p>Select the node type being used for this conventional channel.</p> <p> NOTICE: When the method to key the transmitter is Relay, you cannot associate a Tone Table to the channel.</p> <p>The node type of a Main/Alternate channel cannot be changed.</p>

Table continued...




Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> T12R12 T14R14 T16R16 	
Base Type	T1 Standard	<ul style="list-style-type: none"> Null T1 Standard T1 Paging T1 4PL T1 8PL T2 Standard T2 4PL T2 8PL T4 Standard T8 Standard T14 Standard T16 Standard T1Securenet T2Securenet T4Securenet 	<p>Select the base type being used for this conventional channel. Node Type must have previously been selected.</p> <p> NOTICE: Depending on the chosen Node Type or Channel, the range of the Base Type parameter may vary.</p>
Conventional Frequency Select	N/A	<ul style="list-style-type: none"> 0 0 to 2 0 to 4 0 to 6 0 to 8 0 to 12 0 to 14 0 to 16 	<p>Set the number of frequencies used by this channel.</p> <p> NOTICE: The default and allowed values for the number of frequencies used by this channel depend on the selected Node Type.</p>
Method to Key the Transmitter	ToneAndRelay	<ul style="list-style-type: none"> Tone Relay ToneAndRelay 	<p>Select the method used to key the transmitter on this conventional channel.</p> <p> NOTICE: Setting the Method to Key the Transmitter parameter to ToneAndRelay configures the channel to use both TRC and relay keying. This setting allows TRC and relay keying of the transmitter on Analog and MDC channels.</p>
Transmit Mode	Analog	<ul style="list-style-type: none"> Analog 	(Read Only) Displays the Transmit Mode for the Channel.

Table continued...




Field	Default	Allowed Values	Description
Channel Marker Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the Channel Marker feature for the selected profile.</p> <p>No disables the Channel Marker feature.</p>
Patch	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to add a resource to a patchgroup.</p> <p>No disables the console user from adding a resource to a patchgroup. If a Console TG/MG Capabilities Profile is already assigned to a multigroup, the Patch field cannot be set to Yes. Also, if the Patch field of a Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup.</p>
Duplex Patch Capable	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to use Duplex Patch when patching this channel with another Duplex Patch capable resource (either another Analog or MDC conventional channel or a console telephone resource).</p> <p>No disables this capability for this channel.</p> <p> IMPORTANT: The Duplex Patch does not work if you set the Analog Interface Type parameter to 2-Wire.</p>
PL Select	0	0 to 8 0 to 4 0	Enter the number of Private Lines (PLs) actually used by this channel. You must select Base Type before you can edit this field.
Method to Detect Inbound Radio Transmission	VOX	<ul style="list-style-type: none"> VOX COR 	<p>Select the method for voice detection on the conventional channel; VOX for voice detection or COR for carrier-operated relay detection.</p> <p> NOTICE: COR is not supported on Advanced SECURENET® channels.</p>
VOX hold-off Delay (msec)	1000	500 to 10,000 (increments of 500)	Select the amount of time the channel remains active after the voice level received by the CCGW falls below the threshold that initially caused the channel to be considered active.
VOX Threshold Adjustment	0	-25 to 15	<p>Select the adjustment to the VOX threshold. This value is used by the CCGW to calculate the actual VOX Threshold. The formula is: VOX Threshold = Knee - 15 + VOX_Threshold_Adjustment. The total VOX Threshold value cannot be lower than -55 dBm.</p> <p> NOTICE: For CCGW and CCGW-s2500, only the range of 0 to 15 applies.</p>

Table continued...


Field	Default	Allowed Values	Description
COR hold-off Delay (msec)	6600	0 to 6,600 (increments of 50)	<p>Select the amount of time the MDC 1200 Conventional Channel waits for activity (LOBL, MDC, voice VOX detect) for channel to be considered active with a voice call by default.</p> <p> IMPORTANT: This parameter is available only for the MDC 1200 Conventional Channel.</p> <p>Even though 0-500 msec delay should work well, here are reasons to adjust COR Holdoff Delay to longer or shorter values:</p> <ol style="list-style-type: none"> 1 Console that receives a call indication is driven by COR detection on a channel configured for COR. COR Holdoff Delay should be set to equal subscriber pre-time used on the channel for Supplementary data messages to be properly indicated on consoles. However, this can also delay call indication on consoles for the duration of the delay. <ol style="list-style-type: none"> a If COR Holdoff Delay is set to a lower value, any inbound transmission (including supplementary data) is indicated as a voice call (displayed an Unknown ID) while the transmission may be a Call Alert or Emergency signal, etc. b Setting the COR Holdoff Delay high means that station unmute is not indicated on consoles until voice, TRC, or MDC signaling traffic is detected on the channel or 6.6 seconds elapses whichever happens first. Any voice, TRC or MDC signaling detected always indicated on the console regardless of COR Holdoff Delay, only silent calls cause the entire COR Holdoff Delay to elapse. 2 Patch setup is initiated by call start detection, so the longer COR Holdoff Delay delays patch setup. 3 Console Cross Busy/Cross Mute is not enforced while a silent inbound call is in progress during COR Holdoff Delay, so interference can take place on conflicting channels normally prohibited by Cross Busy/Cross Mute. 4 Voting Display can show inbound activity prior to console showing inbound activity due to COR Holdoff Delay in starting a call with the console.

Table continued...


Field	Default	Allowed Values	Description
			<p>5 During COR Holdoff Delay calls can be starting but not yet indicated on consoles. Consoles are able to make outbound calls, supplementary signaling, or station control commands on the channel which can disrupt the inbound call in progress.</p>
Proper Channel Feedback	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes indicates that the CCGW reports the presence of detected channel feedback audio in a bit in the Digital Conventional Radio Call Request and only passes feedback tones from the channel to the console that the operator should hear. This is considered "proper channel feedback" function.</p> <p>No indicates that the CCGW behaves the same in terms of detection and reporting of feedback tones, but passes all such tones to the console as audio.</p>
Tone Pre-time Delay (msec)	300	0 to 3,300 (increments of 100)	<p>The number of milliseconds of pretime that must precede transmissions, such as Channel Marker and Alert Tones. This allows channel devices, such as CIUs, consolettes, or comparators, to complete other signaling operations that may conflict with immediate receipt of audio from the console.</p> <p>For example, if a channel has MDC signaling Pre-time Delay configured such that channel marker or alert tones are being truncated, the Tone Pre-time Delay should be set equal to, or greater than the MDC signaling Pre-time Delay.</p> <p> IMPORTANT: A long Tone Pre-time Delay associated with a short Channel Marker Repeat Interval makes the channel unusable. For instance, a 3,300 ms tone pre-time with a 5 second channel marker interval results in the channel keyed for nearly 80% of the time. Consider longer channel marker intervals when using long pre-time values. The default Channel Marker Repeat Interval is 10 seconds.</p> <p>For Analog channels with ASN, the value must account for CIU configuration.</p>

Table continued...

Field	Default	Allowed Values	Description
Channel Role	Standalone	<ul style="list-style-type: none"> Standalone Main Alternate 	<p>Specify the role of a channel in a Main/Alternate pair.</p> <p>Standalone indicates that no Main/Alternate relationship is set for this channel.</p> <p>Main indicates the active role of the channel at any given time.</p> <p>Alternate indicates the standby role of the channel at any given time.</p>

Main/Alternate Configuration

The other channel participating in the Main/Alternate pairing.

MAIN	ALTERNATE				
	MDC 1200	Digital	Analog	Mixed Mode	ACIM
MDC 1200	Supported	Blocked	Supported	Blocked	Blocked
Digital	Blocked	Supported	Supported	Supported	Blocked
Analog	Blocked	Blocked	Supported	Blocked	Blocked
Mixed Mode	Blocked	Supported	Supported	Supported	Blocked
ACIM	Blocked	Blocked	Blocked	Blocked	Supported



IMPORTANT: The following parameters further determine the compatibility of main/alternate pairings:

- Console Supervisory Takeover
- Security Group assigned to the Channel
- Conventional Channel Group
- Signaling scheme
- Secure Communication Mode
- Key Number – must be the same for Analog and MDC 1200 Channels
- Auto Key (only for Digital and Mixed Mode channels)
- Common Key Reference (Default and List) – must be the same for Digital, Mixed Mode, and ACIM Channels
- Node Type

Channel Frequencies

Field	Default	Allowed Values	Description
Conventional Frequency Id	N/A	1 to 255	(Read only) Displays the conventional frequency identifiers.

Table continued...

Field	Default	Allowed Values	Description
Conventional Frequency Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	(Read only) Displays the aliases for the conventional frequencies this conventional channel uses.
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Channel Private Lines

Field	Default	Allowed Values	Description
PL ID	N/A	1 to 8	(Read only) Displays the Private Line (PL) identifiers.
PL Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter the aliases for the Private Lines (PLs) this conventional channel uses.
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Signaling Features

Field	Default	Allowed Values	Description
Status Update	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Status Update feature.</p> <p>No disables the support of the Status Update feature.</p>
Status Request	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Status Request feature.</p> <p>No disables the support of the Status Request feature.</p>

Table continued...


Field	Default	Allowed Values	Description
Message Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of the Message Update feature.</p> <p>No disables the support of the Message Update feature.</p>
Radio Check	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of the Radio Check feature.</p> <p>No disables the support of the Radio Check feature.</p>
Remote Monitor	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to send the "Enhanced Remote Unit Monitor" command to a radio in a talkgroup with the assigned Console TG/MG Capability Profile. This parameter must be turned on for the console to direct the target radio to transmit on this talkgroup. Otherwise, the console cannot remote monitor any radio in this talkgroup.</p> <p>No disables this capability.</p> <p>If a Console TG/MG Capabilities Profile is already assigned to a multigroup or agencygroup, the Remote Monitor field cannot be set to Yes. Also, if the Remote Monitor field of the Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup or agencygroup.</p>
Radio Disable	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of the Radio Disable feature.</p> <p>No disables the support of the Radio Disable feature.</p>
Inbound Call Alert	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the capability to receive the inbound call alert.</p> <p>No disables the capability to receive the inbound call alert.</p>
Outbound Call Alert	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the capability to send the outbound call alert.</p> <p>No disables the capability to send the outbound call alert.</p> <p> NOTICE: For Digital or Mixed Mode channels, Call Alerts can be sent to an individual or talk group. The individual call alert is acknowledged, the group call alert is not. The group call alert is a Motorola Solutions proprietary message.</p>
Inbound Emergency	Yes	<ul style="list-style-type: none"> • Yes 	<p>Yes enables the console user to be informed when there is an incoming emergency call.</p>

Table continued...





Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> No 	<p>No disables the console user from being informed when there is an incoming emergency call.</p>
Emergency Recognize	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the capability to recognize an emergency alarm.</p> <p>No disables the capability to recognize an emergency alarm.</p> <p> NOTICE: For Digital and Mixed Mode channels, if the Emergency Recognize parameter is set to No, then the Inbound Emergency and Emergency Alarm parameters are set to No.</p>
End Emergency	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to end any emergency activity that has been acknowledged.</p> <p>No disables the console user from ending any emergency activity that has been acknowledged.</p>
Emergency Alarm	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user Emergency Alarm indications.</p> <p>No disables the console user Emergency Alarm indications.</p>
Acknowledgement Delay Timer (dsec)	0	0 to 19	Enter the Acknowledgement Delay Timer (in 1/10th of a second) which controls how long the console or Zone Controller waits after a signaling event is received before sending an acknowledgement.
Retry Delay Timer (dsec)	2	2 to 17	<p>Enter the Retry Delay Timer (in 1/10th of a second) which determines how soon the console retries after attempting a signaling operation without receiving an acknowledgement.</p> <p> IMPORTANT: MDC 1200 signaling may require a longer Retry Delay timer than the default value (2). For this reason, a value of 5, which provides for about 2.5 seconds of wait time before a signaling retry or page delivery failure occurs, is recommended.</p>
Repeat On/Off	No	<ul style="list-style-type: none"> Yes No 	<p>Yes specifies that the user can set in-cabinet repeat to be on or off.</p> <p>No specifies that the user cannot set in-cabinet repeat to be on or off.</p>
MDC Receive Pre-emphasis	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of MDC Receive Pre-emphasis.</p> <p>No disables this capability.</p>

Table continued...

Field	Default	Allowed Values	Description
MDC Transmit De-emphasis	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of MDC Transmit De-emphasis.</p> <p>No disables this capability.</p>
Pre-time Delay (msec)	300	0 to 1,500 (increments of 100)	<p>Enter the Pre-Time Delay Number of milliseconds that should elapse from the time the resource keys up until the data is transmitted. This time allows for system set-up time and repeater delays. If repeater access is active, pre-time should also include the time it takes a repeater to power up to send a packet.</p> <p> NOTICE: For the ACIM conventional channel, the Pre-time Delay parameter is editable only when MDC Signaling is set to Yes.</p> <p> NOTICE: If a channel has MDC signaling Pre-time Delay configured such that channel marker or alert tones are being truncated, the Tone Pre-time Delay should be set equal to, or greater than the MDC signaling Pre-time Delay.</p>
Inbound Voice Selective Call	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of Inbound Voice Selective Call.</p> <p>No disables the support of Inbound Voice Selective Call.</p>
Outbound Voice Selective Call	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of Outbound Voice Selective Call.</p> <p>No disables the support of Outbound Voice Selective Call.</p>

Analog Interface Configuration


Field	Default	Allowed Values	Description
Average Inbound G.728 Audio Level (dBm0)	-26	-26 to -20	<p>Select the analog conventional channel's average inbound G.728 audio level. This parameter value is sent to dispatch consoles.</p> <p> IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.</p>
Average Outbound G.728 Audio Level (dBm0)	-26	-26 to -20	<p>Select the analog conventional channel's average outbound G.728 audio level. This parameter value is received from dispatch consoles.</p>

Table continued...








Field	Default	Allowed Values	Description
			 IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.
Inbound AGC Knee Setting	-25	-40 to 0	<p>Select the analog conventional channel's inbound AGC Knee setting. The Inbound AGC Knee Setting affects the Voice Detection (VOX) Threshold even when the Inbound AGC Type is set to AGC Off.</p>  IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.  NOTICE: For CCGW and CCGW-s2500, only the range of -40 to -10 applies.
LOBL Detect Threshold	-25	-40 to 0	<p>Specifies the lowest detection level of the High Guard Tone in an identification of a transmission by a parallel, non-MCC 7500 console (LOBL console) connected to an analog station in parallel with the system.</p> <p>For CCGW, the value must be set the same as for the Inbound AGC Knee Setting of the channel. The setting does not apply to CCGW-s2500.</p>
Inbound AGC Type	AGC Off	<ul style="list-style-type: none"> • AGC Off • AGC On • DLM 	<p>AGC Off means that the gain is fixed, regardless of the level of the input signal. The gain is never adjusted.</p> <p>AGC On means that the gain is adjusted based on the level of the input signal. The lower the input signal, the higher the gain.</p> <p>DLM means that the gain is varied dynamically during active speech, but during speech pauses the gain is frozen. Dynamic gain adjustment resumes when the next syllable of active speech is received.</p>  NOTICE: DLM is only supported when the conventional gateway type is Combination-HD.
Outbound Alignment Tone Level (dBm)	-10	-20 to 5	<p>Select the outbound path alignment tone level. If the Conventional Gateway type is Combination-HD, the maximum value is 2.</p>  IMPORTANT: It is strongly recommended not to change this value except under the guidance and direction of a service technician.



Table continued...

Field	Default	Allowed Values	Description
4 Wire Impedance (Ohms)	600 Ohms	<ul style="list-style-type: none"> 600 Ohms high impedance (10K Ohms) 	Impedance value for the 4-wire receive line.
Analog Interface Type	4-Wire	<ul style="list-style-type: none"> 2-Wire 4-Wire Both 	<p>The interface type for the channel: 2-wire, 4-wire, or 2-wire and 4-wire.</p> <p> NOTICE: The 2 wire interface is only available when the Conventional Gateway type is Combination-HD.</p>
2 Wire Tx/Rx or 4 Wire Tx Impedance (Ohms)	600	<ul style="list-style-type: none"> 600 900 10k 	<p>Impedance value for the 2-wire transmit/receive or the 4-wire transmit connector.</p> <p> NOTICE: This parameter is only configurable when the Conventional Gateway type is Combination-HD.</p>
Hardware Interface Type	Current Level Input Detector	<ul style="list-style-type: none"> Current Level Input Detector Distance Input Buffer Voltage Level Input Detector 	<p>If you set the Secure Communications Mode parameter to Clear, select the Hardware Interface Type to define the CCGW input type for both the COR- and the base-station-provided coded/clear signals.</p> <p>The base-station-provided coded/clear input does not support Current Level Input Detector. If you set the parameter to Current Level Input Detector, the base-station-provided coded/clear signal uses Voltage Level Input Detector and the COR input uses the Current Level Input Detector.</p> <p>For more information, see the <i>Motorola GGM 8000 Hardware User Guide</i>.</p>

Secure Communication Configuration

Field	Default	Allowed Values	Description
Secure Communication Mode	Clear	<ul style="list-style-type: none"> Clear Secure Both 	<p>Clear allows a radio user to transmit clear (non-secure) talkgroup calls only.</p> <p>Secure allows the radio user to transmit secure (encrypted) talkgroup calls only.</p> <p>Both allows the radio user to transmit both clear and secure talkgroup calls.</p>
Secure Communication Mode Default	Analog Clear	<ul style="list-style-type: none"> Analog Clear Analog Secure 	Specifies the default security mode for a channel.

Table continued...

Field	Default	Allowed Values	Description
Advanced SecureNet	No	<ul style="list-style-type: none"> Yes No 	<p>The Advanced SecureNet parameter determines if the channel has advanced secure options. Yes enables the Advanced SECURENET® features to be configured. No disables this capability.</p> <p> NOTICE: If the Secure Communication Mode parameter is set to Secure or Both, this parameter is editable.</p>
Number of Keys	0	0 to 8 0 to 6 0 to 4	<p>Select number of keys to configure for a channel.</p> <p> NOTICE: This parameter applies only to Advanced SECURENET® on Analog and MDC 1200 12kbit secure.</p>

Channel Key Numbers

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.
Key Number ID	N/A	1 to 8	Enter the Key Number ID. The IDs are a reference to the secure key used for conventional SECURENET® dispatch calls on Analog or MDC 1200 channels.
Key Number Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter an Alias for each Key Number selected. The Alias is displayed on the channel list of selectable key numbers.

Console Capabilities

Field	Default	Allowed Values	Description
Critical Resource Select	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to select the criticality setting of a resource in the communication system.</p> <p>No disables the console user from selecting the criticality setting of a resource in the communication system.</p>

Table continued...


Field	Default	Allowed Values	Description
Instant Transmit	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to initiate a transmission on the resource.</p> <p>No disables the console user from initiating a transmission on the resource.</p>
High Priority Console Patch Transmission	Normal	<ul style="list-style-type: none"> • Normal • High 	<p>Normal gives inbound radio audio priority over a simultaneous console patch transmission on the channel when the patch audio source is radio audio from a different resource.</p> <p>The console patch transmission has priority over simultaneous inbound radio audio when the patch audio source is a console.</p> <p>High gives a console patch transmission priority over simultaneous inbound radio audio on the channel when the patch audio source is either radio audio from a different resource or console audio.</p> <p>This setting is useful when the channel is an analog/MDC channel using a console base station and the inbound radio audio is talk permit tone. The High setting stops the talk permit tone from causing the system to end the console patch transmission.</p>
PTT ID Status	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that PTT ID status can be displayed to the user for this channel.</p> <p>No specifies that PTT ID status cannot be displayed to the user for this channel.</p>
Outbound PTT ID	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of Outbound PTT ID.</p> <p>No disables the support of Outbound PTT ID.</p>
Transmit without PL	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the user can key the channel without a PL.</p> <p>No specifies that the user cannot key the channel without a PL.</p> <p> NOTICE: Transmit without PL is used for T1-Paging stations.</p>
Page De-emphasis	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the channel normally applies pre-emphasis to transmitted audio and pages should be sent with compensating de-emphasis applied.</p> <p>No specifies that the channel normally does not apply pre-emphasis to the transmitted audio and pages do not require the application of compensating de-emphasis.</p>

Table continued...


Field	Default	Allowed Values	Description
Mute R2	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the channel is able to mute the second receiver so that users can hear higher priority audio on receiver 1.</p> <p>No specifies that the channel is not able to mute the second received so that users can hear higher priority audio on receiver 1.</p> <p> NOTICE: This parameter is used on Advanced SECURENET® channels to enable Keypset changes on the CIU. YES allows the console operator to change from one keyset to the other for the channel. When Key Index Select has been enabled (via Mute R2), the Number of Keys configurable for that channel is also limited to 4.</p>
Wildcard I	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that wildcard processing is allowed.</p> <p>No specifies that wildcard processing is not allowed.</p>
Inhibit Wildcard I Refresh	No	<ul style="list-style-type: none"> • Yes • No 	Determines whether the console should refrain from refreshing the Wildcard I feature when a main/alt switch occurs which results in this channel being the active channel.
Wildcard II	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that wildcard processing is allowed.</p> <p>No specifies that wildcard processing is not allowed.</p>
Inhibit Wildcard II Refresh	No	<ul style="list-style-type: none"> • Yes • No 	Determines whether the console should refrain from refreshing the Wildcard II feature when a main/alt switch occurs which results in this channel being the active channel.
Supervisor Takeover Capability Enabled	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that a supervisor takeover is allowed.</p> <p>No specifies that supervisor takeover is not allowed.</p>
Logging	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the channel is able to be logged.</p> <p>No specifies that the channel is not able to be logged.</p>
Single Select	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to select the resource for performing various console operations.</p> <p>No disables the console user from selecting the resource for performing various console operations.</p>

Table continued...

Field	Default	Allowed Values	Description
Volume Control	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to control the volume level of individual resources.</p> <p>No disables the console user from controlling the volume level of individual resources.</p>
Ignore Call To Other	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console to ignore mobile to mobile calls.</p> <p>No disables the console to ignore mobile to mobile calls.</p>
LOBL	Tone Only	<ul style="list-style-type: none"> Tone Only None Voltage Only Contact Closure Only Tone and Voltage Tone and Contact Closure 	<p>None means that LOBL is disabled for the channel.</p> <p>Tone means that LOBL can be triggered by Tone Remote Control tones.</p> <p>Contact closure and Voltage are LOBL modes for the I/O LOBL input line on the CCGW. The I/O LOBL input line is only available when the Conventional Gateway type is Combination-HD.</p>
Console Repeat Capable	No	<ul style="list-style-type: none"> No Latched Console Repeat Non-Latched Console Repeat 	<p>Determines whether the channel has the Console Repeat feature, and if it does, whether it has Latched or Non-Latched Console Repeat.</p>
Repeat Received MDC During Console Repeat	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes indicates that the CCGW should repeat the received MDC.</p> <p>No indicates that the CCGW should not repeat the received MDC.</p>

Tone Tables

The Tone remote control table that is appropriate for the station associated with this channel. A TRC table must be assigned to the channel when the **Method to Key Transmitter** parameter is set to **Tone** or **Tone and Relay**. For valid pre-defined Tone Table IDs, see [Pre-defined Tone Remote Control Tables on page 162](#).



NOTICE: User defined (Custom) TRC tables are always accepted as valid configuration.

Click **Choose Record** to display a list of available options. See [Tone Table on page 126](#).

Paging Format QuickCall I

The QuickCall I Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II B

The QuickCall II B Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II C

The QuickCall II C Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II D

The QuickCall II D Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II E

The QuickCall II E Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format DTMF Touch Code

The DTMF Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Knox Touch Code

The Knox Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 0.5

The Single Tone 0.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 1.5

The Single Tone 1.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Motorola 5/6 Tone

The Motorola 5/6 Tone Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

AuxIO

The AuxIO assigned to this channel when **Supervisor Takeover Capability Enabled** field is set to **Yes**. A valid assignment includes Latched/Output Aux I/Os with the same AuxIO Server Security Group as the MDC1200 Conventional Channel. Click **Choose Record** to display a list of available options.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3.8

Mixed Mode Conventional Channel

The Mixed Mode Conventional Channel object configures the type of channel the base radio uses to support subscriber calls.

When an analog subscriber call is made using a base radio that supports mixed mode, the 4-Wire link carries the analog voice, and the V.24 link carries the signaling. When a digital subscriber call is made using a base radio that supports mixed mode, the V.24 link carries a digital voice and digital signaling. A mixed mode channel requires the use of the GGM 8000 Conventional Channel Gateway supporting the interface between the base radio and console.




NOTICE: Mixed Mode Conventional Channels, operating in digital mode, support digital conventional features. Conventional Mixed Mode channels operating in analog mode do not support any signaling functions (such as Unit ID, Emergency, Call Alert, and others).

The configuration of this object impacts the following devices:

- ZC
- CIVD PDR
- CSC
- VPM AIS
- CONSOLE
- CCGW
- CCGW HD

Identity

Field	Default	Allowed Values	Description
Conventional Channel ID	N/A	1 to 32	<p>Enter a unique number that refers to a specific channel within a site. Must be unique within the same site.</p> <p> NOTICE: The channel ID range depends on the type of Conventional Gateway Type being employed.</p> <p>If the channel is Data Capable, the ID range is from 1 to 30.</p>
Conventional Channel Alias	N/A	<p>1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)</p>	Enter a unique name that refers to the channel for the conventional site.


Conventional Site

A Conventional Site with **Site Type** set to **Combination** or **Combination-HD** that this channel is associated with. Click **Choose Record** to display a list of available options.

See [Conventional Site on page 137](#).

Conventional Channel Group

A Conventional Channel Group that this channel is associated with. A Mixed Mode channel can only be grouped with other Mixed Mode, ACIM and/or Digital channels.

 **NOTICE:** Data capable channels must be assigned to channel group 2001.

Click **Choose Record** to display a list of available options.

See [Conventional Channel Group on page 119](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Channel Configuration

Field	Default	Allowed Values	Description
Inbound Call	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the Console to show the speaker icon to the dispatcher when an inbound call starts.

Table continued...





Field	Default	Allowed Values	Description
			No specifies that the Console does not show the speaker icon to the dispatcher, but the audio is still heard at the Console position.
Conventional Channel Priority	10	1 to 10	Select the priority to determine which conventional channel calls can be dropped by the console when the voice and secure card resources are busy.  NOTICE: The value 1 indicates the highest priority.
Node Type	T1R1	<ul style="list-style-type: none"> • R1 • T1R1 • T2R2 • T4R4 • T6R6 • T8R8 • T12R12 • T14R14 • T16R16 	Select the node type being used for this conventional channel.  NOTICE: The node type of a Main/Alternate channel cannot be changed.
Base Type	T1 Standard	<ul style="list-style-type: none"> • Null • T1 Standard • T1 Paging • T1 4PL • T1 8PL • T2 Standard • T2 4PL • T2 8PL • T4 Standard • T8 Standard • T14 Standard • T16 Standard 	Select the base type being used for this conventional channel. Node Type must have previously been selected.  NOTICE: Depending on the chosen Node Type or Channel, the range of the Base Type parameter may vary.
Conventional Frequency Select	N/A	<ul style="list-style-type: none"> 0 0 to 2 0 to 4 0 to 6 0 to 8 0 to 12 0 to 14 	Set the number of frequencies used by this channel.  NOTICE: The default and allowed values for the number of frequencies used by this channel depend on the selected Node Type.

Table continued...



Field	Default	Allowed Values	Description
		0 to 16	
Interface Type	V.24	<ul style="list-style-type: none"> V.24 Ethernet 	Specify whether the Ethernet or V24 interface is used between the conventional channel gateway and the site device.
Clock Source	Internal	<ul style="list-style-type: none"> Not Applicable Internal External 	<p>Selects the TX clock source for the V24 communication link.</p> <p>Internal enables the TX clock to be generated internally in the CCGW.</p> <p>External enables the TX clock to be generated by an external device.</p> <p> NOTICE: This field is editable when the Interface Type is set to V.24.</p>
Hostname/IP Address	N/A	0 to 255 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	<p>Enter the value that indicates the hostname or IP address of the digital channel.</p> <p>The value cannot be 0 or 0.0.0.0</p> <p> NOTICE: The channel IP Address parameter becomes editable if the Interface Type is set to Ethernet.</p>
Method to Key the Transmitter	Digital	<ul style="list-style-type: none"> Digital DigitalAndRelay Digital-AndTRC 	Select the method used to key the transmitter on this conventional channel.

Table continued...



Field	Default	Allowed Values	Description
			 <p>NOTICE: For Digital Conventional, Mixed Mode, and ACIM channels, setting the Method to Key the Transmitter parameter to DigitalAndRelay configures the channel to use both digital and relay keying of the transmitter. This setting allows relay keying on digital conventional, mixed mode, and ACIM channels. Since this relay mechanism uses an analog port to test the outbound call status, the analog port associated with the V.24 port on which the digital conventional channel is configured is assigned to the channel interface when the Method to Key the Transmitter parameter is set to DigitalAndRelay. If the associated analog port is already allocated to a different channel, you are not allowed to select DigitalAndRelay. Also, once a digital conventional, mixed mode, or ACIM channel is created, you cannot add or remove relay functionality (by changing the Method to Key the Transmitter parameter setting) over the associated analog port at run time. Instead, first delete the channel, then add the channel back with the desired Method to Key the Transmitter parameter setting. For details about how to delete a channel, see Deleting Records on page 71.</p>
VOX Threshold Adjustment	0	-25 to 15	<p>Select the adjustment to the VOX threshold. This value is used by the CCGW to calculate the actual VOX Threshold. The formula is: $\text{VOX Threshold} = \text{Knee} - 15 + \text{VOX_Threshold_Adjustment}$. The total VOX Threshold value cannot be lower than -55 dBm.</p>  <p>NOTICE: For CCGW and CCGW-s2500, only the range of 0 to 15 applies.</p>
Transmit Mode	Both	<ul style="list-style-type: none"> Both 	(Read Only) Displays the Transmit Mode for the Channel.
Channel Marker Enabled	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the Channel Marker feature for the selected profile. No disables the Channel Marker feature.
Logging	Yes	<ul style="list-style-type: none"> Yes 	Yes specifies that the channel is able to be logged.

Table continued...




Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> No 	<p>No specifies that the channel is not able to be logged.</p>
Patch	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to add a resource to a patchgroup.</p> <p>No disables the console user from adding a resource to a patchgroup. If a Console TG/MG Capabilities Profile is already assigned to a multigroup, the Patch field cannot be set to Yes. Also, if the Patch field of a Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup.</p>
Transmit without PL	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes specifies that the user can key the channel without a PL.</p> <p>No specifies that the user cannot key the channel without a PL.</p> <p> NOTICE: Transmit without PL is used for T1-Paging stations.</p>
Page De-emphasis	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes specifies that the channel normally applies pre-emphasis to transmitted audio and pages should be sent with compensating de-emphasis applied.</p> <p>No specifies that the channel normally does not apply pre-emphasis to the transmitted audio and pages do not require the application of compensating de-emphasis.</p>
Transmit Mode/ Secure Communication Mode Default	Digital Clear	<ul style="list-style-type: none"> Digital Clear Digital Secure Analog Clear 	<p> NOTICE: For Secure Communication Mode set to Secure, and Channel Type set to Mixed Mode, the value of this parameter is set to Digital Secure.</p>
Tone Pre-time Delay (msec)	400	0 to 3,300 (increments of 100)	<p>The number of milliseconds of pretime that must precede transmissions, such as Channel Marker and Alert Tones. This allows channel devices, such as CIUs, consolettes, or comparators, to complete other signaling operations that may conflict with immediate receipt of audio from the console. For example, if a channel has MDC signaling Pre-time Delay configured such that channel marker or alert tones are being truncated, the Tone Pre-time Delay should be set equal to, or greater than the MDC signaling Pre-time Delay.</p>

Table continued...

Field	Default	Allowed Values	Description
			 <p>IMPORTANT: A long Tone Pre-time Delay associated with a short Channel Marker Repeat Interval makes the channel unusable. For instance, a 3,300 ms tone pre-time with a 5 second channel marker interval results in the channel keyed for nearly 80% of the time. Consider longer channel marker intervals when using long pre-time values. The default Channel Marker Repeat Interval is 10 seconds.</p> <p>For Analog channels with ASN, the value must account for CIU configuration.</p>
Channel Role	Standalone	<ul style="list-style-type: none"> Standalone Main Alternate 	<p>Specify the role of a channel in a Main/Alternate pair.</p> <p>Standalone indicates that no Main/Alternate relationship is set for this channel.</p> <p>Main indicates the active role of the channel at any given time.</p> <p>Alternate indicates the standby role of the channel at any given time.</p>

Main/Alternate Channel

The other channel participating in the Main/Alternate pairing.

MAIN	ALTERNATE				
	MDC 1200	Digital	Analog	Mixed Mode	ACIM
MDC 1200	Supported	Blocked	Supported	Blocked	Blocked
Digital	Blocked	Supported	Supported	Supported	Blocked
Analog	Blocked	Blocked	Supported	Blocked	Blocked
Mixed Mode	Blocked	Supported	Supported	Supported	Blocked
ACIM	Blocked	Blocked	Blocked	Blocked	Supported



IMPORTANT: The following parameters further determine the compatibility of main/alternate pairings:

- Console Supervisory Takeover
- Security Group assigned to the Channel
- Conventional Channel Group
- Signaling scheme
- Secure Communication Mode
- Key Number – must be the same for Analog and MDC 1200 Channels
- Auto Key (only for Digital and Mixed Mode channels)
- Common Key Reference (Default and List) – must be the same for Digital, Mixed Mode, and ACIM Channels
- Node Type

Channel Frequencies

Field	Default	Allowed Values	Description
Conventional Frequency Id	N/A	1 to 255	(Read only) Displays the conventional frequency identifiers.
Conventional Frequency Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	(Read only) Displays the aliases for the conventional frequencies this conventional channel uses.
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Conventional Channel Talkgroup

The Conventional Channel Talkgroup assigned to this channel.



NOTICE: Group 65535 (0xFFFF) is the Channel Wide group and every unit on the channel is considered a member of it.

Click **Choose Record** to display a list of available options.

See [Conventional Channel Talkgroup on page 145](#).

Signaling Features

Field	Default	Allowed Values	Description
Status Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of the Status Update feature.</p> <p>No disables the support of the Status Update feature.</p>
Status Request	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of the Status Request feature.</p> <p>No disables the support of the Status Request feature.</p>
Message Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of the Message Update feature.</p> <p>No disables the support of the Message Update feature.</p>
Radio Check	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of the Radio Check feature.</p> <p>No disables the support of the Radio Check feature.</p>
Radio Disable	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of the Radio Disable feature.</p> <p>No disables the support of the Radio Disable feature.</p>
Remote Monitor	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to send the "Enhanced Remote Unit Monitor" command to a radio in a talkgroup with the assigned Console TG/MG Capability Profile. This parameter must be turned on for the console to direct the target radio to transmit on this talkgroup. Otherwise, the console cannot remote monitor any radio in this talkgroup.</p> <p>No disables this capability.</p> <p>If a Console TG/MG Capabilities Profile is already assigned to a multigroup or agencygroup, the Remote Monitor field cannot be set to Yes. Also, if the Remote Monitor field of the Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup or agencygroup.</p>
Inbound Call Alert	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the capability to receive the inbound call alert.</p> <p>No disables the capability to receive the inbound call alert.</p>
Outbound Call Alert	Yes	<ul style="list-style-type: none"> • Yes 	<p>Yes enables the capability to send the outbound call alert.</p>

Table continued...




Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> No 	<p>No disables the capability to send the outbound call alert.</p> <p> NOTICE: For Digital or Mixed Mode channels, Call Alerts can be sent to an individual or talk group. The individual call alert is acknowledged, the group call alert is not. The group call alert is a Motorola Solutions proprietary message.</p>
Inbound Emergency	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to be informed when there is an incoming emergency call.</p> <p>No disables the console user from being informed when there is an incoming emergency call.</p>
Emergency Recognize	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the capability to recognize an emergency alarm.</p> <p>No disables the capability to recognize an emergency alarm.</p> <p> NOTICE: For Digital and Mixed Mode channels, if the Emergency Recognize parameter is set to No, then the Inbound Emergency and Emergency Alarm parameters are set to No.</p>
End Emergency	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to end any emergency activity that has been acknowledged.</p> <p>No disables the console user from ending any emergency activity that has been acknowledged.</p>
Emergency Alarm	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user Emergency Alarm indications.</p> <p>No disables the console user Emergency Alarm indications.</p>
Acknowledgement Delay Timer (dsec)	0	0 to 19	Enter the Acknowledgement Delay Timer (in 1/10th of a second) which controls how long the console or Zone Controller waits after a signaling event is received before sending an acknowledgement.
Retry Delay Timer (dsec)	2	2 to 17	Enter the Retry Delay Timer (in 1/10th of a second) which determines how soon the console retries after attempting a signaling operation without receiving an acknowledgement.

Table continued...

Field	Default	Allowed Values	Description
			 IMPORTANT: MDC 1200 signaling may require a longer Retry Delay timer than the default value (2). For this reason, a value of 5, which provides for about 2.5 seconds of wait time before a signaling retry or page delivery failure occurs, is recommended.
Repeat On/Off	No	<ul style="list-style-type: none"> Yes No 	<p>Yes specifies that the user can set in-cabinet repeat to be on or off.</p> <p>No specifies that the user cannot set in-cabinet repeat to be on or off.</p>
Inbound Voice Selective Call	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of Inbound Voice Selective Call.</p> <p>No disables the support of Inbound Voice Selective Call.</p>
Outbound Voice Selective Call	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of Outbound Voice Selective Call.</p> <p>No disables the support of Outbound Voice Selective Call.</p>

Analog Interface Configuration








Field	Default	Allowed Values	Description
Average Inbound G.728 Audio Level (dBm0)	-26	-26 to -20	<p>Select the analog conventional channel's average inbound G.728 audio level. This parameter value is sent to dispatch consoles.</p> <p> IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.</p>
Average Outbound G.728 Audio Level (dBm0)	-26	-26 to -20	<p>Select the analog conventional channel's average outbound G.728 audio level. This parameter value is received from dispatch consoles.</p> <p> IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.</p>
Inbound AGC Knee Setting	-25	-40 to 0	<p>Select the analog conventional channel's inbound AGC Knee setting. The Inbound AGC Knee Setting affects the Voice Detection (VOX) Threshold even when the Inbound AGC Type is set to AGC Off.</p>


Table continued...

Field	Default	Allowed Values	Description
			 IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.  NOTICE: For CCGW and CCGW-s2500, only the range of -40 to -10 applies.
Inbound AGC Type	AGC Off	<ul style="list-style-type: none"> AGC Off AGC On DLM 	<p>AGC Off means that the gain is fixed, regardless of the level of the input signal. The gain is never adjusted.</p> <p>AGC On means that the gain is adjusted based on the level of the input signal. The lower the input signal, the higher the gain.</p> <p>DLM means that the gain is varied dynamically during active speech, but during speech pauses the gain is frozen. Dynamic gain adjustment resumes when the next syllable of active speech is received.</p>  NOTICE: DLM is only supported when the conventional gateway type is Combination-HD.
Outbound Alignment Tone Level (dBm)	-10	-20 to 5	<p>Select the outbound path alignment tone level.</p> <p>If the Conventional Gateway type is Combination-HD, the maximum value is 2.</p>  IMPORTANT: It is strongly recommended not to change this value except under the guidance and direction of a service technician.
4 Wire Impedance (Ohms)	600 Ohms	<ul style="list-style-type: none"> 600 Ohms High Impedance (10K Ohms) 	Impedance value for the 4-wire receive line.
2 Wire Tx/Rx or 4 Wire Tx Impedance (Ohms)	600	<ul style="list-style-type: none"> 600 900 10k 	<p>Impedance value for the 2-wire transmit/receive or the 4-wire transmit connector.</p>  NOTICE: This parameter is only configurable when the Conventional Gateway type is Combination-HD.

Secure Communication Configuration

Field	Default	Allowed Values	Description
Secure Communi-	Clear	<ul style="list-style-type: none"> Clear Secure 	Clear allows a radio user to transmit clear (non-secure) talkgroup calls only.

Table continued...

Field	Default	Allowed Values	Description
Secure Communication Mode		<ul style="list-style-type: none"> Both 	<p>Secure allows the radio user to transmit secure (encrypted) talkgroup calls only.</p> <p>Both allows the radio user to transmit both clear and secure talkgroup calls.</p>
Advanced SecureNet	No	<ul style="list-style-type: none"> Yes No 	<p>The Advanced SecureNet parameter determines if the channel has advanced secure options. Yes enables the Advanced SECURE-NET® features to be configured. No disables this capability.</p> <p> NOTICE: If the Secure Communication Mode parameter is set to Secure or Both, this parameter is editable.</p>
Auto Key	No	<ul style="list-style-type: none"> Yes No 	<p>Auto Key determines whether the Console uses the last received key for the next console transmission. When Auto Key is enabled, the Console overwrites the value of the last CKR in the CKR list with the auto key.</p> <p>Yes enables this capability.</p> <p>No disables this capability.</p>
Secure Key In	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the Console to display the alias of the CKR for the received call.</p> <p>No disables this capability.</p>

Default CKR

The default Key index used for secure communication. If you set the **Secure Communication Mode** parameter to **Secure** or **Both**, select an existing Common Reference Key record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Non-Default CKR List

A list of up to 250 Key indices used for secure communication. If you set the **Advanced SecureNet** parameter to **Yes**, select an existing Common Reference Key record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Console Capability Configuration

Field	Default	Allowed Values	Description
Critical Resource Select	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to select the criticality setting of a resource in the communication system.</p> <p>No disables the console user from selecting the criticality setting of a resource in the communication system.</p>

Table continued...

Field	Default	Allowed Values	Description
Fast Unmute	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the Console subsystem to not wait for an ESYNC update before unmuting.</p> <p>No disables the Console subsystem to not wait for an ESYNC update before unmuting.</p>
Ignore Call To Other	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console to ignore mobile to mobile calls.</p> <p>No disables the console to ignore mobile to mobile calls.</p>
Instant Transmit	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to initiate a transmission on the resource.</p> <p>No disables the console user from initiating a transmission on the resource.</p>
High Priority Console Patch Transmission	Normal	<ul style="list-style-type: none"> • Normal • High 	<p>Normal gives inbound radio audio priority over a simultaneous console patch transmission on the channel when the patch audio source is radio audio from a different resource.</p> <p>The console patch transmission has priority over simultaneous inbound radio audio when the patch audio source is a console.</p> <p>High gives a console patch transmission priority over simultaneous inbound radio audio on the channel when the patch audio source is either radio audio from a different resource or console audio.</p> <p>This setting is useful when the channel is an analog/MDC channel using a console base station and the inbound radio audio is talk permit tone. The High setting stops the talk permit tone from causing the system to end the console patch transmission.</p>
PTT ID Status	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that PTT ID status can be displayed to the user for this channel.</p> <p>No specifies that PTT ID status cannot be displayed to the user for this channel.</p>
Single Select	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to select the resource for performing various console operations.</p> <p>No disables the console user from selecting the resource for performing various console operations.</p>
Volume Control	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to control the volume level of individual resources.</p> <p>No disables the console user from controlling the volume level of individual resources.</p>

Data Capability Configuration

Field	Default	Allowed Values	Description
Data Capable	False	<ul style="list-style-type: none"> • True • False 	<p>Select whether you want this conventional channel parameter set as data capable or not.</p> <p>True enables data capability.</p> <p>False disables data capability.</p>
Voice Repeat	Disable	<ul style="list-style-type: none"> • Enable • Disable 	<p>This parameter is used in Conventional IV&D to prevent outbound data from being sent when there is inbound voice on a channel configured with voice repeat enabled.</p> <p>Enable enables voice repeat.</p> <p>Disable disables voice repeat.</p>
Conventional Vote Scan	Disable	<ul style="list-style-type: none"> • Enable • Disable 	<p>This parameter designates a channel as Vote Scan enabled or disabled. This parameter is used when sending outbound data to the channel.</p> <p>Enable enables preamble to be transmitted before the start of every data transaction to a scan enabled subscriber.</p> <p>Disable enables a preamble to be transmitted when Scan Suspend Timer has expired for a scan enable subscriber.</p>
Control Station Pacing Interval (msec)	0	0 to 10,000	<p>This parameter defines the amount of time the infrastructure prohibits outbound data on a channel designated as a Control Station. This functionality is triggered after an outbound unconfirmed message is sent to outbound to the control station. Units are milliseconds.</p>
Conventional Channel Data Mode	ASTRO25 Normal	<ul style="list-style-type: none"> • ASTRO25 Normal • ASTRO25 Subsite Steered • ASTRO25 Control Station 	<p>This parameter defines the mode of a digital conventional channel.</p> <p>ASTRO25 Normal is used for a normal ASTRO25 Full duplex, non-subsite steered conventional channel.</p> <p>ASTRO25 Subsite Steered causes the Conventional PDG to steer outbound data to the correct subsite.</p> <p>ASTRO25 Control Station causes the Conventional PDG to pause outbound data transmission while waiting for confirmed outbound data to be acknowledged from Control Station (half duplex) channels in Conventional IV&D.</p>

Paging Format QuickCall I

The QuickCall I Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II B

The QuickCall II B Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II C

The QuickCall II C Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II D

The QuickCall II D Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II E

The QuickCall II E Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format DTMF Touch Code

The DTMF Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Knox Touch Code

The Knox Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 0.5

The Single Tone 0.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 1.5

The Single Tone 1.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Motorola 5/6 Tone

The Motorola 5/6 Tone Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3.9

ACIM Conventional Channel

The ASTRO® 25 ACIM Conventional Channel enables connection of the Motorola Solutions consolette (APX™ 7500 Multi-Band or ASTRO® Digital XTL 5000) to the Conventional Channel Gateway (CCGW) via the ACIM link protocol interface, enabling an exchange of control information between a dispatch console and a Motorola Solutions consolette.

It is usually used for two reasons:

- The consolette can provide communications to the console if the zone core is not available (for example, due to a link failure).
- The consolette can provide wireless access to systems utilizing various over-the-air protocols (Analog Conventional, ASTRO® Conventional, MDC1200 Conventional, SmartZone®/SMARTNET™, SmartZone® ASTRO® Trunking and ASTRO® 25).

The Motorola Solutions consolette is capable of either transmitting or receiving at any given time since the transceiver on the consolette is not full duplex. The consolette is connected to the Conventional Channel Gateway with V.24 (RS-232) and 4-wire connectors, constituting an ACIM interface.



NOTICE: The ACIM interface uses asynchronous V.24 over the RS-232 connection.

The Conventional Channel Gateway has to be a GGM 8000 equipped with an analog/V.24 interface kit, as the S2500 does not support the ACIM conventional channel. A single Conventional Channel Gateway supports up to four ACIM conventional channels.

The ACIM conventional channel is supported on the following Motorola Solutions consolettes:

- APX™ 7500 Multi-Band Consolette
- ASTRO® Digital XTL 5000 Consolette




IMPORTANT: The ACIM conventional channel for a dispatch console is only certified to operate with an APX™ or XTL consolette. Operation of a DIU with the MCC 7500 ACIM conventional channel is not supported.

The configuration of this object impacts the following devices:

- ZC
- CSC
- VPM AIS
- CONSOLE

- CCGW
- CCGW HD

Identity

Field	Default	Allowed Values	Description
Conventional Channel ID	N/A	1 to 32	Enter a unique number that refers to a specific channel within a site. Must be unique within the same site.  NOTICE: The channel ID range depends on the type of Conventional Gateway Type being employed.
Conventional Channel Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that refers to the channel for the conventional site.

Site Configuration

A Conventional Site with **Site Type** set to **Combination** or **Combination-HD** that this channel is associated with. Click **Choose Record** to display a list of available options.

See [Conventional Site on page 137](#).

Conventional Channel Group

A Conventional Channel Group that this channel is associated with. An ACIM channel can only be part of the following groupings:

- Other ACIM and/or MDC1200 channels (or)
- Other ACIM, Mixed Mode and/or Digital channels.

Click **Choose Record** to display a list of available options.

See [Conventional Channel Group on page 119](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Channel Configuration



Field	Default	Allowed Values	Description
Inbound Call	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the Console to show the speaker icon to the dispatcher when an inbound call starts.</p> <p>No specifies that the Console does not show the speaker icon to the dispatcher, but the audio is still heard at the Console position.</p>
Conventional Channel Priority	10	1 to 10	<p>Select the priority to determine which conventional channel calls can be dropped by the console when the voice and secure card resources are busy.</p> <p> NOTICE: The value 1 indicates the highest priority.</p>
Half Duplex Conventional Channel	No	<ul style="list-style-type: none"> • Yes • No 	<p>A conventional channel identified as a Half-Duplex channel needs to ignore any incoming BOMTs for determining a change in the patch source audio while the channel has an outgoing patch transmission in progress. This will ensure that the Console Patch Source Audio rules do not change the patch source audio to an incoming call on a Half-Duplex channel since a Half-Duplex channel cannot be both transmitting and receiving at the same time. So if the channel has an ongoing outbound patch transmission, then any inbound audio to the console cannot be captured by the base station, but rather is locally generated by the station. The Half-Duplex designation will keep the console from trying to switch the source of the patch to be the incoming locally-generated audio represented in the BOMT. Examples of this would be a locally-generated talk-permit tone generated by a console base station. If the channel is not configured as a Half-Duplex channel, then it will follow its existing patch source audio rules and switch the source of the patch to be the incoming audio from the channel. For channels that have locally generated tones upon being keyed up, this is undesirable.</p>
Node Type	T1R1	<ul style="list-style-type: none"> • R1 • T1R1 • T2R2 • T4R4 • T6R6 • T8R8 	<p>Select the node type being used for this conventional channel.</p> <p> NOTICE: The node type of a Main/Alternate channel cannot be changed.</p>

Table continued...




Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> T12R12 T14R14 T255R255 	
Base Type	T1 Standard	<ul style="list-style-type: none"> Null T1 Standard T1 Paging T1 4PL T1 8PL T2 Standard T2 4PL T2 8PL T4 Standard T8 Standard T14 Standard T255 Standard 	<p>Select the base type being used for this conventional channel. Node Type must have previously been selected.</p> <p> NOTICE: Depending on the chosen Node Type or Channel, the range of the Base Type parameter may vary.</p>
Conventional Frequency Select	N/A	<ul style="list-style-type: none"> 0 0 to 2 0 to 4 0 to 6 0 to 8 0 to 12 0 to 14 0 to 255 	<p>Set the number of frequencies used by this channel.</p> <p> NOTICE: The default and allowed values for the number of frequencies used by this channel depend on the selected Node Type.</p>
Interface Type	V.24	<ul style="list-style-type: none"> V.24 	Specify whether the Ethernet or V24 interface is used between the conventional channel gateway and the site device.
Clock Source	Internal	<ul style="list-style-type: none"> Internal External 	<p>Selects the TX clock source for the V24 communication link.</p> <p>Internal enables the TX clock to be generated internally in the CCGW.</p> <p>External enables the TX clock to be generated by an external device.</p> <p> NOTICE: This field is editable when the Interface Type is set to V.24.</p>
Method to Key the Transmitter	Digital	<ul style="list-style-type: none"> Digital DigitalAndRelay 	Select the method used to key the transmitter on this conventional channel.

Table continued...



Field	Default	Allowed Values	Description
			 <p>NOTICE: For Digital Conventional, Mixed Mode, and ACIM channels, setting the Method to Key the Transmitter parameter to DigitalAndRelay configures the channel to use both digital and relay keying of the transmitter. This setting allows relay keying on digital conventional, mixed mode, and ACIM channels. Since this relay mechanism uses an analog port to test the outbound call status, the analog port associated with the V.24 port on which the digital conventional channel is configured is assigned to the channel interface when the Method to Key the Transmitter parameter is set to DigitalAndRelay. If the associated analog port is already allocated to a different channel, you are not allowed to select DigitalAndRelay. Also, once a digital conventional, mixed mode, or ACIM channel is created, you cannot add or remove relay functionality (by changing the Method to Key the Transmitter parameter setting) over the associated analog port at run time. Instead, first delete the channel, then add the channel back with the desired Method to Key the Transmitter parameter setting. For details about how to delete a channel, see Deleting Records on page 71.</p>
Transmit Mode	Both	<ul style="list-style-type: none"> Both 	(Read Only) Displays the Transmit Mode for the Channel.
Channel Marker Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the Channel Marker feature for the selected profile.</p> <p>No disables the Channel Marker feature.</p>
Patch	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to add a resource to a patchgroup.</p> <p>No disables the console user from adding a resource to a patchgroup. If a Console TG/MG Capabilities Profile is already assigned to a multigroup, the Patch field cannot be set to Yes. Also, if the Patch field of a Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup.</p>

Table continued...

Field	Default	Allowed Values	Description
Channel Partitioning	NonPartitioned	<ul style="list-style-type: none"> NonPartitioned Partitioned 	<p>Partitioned enables the channel to support talkgroups.</p> <p>NonPartitioned disables the channel to support talkgroups.</p>
Logging	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes specifies that the channel is able to be logged.</p> <p>No specifies that the channel is not able to be logged.</p>
Tone Pre-time Delay (msec)	0	0 to 3,300 (increments of 100)	<p>The number of milliseconds of pretime that must precede transmissions, such as Channel Marker and Alert Tones. This allows channel devices, such as CIUs, consolettes, or comparators, to complete other signaling operations that may conflict with immediate receipt of audio from the console. For example, if a channel has MDC signaling Pre-time Delay configured such that channel marker or alert tones are being truncated, the Tone Pre-time Delay should be set equal to, or greater than the MDC signaling Pre-time Delay.</p> <p> IMPORTANT: A long Tone Pre-time Delay associated with a short Channel Marker Repeat Interval makes the channel unusable. For instance, a 3,300 ms tone pre-time with a 5 second channel marker interval results in the channel keyed for nearly 80% of the time. Consider longer channel marker intervals when using long pre-time values. The default Channel Marker Repeat Interval is 10 seconds.</p> <p>For Analog channels with ASN, the value must account for CIU configuration.</p>
Channel Role	Standalone	<ul style="list-style-type: none"> Standalone Main Alternate 	<p>Specify the role of a channel in a Main/Alternate pair.</p> <p>Standalone indicates that no Main/Alternate relationship is set for this channel.</p> <p>Main indicates the active role of the channel at any given time.</p> <p>Alternate indicates the standby role of the channel at any given time.</p>

Main/Alternate Configuration

The other channel participating in the Main/Alternate pairing.

MAIN	ALTERNATE
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Table continued...


	MDC 1200	Digital	Analog	Mixed Mode	ACIM
MDC 1200	Supported	Blocked	Supported	Blocked	Blocked
Digital	Blocked	Supported	Supported	Supported	Blocked
Analog	Blocked	Blocked	Supported	Blocked	Blocked
Mixed Mode	Blocked	Supported	Supported	Supported	Blocked
ACIM	Blocked	Blocked	Blocked	Blocked	Supported



IMPORTANT: The following parameters further determine the compatibility of main/alternate pairings:

- Console Supervisory Takeover
- Security Group assigned to the Channel
- Conventional Channel Group
- Signaling scheme
- Secure Communication Mode
- Key Number – must be the same for Analog and MDC 1200 Channels
- Auto Key (only for Digital and Mixed Mode channels)
- Common Key Reference (Default and List) – must be the same for Digital, Mixed Mode, and ACIM Channels
- Node Type

Channel Frequencies

Field	Default	Allowed Values	Description
Conventional Frequency Id	N/A	1 to 255	(Read only) Displays the conventional frequency identifiers.
Conventional Frequency Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	 <p>NOTICE: When a Conventional Channel object Channel Type is configured as an ACIM Link, name each of its Conventional Frequency Aliases to clearly identify the expected operation of the attached console mode. For example, give “Freq 1” the alias of “TG 4001” to match the configuration of the console mode 1. Name “Freq 2” as “Police 1” for Mode 2 and so on. For configuration details, see the <i>GGM 8000 System Gateway</i> manual.</p>
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Conventional Channel Talkgroup

The Conventional Channel Talkgroup assigned to this channel.



NOTICE: Group 65535 (0xFFFF) is the Channel Wide group and every unit on the channel is considered a member of it.

Click **Choose Record** to display a list of available options.

See [Conventional Channel Talkgroup on page 145](#).

Signaling Features

Field	Default	Allowed Values	Description
Status Update	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Status Update feature.</p> <p>No disables the support of the Status Update feature.</p>
Status Request	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Status Request feature.</p> <p>No disables the support of the Status Request feature.</p>
Message Update	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Message Update feature.</p> <p>No disables the support of the Message Update feature.</p>
Radio Check	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Radio Check feature.</p> <p>No disables the support of the Radio Check feature.</p>
Radio Disable	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the support of the Radio Disable feature.</p> <p>No disables the support of the Radio Disable feature.</p>
Remote Monitor	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to send the "Enhanced Remote Unit Monitor" command to a radio in a talkgroup with the assigned Console TG/MG Capability Profile. This parameter must be turned on for the console to direct the target radio to transmit on this talkgroup. Otherwise, the console cannot remote monitor any radio in this talkgroup.</p> <p>No disables this capability.</p> <p>If a Console TG/MG Capabilities Profile is already assigned to a multigroup or agencygroup, the Remote Monitor field cannot be set to Yes. Also, if the Remote Monitor field of the Console TG/MG Capabilities Profile is set to Yes, it can-</p>

Table continued...





Field	Default	Allowed Values	Description
			not be assigned to a multigroup or agencygroup.
Inbound Call Alert	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the capability to receive the inbound call alert.</p> <p>No disables the capability to receive the inbound call alert.</p>
Outbound Call Alert	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the capability to send the outbound call alert.</p> <p>No disables the capability to send the outbound call alert.</p> <p> NOTICE: For Digital or Mixed Mode channels, Call Alerts can be sent to an individual or talkgroup. The individual call alert is acknowledged, the group call alert is not. The group call alert is a Motorola Solutions proprietary message.</p>
Inbound Emergency	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to be informed when there is an incoming emergency call.</p> <p>No disables the console user from being informed when there is an incoming emergency call.</p>
Emergency Recognize	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the capability to recognize an emergency alarm.</p> <p>No disables the capability to recognize an emergency alarm.</p> <p> NOTICE: For Digital and Mixed Mode channels, if the Emergency Recognize parameter is set to No, then the Inbound Emergency and Emergency Alarm parameters are set to No.</p>
End Emergency	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to end any emergency activity that has been acknowledged.</p> <p>No disables the console user from ending any emergency activity that has been acknowledged.</p>
Emergency Alarm	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user Emergency Alarm indications.</p> <p>No disables the console user Emergency Alarm indications.</p>
Acknowledgement Delay Timer (dsec)	0	0 to 19	Enter the Acknowledgement Delay Timer (in 1/10th of a second) which controls how long the console or Zone Controller waits after a signal-

Table continued...

Field	Default	Allowed Values	Description
			ing event is received before sending an acknowledgement.
Retry Delay Timer (dsec)	2	2 to 17	<p>Enter the Retry Delay Timer (in 1/10th of a second) which determines how soon the console retries after attempting a signaling operation without receiving an acknowledgement.</p> <p> IMPORTANT: MDC 1200 signaling may require a longer Retry Delay timer than the default value (2). For this reason, a value of 5, which provides for about 2.5 seconds of wait time before a signaling retry or page delivery failure occurs, is recommended.</p>
Pre-time Delay (msec)	300	0 to 1,500 (increments of 100)	<p>Enter the Pre-Time Delay Number of milliseconds that should elapse from the time the resource keys up until the data is transmitted. This time allows for system set-up time and repeater delays. If repeater access is active, pre-time should also include the time it takes a repeater to power up to send a packet.</p> <p> NOTICE: For the ACIM conventional channel, the Pre-time Delay parameter is editable only when MDC Signaling is set to Yes.</p> <p>If a channel has MDC signaling Pre-time Delay configured such that channel marker or alert tones are being truncated, the Tone Pre-time Delay should be set equal to, or greater than the MDC signaling Pre-time Delay.</p>
Page De-emphasis	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the channel normally applies pre-emphasis to transmitted audio and pages should be sent with compensating de-emphasis applied.</p> <p>No specifies that the channel normally does not apply pre-emphasis to the transmitted audio and pages do not require the application of compensating de-emphasis.</p>
MDC Signaling Capability	No	<ul style="list-style-type: none"> • Yes • No 	<p>The parameter indicates that the channel is enabled for transmitting the signals to MDC receivers. This enables the receiving agents to allow for extra pre-time in the retry timer calculation.</p>

Analog Interface Configuration









Field	Default	Allowed Values	Description
Average Inbound G.728 Audio Level (dBm0)	-26	-26 to -20	Select the analog conventional channel's average inbound G.728 audio level. This parameter value is sent to dispatch consoles.  IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.
Average Outbound G.728 Audio Level (dBm0)	-26	-26 to -20	Select the analog conventional channel's average outbound G.728 audio level. This parameter value is received from dispatch consoles.  IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician.
Inbound AGC Knee Setting	-25	-40 to 0	Select the analog conventional channel's inbound AGC Knee setting. The Inbound AGC Knee Setting affects the Voice Detection (VOX) Threshold even when the Inbound AGC Type is set to AGC Off.  IMPORTANT: It is strongly recommended to not change this value except under the guidance and direction of a service technician. For CCGW and CCGW-s2500, only the range of -40 to -10 applies.
Inbound AGC Type	AGC Off	<ul style="list-style-type: none"> • AGC Off • AGC On • DLM 	AGC Off means that the gain is fixed, regardless of the level of the input signal. The gain is never adjusted. AGC On means that the gain is adjusted based on the level of the input signal. The lower the input signal, the higher the gain. DLM means that the gain is varied dynamically during active speech, but during speech pauses the gain is frozen. Dynamic gain adjustment resumes when the next syllable of active speech is received.  NOTICE: DLM is only supported when the Conventional Gateway type is Combination-HD.
Outbound Alignment Tone Level (dBm)	-10	-20 to 5	Select the outbound path alignment tone level. If the Conventional Gateway type is Combination-HD, the maximum value is 2.

Table continued...

Field	Default	Allowed Values	Description
			 IMPORTANT: It is strongly recommended not to change this value except under the guidance and direction of a service technician.
4 Wire Impedance (Ohms)	600 Ohms	<ul style="list-style-type: none"> 600 Ohms High Impedance (10K Ohms) 	Impedance value for the 4-wire receive line.
2 Wire Tx/Rx or 4 Wire Tx Impedance (Ohms)	600	<ul style="list-style-type: none"> 600 900 10k 	 NOTICE: This parameter is only configurable when the Conventional Gateway type is Combination-HD .

Secure Communication Configuration

Field	Default	Allowed Values	Description
Secure Communication Mode	Clear	<ul style="list-style-type: none"> Clear Secure Both 	<p>Clear allows a radio user to transmit clear (non-secure) talkgroup calls only.</p> <p>Secure allows the radio user to transmit secure (encrypted) talkgroup calls only.</p> <p>Both allows the radio user to transmit both clear and secure talkgroup calls.</p>
Advanced SecureNet	No	<ul style="list-style-type: none"> Yes No 	<p>The Advanced SecureNet parameter determines if the channel has advanced secure options.</p> <p>Yes enables the Advanced SECURENET® features to be configured.</p> <p>No disables this capability.</p>  NOTICE: If the Secure Communication Mode parameter is set to Secure or Both , this parameter is editable.
Transmit Mode/ Secure Communication Mode Default	Digital Clear	<ul style="list-style-type: none"> Digital Clear Digital Secure Analog Clear Analog Secure 	 NOTICE: For Secure Communication Mode set to Secure, and Channel Type set to Mixed Mode, the value of this parameter is set to Digital Secure.
Secure Key In	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the Console to display the alias of the CKR for the received call.</p> <p>No disables this capability.</p>

Default CKR

The default Key index used for secure communication. If you set the **Secure Communication Mode** parameter to **Secure** or **Both**, select an existing Common Reference Key record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Non-Default CKR List

A list of up to 250 Key indices used for secure communication. If you set the **Advanced SecureNet** parameter to **Yes**, select an existing Common Reference Key record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Console Capability Configuration

Field	Default	Allowed Values	Description
Critical Resource Select	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to select the criticality setting of a resource in the communication system.</p> <p>No disables the console user from selecting the criticality setting of a resource in the communication system.</p>
Ignore Call To Other	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console to ignore mobile to mobile calls.</p> <p>No disables the console to ignore mobile to mobile calls.</p>
Instant Transmit	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to initiate a transmission on the resource.</p> <p>No disables the console user from initiating a transmission on the resource.</p>
PTT ID Status	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that PTT ID status can be displayed to the user for this channel.</p> <p>No specifies that PTT ID status cannot be displayed to the user for this channel.</p>
Single Select	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to select the resource for performing various console operations. No disables the console user from selecting the resource for performing various console operations.</p>
Volume Control	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to control the volume level of individual resources.</p> <p>No disables the console user from controlling the volume level of individual resources.</p>
Outbound PTT ID	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the support of Outbound PTT ID.</p> <p>No disables the support of Outbound PTT ID.</p>

Paging Format QuickCall I

The QuickCall I Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II B

The QuickCall II B Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II C

The QuickCall II C Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II D

The QuickCall II D Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format QuickCall II E

The QuickCall II E Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format DTMF Touch Code

The DTMF Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Knox Touch Code

The Knox Touch Code Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 0.5

The Single Tone 0.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Single Tone 1.5

The Single Tone 1.5 Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Paging Format Motorola 5/6 Tone

The Motorola 5/6 Tone Paging Format assigned to this channel. Click **Choose Record** to display a list of available options.

See [Paging Format on page 273](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.3.10


Conventional Talkgroup Channel

A Conventional Talkgroup Channel is a digital conventional channel that is partitioned into multiple conventional talkgroups allowing separation of voice communications among multiple users on the same conventional resource.

The configuration of this object impacts the following devices:

- CCGW
- CCGW HD
- ATR
- CIVD PDR
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Conventional Talkgroup Channel ID	N/A	1 to 32	Enter a unique number that refers to a specific channel within a site. Must be unique within the same site.  NOTICE: The channel ID range depends on the type of Conventional Gateway Type being employed.
Conventional Talkgroup	N/A	1 to 16 characters. Use the following charac-	Enter a unique name that refers to the channel.

Field	Default	Allowed Values	Description
Channel Alias		ters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	

Conventional Site

A Conventional Site with **Site Type** set to **Combination** or **Combination-HD** that this channel is associated with. Click **Choose Record** to display a list of available options.



See [Conventional Site](#) on page 137.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group](#) on page 365.

Channel Configuration

Field	Default	Allowed Values	Description
Interface Type	Ethernet	<ul style="list-style-type: none"> V.24 Ethernet 	Specify whether the Ethernet or V24 interface is used between the conventional channel gateway and the site device.
Clock Source	Internal	<ul style="list-style-type: none"> Not applicable Internal External 	<p>Selects the TX clock source for the V24 communication link.</p> <p>Internal enables the TX clock to be generated internally in the CCGW.</p> <p>External enables the TX clock to be generated by an external device.</p> <p> NOTICE: This field is editable when the Interface Type is set to V.24.</p>
Hostname/IP Address	N/A	<p>0 to 255 characters.</p> <p>Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)</p>	<p>Enter the value that indicates the hostname or IP address of the digital channel.</p> <p> NOTICE: The parameter becomes editable if the Interface Type is set as Ethernet.</p>
Method to Key the Transmitter	Digital	<ul style="list-style-type: none"> Digital DigitalAndRelay 	Select the method used to key the transmitter on this conventional channel.

Signaling Feature

Field	Default	Allowed Values	Description
Acknowledgement Delay Timer (dsec)	0	0 to 19	Enter the Acknowledgement Delay Timer (in 1/10th of a second) which controls how long the console or Zone Controller waits after a signaling event is received before sending an acknowledgement.

Data Capability Configuration

Field	Default	Allowed Values	Description
Data Capable	False	<ul style="list-style-type: none"> • True • False 	<p>Select whether you want this conventional channel parameter set as data capable or not.</p> <p>True enables data capability.</p> <p>False disables data capability.</p>
Voice Repeat	Disable	<ul style="list-style-type: none"> • Enable • Disable 	<p>This parameter is used to prevent outbound data from being sent when there is inbound voice on a channel configured with voice repeat enabled.</p> <p>Enable enables voice repeat.</p> <p>Disable disables voice repeat.</p>
Conventional Vote Scan	Disable	<ul style="list-style-type: none"> • Enable • Disable 	<p>This parameter designates a channel as Vote Scan enabled or disabled. This parameter is used when sending outbound data to the channel.</p> <p>Enable enables preamble to be transmitted before the start of every data transaction to a scan enabled subscriber.</p> <p>Disable enables a preamble to be transmitted when Scan Suspend Timer has expired for a scan enable subscriber.</p>
Control Station Pacing Interval (msec)	0	0 to 10,000	This parameter defines the amount of time the infrastructure prohibits outbound data on a channel designated as a Control Station. This functionality is triggered after an outbound unconfirmed message is sent to outbound to the control station. Units are milliseconds.
Conventional Channel Data Mode	ASTRO25 Normal	<ul style="list-style-type: none"> • ASTRO25 Normal • ASTRO25 Subsite Steered • ASTRO25 Control Station 	<p>This parameter defines the mode of a digital conventional channel.</p> <p>ASTRO25 Normal is used for a normal ASTRO25 Full duplex, non-subsite steered conventional channel.</p> <p>ASTRO25 Subsite Steered causes the Conventional PDG to steer outbound data to the correct subsite.</p>

Field	Default	Allowed Values	Description
			ASTRO25 Control Station causes the Conventional PDG to pause outbound data transmission while waiting for confirmed outbound data to be acknowledged from Control Station (half duplex) channels in Conventional IV&D.

Conventional Talkgroups

A read-only list of Conventional Talkgroups associated with this channel. Up to 20 Conventional Talkgroups can be associated with a channel.

The relationship between the Conventional Talkgroup Channel and Conventional Talkgroup is set up in the Conventional Talkgroup record.

See [Conventional Talkgroup on page 323](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.4

Auxiliary I/O

6.2.4.1

Interlocked Group

An interlocked group for Aux I/Os is a collection of output Aux I/Os that allows only one of the Aux I/Os to be active at a time.

Identity

Field	Default	Allowed Values	Description
Interlocked Group ID	N/A	1 to 2,147,483,647	Enter the ID of this Interlocked Group. Must be unique within the same zone.
Interlocked Group Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to	Enter the alias of this Interlocked Group. Must be unique within the same zone.

Field	Default	Allowed Values	Description
		z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Zone

The Zone that this Interlocked Group is associated with. It is typically based on the Zone association of the AuxIO / AuxIO Server that this group is intended to be used with. Click **Choose Record** to display a list of available options.

See [Zone on page 128](#).

Aux I/O Configuration

A read-only list of AuxIOs tied to this group.

The relationship between the AuxIO and Interlocked Group is setup in the AuxIO record. See [AuxIO Server on page 229](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 9,223,372,036,8 54,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.2.4.2

AuxIO Server

An Aux I/O server provides the necessary physical and network interfaces for the Aux Input/Outputs.

For Aux I/O details, see the *MCC 7500 Dispatch Console with Voice Processor Module* manual.



NOTICE:

When voting display is not required on a specific Aux I/O Server, the setting of the Aux I/O Server Type does not depend on terms of voting control and display.

Recommendation is to deploy an Aux I/O server at the site colocated with the conventional GCM 8000 comparator to minimize the delays which effect voting control and display.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Zone

(Read only) The Zone that this AuxIO Server is associated with. This is determined based on the Zone that the co-located site or conventional subsystem is in. Click **Choose Record** to display a list of available options.

See [Zone on page 128](#).

Identity

Field	Default	Allowed Values	Description
AuxIO Server Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter the alias of this Auxiliary I/O Server. Must be unique within the same zone.
AuxIO Server ID		1 to 3 1 to 6 1 to 7	Enter the ID that represents this Auxiliary I/O Server. Must be unique within the colocated site.

Security Group


The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
AuxIO Server Type	Model 48	<ul style="list-style-type: none"> • Model 48 • Model 96 • Model 144 	Select the type of Auxiliary I/O server.

Table continued...

Field	Default	Allowed Values	Description
			 <p>NOTICE: The Aux I/O Server Type should be set to “Model 144” to support the maximum capacity of the Aux I/O server that is required for voting control and display functionality (16 remote subsites). No physical dispatch console Aux I/O expansion units can be used with this option even though the “Model 144” setting allows up to two units. The additional capacity is allocated for supporting the console with Conventional Voting Display feature Aux I/Os configuration.</p> <p>The Aux I/O Server Type should set to either “ Model 96” or “Model 144” when only half the maximum capacity of the Aux I/O server is required for voting control and display functionality (8 remote subsites). If the Aux I/O Server Type is set to “Model 96”, no physical dispatch console Aux I/O expansion units can be used with this option even though the “Model 96” setting allows one unit. The additional capacity is allocated for supporting the dispatch console with Conventional Voting Display feature Aux I/Os. If the Aux I/O Server Type is set to “Model 144”, one physical dispatch console Aux I/O expansion unit can be used with this option even though the “Model 144” setting allows up to two units . The additional capacity is allocated for supporting the dispatch console with Conventional Voting Display feature Aux I/Os.</p>
Co-located Site Type	Console Site	<ul style="list-style-type: none"> • Remote Site • RF Site • Console Site • Conventional Subsystem 	Select the type of site that this Aux I/O Server colocalizes with.

Co-located Console Site

The Console Site that this AuxIO Server is co-located with. If you set the **Co-located Site Type** parameter to **Console Site**, select an existing Console Site record. Click **Choose Record** to display a list of available options.

See [Console Site on page 234](#).

Co-located RF Site

The RF Site that this AuxIO Server is co-located with. If you set the **Co-located Site Type** parameter to **RF Site**, select an existing RF Site record. Click **Choose Record** to display a list of available options.

See [RF Site on page 134](#).

Co-located Sub Site


The Multisite Subsystem Remote Site that this AuxIO Server is co-located with. If you set the **Co-located Site Type** parameter to **Remote Site**, select an appropriate record. Click **Choose Record** to display a list of available options.

Co-located Conventional Subsystem Location

The Conventional Subsystem Location that this AuxIO Server is co-located with. If you set the **Co-located Site Type** parameter to **Conventional Subsystem**, select an appropriate record. Click **Choose Record** to display a list of available options.

AuxIO

Field	Default	Allowed Values	Description
AuxIO ID	N/A	1 to 192	Enter the ID that represents this Auxiliary I/O. Must be unique within the Aux I/O Server.
AuxIO Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter the alias of this Auxiliary I/O. Must be unique within the Aux I/O Server.
AuxIO Direction	Input	<ul style="list-style-type: none"> Output Input 	Input specifies that this Auxiliary I/O handles data input. Output specifies that this Auxiliary I/O handles data output.
AuxIO Type	Latched	<ul style="list-style-type: none"> Latched Momentary 	Latched specifies that this Auxiliary I/O provides latched switching. Momentary specifies that this Auxiliary I/O provides momentary switching.
AuxIO Port ID	N/A	1 to 144	Enter the Auxiliary I/O port ID.

Field	Default	Allowed Values	Description																	
			<p>The range is dependent upon the AuxIO Server Type and AuxIO Direction settings.</p> <table border="1"> <thead> <tr> <th>AuxIO Direction</th> <th>AuxIO Server Type</th> <th>Range</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Input</td> <td>Model 48</td> <td>1 to 48</td> </tr> <tr> <td>Model 96</td> <td>1 to 96</td> </tr> <tr> <td>Model 144</td> <td>1 to 144</td> </tr> <tr> <td rowspan="3">Output</td> <td>Model 48</td> <td>1 to 16</td> </tr> <tr> <td>Model 96</td> <td>1 to 32</td> </tr> <tr> <td>Model 144</td> <td>1 to 48</td> </tr> </tbody> </table>	AuxIO Direction	AuxIO Server Type	Range	Input	Model 48	1 to 48	Model 96	1 to 96	Model 144	1 to 144	Output	Model 48	1 to 16	Model 96	1 to 32	Model 144	1 to 48
AuxIO Direction	AuxIO Server Type	Range																		
Input	Model 48	1 to 48																		
	Model 96	1 to 96																		
	Model 144	1 to 144																		
Output	Model 48	1 to 16																		
	Model 96	1 to 32																		
	Model 144	1 to 48																		
Interlocked Group	N/A	Click Choose Record to display a list of available options.	<p>The Interlocked Group that a Output/Latched AuxIO is associated with.</p> <p> NOTICE: This grouping of AuxIOs will only allow one of the AuxIOs in the Interlocked Group to be activated at any given time.</p>																	
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.																	

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3

Consoles Parameters

The Consoles category contains objects used to set up Console Sites, Dispatch and AIS Consoles, Console Users, and other console-related configuration.

6.3.1 Site

6.3.1.1 Console Site


The Console Site object configures console site operations within a zone by setting the parameters for a site so that it functions correctly in the system. The Console Site object also provides access to the site controller and console site application platform objects.

Console site is configured for a Dispatch Console application or an Archiving Interface Server Application (AISA).

The configuration of this object impacts the following devices:

- ZC
- ATR
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Site ID	N/A	1,001 to 1,255 1,001 to 1,191 1,227 to 1,230	Enter the ID that represents this Console Site.
Site Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name for the Console Site.  NOTICE: All Console Sites and Conventional Sites in the system must have a unique site alias field.


Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Console Site Location

Field	Default	Allowed Values	Description
Console Site Location	StandAlone Console Site	<ul style="list-style-type: none"> • Site located in a Trunking Subsystem 	Specifies if the Console Site is in the Conventional Subsystem or not.

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> Site located in a Conventional Subsystem StandAlone Console Site 	<p>Site located in a Trunking Subsystem indicates that the Console Site is in a Trunking Subsystem.</p> <p>Site located in a Conventional Subsystem indicates that the Console Site is in a Conventional Subsystem.</p> <p>StandAlone Console Site indicates that the Console Site is not in a Conventional Subsystem.</p> <p> NOTICE: If you choose Site located in a Conventional Subsystem, then the Local LAN parameter on this tab is not editable.</p>

Zone


The Zone that this Console Site is associated with. For Standalone Console Sites, a Zone must be selected. For a site located in a Conventional Subsystem, the Zone is derived based on the associated Conventional Subsystem. Click **Choose Record** to display a list of available options.

See [Zone on page 128](#).

Conventional Subsystem

The Conventional Subsystem Location that this Console Site is in. The Zone information for the Console Site is derived from the Zone that the Conventional Subsystem is associated with. If you set the **Console Site Location** parameter to **Site located in a Conventional Subsystem**, select an appropriate record. Click **Choose Record** to display a list of available options.


Trunking Subsystem

Field	Default	Allowed Values	Description
Tsub ID	N/A	1 to 64	Enter a number that uniquely identifies the Tsub location.
			<p> NOTICE: If the Transcoder is not in a Tsub, the value of Tsub ID should be blank.</p>

Configuration

Field	Default	Allowed Values	Description
Jitter Buffering Age (msec)	35	0 to 100	Select the amount of time in milliseconds that an audio packet is stored in the Jitter Buffer before being decoded.
Console Telephony Jitter Buffer Age (msec)	30	0 to 100	Select the amount of time in milliseconds the console stores telephony audio packets received from the PSTN before decoding them.

Table continued...

Field	Default	Allowed Values	Description
Trunking Call Count	0	0 to 493 500	<p>Enter a number to ensure the call-counts are in accordance with the system planner bandwidth and call-count requirements. Failure to provide sufficient bandwidth to support the configured call-count values can impair audio quality.</p> <p>Only enter a value of 500 if Local LAN is set to Yes and Console Site Contains Application? is set to Yes.</p> <p>Setting Console Site Contains Application? to No forces the call count value to zero.</p>
Conventional Call Count	0	0 to 212 500	<p>Enter a number to ensure the call-counts are in accordance with the system planner bandwidth and call-count requirements. Failure to provide sufficient bandwidth to support the configured call-count values can impair audio quality.</p> <p>Only enter a value of 500 if Local LAN is set to Yes and Console Site Contains Application? is set to Yes.</p> <p>Setting Console Site Contains Application? to No forces the call count value to zero.</p>
Console Site Contains Application	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that this Console Site is configured as a Dispatch Console site or an Archiving Interface Server site.</p> <p>No specifies that this Console Site is a "dummy" console site to allow co-location of a Conventional Site.</p>
Local LAN	e No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that this Console Site is to be part of a local LAN.</p> <p>No specifies that this Console Site is not to be part of a local LAN.</p> <p> NOTICE: This parameter is not editable if the Console Site Location parameter is set to Site located in a Conventional Subsystem.</p>

Archiving Interface Server Applications (VPM Based)

A read-only list of AISA platforms associated with this Console Site.

The relationship between AISA and Console Site is set up in the AISA record.

See [MCC7500 AIS \(VPM-Based\) on page 247](#).

Dispatch Applications (VPM Based)

A read-only list of Dispatch Console platforms associated with this Console Site.

The relationship between Dispatch Console and Console Site is set up in the Dispatch Console record.

See [MCC 7500 Dispatch Console \(VPM-based\)/MCC 7100 Dispatch Console on page 239](#).

Group Data Gateway

The Group Data Gateway assigned to this record.

See [Group Data Gateway on page 132](#)

Notes

Field	Default	Allowed Values	Description
Notes	N/A	0 to 300 characters. No character choice restrictions	Enter a relevant description of the record.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.1.2

Fallback Controller

The Fallback Controller object configures the GCP 8000 Site Controller within the console site or the Fallback Controller in the Trunking Subsystem.

The Fallback Controller in the Trunking Subsystem is a device that provides call control and call processing for the channels at trunking and conventional sites that are in the same Trunking Subsystem. When the site loses connectivity with the zone controller in the Zone Core, the Fallback Controller takes over zone controller functionality for the local sites, allowing dispatch console users to continue to access and control trunking talkgroups and local conventional channels and talkgroups.

The Fallback Controller in the Trunking Subsystem is required to enable the Edge Availability feature.

The GCP 8000 Site Controller is a device that can be installed at a console site to provide call control and call processing for the channels at conventional sites that are colocated with that console site. It is brought into service when the site loses connectivity with the zone controller and takes over the ZC functionality for the local channels, allowing dispatch console users to continue to access and control those channels. In this mode, called “fallback operation” or “site conventional operation”, the site controller enables conventional operation to continue, after a brief interruption, on a subset of the conventional channels in a system.

The GCP 8000 Site Controller with Conventional software consists of the site controller hardware with different software to provide the conventional capabilities. The site controller, conventional channel gateways (CCGWs), dispatch consoles, and archiving interface servers (AISs) must all be on the same console site LAN to take advantage of fallback operation. CCGWs located at RF sites or other console

sites cannot be accessed by the dispatch consoles and AISs located at a console site that is in fallback operation. All dispatch consoles, AISs, and CCGWs continuously monitor their connections to the radio system controller. If they detect a connection failure, they check their configuration data to see if a conventional site controller is present at their console site. If a conventional site controller is present, they automatically switch to it.

The ASTRO® 25 system allows you to force the GCP 8000 Site Controller with Conventional software into different states; you can reset, enable, or disable the controller. The GCP 8000 Site Controller with Conventional software can operate directly after performing the reset procedure using the persistently stored parameters that were previously downloaded. You can perform the software installation and distribution remotely, which eliminates the necessity of operating directly at the site. Only one site controller is permitted at a console site, as it can control the channels at all collocated conventional sites.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Console Site

The Console Site associated with this Conventional Site Controller. Click **Choose Record** to display a list of available options.

See [Console Site on page 234](#).

Identity

Field	Default	Allowed Values	Description
Site Controller ID	1	1	(Read only) Displays the Site Controller ID, which identifies the site controller within a site.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.1.3

MCC 7500 Dispatch Console (VPM-based)/MCC 7100 Dispatch Console

The MCC 7500 Dispatch Console or MCC 7100 IP Dispatch Console is a Mission Critical IP command and control solution designed to provide optimal quality audio and reliable communication.

A dispatch console or “console position” interfaces directly to the IP network to support communication and administration activities for trunked and conventional radios.

Each console operator can be set up to monitor talkgroups, multi-groups, and channel resources. Additionally, the console can be established to provide end-to-end voice encryption for secure communication, priority handling of emergency calls, and Agency Partitioning depending on your system architecture and system implementation.

The Voice Processor Module (VPM) is a device that combines the functions of a voice card, encryption card, and a general purpose input/output module in a Dispatch Console subsystem. The VPM provides the necessary interfaces to connect analog devices to the digital console and it is responsible for audio routing between the dispatch operator, peripherals, and the local network. It contains both digital and analog (audio) circuits to support the secure and clear voice processing.

The configuration of this object impacts the following devices:

- ZC
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Dispatch Console ID	N/A	1 to 563	Enter a unique identifier.
Full Computer Name	N/A	2 to 48 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	Enter the name which identifies the computer on the network. It must contain the Domain Name Services (DNS) name that has been assigned (in the DNS server) to this computer on the network. Must be unique within the same site.
Dispatch Console Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Console User

An optional Console User associated with this operator position. If a user is assigned, the Radio User Alias of the associated Console User is displayed for calls initiated from this Console. Otherwise, the Dispatch Console Alias is displayed. Click **Choose Record** to display a list of available options.

See [Console User on page 268](#).

Console Site



The Console Site that this Console is associated with. Click **Choose Record** to display a list of available options.

See [Console Site on page 234](#).

Advanced Configuration

Field	Default	Allowed Values	Description
Acoustic Cross Mute and RF Cross Mute Scope	Speakers	<ul style="list-style-type: none"> Speakers Speaker-sAndHeadset 	This parameter controls what is muted when Acoustic Cross Mute or RF Cross Mute is used.
RF Cross Mute Hang Time	0	0 to 5000 (increments of 100)	<p>Defines how long the console continues to mute the receive audio on a conventional channel after an active RF Cross Mute condition clears for that channel.</p> <p>If you leave the default 0, it means that you do not want to employ the timer.</p> <p>You can set the timer from 0 to 5000 milliseconds in 100 millisecond increments.</p> <p>When a dispatcher ends their transmission on a channel configured to be in an RF Cross Mute pair with another channel assigned to their console and the RF Cross Mute condition is cleared, employing this timer enables the Dispatch Console to continue to mute the other channel for a short period longer in order to mute the tail end of audio that might still be present.</p>
Outbound AGC Type	DLM	<ul style="list-style-type: none"> DLM Pure AGC 	<p>DLM (Dynamic Link Module) indicates that the Automatic Gain Control (AGC) gain adjustment is only active when the AGC detects voice activity. When no voice activity is detected, the AGC freezes its gain.</p> <p>Pure AGC indicates that even when no voice is detected, the Automatic Gain Control (AGC) adjusts the gain (which can create the phenomena of noise-pumping).</p>
Outbound Vocoded	-26	-26 to -20	Select the outbound vocoded audio level.

Table continued...

Field	Default	Allowed Values	Description
Audio Level (dBm0)			 IMPORTANT: It is strongly recommended to leave this value at -26 dBm0. Do not change it unless agreement (to a change) has been reached with Motorola Solutions.
Inbound Event Display	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the dispatch console to have an Inbound Event Display (IED) GUI. The Inbound Event Display GUI provides a call based view of the incoming events instead of a resource-based view.</p> <p>No disables the capability.</p>
AMBE+2 Noise Suppression Algorithm	Enable	<ul style="list-style-type: none"> • Enable • Disable 	<p>Enable or disable the AMBE+2 Noise Suppression Algorithm for console.</p> <p> NOTICE: This parameter has significance only for AMBE+2 Consoles; IMBE Consoles ignore it.</p>
VPM Peripheral Module ID	1	1	(Read only) Displays the VPM Peripheral Module identifier that assigned by the network management.
VPM Bus Address	0	0 to 3	(Read only) Displays the VPM Peripheral Module bus address used by the Audio Processing Module.
Group Text Capable	Disable	<ul style="list-style-type: none"> • Enable • Disable 	<p>Determines if the console application can send group text messages on group text enabled talkgroups.</p> <p>The dispatch application uses this parameter in addition to the Group Text Capable talkgroup parameter to assess whether group text messaging is allowed.</p>

O TEK Configuration

Field	Default	Allowed Values	Description
O TEK Capable	No	<ul style="list-style-type: none"> • Yes • No 	Enable or disable the use of OTEK for the given console or Archiving Interface Server (AIS).
O TEK Transmit Security Level	Enhanced	<ul style="list-style-type: none"> • Basic • Enhanced 	<p>Set the OTEK security rules for sending a Key Management Message (KMM) to the KMF.</p> <p>You can edit this parameter if OTEK Capable is set to Yes.</p>
O TEK Receive Security Level	Enhanced	<ul style="list-style-type: none"> • Basic • Enhanced 	<p>Set the OTEK security rules for receiving a KMM from the KMF.</p> <p>You can edit this parameter if OTEK Capable is set to Yes.</p>

Table continued...

Field	Default	Allowed Values	Description
O TEK Inac- tivity Time Period (hr)	8	1 to 168	Defines the frequency with which the console/AIS sends a registration message to the KMF with no other OTEK activity. You can edit this parameter if OTEK Capable is set to Yes .

KMF Configuration

The Key Management Facility associated with this Console for OTEK capability. If you set the **O TEK Capable** parameter to **Yes**, select an existing Key Management Facility record. Click **Choose Record** to display a list of available options.

See [Key Management Facility on page 114](#).

Microphone

Field	Default	Allowed Values	Description
Microphone Type	Motorola DGM	<ul style="list-style-type: none"> Motorola DGM 3rd Party Mi- crophone 	Select the microphone type. Choose Motorola Solutions Desktop Gooseneck Microphone (DGM) or third-party microphone.
Microphone Audio Input Gain (dB)	23 (for Mo- torola DGM) -12 (for 3rd Party Mi- crophone)	-1 to 41 (for Mo- torola DGM) -16.5 to 16.5 (for 3rd Party Mi- crophone) (increments of 1.5)	Specify the gain applied to the audio received by the microphone input for the selected dis- patch operator position.
Module Connector ID	9	9 (for Motorola DGM) 14 (for 3rd Party Microphone)	(Read only) Identifies which connector on the Audio Processing Module a Peripheral is con- nected to.

Headset

Field	Default	Allowed Values	Description
Audio Input Gain (dB)	6	-16.5 to 25.5 (increments of 1.5)	Specify the gain applied to the audio that is re- ceived by the headset microphone for the selec- ted dispatch operator position.
Audio Out- put Gain (dB)	9	-16.5 to 16.5 (increments of 1.5)	Specify the gain applied to the audio that is sent to the headset earpiece for the selected dis- patch operator position.
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Speaker

Table 9: Identity

Field	Default	Allowed Values	Description
Speaker Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.
Module Connector ID	N/A	<ul style="list-style-type: none"> • SPKR1 • SPKR2 • SPKR3 • SPKR4 • SPKR5 • SPKR6 • SPKR7 • SPKR8 	(Read only) Identifies which connector on the Audio Processing Module a Peripheral is connected to.

Table 10: Configuration

Field	Default	Allowed Values	Description
Primary Speaker	No	<ul style="list-style-type: none"> • Yes • No 	Specifies if the speaker is the primary speaker.
Default Select	No	<ul style="list-style-type: none"> • Yes • No 	Specifies if the speaker is the default speaker to receive audio from a selected resource.
Default Unselect	No	<ul style="list-style-type: none"> • Yes • No 	Specifies if the speaker is the default speaker to receive audio from all unselected resources.
Mute on PTT	Yes	<ul style="list-style-type: none"> • Yes • No 	Specifies if the speaker is muted when a PTT takes place. It prevents unwanted background noise from interfering with the dispatcher when transmitting.
Audio Output Gain (dBu)	9	-16.5 to 16.5 (increments of 1.5)	Specify the gain applied to the audio that is sent to the desktop speaker for the selected dispatch operator position.

Table 11: Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.


External Paging Encoder

Field	Default	Allowed Values	Description
Audio Input Gain (dB)	-12	-16.5 to 16.5 (increments of 1.5)	Specify the gain applied to the audio that is sent into the external paging encoder port for the selected dispatch operator position.
PTT Pin Pair ID	12	12	(Read only) Displays the pin pair on the connector used for PTT.

Local Logging Recorder

Field	Default	Allowed Values	Description
Log Select Receive Audio	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the Logging Recorder is to log select receive audio.</p> <p>No specifies that the Logging Recorder is not to log select receive audio. Select if the receive audio on the selected dispatch console resource is available for the Local Logging Recorder to record.</p>
Log Select Transmit Audio	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the Logging Recorder is to log select transmit audio.</p> <p>No specifies that the Logging Recorder is not to log select transmit audio. Select if the transmit audio on the selected dispatch console resource is available for the Local Logging Recorder to record.</p>
Log Non-Select Transmit Audio	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the Logging Recorder is to log non-select transmit audio.</p> <p>No specifies that the Logging Recorder is not to log non-select transmit audio. Select if the transmit audio on non-selected resources is available for the Local Logging Recorder to record.</p>
Log Locally Generated Tones	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the Logging Recorder is to log locally generated tones.</p> <p>No specifies that the Logging Recorder is not to log locally generated tones. Select if the tones</p>

Table continued...

Field	Default	Allowed Values	Description
			<p>generated by this dispatch console is available for the Local Logging Recorder to record.</p> <p> NOTICE: Locally Generated tones are the tones generated by a dispatch console to provide feedback to the current user of the dispatch console position. These tones are not sent to the network and therefore a parallel console does not hear these tones. Examples of Locally Generated Tones include emergency alarm tones, talk permit tones, trunk busy tones, trunk idle tones, and beep tones. Tones that are not considered to be Locally Generated Tones include c-hannel marker tones, alert tones, internal paging tones, external paging tones.</p>
Audio Output Gain (dB)	12	-16.5 to 16.5 (increments of 1.5)	Enter an Audio Output Gain in dB.

Instant Recall Recorder

Field	Default	Allowed Values	Description
Instant Recall Recorder Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.
Module Connector ID	N/A	12 to 13	Select the appropriate value.
Audio Output Gain (dB)	12	-16 to 16 (increments of 1.5)	Select the output gain of the Instant Recall Recorder in dB.
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

External Telephone Interface

Field	Default	Allowed Values	Description
Telephone Audio Input Gain (dB)	-9	-16.5 to 16.5 (increments of 1.5)	Select the input level of the external telephone audio in dB.
Microphone Audio Output Gain (dB)	9	-16.5 to 16.5 (increments of 1.5)	Select the output level of the headset microphone audio to the external telephone interface in dB.
Echo Cancelling Delay (msec)	11	0 to 60	Enter the value of the Echo Canceling Delay. This attribute accounts for the total transport delay (in msec) through Dispatch Console VPM hardware and software, as well as any additional transport delay within the phone interface equipment.

Console Telephony

Field	Default	Allowed Values	Description
Console Phone Identifier	N/A	0 or 4 to 5 characters. Use the following characters: 0 to 9 (No leading and trailing spaces)	This parameter is an identifier used by the dispatch position to register with the console telephony gateway. Phone identifiers can be either 4 or 5 digits. A phone identifier of zero indicates the dispatch position does not participate in console telephony.
Preferred Console Telephony Gateway Hostname	N/A	0 to 255 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	Fully qualified domain name of the preferred telephony gateway. The dispatch position uses the preferred telephony gateway for all outbound telephone calls.
Secondary Console Telephony Gateway Hostname	N/A	0 to 255 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	Fully qualified domain name of the secondary telephony gateway. The dispatch position uses the secondary telephony gateway for outbound telephone calls when the preferred telephony gateway is not available.

Console Aux I/O



NOTICE: Not all of the parameters available for MCC7500 Dispatch Console are available for MCC7100 Dispatch Console.

Field	Default	Allowed Values	Description
Local Aux I/O ID	N/A	1–4	The Local Aux I/O on the console. There are 4 Aux I/Os relays on the Soft Console with an AIM or on the VPM Console.
Local Aux I/O	N/A	<ul style="list-style-type: none"> • Console PTT • Received Audio on Selected Radio Resource Indication • Emergency Alarm Indication • AuxIO Alarm Indication • Telephone Line Selected Indication • Unused 	Assign a function to the Local Aux I/O.
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.1.4

MCC7500 AIS (VPM-Based)

The MCC 7500 Archiving Interface Server provides an interface between the radio system and a third-party logging recorder. It is used to serve audio and related information to third-party call logging

hardware for audio archiving at an MCC 7500 Dispatch Console site. This archiving interface server comprises of an Application Platform with the appropriate additional elements [hardware (voice cards) and AIS application software]. The Archiving Interface Server acts as an intermediary between the third-party audio logging solution and the trunking system, hiding the proprietary interfaces from the third-party audio logging solution.

The configuration of this object impacts the following devices:

- ZC
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
AIS ID	N/A	1 to 563	Enter a unique identifier.
Full Computer Name	N/A	2 to 48 characters. Use the following characters: A to Z, a to z, 0 to 9, . - (No leading and trailing spaces)	Enter the name which identifies the computer on the network. It must contain the Domain Name Services (DNS) name that has been assigned (in the DNS server) to this computer on the network. Must be unique within the same site.
AIS Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.


See [Security Group on page 365](#).

Console Site




The Console Site that this AIS is associated with. Click **Choose Record** to display a list of available options.

See [Console Site on page 234](#).

Advanced Configuration

Field	Default	Allowed Values	Description
Inbound Event Display	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the dispatch console to have an Inbound Event Display (IED) GUI. The Inbound Event Display GUI provides a call based view of the incoming events instead of a resource-based view.</p> <p>No disables the capability.</p>
AMBE+2 Noise Suppression Algorithm	Enable	<ul style="list-style-type: none"> Enable Disable 	<p>Enable or disable the AMBE+2 Noise Suppression Algorithm for console.</p> <p> NOTICE: This parameter has significance only for AMBE+2 Consoles; IMBE Consoles ignore it.</p>

O TEK Configuration

Field	Default	Allowed Values	Description
O TEK Capable	No	<ul style="list-style-type: none"> Yes No 	Enable or disable the use of OTEK for the given console or Archiving Interface Server (AIS).
O TEK Transmit Security Level	Enhanced	<ul style="list-style-type: none"> Basic Enhanced 	<p>Set the OTEK security rules for sending a Key Management Message (KMM) to the KMF.</p> <p> NOTICE: You can edit this parameter if OTEK Capable is set to Yes.</p>
O TEK Receive Security Level	Enhanced	<ul style="list-style-type: none"> Basic Enhanced 	<p>Set the OTEK security rules for receiving a KMM from the KMF.</p> <p> NOTICE: You can edit this parameter if OTEK Capable is set to Yes.</p>
O TEK Inactivity Time Period (hr)	8	1 to 168	<p>Defines the frequency with which the console/AIS sends a registration message to the KMF with no other OTEK activity.</p> <p> NOTICE: You can edit this parameter if OTEK Capable is set to Yes.</p>

KMF Configuration

The Key Management Facility associated with this AIS for OTEK capability. If you set the **O TEK Capable** parameter to **Yes**, select an existing Key Management Facility record. Click **Choose Record** to display a list of available options.

See [Key Management Facility on page 114](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.2

Application

6.3.2.1

Application to Unit ID Map

An Application to Unit ID Map object associates a Unit ID with a Dispatch Application or the Archiving Interface Server (AIS) of a console.

The configuration of this object impacts the following devices:

- ZC
- AUC
- VPM AIS
- CONSOLE

Identity


Field	Default	Allowed Values	Description
Console Unit ID	N/A	1 to 16,777,211 10,000,000 to 16,777,211	Enter a number that identifies the console for trunking call processing.  IMPORTANT: Do not exceed the total number of individual IDs. This can overload the resources in your system. You can enter up to 128,000 total radios into the system, a maximum of 64,000 radios per zone. The total range of individual identification numbers used by the system is 16,777,217. The IDs are distributed as follows:

Table continued...

Field	Default	Allowed Values	Description
			<ul style="list-style-type: none"> 1 to 16,777,211 are available for assignment to radios and console resources 16,777,212 to 16,777,217 are reserved for system use
Radio Unit Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the subscriber radio.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Radio Alias Update	Disable	<ul style="list-style-type: none"> Enable Disable 	Determines if the infrastructure can transmit the subscriber's radio alias over the air.

Console Platform

The Dispatch Console or AIS that the Unit ID (trunking) is associated with. Click **Choose Record** to display a list of available options.

See [MCC 7500 Dispatch Console \(VPM-based\)/MCC 7100 Dispatch Console on page 239](#) and [MCC7500 AIS \(VPM-Based\) on page 247](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.2.2

Application to Conventional Unit Mapping

The Application to Conventional Unit Mapping object associates a Console Application with a Conventional Unit. Each console application is assigned a conventional unit ID to use when communicating in the system. The conventional system uses this ID to uniquely identify the physical console within a Conventional Channel Group.

The configuration of this object impacts the following devices:

- ZC
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
ID	N/A	1 to 16,777,215 1 to FFFFFFFF	Enter a number that identifies this Application to Conventional Unit Mapping. The unique identifier for the unit is the combination of this number and the ID of the Conventional Channel Group the unit belongs to. You can enter the ID as an integer in the field on the left, or as a hexadecimal number in the field on the right. A value entered in any of the fields is automatically converted and entered in the other field in an appropriate format.
Conventional Unit Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name associated with the Conventional Unit.

Channel Group

The Conventional Channel Group for which the Unit ID (conventional) is defined for the associated Dispatch Console or AIS Platform. Click **Choose Record** to display a list of available options.



NOTICE: Only 1 Conventional Unit ID per Conventional Channel Group can be assigned to the Dispatch Console or AIS Platform.

See [Conventional Channel Group on page 119](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Console Platform

The Dispatch Console or AIS that the Unit ID (conventional) is associated with. Click **Choose Record** to display a list of available options.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.2.3

Console Acoustic Cross Mute

The Console Acoustic Cross Mute object requires a console to prevent transmitting to its speaker for an audio stream on a conventional channel (station) that is identified as an acoustical cross muted pair for another nearby console in which the dispatcher transmits.

The configuration of this object impacts the CONSOLE.

First Console

The first Console of the pair that needs to be muted when the other Console is in use. Click **Choose Record** to display a list of available options.



NOTICE: The symmetric pair is automatically configured.

Second Console

The other Console of the pair that needs to be muted when the first Console is in use. Click **Choose Record** to display a list of available options.



NOTICE: The symmetric pair is automatically configured.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.2.4

RF Cross Busy Cross Mute

RF Cross Busy is a functionality which prevents two conventional channels with the same frequency, overlapping their coverage area, from being keyed simultaneously. RF Cross Busy protects channels operating at the same time from transmission interference, thus preserving audio intelligibility.

To prevent this interference, the RF Cross Busy feature marks the second conventional channel busy when the other channel configured in an RF cross busy pair is keyed. The RF cross busy pair of the two conventional channels is created in order for the feature to know which transmitter should be busied. When a dispatch console user transmits on one member of the pair, all dispatch consoles automatically mark the other member of the pair as “busy”. The console subsystem supports hundreds of RF cross busy pairs. A conventional channel can be placed in multiple RF cross busy pairs.

The RF Cross Mute feature automatically prevents feedback from occurring, when dispatchers transmit on certain conventional channels. This is needed when a transmitter and a receiver both operate on the same RF frequency and the receiver is within the coverage area of the transmitter. If both the transmitter and receiver are assigned to the same dispatch console, the potential risk for feedback exists whenever the dispatch console user transmits on the transmitter.

You can configure RF Cross Mute in two ways:

- Mute conventional channels at all other operator positions.
- Mute conventional channels only at those positions which are acoustically cross-muted with the transmitting dispatch console. If you do this, then the rest of the dispatch consoles continue to receive the audio coming from the receiver.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

First Frequency

The first frequency of the pair that needs to be muted when the other frequency is in use. Click **Choose Record** to display a list of available options.



NOTICE: The symmetric pair is automatically configured.

Second Frequency

The other frequency of the pair that needs to be muted when the first frequency is in use. Click **Choose Record** to display a list of available options.



NOTICE: The symmetric pair is automatically configured.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
RF Cross Mute Type	RF Cross Mute	<ul style="list-style-type: none"> None RF Cross Mute Coupled to Acoustical Cross Mute 	<p>Select the Mute Type.</p> <p>None indicates the RF Cross Mute feature is disabled.</p> <p>RF Cross Mute indicates that the conventional channel is muted at all other operator positions.</p> <p>Coupled to Acoustical Cross Mute indicates that conventional channel is muted only at those positions which are acoustically cross muted with the transmitting dispatch console.</p>
Cross Busy	On	<ul style="list-style-type: none"> On Off 	<p>On indicates that Cross Busy feature is applied to the coupled channels.</p> <p>Off indicates that the Cross Busy feature is disabled.</p>

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.2.5

Conventional Talkgroup Channel RF Cross Busy Group

In situations involving adjacent channels that use the same frequencies, it could be possible for simultaneous transmissions on both channels to create RF interference in the coverage overlap area. Configuring RF Cross Busy helps to prevent that situation. A console transmitting while there is a RF cross busy causes one of the consoles to back off even though they are on different channels. This class is an associative class, capturing pairs of Conventional Talkgroup Channels that are considered in an RF Cross Busy relationship.

You can configure Conventional Talkgroup Channel RF Cross Busy Group between two conventional channels of the same type (local or external) or between two conventional channels of different types – local and external.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

First Talkgroup Channel Type

Field	Default	Allowed Values	Description
First Channel Type	Conventional Talkgroup Channel	<ul style="list-style-type: none">• Conventional Talkgroup Channel• External Conventional Talkgroup Channel	Specify the type of the first channel of the pair that needs to be busied when the other channel is in use.

First Conventional Talkgroup Channel

The first channel of the pair that needs to be busied when the other channel is in use. Click **Choose Record** to display a list of available options. See [Conventional Talkgroup Channel on page 225](#).

First External Conventional Talkgroup Channel

The first external channel of the pair that needs to be busied when the other channel is in use. Click **Choose Record** to display a list of available options. See [External Conventional Talkgroup Channel on page 363](#).

Second Conventional Talkgroup Channel Type

Field	Default	Allowed Values	Description
Second Channel Type	Conventional Talkgroup Channel	<ul style="list-style-type: none"> Conventional Talkgroup Channel External Conventional Talkgroup Channel 	Specify the type of the second channel of the pair that needs to be busied when the other channel is in use.

Second Conventional Talkgroup Channel

The other channel of the pair that needs to be busied when the first channel is in use. Click **Choose Record** to display a list of available options. See [Conventional Talkgroup Channel on page 225](#).

Second External Conventional Talkgroup Channel

The other external channel of the pair that needs to be busied when the other channel is in use. Click **Choose Record** to display a list of available options. See [External Conventional Talkgroup Channel on page 363](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.2.6

Console Private Call Resource

The Console Private Call Resource is a resource that a Console Dispatcher uses to send and receive Private Calls on trunked resources.

The configuration of this object impacts the following devices:

- CONSOLE

Console Private Call Resource Configuration

Field	Default	Allowed Values	Description
Console Private Call Resource ID	N/A	1 to 7,000	Enter a unique number that refers to a specific Console Private Call Resource on the system.
Console Private Call Resource Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name associated with the Console Private Call Resource.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.2.7

Console TG/MG Capabilities Profile

A Console Talkgroup/Multigroup (TG/MG) Capabilities Profile is available for setting TG/MG resource capabilities. These profiles allow or limit the accessibility of these resources to specific console features.

A Console Talkgroup/Multigroup (TG/MG) Capabilities Profile is also available for setting the Agencygroup capabilities.

The TG/MG Capabilities Profile object is created with the TEMPLATE default record.

The configuration of this object impacts the following devices:

- VPM AIS

- CONSOLE

Identity

Field	Default	Allowed Values	Description
Console Group Capabilities Profile ID	N/A	1 to 2,000	Enter a unique number.
Console Group Capabilities Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration Parameters


Field	Default	Allowed Values	Description
Channel Marker Enabled	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the Channel Marker feature for the selected profile.</p> <p>No disables the Channel Marker feature.</p> <p> NOTICE: Channel Marker cannot be enabled on a profile that is assigned to a multigroup. You cannot assign a multigroup to a profile that has Channel Marker enabled.</p>
Critical Resource Select	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to select the criticality setting of a resource in the communication system.</p> <p>No disables the console user from selecting the criticality setting of a resource in the communication system.</p> <p>This parameter is usually set to Yes.</p>
Emergency Acknowledge	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to acknowledge an emergency activity.</p>

Table continued...

Field	Default	Allowed Values	Description
			No disables the console user from acknowledging an emergency activity. Acknowledging the emergency turns off the alarm tones and informs the other console users that an emergency activity is currently being addressed by a console user.
Emergency Alarm	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user Emergency Alarm indications.</p> <p>No disables the console user Emergency Alarm indications.</p>
Emergency Setup	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to initiate an emergency call.</p> <p>No disables the console user from initiating an emergency call.</p>
End Emergency	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to end any emergency activity that has been acknowledged.</p> <p>No disables the console user from ending any emergency activity that has been acknowledged.</p>
Show In-bound Call Indicator	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to be informed when there is an incoming call.</p> <p>No disables the console user from being informed when there is an incoming call.</p>
Inbound Emergency	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to be informed when there is an incoming emergency call.</p> <p>No disables the console user from being informed when there is an incoming emergency call.</p>
Inbound PTT	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the display of the Inbound Push-to-Talk ID associated with an incoming call.</p> <p>No disables the display of the Inbound Push-to-Talk ID associated with an incoming call.</p>
Instant Transmit	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to initiate a transmission on the resource.</p> <p>No disables the console user from initiating a transmission on the resource.</p>
Logging Group Call	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the Logging Client is informed when a radio group call is received.</p> <p>No specifies that the Logging Client is not informed when a radio group call is received.</p>
Patch	Yes	<ul style="list-style-type: none"> • Yes • No 	Yes enables the console user to add a resource to a patchgroup.

Table continued...

Field	Default	Allowed Values	Description
			No disables the console user from adding a resource to a patchgroup. If a Console TG/MG Capabilities Profile is already assigned to a multigroup, the Patch field cannot be set to Yes. Also, if the Patch field of a Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup.
Priority Select	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the console user can select the relative system access priority of the resource in the communication system.</p> <p>No specifies that the console user cannot select the relative system access priority of the resource in the communication system.</p>
Repeater On	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes specifies that the console user can enable and disable the repeat functionality for a resource.</p> <p>No specifies that the console user cannot enable or disable the repeat functionality for a resource.</p>
Single Select	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to select the resource for performing various console operations.</p> <p>No disables the console user from selecting the resource for performing various console operations.</p>
Volume Control	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to control the volume level of individual resources.</p> <p>No disables the console user from controlling the volume level of individual resources.</p>
Remote Monitor	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to send the "Enhanced Remote Unit Monitor" command to a radio in a talkgroup with the assigned Console TG/MG Capability Profile. This parameter must be turned on for the console to direct the target radio to transmit on this talkgroup. Otherwise, the console cannot remote monitor any radio in this talkgroup.</p> <p>No disables this capability.</p> <p>If a Console TG/MG Capabilities Profile is already assigned to a multigroup or agencygroup, the Remote Monitor field cannot be set to Yes. Also, if the Remote Monitor field of the Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup or agencygroup.</p>

Table continued...

Field	Default	Allowed Values	Description
Radio Status	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the console user to display the status messages sent by radios affiliated with a given talkgroup.</p> <p>No disables this capability.</p>
Audio Destination	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to configure audio destinations.</p> <p>No disables the console user from configuring audio destinations.</p>

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.2.8

Console User Capabilities Profile

A Console User Capabilities Profile allows or limits the console features accessible to a console user.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Console User Capabilities Profile ID	N/A	1 to 2,000	Enter a unique number.
Console User Capabilities Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\]	Enter a unique name.

Field	Default	Allowed Values	Description
		^`~ (No leading and trailing spaces)	

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Console Configuration

Field	Default	Allowed Values	Description
Route Tones to Headset	No	<ul style="list-style-type: none"> Yes No 	<p>Controls whether the console user can hear tones in the headset or through the desktop speaker.</p> <p>Yes allows the console user to hear tones in the headset.</p> <p>No allows the console user to hear tones from the desktop speaker.</p>
Channel Marker Repeat Interval (sec)	10	5 to 255	Allows the console user to configure the time between Channel Marker tones. The Channel Marker is an audible tone that goes out at specific intervals when there is no activity on the resource.
Alert Tone Talk Extend Time (sec)	1.2	0 to 7	Allows the console user to set up the amount of time all the resources remain keyed after the alert tone is generated to allow the user to transmit a voice message on the selected channels.
Monitor On	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the console user to use the monitor capability.</p> <p>No does not allow the console user to use the monitor capability.</p>
Call Alert Receive Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the console user to receive a call alert.</p> <p>No does not allow the console user to receive a call alert.</p>
Call Alert Transmit Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the console user to transmit a call alert.</p> <p>No does not allow the console user to transmit a call alert.</p>
Sidetone Enabled	No	<ul style="list-style-type: none"> Yes 	Yes allows the console user to hear the sidetone.

Table continued...

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> No 	No does not allow the console user to hear the sidetone.
Telephone Call Enabled	No	<ul style="list-style-type: none"> Yes No 	Yes enables the console user to initiate and receive console telephony calls. No disables the console user to initiate and receive console telephony calls.
Patch Idle Delay (sec)	30	1 to 255	Enter a unique number that defines the number of seconds of audio inactivity, within a patchgroup, required to trigger the patch idle indication.
Duplex Patch Drop Out Delay (sec)	5	1 to 255	Defines the number of seconds the console waits after the end of all calls on the channels in the Duplex Patch before dekeying both resources in the duplex patch.
Number of Patch Groups	0	0 to 16	Allows a console user to set up a communication path between two or more radio groups that are normally unable to communicate with each other.
Number of Multi-Select Groups	0	0 to 16	Allows a console user to place multiple channel resources into one logical group. A console user can simultaneously transmit to all resources in a Multi Select (MSEL) group through the All Points Bulletin (APB) feature, the General Transmit feature, or by using the footswitch.
Number of APB Transmits	0	0 to 16	Specifies the number of APB Transmits. Each APB allows a console user to initiate a transmission on all resources contained within a particular MSEL group.
Alias Source	User Configuration Manager	<ul style="list-style-type: none"> User Configuration Manager Console Alias Manager 	This parameter indicates the source of alias database for the console user. The console user obtains the alias information from specified alias database source. The Dispatch Console can obtain aliases from the CAM Server or they can be read from the User Configuration Manager database depending on your choice. Both sources can hold different sets of aliases.
Console Repeat Deactivation Timer	0	0 to 1440	This parameter indicates if the Console should employ the deactivation timer for Console Repeat, and if so, how long it waits before automatically deactivating an active Console Repeat that it controls. You can set from 1 minute to 24 hours in 1 minute increments. Setting the value to 0 means that you do not want to employ the timer.

Console Alias Manager

The Console Alias Manager (CAM) assigned to this record.


See [Console Alias Manager](#) on page 111.

Private Call

Field	Default	Allowed Values	Description
Audio Destination	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to configure audio destinations.</p> <p>No disables the console user from configuring audio destinations.</p>
Critical Resource Select	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to select the criticality setting of a resource in the communication system.</p> <p>No disables the console user from selecting the criticality setting of a resource in the communication system.</p> <p>This parameter is usually set to Yes.</p>
Show Inbound Call Indicator	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to be informed when there is an incoming call.</p> <p>No disables the console user from being informed when there is an incoming call.</p>
Inbound PTT	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the display of the Inbound Push-to-Talk ID associated with an incoming call.</p> <p>No disables the display of the Inbound Push-to-Talk ID associated with an incoming call.</p>
Instant Transmit	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to initiate a transmission on the resource.</p> <p>No disables the console user from initiating a transmission on the resource.</p>
Patch Private Calls	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to add a resource to a patchgroup.</p> <p>No disables the console user from adding a resource to a patchgroup. If a Console TG/MG Capabilities Profile is already assigned to a multigroup, the Patch field cannot be set to Yes. Also, if the Patch field of a Console TG/MG Capabilities Profile is set to Yes, it cannot be assigned to a multigroup.</p>
Single Select	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to select the resource for performing various console operations.</p> <p>No disables the console user from selecting the resource for performing various console operations.</p>
Volume Control	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the console user to control the volume level of individual resources.</p>

Field	Default	Allowed Values	Description
			No disables the console user from controlling the volume level of individual resources.





Paging

Field	Default	Allowed Values	Description
Paging Capability	Simultaneous	<ul style="list-style-type: none"> None Sequential Simultaneous 	<p>None indicates that the paging capability is disabled.</p> <p>Simultaneous supports talk extend and allows the pages to be sent quicker.</p> <p>Sequential indicates that talk extend is not supported. Select this option if Simultaneous paging capability is problematic for a Console User.</p>
Talk-extend Time (sec)	1.2	0 to 7	<p>Select the time during which the station remains keyed, in order to support a follow up voice transmission on the same resource.</p> <p> NOTICE: This parameter applies to paging configuration if Paging Capability is set to Simultaneous. In all instances this parameter is also used by the dispatch console for configuration of voice selective outbound calls.</p>
External Paging Capability Enabled	No	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the console user to use the external paging capability.</p> <p>No does not allow the console user to use the external paging capability.</p>

All Mute


Field	Default	Allowed Values	Description
All Mute Capability Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the console user to use the all mute capability.</p> <p>No does not allow the console user to use the all mute capability.</p>
All Mute Timeout (sec)	30	1 to 255	Enter a unique number that defines the number of seconds that the audio is muted for the duration of the timeout.
All Mute Level (dB)	42	0 to 42 (increments of 6)	Enter a unique number that defines the level of the muted audio.

Momentary Override

Field	Default	Allowed Values	Description
Momentary Override	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the operator to override the current encryption key and initiate a PTT on the selected resources.</p> <p>No disables the operator from overriding the current encryption key and initiate a PTT on the selected resources.</p> <p> NOTICE: Momentary Override can only be invoked on a non-talkgroup partitioned channel.</p> <p> NOTICE: System supports up to 250 non-consecutive Momentary Override keys.</p>
Momentary Override Auto Key	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables Auto Key to be accepted when Momentary Override is active.</p> <p>No disables Auto Key from being accepted when Momentary Override is active.</p> <p> NOTICE: Momentary Override Auto Key is editable only if the Momentary Override is set to Yes.</p> <p> NOTICE: If Momentary Override Auto Key is enabled, the Console overwrites the value of the last Common Key Reference (CKR) in the Momentary Override CKR list with the auto key.</p>

Momentary Override CKR

A list of up to 250 Key indices used for Momentary Override.

 **NOTICE:** The Momentary Override CKRs that are configured from the Common Key Reference list may also represent Key Numbers for performing Momentary Override on Advanced SECURENET® (ASN) Conventional channels. They may be used to key up both channels that use CKRs and ASN channels simultaneously in MSEL channel groups, providing the CKRs and Key Numbers are properly mapped on the system by the system administrator. ASN Key Numbers are described in [Channel Key Numbers on page 157](#) and [Channel Key Numbers on page 190](#). For more details on key mapping, see “Key Mapping” in the *Secure Communications Feature Guide*.

See [Common Key Reference on page 112](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.2.9



Console User

A Console User can log on to and use applications in the console sub-system. A Console User has associated capabilities that allow or limit the console features to which they have access.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Domain Name	N/A	1 to 15 characters. Use the following characters: A to Z, a to z, 0 to 9, . _ (Cannot start with a period; cannot be composed of numbers only; no leading and trailing spaces)	A domain name for a user logging in to the system.  NOTICE: To see the list of all names available in the Active Directory, click in the field and enter any character.
User Login Name	N/A	1 to 104 characters. Use the following characters: A to Z, a to z, 0 to 9, ! # \$ () - . ^ ` ~ _ (Must start with a lower case English letter or underscore)	Enter a unique alias name that refers to a specific user logging on to the system.  NOTICE: To see the list of all names available in the Active Directory, click in the field and enter any character.
User Name	N/A	0 to 256 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading	Enter a unique name that identifies the user in the system. This is not the same name as the User Login Name , which provides the user with access to the system.

Field	Default	Allowed Values	Description
		and trailing spaces)	

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Console User Configuration

Field	Default	Allowed Values	Description
Supervisor Status	None	<ul style="list-style-type: none"> Primary Secondary None 	<p>Specifies the supervisor status of a console position.</p> <p>Primary gives the console user the highest transmit priority.</p> <p>Secondary gives the console user the second highest transmit priority.</p> <p>None gives the console user the lowest transmit priority.</p>

Console User Capability Profile

The Console User Capability Profile that defines the set of features available to this Console User. Click **Choose Record** to display a list of available options.

See [Console User Capabilities Profile on page 262](#).

Secure Setting

Field	Default	Allowed Values	Description
Secure Communication Mode	Both	<ul style="list-style-type: none"> Clear Secure Both 	<p>Secure Communication Mode indicates the security mode for the channel.</p> <p>Clear indicates that channels are non-secure and not encrypted.</p> <p>Secure indicates that channels are secure and encrypted.</p> <p>Both indicates that channels are clear and secure.</p>
Secure Communication Mode Default	Clear	<ul style="list-style-type: none"> Clear Secure 	Specifies the default security mode for a channel.

Security Group Access

The list of Security Groups that this user has access to. Click **Choose Record** to display a list of available options.



NOTICE: The user only has access to console resources assigned to the Security Group(s) specified in this list.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.3

Integrated Paging

Integrated Paging allows the dispatch console operator to send tone pages to one or more pagers or radios on specified resources.

The paging feature, used for various applications, offers a high degree of customization. Pages are either the tone page type or the system page type. The tones associated with tone pages sent using the Integrated Paging feature are generated inside the dispatch console and do not require an external paging encoder device.

Tone pages can be sent over both conventional radio resources and trunked group resources, using several different sets of tone paging data. The tone paging format data describes the mapping of paging digits to analog frequencies, the various timing parameters to be used by the console when generating sequences of paging tones, and the amplitude of paging tones.

You can configure the dispatch console for one of two different paging modes: simultaneous paging or sequential paging. In sequential paging, the dispatch console sends one page at a time, waiting for the resolution of each earlier page before attempting to send the next page in the sequence. In simultaneous paging, the console sends pages on all resources in parallel. Multiple pages on the same resource, though, are sent sequentially to that resource in the order that was specified for those pages in the set of pending pages.

You can also specify preconfigured individual pages or preconfigured group pages, assigning them on the dispatch console before they are needed, to maintain an easy and fast access to these features. A preconfigured group page is able to store up to 50 ordered, preconfigured individual pages. PM allows you to specify up to 9,100 preconfigured individual pages and up to 1,750 preconfigured group pages.



NOTICE: Integrated Paging on Conventional Mixed Mode channels is always transmitted in analog regardless of the current console transmit mode.

For instructions for setting custom paging formats, see [Creating Custom Paging Formats on page 426](#).

6.3.3.1

Paging Tone Group

There are two categories of Paging Tone Group instances: Standard and Special Product (SP). Standard Paging Tone Group instances are pre-configured and static in the system, whereas SP Paging Tone Group instances are configured in the Provisioning Manager.

The pre-configured and static standard Paging Tone Group instances are used as templates to create new SP Paging Tone Group instances.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Tone Group ID	N/A	1 to 224	(Read only) Displays a number that uniquely identifies the Paging Tone Group in the set of all Paging Tone Groups in the system.
Tone Group Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space - . / _ (No leading and trailing spaces)	Enter the unique alias of the Paging Tone Group in the set of all Paging Tone Groups in the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Paging Format Type	Quick Call I	<ul style="list-style-type: none"> • Quick Call I • Quick Call II B • Quick Call II C • Quick Call II D • Quick Call II E 	(Read only) Displays the tone paging format.

Table continued...

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> DTMF Touch Code Knox Touch Code Single Tone 0.5 Single Tone 1.5 Motorola 5/6 Tone 	
Record Type	Custom	<ul style="list-style-type: none"> Custom Default 	(Read only) The Record Type.

Paging Tone

Field	Default	Allowed Values	Description
Tone Digit	N/A	0 to 15	(Read only) Displays the paging tone index associated with a frequency value, which is a function of one or more paging code digits.
Tone Frequency (Hz)	N/A	288 to 3,400 0	Enter an audio frequency generated by the console as a function of one or more paging code digits.
Record Identifier	N/A	0 to 2,147,483,647	(Read only) A number that identifies a record in the set of records of a given object type.
Record Type	Custom	<ul style="list-style-type: none"> Custom Default 	(Read only) The Record Type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.3.2

Paging Format


The Integrated Paging feature supports sending tone pages in several different formats. There are two general categories of Paging Format instances: Standard and Special Product (SP). Standard Paging Format instances are pre-configured and static in the system whereas SP Paging Format instances are configured in the Provisioning Manager.

A Paging Format always has relationships to a complete ordered set of Paging Tone Groups.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Paging Format ID	N/A	1 to 60	(Read only) Displays a number that uniquely identifies a Special Product (SP) Paging Format instance within the system.  NOTICE: Some of the numbers in this range are partly reserved for auto-created records.
Paging Format Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space - . / _ (No leading and trailing spaces)	Enter the alias of the paging format instance. The standard instance for each paging format has a default alias value. You can modify the default alias when creating an SP instance of a given paging format.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Paging Format Type	Quick Call I	<ul style="list-style-type: none"> • Quick Call I • Quick Call II B • Quick Call II C • Quick Call II D 	(Read only) Displays the tone paging format.

Table continued...

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> Quick Call II E DTMF Touch Code Knox Touch Code Single Tone 0.5 Single Tone 1.5 Motorola 5/6 Tone 	
Level Deviation from Voice (dB)	0	-6 to 0	Adjust the amplitude for a paging format from the default level.
Record Type	Custom	<ul style="list-style-type: none"> Custom Default 	(Read only) The Record Type.

Tone Timing

Field	Default	Allowed Values	Description
Type	Pre-Tone Burst Delay / Tone Burst A Duration	<ul style="list-style-type: none"> Pre-Tone Burst Delay / Tone Burst A Duration Inter-Burst Gap / Tone Burst B Duration Group Pre-Tone Burst Delay / Group Tone Burst Duration Pre-Tone Delay / Tone A Duration Inter-Tone Gap / Tone B Duration Group Pre-Tone Delay / Group Tone Duration 	(Read only) Displays the type of the timing parameter associated with the given Paging Format.

Table continued...

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> Pre-Warble Delay / Warble Duration Warble Tone A Duration Warble Tone B Duration Pre-Tone Delay / Preamble Duration Post-Preamble Gap / Tone Duration X-Tone Duration Pre-Tone Delay / Tone Duration Pre-Tone Burst Delay / Tone Burst Duration Inter-Burst Gap 	
Delay (sec)	N/A	0 to 10	Enter the delay, which occurs before the tone is generated.
Duration (sec)	N/A	0 to 10 0 to 1	Enter the duration of the generated tone.
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.
Record Type	Custom	<ul style="list-style-type: none"> Custom Default 	(Read only) The Record Type.

Tone Group

Field	Default	Allowed Values	Description
Tone Group Order	N/A	1 to 16	Select the appropriate value.
Record Type	Custom	<ul style="list-style-type: none"> Custom Default 	(Read only) The Record Type.

Table continued...

Field	Default	Allowed Values	Description
Paging Tone Group Configuration	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space - . / _ (No leading and trailing spaces)	Select an existing record. See Paging Tone Group on page 271 .
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.3.3

Page

The Page object allows you to configure an Individual Page alias, along with its ID, format type, paging code and resource type.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Page ID	N/A	1 to 9,100	Enter a unique identifier for the page in the system.
Page Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to	Enter the alias of the pre-configured page that is displayed on the console interface.

Table continued...




Field	Default	Allowed Values	Description
		z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	
Paging Code	N/A	1 to 12 characters. Use the following characters: A to Z, a to z, 0 to 9, space . - / @ # * ! , _	<p>Enter a parameter which represents the pre-configured paging code. The table below describes the Paging Code range for each Paging Format Type.</p> <p>The character range for Paging Code depends on the Paging Format Type. See Table 12: Character Ranges for Paging Codes on page 278.</p> <p> NOTICE: The Paging Code for Call Alert Paging Formats equates to the Target ID of the Page. Enter the decimal Unit ID of the target radio for digital resources. Enter the hexadecimal Unit ID for conventional resources with MDC 1200 capability.</p>
Paging Format	Quick Call I	<ul style="list-style-type: none"> • Quick Call I • Quick Call II B • Quick Call II C • Quick Call II D • Quick Call II E • DTMF Touch Code • Knox Touch Code • Single Tone 0.5 • Single Tone 1.5 • Motorola 5/6 Tone • Digital Dial 1 • Digital Dial 2 • Digital Dial 3 • Call Alert 	<p>Select a paging format.</p> <p> NOTICE: It is permitted to send a page of any of the available tone paging format types on a conventional or trunked resource.</p> <p> NOTICE: It is not permitted to send a page of any of the available system paging format types on an analog conventional resource.</p>

Table continued...

Field	Default	Allowed Values	Description
Resource Type	Use Console Selected Resource	<ul style="list-style-type: none"> Analog Conventional Channel Use Console Selected Resource Digital Conventional Channel Mixed Mode Conventional Channel MDC1200 Conventional Channel ACIM Conventional Channel Group Console Private Call Resource 	<p>Select the type of the resource used to send a page.</p> <p>Use Console Selected Resource indicates there is no resource, and no frequency configured in the pre-configured page. Typically the page is sent on the resource currently selected on the console.</p> <p>Group, Console Private Call Resource or Analog, Digital, Mixed Mode, MDC 1200 or ACIM Conventional Channel indicate that there is a resource configured in the pre-configured page, which is associated with the resource at the time the page is added to the page queue.</p>

Table 12: Character Ranges for Paging Codes

Paging Format Type	Digit Length	Character Range
Quick Call I	5 characters	First digit range is 0 to 2, the range of the remaining digits is {0 to 9, A, B}
Quick Call II [B,C,D,E]	4 characters	0 to F (that is, any hex character)
Touch Code [DTMF, Knox]	1 to 12 characters	0 to F (that is, any hex character)
Digital Dial [1,2,3]	1 to 8 characters	0 to 9 (that is, any decimal character)
Single Tone [0.5,1.5]	1 character	0 to F (that is, any hex character)
Motorola 5/6 Tone	5 to 7 characters	0 to 9, X
Call Alert	1 to 8 characters	<p>Depending on the Resource Type, the following character ranges apply to Call Alerts:</p> <ul style="list-style-type: none"> For MDC Channels: 1 to FFFF (hex ID of the target)

Paging Format Type	Digit Length	Character Range
		<ul style="list-style-type: none"> • For non-MDC Channels: 1 to 16,777,215 (integer Conventional Unit ID of the target) • For Group or Console Private Call: 1 to 16,777,210 (integer ID of the target)

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Conventional Channel Frequency

The Frequency on a channel that the page is sent on. Select a frequency when the **Resource Type** is set to **Channel**. Click **Choose Record** to display a list of available options.

Group

The trunked group (TG, MG or AG) associated with this page. Select a group when the **Resource Type** is set to **Group**. Click **Choose Record** to display a list of available options.

Console Private Call Resource

The Console Private Call Resource associated with this page. Select a Console Private Call Resource when the **Resource Type** is a **Console Private Call Resource**. Click **Choose Record** to display a list of available options.

See [Console Private Call Resource on page 257](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.3.3.4

Page Group

The Page Group object allows you to configure a Page Group alias, along with its list of member individual pages.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity


Field	Default	Allowed Values	Description
Group ID	N/A	1 to 1,750	Enter a unique identifier for the Page Group in the system.
Group Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a user-friendly alias that uniquely identifies a Page Group.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Pages In Group

Field	Default	Allowed Values	Description
Order	N/A	1 to 50	Designate the order of a Page in the list of Pages in a Page Group. The order is presented by the position in the list.
Page	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	The Page associated with this group.  NOTICE: A list of up to 50 ordered pages can be added to a group. A Page can only appear once in the group. See Page on page 276 .
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4

Subscriber Parameters

The Subscriber category contains objects used to set up Radios, Talkgroups, Multigroups, Conventional Subscribers, Home Zone Map, and other subscriber-related configuration

6.4.1

Profiles

6.4.1.1

Radio Capabilities Profile

The Radio Capabilities Profile object defines the general capabilities of the radio user. Each Radio Capabilities Profile contains capability parameters that can be customized per configured profile. Every radio user is assigned a Radio Capabilities Profile. You can use a Radio Capabilities Profile object to define a set of parameters that are common to a specific group of radio users.

The configuration of this object impacts the following devices:

- ZC
- ATR
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Radio User Capabilities Profile ID	N/A	1 to 2,000	Enter a unique number that refers to a specific Radio User Capabilities Profile defined on the system. The Radio User Capabilities Profile ID must be unique among all Console User Capabilities Profiles and Radio User Capabilities Profiles within the system.

Table continued...

Field	Default	Allowed Values	Description
Radio User Capabilities Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration


Field	Default	Allowed Values	Description
Dispatch/P C Priority Level	10	2 to 10	Sets the priority level for dispatch and private calls. The priority level specifies how the system responds to a radio user's talkgroup or private call requests if all resources are not immediately available and the call must be busied. For example, users with a priority level of 2 are serviced before users with a priority level of 4 when resources are not immediately available to service both calls. Talkgroup calls use the lower-number (better) of the priorities of the requesting individual or the requested talkgroup. Private calls use the lower-number (better) of the priorities of the requesting or the target radio, when both radios are located in the same zone.  IMPORTANT: The priority value of 1 is reserved by the system for emergency calls.
Multigroup Enabled	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the multigroup for the use on the system.</p> <p>No disables the multigroup from being used on the system, except for emergency calls.</p>
Multigroup Emergency Enabled	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the radio user to initiate multigroup emergency calls.</p> <p>No disables this capability.</p>
Affiliation Inactivity	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the radio user to be forced into deaf-filiation by the zone controller after a period of inactivity.</p>

Table continued...

Field	Default	Allowed Values	Description
Timeout Enabled			No disables this capability.
Call Alert Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the radio user to initiate and receive a call alert request.</p> <p>No disables this capability.</p>
Private Call (PC) Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the radio user to initiate and receive a private call.</p> <p>No disables this capability.</p>
Dispatch Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables a radio to initiate a talkgroup call on the system.</p> <p>No means that a radio can receive but cannot initiate talkgroup calls.</p>
Radio Alias Update	Disable	<ul style="list-style-type: none"> Enable Disable 	Determines if the infrastructure can transmit the subscriber's radio alias over the air.

Status Set

The Status Set assigned to this record. It refers to a set of status texts that apply to the user(s) associated with this profile. When a radio user transmits a status number, the associated status texts are chosen from this set and displayed by the Radio Control Manager. Click **Choose Record** to display a list of available options.

See [Status Set on page 294](#).

User Group

The User Group assigned to this record for channel partitioning. Channel Partitioning controls which trunked groups or radio units are assigned to each trunked RF channel resource in the system. Click **Choose Record** to display a list of available options.

See [User Group on page 296](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.1.2

Radio Site Access Profile

The Radio Site Access Profile object defines which sites the radio user has access permission for in the system and consists of privilege information associated with particular sites in the system.

Every radio user is assigned a Radio Site Access profile. You can use a Radio Site Access profile record to define the set of parameters that are common to a specific group of radio users.



CAUTION: System administrators should be certain that radios are only used at sites with channels that are capable of supporting the FDMA or TDMA mode required for calls made by that radio. There are no business rules in place, for example, to prevent an operator from configuring a FDMA-only radio on a system with TDMA-only channels.

The configuration of this object impacts the ZC.

Identity

Field	Default	Allowed Values	Description
Radio Site Access Profile ID	N/A	1 to 2,000	Enter a unique number that refers to a specific Site Access Profile defined on the system. This profile is the mechanism by which a radio or group site access permissions are configured. You can customize the valid sites configuration information for a set of radios or groups by creating a profile.
Radio Site Access Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that refers to a specific Site Access Profile defined on the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Include or Exclude Valid Sites

Field	Default	Allowed Values	Description
Include/Exclude, only System Managers can Exclude Sites	Include Sites in List as Valid Sites	<ul style="list-style-type: none"> Include Sites in List as Valid Sites Exclude Sites in List, All unlisted Sites are Valid 	<p>Define which sites a radio is allowed to use on the system.</p> <p>Include Sites in Lists as Valid Sites means that a radio can use the sites included in the List of Valid Sites to Include or Exclude on the system.</p>

Field	Default	Allowed Values	Description
			Exclude Sites in List, All unlisted Sites are Valid means that a radio cannot use the sites included in the List of Valid Sites to Include or Exclude on the system.

List of Valid Sites to Include or Exclude

The list used to specify the RF sites that can be accessed by Radio Users assigned to this profile. The list can be:

- Inclusive - the list of sites the user can access
- Exclusive - the list of sites the user cannot access



NOTICE: Only Provisioning Manager users assigned as the System Manager can configure an exclusive list.

Click **Choose Records** to display a list of available options.

See [RF Site on page 134](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.1.3

Radio Interconnect Profile

The interconnect feature enables landline-to-radio calls and radio-to-landline calls for radio users whose user records grant them permission to make and/or receive the interconnect calls. The Radio Interconnect Profile object defines the interconnect call capabilities for a radio user. Every radio user is assigned a Radio Interconnect Profile. You can use the Radio Interconnect Profile record to define the set of parameters that are common to a specific group of radio users. The Radio User Interconnect Profile object is created with the TEMPLATE default record.

Identity

Field	Default	Allowed Values	Description
Interconnect Profile ID	N/A	1 to 500	Enter a unique number.

Table continued...



Field	Default	Allowed Values	Description
Interconnect Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Interconnect Parameters

Field	Default	Allowed Values	Description
Individual Interconnect Priority Level	10	2 to 20	<p>Select a priority level to determine how the system responds to a radio user interconnect call requests if all resources are not immediately available and the call must be busied.</p> <p> IMPORTANT: 1 is reserved for system emergency calls.</p>
Mobile-to-Land Call Routing Mode	Local Interconnect Only	<ul style="list-style-type: none"> Local Interconnect Only Local Interconnect Preferred Use Default Interconnect Only 	<p>Select which interconnect subsystem is used for a mobile-to-land call.</p> <p>Local Interconnect Only specifies that only the local interconnect subsystem may be used. This selection disables the Alternate/Default Interconnect Subsystem field.</p> <p>Local Interconnect Preferred specifies that the local interconnect subsystem is preferred. If the radio is registered to a zone where the interconnect is not installed or it has failed, then the zone controller uses the Alternate/Default Interconnect Subsystem setting instead.</p> <p>Use Default Interconnect Subsystem specifies that the default subsystem should be used for the interconnect call.</p>
Exclusion Class Number	None	<ul style="list-style-type: none"> None 1 2 3 4 	<p>Identify which Exclusion Class applies to the radio user in the system.</p> <p> NOTICE: Setting the parameter to None sets no dialing restrictions to the user.</p>

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> • 5 • 6 • 7 • 8 • 9 • 10 • 11 • 12 • 13 • 14 • 15 	

Alternate/Default Interconnect Subsystem

The Interconnect Subsystem that the Zone Controller uses as the alternate or as the default for a call depending on the value of the **Mobile-to-Land Call Routing Mode** parameter. Click **Choose Record** to display a list of available options.

See [Interconnect Subsystem on page 130](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.1.4

TG/MG Capabilities Profile

The TG/MG Capabilities Profile object defines a set of parameters that are common for a specific talkgroup or multigroup. Each TG/MG Capabilities Profile contains capability parameters that can be customized per configured profile. Every talkgroup and multigroup is assigned a TG/MG Capabilities Profile.

The configuration of this object impacts the following devices:

- ZC
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Group Capabilities Profile ID		1 to 2,000	Enter a unique number that refers to a specific TG/MG Capabilities Profile defined on the system.
Group Capabilities Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Configure the following parameters for both trunking and conventional talkgroups or multigroups.

Field	Default	Allowed Values	Description
Group Priority Level	10	2 to 10	Select the priority level for the group during busy queues in the system, where 2 is the highest priority level and 10 is the lowest. When resources become available, busy calls with the highest priority level are serviced first.
Secure Communication Mode Default	Clear	<ul style="list-style-type: none"> Clear Secure 	Specify the default security mode for the group when Secure Communication Mode is set to Both .
Secure Communication Mode	Both	<ul style="list-style-type: none"> Clear Secure Both 	Select the mode of secure transmission for the group. Clear allows a radio user to transmit clear (non-secure) talkgroup calls only. Secure allows the radio user to transmit secure (encrypted) talkgroup calls only.
Audio Interrupt Mode	Never	<ul style="list-style-type: none"> Never Always On Priority 	Never prevents all audio interrupt requests. Always allows the system to automatically grant audio interrupt requests on the same talkgroup.

Table continued...

Field	Default	Allowed Values	Description
			On Priority allows the system to use Subscriber ID priority to interrupt other radios.
Emergency Interrupt Priority	Disable	<ul style="list-style-type: none"> • Enable • Disable 	<p>Disable makes Audio Interrupt Mode determine if a non-emergency radio transmission can interrupt an emergency radio transmission.</p> <p>Enable prevents non-emergency radio transmissions from interrupting emergency radio transmissions.</p>

Common Key Reference

The key index used for secure communication. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Additional Configuration for Trunking Group

Configure the following parameters only for trunking talkgroups or multigroups.

Field	Default	Allowed Values	Description
Conversation Type	PTT-ID	<ul style="list-style-type: none"> • PTT-ID • Transmission 	<p>PTT-ID indicates that the system assigns a traffic channel for the duration of the entire conversation as follows: after a subscriber dekeys, the voice channel stays active (hang time); during this period the subscribers stay idle on the voice channel. Any subscriber, responding during this hang time, first keys up on the Control Channel to send a message with its PTT-ID, indicating that it wants to send audio now for this call. Then, the system sends a grant message directing the subscriber back to the same voice channel acting as the new source.</p> <p>Transmission indicates that the system assigns a traffic channel for the duration of a single transmission by one subscriber. When the subscriber dekeys, the traffic channel is deallocated and all subscribers involved in the call return to the Control Channel. Any subsequent traffic channel requests are sent in on the Control Channel by the requesting radio.</p>
Busy Override	AllStart	<ul style="list-style-type: none"> • AllStart • FastStart 	<p>AllStart requires that all affiliated talkgroup members, consoles, AIS (Archiving Interface Server), critical sites, and other required resources are available for a requested call before the call can begin. If some of the affiliated resources are not available, the system returns a busy signal to the initiating radio. When the required resources become available, the call is granted.</p>

Table continued...


Field	Default	Allowed Values	Description
			<p>FastStart enables automatic busy override by a talkgroup. This call request method processes the request with any affiliated talkgroup members, consoles, AIS (Archiving Interface Server), and critical sites that are available. As channels become available at sites with other affiliated talkgroup members, they are added to the call in progress.</p> <p> NOTICE: If no resources are available to the radio making the call, including secure voice resources, the radio receives a busy signal.</p>
Emergency Enabled	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables radio users in the talkgroup to initiate emergency calls or alarms.</p> <p>No disables this capability. Emergency calls are processed under normal priority level control.</p>
Emergency at Not Valid Sites	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables emergency calls to be placed at non-valid sites for the talkgroup as determined by the selection of valid sites in the TG/MG Site Access Profile.</p> <p>No disables this capability.</p>
Emergency Queue Mode	Top Of Queue	<ul style="list-style-type: none"> • Ruthless • Top Of Queue 	<p>Ruthless enables an emergency call to terminate the call with the lowest priority at all sites involved. This occurs when there are no available channel resources at the sites requested by the call.</p> <p>Top of Queue specifies that emergency calls have the highest priority and receive the next available repeater. This only applies at the initiating site. All other sites are ruthlessly preempted. Console emergency calls are always ruthlessly preempted.</p>
Priority Monitor	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows a radio user with Priority Monitor capability to monitor a talkgroup call. Information regarding activity on this talkgroup is sent out on voice channels assigned to other talkgroup calls. Radios monitoring talkgroup calls can detect this information and use it to scan over to more important talkgroup conversations on other channels. In order to access this functionality, the radio must:</p> <ul style="list-style-type: none"> • Be programmed for Priority Monitor scan. • Have a configured scan list. • Be in scan mode. <p>No disables this capability.</p>

Table continued...


Field	Default	Allowed Values	Description
			 NOTICE: Enable Priority Monitor only on a small subset of the total talkgroups in the system, due to the limited bandwidth of the embedded voice channel signaling. This increases the speed with which a radio is notified of a priority message. Radios monitoring Private Call or Interconnect calls are not interrupted by Priority Monitor talkgroup activity.
Affiliation Inactivity Timeout (hr)	12	<ul style="list-style-type: none"> • 4 • 8 • 12 • 16 • 20 • 24 • 28 • 32 • 36 • 40 • 44 • 48 • 52 • 56 • 60 • 64 • 68 • 72 • Never 	Select the time when an inactive radio or console Channel Control window affiliated to the current talkgroup or multigroup is polled to determine if it is no longer on the system. Infinite means that it is never polled.
Status Acknowledged By	RCM	<ul style="list-style-type: none"> • RCM • ZC • CADI 	<p>RCM selects RCM software for acknowledging status.</p> <p>ZC selects the zone controller as a proxy for the console to acknowledge the status.</p> <p>CADI selects the CADI software for acknowledging status.</p>
Emergency Acknowledged By	RCM	<ul style="list-style-type: none"> • RCM • Console • CADI 	Select an entity in the system for acknowledging emergencies. You can modify this setting only if the Emergency Acknowledged By parameter for the System object is set to TG Selectable .

Table continued...

Field	Default	Allowed Values	Description
			<p>RCM selects Radio Control Manager (RCM) software for acknowledging emergencies.</p> <p>Console selects the console for acknowledging emergencies.</p> <p>CADI selects the Computer Aided Dispatch Interface (CADI) software for acknowledging emergencies.</p>
Multi-System Call Start Mode	Multi-System Inclusive	<ul style="list-style-type: none"> Local System Only Multi-System Inclusive 	Indicates whether the ISSI talkgroup call starts with just the participants in the local system (Local System Only) or that the call is busied until participants from all the relevant systems can be included (Multi-System Inclusive).

User Group for Trunking Group

The User Group assigned to this record for channel partitioning. Channel Partitioning controls which trunked groups or radio units are assigned to each trunked RF channel resource in the system. Click **Choose Record** to display a list of available options.

See [User Group on page 296](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.1.5

TG/MG Site Access Profile

The TG/MG Site Access Profile object defines for which sites the talkgroup or multigroup has access permission in the system. Every talkgroup and multigroup is assigned a TG/MG Site Access Profile. You can use the TG/MG Site Access Profile record to define a set of parameters that are common for a specific talkgroup or multigroup.

The configuration of this object impacts the ZC.

Identity

Field	Default	Allowed Values	Description
Site Access Profile ID	N/A	1 to 2,000	Enter a unique number that refers to a specific Site Access Profile defined on the system. This profile is the mechanism by which a radio or group site access permissions are configured. You can customize the valid sites configuration information for a set of radios or groups by creating a profile.
Site Access Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that refers to a specific Site Access Profile defined on the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Include or Exclude Valid Sites

Field	Default	Allowed Values	Description
Include/Exclude, only System Managers can Exclude Sites	Include Sites in List as Valid Sites	<ul style="list-style-type: none"> Include Sites in List as Valid Sites Exclude Sites in List, All unlisted Sites are Valid 	<p>Define which sites a group is allowed to use on the system.</p> <p>Include Sites in Lists as Valid Sites means that a group can use the sites included in the List of Valid Sites to Include or Exclude on the system.</p> <p>Exclude Sites in List, All unlisted Sites are Valid means that a group cannot use the sites included in the List of Valid Sites to Include or Exclude on the system.</p>

List of Valid Sites to Include or Exclude

The list used to specify the RF sites that can be accessed by groups assigned to this profile. The list can be:

- Inclusive - the list of sites the group can access
- Exclusive - the list of sites the group cannot access



NOTICE: Only Provisioning Manager users assigned as the System Manager can configure an exclusive list.

Click **Choose Records** to display a list of available options.

See [RF Site on page 134](#).

List of Included Requested Sites

For a specific talkgroup, select the sites to receive audio from a talkgroup call. The site receives audio even when no radios affiliate to the talkgroup at the site.

The ability to initiate a talkgroup call depends on the **Busy Override** setting of the **TG/MG Capabilities Profile** object. With the **Busy Override** parameter set to **AllStart**, all requested sites must be included in the call and must have an available channel before the talkgroup call can start. With the **Busy Override** parameter of the talkgroup set to **FASTStart**, the talkgroup call starts regardless of the channel availability of the requested sites. The requested sites are included when the call starts only if a channel is available; otherwise, the site joins the call when a channel becomes available.

You can add only valid sites to the List of Included Requested Sites.



NOTICE: Use this capability carefully to avoid decreasing the grade of service for actual radios affiliated at the site.

See [RF Site on page 134](#).

List of Included Critical Sites

For a specific talkgroup, select the sites to receive audio from a talkgroup call. The site receives audio even when no radios affiliate to the talkgroup at the site. To initiate a talkgroup call, all critical sites must have an available channel before the talkgroup call can start. The **Busy Override** parameter of the **TG/MG Capabilities Profile** object does not affect this functionality.

You can add only valid sites to the List of Included Critical Sites.

See [RF Site on page 134](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.1.6

Status Set

The Status Set object lets you create up to 16 status messages which the radio user can reference.

These status messages are displayed in the dispatch console and Radio Control Manager (RCM) after the radio user selects an assigned radio button that corresponds to a status message. There are up to 2,000 Status Sets available per system.

The Status Set object uses STATUS-SET-1 as the Status default. The Status default is used when there is insufficient information received to determine the desired Status Set.

The configuration of this object impacts the following devices:

- ATR
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Status Set ID		1 to 2,000	Enter a unique number that refers to a specific status set profile defined on the system.
Status Set Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Status Configuration

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.
Status Number		0 to 239	Enter a number that refers to a specific status message defined on the system.
Status Text	N/A	0 to 60 characters. Use the following characters: A to Z, a to z, 0 to 9, space . - / @ # * ! , _	Text associated with a specific Status Set Number that is displayed when the radio user selects and transmits that number.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.1.7

User Group

The User Group object allows you to see the general capabilities of the user group. Each user group contains capability parameters that are customized per configured profile.

Each talkgroup/multigroup capability profile and each radio user capability profile must be configured with a user group. The subscriber unit (unit ID) and all the talkgroups programmed into the subscriber unit could be members of the same user group but it is not a requirement. The Subscriber Unit (unit ID) and the talkgroups programmed into the subscriber can all be in different user groups. The maximum number of user groups is 100.

Identity

Field	Default	Allowed Values	Description
User Group ID	N/A	1 to 100	Enter a unique identifier for the User Group.
User Group Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a user-defined alias for the User Group. The alias must be unique compared with existing user group aliases in the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.2

Radio

6.4.2.1

IVD Radio

The IVD Radio object contains attributes related to the physical radio unit, such as its unique identity and serial number.

Keep in mind when selecting the start and ending Radio ID range (from 1 to 16,777,211 and 16,777,215) that these IDs are what users type in when sending unit-to-unit calls or Call Alert Pages. You may want to use the lower end of the range to save user keystrokes. Same IDs also appear on the radios if the ID Display feature is being used and on the consoles if the console alias feature is not used.

When creating an IVD Radio, if the Subscriber Unit ID is already assigned to a Conventional Talkgroup Unit, Conventional Voice Unit or Conventional Voice and Data Unit, then both the IVD Radio and the conventional unit must represent the same physical radio unit.


When you create a talkgroup record on the UNC with the **Talkgroup Default Access Permissions** set to **Yes**, the ZC automatically creates a talkgroup record in Provisioning Manager.

When a radio user is added to the system and configured with a static IP address on NM, the operator must configure a DHCP exclusion in the Border Router `boot.cfg` file. For details, refer to *EOS 16.7 Software Reference Guide* manual.

The configuration of this object impacts the following devices:

- ZC
- ATR
- IVD PDR
- VPM AIS
- CONSOLE
- AUC

Identity

Field	Default	Allowed Values	Description
Radio ID	N/A	1 to 16,777,211	<p>Enter a number that refers to a specific radio on the system. This ID is unique within the system.</p> <p> IMPORTANT: Do not exceed the total number of individual IDs. This can overload the resources in your system.</p> <p>You can enter up to 128,000 total radios into the system, a maximum of 64,000 radios per zone.</p> <p>The total range of individual identification numbers used by the system is 16,777,217. The IDs are distributed as follows:</p> <ul style="list-style-type: none"> • 1 to 16,777,211 are available for assignment to radios and console resources • 16,777,212 to 16,777,217 are reserved for system use
Radio Serial Number	N/A	0 to 12 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	<p>(Optional) Enter the serial number of a specific radio on the system. This serial number is part of the radio programming.</p> <p>The parameter is not used for system configuration, but serves documentation purposes only.</p>
Radio User Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Radio Capability Profile

The Radio Capability Profile assigned to this record. It defines the general capabilities of the radio in the system. Click **Choose Record** to display a list of available options.

See [Radio Capabilities Profile on page 281](#).

Radio Site Access Profile

The Radio Site Access Profile assigned to this record. It defines the sites that the radio can access in the system. Click **Choose Record** to display a list of available options.

See [Radio Site Access Profile on page 284](#).

Primary Talkgroup

The Primary Talkgroup assigned to this record. The Primary Talkgroup assigned to the IVD Radio and an RCM user's list of attachment groups are used to determine which RCM/CAD users can issue radio commands to a radio and the radios from which the RCM/CAD user can receive radio activities, such as Status messages. When the radio user sends emergency alarms or status messages, the CAD/RCM User attached to the radio's Primary Talkgroup receives and can acknowledge the message. If this field is left blank, critical radio activities (such as Emergency Alarms) from the radio are sent to all RCM users who are logged in, while others, such as Status messages, are not. Also, if this field is left blank, only the RCM users with **Attach All Talkgroups** parameter set to **Yes** can send a radio command to the radio. Click **Choose Record** to display a list of available options.


See [Talkgroup on page 310](#).

Capabilities and Settings

Field	Default	Allowed Values	Description
Voice Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables a radio to make or receive calls on the system.</p> <p>No disables a radio from making or receiving calls on the system.</p>
Interconnect Enabled	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the radio user to initiate and receive the interconnect calls. This setting enables all interconnect-related parameters on the window.</p> <p>No prevents the radio user from initiating or receiving interconnect calls. This setting disables all interconnect-related parameters on the window.</p>
Emergency Alarm Comments	N/A	0 to 64 characters. No character choice restrictions	Defines the text that is sent out as an emergency comment when the radio user initiates an emergency alarm.
Secure Communication Mode	Both	<ul style="list-style-type: none"> Clear Secure Both 	<p>Clear allows a radio user to transmit clear (non-secure) private calls only.</p> <p>Secure allows the radio user to transmit secure (encrypted) private calls only.</p> <p>Both allows the radio user to transmit both clear and secure private calls.</p>
Data Capability	No Data Service	<ul style="list-style-type: none"> No Data Service 	Specify the data service type for the subscriber. No Data Service P25 Classic Data Service

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> P25 Classic Data Service P25 Classic and Reserved Access Data Services 	P25 Classic and Reserved Access Data Services

Interconnect Settings

Field	Default	Allowed Values	Description
Direct Dial Number	N/A	2 to 15 characters. Use the following characters: 0 to 9 (No leading and trailing spaces)	<p>Enter a unique telephone number assigned to the radio user.</p> <p>The number of digits must be equal to or greater than the number of DID Digits configured in the Interconnect Subsystem associated with the IVD Radio.</p> <p> NOTICE: The direct inbound dialing (DID) number is obtained from the phone company and allows direct interconnect access to the radio user. You can dial a single number to reach the radio user.</p>
Secure Land to Mobile Start Mode	Clear	<ul style="list-style-type: none"> Clear Secure 	Displays the starting mode for a land-to-mobile individual interconnect call.

Interconnect Subsystem

The Interconnect Subsystem assigned to this record. This assignment is necessary for Direct Inbound Dialing function to be enabled, but is otherwise not required. If you set the **Interconnect Enabled** parameter to **Yes** and enter **Direct Dial Number**, select an existing Interconnect Subsystem record. Click **Choose Record** to display a list of available options.

See [Interconnect Subsystem on page 130](#).

Radio User Interconnect Profile

The Radio User Interconnect Profile assigned to this record. It defines the capabilities associated with interconnect (telephony) functions of the radio in the system. If you set the **Interconnect Enabled** parameter to **Yes**, select an existing Radio User Interconnect Profile record. Click **Choose Record** to display a list of available options.

See [Radio Interconnect Profile on page 285](#).

Interconnect Secure Key Reference

The key index used for secure interconnect call capability. If you set the **Interconnect Enabled** parameter to **Yes**, select an existing Common Key Reference record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Data Settings

Field	Default	Allowed Values	Description
IP Address Assignment	Dynamic	<ul style="list-style-type: none"> Static Dynamic 	<p>Static means that the IP address is configured into the object. Selecting this option enables the IP Address field where you can enter the specific IP address for this object.</p> <p>Dynamic means that the subsystem must contact the server to source the IP address. If you select this option, the IP Address field is disabled.</p>
IP Address	0.0.0.0	Use the following characters: 0 to 9, . (No leading and trailing spaces)	Enter the IP address for the object in the following format: xxx . xxx . xxx . xxx
Generate ICMP Message	On	<ul style="list-style-type: none"> On Off 	<p>This field specifies whether the Packet Data Gateway (PDG) should relay an Internet Communications Message Protocol (ICMP) message if a data call is undeliverable.</p> <p>On enables ICMP messaging when a data call is undeliverable.</p> <p>Off disables ICMP messaging when a data call is undeliverable.</p>
Source Address Checking	On	<ul style="list-style-type: none"> On Off 	<p>On requires the system to check the source address of the mobile computer sending the information to verify that it is a valid user of the system.</p> <p>Off enables mobile computers to send information without being validated.</p>
Ready Timer (sec)	10	3 to 250	Enter the amount of time a radio remains on a data channel after data transfer is complete.

Data Agency Group

The Data Agency Group assigned to this record. It is used to arbitrate site utilization when there is contention for Enhanced Data services. If you set the **Data Capability** parameter to **P25 Classic and Reserved Access Data Services**, select an existing Data Agency Group record. Click **Choose Record** to display a list of available options.

See [Data Agency Group on page 115](#).

Data Steering Profile

The Data Steering Profile(s) assigned to this record. You must make Data Steering Profile assignments in both site provisioning through UNCW/CSS for the Site Controller (SC) and in all affected Radio Records through the PM for the PDR. If a Data Steering Profile (for example: Profile 16), is to be assigned to a Radio Record in the PDR, Profile 16 must also be assigned to a Data Steering Group in the SC through the UNCW or CSS. If Profile 16 is not already assigned to a Data

Steering Group in the SC before Profile 16 is assigned to a Radio Record in the PDR, a Subscriber requesting a channel with Profile 16 is denied by the SC.



NOTICE: Radios using Classic Data Services use Data Steering Profile 1. Transit Radios using Classic and Enhanced Data Services are assigned one or more Data Steering Profiles. Any Data Steering Group/Profile maintenance should be performed during low system usage times.

If you set the **Data Capability** parameter to **P25 Classic and Reserved Access Data Services**, select an existing Data Steering Profile record. Click **Choose Record** to display a list of available options.

See [Data Steering Profile on page 116](#).

Access Point Name

The Access Point Name assigned to this record. It identifies the data network assignment for the radio. Click **Choose Record** to display a list of available options.

See [Access Point Name on page 117](#).

Unified Network Services Server

The Unified Network Services Server assigned to this record.

See [Unified Network Services on page 118](#).

Notes

Field	Default	Allowed Values	Description
Notes	N/A	0 to 512 characters. No character choice restrictions	Enter the text that provides relevant description and information about the record.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Return to Process

[HPD Radio](#) on page 303

Related Links

[Batch Create Functionality](#) on page 66

6.4.2.2 HPD Radio

The HPD Radio object contains attributes related to the physical radio unit, such as its unique identity.

Keep in mind when selecting the start and ending Radio ID range (from 1 to 16,777,211 and 16,777,215) that these IDs are what users type in when sending unit-to-unit calls or Call Alert Pages. You may want to use the lower end of the range to save user keystrokes. Same IDs also appear on the radios if the ID Display feature is being used and on the consoles if the console alias feature is not used.

When a radio user is added to the system and configured with a static IP address on NM, the operator must configure a DHCP exclusion in the Border Router `boot.cfg` file. For details, refer to *EOS 16.7 Software Reference Guide* manual.

The configuration of this object impacts the following devices:

- ZC
- HPD PDR
- VPM AIS
- CONSOLE
- AUC

Identity


Field	Default	Allowed Values	Description
Radio ID	N/A	1 to 16,777,211	<p>Enter a number that refers to a specific radio on the system. This ID is unique within the system.</p> <p> IMPORTANT: Do not exceed the total number of individual IDs. This can overload the resources in your system.</p> <p>You can enter up to 128,000 total radios into the system, a maximum of 64,000 radios per zone.</p> <p>The total range of individual identification numbers used by the system is 16,777,217. The IDs are distributed as follows:</p> <ul style="list-style-type: none"> • 1 to 16,777,211 are available for assignment to radios and console resources • 16,777,212 to 16,777,217 are reserved for system use
Radio Serial Number	N/A	0 to 12 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	<p>(Optional) Enter the serial number of a specific radio on the system. This serial number is part of the radio programming.</p> <p>The parameter is not used for system configuration, but serves documentation purposes only.</p>

Table continued...

Field	Default	Allowed Values	Description
Radio User Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Data Settings

Field	Default	Allowed Values	Description
IP Address Assignment	Dynamic	<ul style="list-style-type: none"> Static Dynamic 	<p>Static means that the IP address is configured into the object. Selecting this option enables the IP Address field where you can enter the specific IP address for this object.</p> <p>Dynamic means that the subsystem must contact the server to source the IP address. If you select this option, the IP Address field is disabled.</p>
IP Address	0.0.0.0	Use the following characters: 0 to 9, . (No leading and trailing spaces)	Enter the IP address for the object in the following format: xxx . xxx . xxx . xxx
Source Address Checking	On	<ul style="list-style-type: none"> On Off 	<p>On requires the system to check the source address of the mobile computer sending the information to verify that it is a valid user of the system.</p> <p>Off enables mobile computers to send information without being validated.</p>
Generate ICMP Message	On	<ul style="list-style-type: none"> On Off 	<p>This field specifies whether the Packet Data Gateway (PDG) should relay an Internet Communications Message Protocol (ICMP) message if a data call is undeliverable.</p> <p>On enables ICMP messaging when a data call is undeliverable.</p> <p>Off disables ICMP messaging when a data call is undeliverable.</p>

Access Point Name

The Access Point Name assigned to this record. It identifies the data network assignment for the radio. Click **Choose Record** to display a list of available options.

See [Access Point Name on page 117](#).

Radio Site Access Profile

The Radio Site Access Profile assigned to this record. It defines the sites that the radio can access in the system. Click **Choose Record** to display a list of available options.

See [Radio Site Access Profile on page 284](#).

Notes

Field	Default	Allowed Values	Description
Notes	N/A	0 to 512 characters. No character choice restrictions	Enter a relevant description of the record.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Related Links

[IVD Radio on page 297](#)

[Batch Create Functionality on page 66](#)

6.4.2.3

Broadcast Data Agency

The Broadcast Data Agency object allows you to configure the ability to send data messages to a large set of users within the entire system coverage area.


Before configuring the Broadcast Data Agency, it is necessary to ensure that GGSN and APN are configured in the UNC and synchronized to the Provisioning Manager, and that a respective HPD or IVD Radio object exists.

The configuration of this object impacts the following devices:

- IVD PDR

- HPD PDR

Identity

Field	Default	Allowed Values	Description
Radio ID	N/A	10,000,000 to 16,777,211 16,777,215	<p>Enter a number that refers to a specific radio on the system. This ID is unique within the system.</p> <p> IMPORTANT: Do not exceed the total number of individual IDs. This can overload the resources in your system.</p> <p>You can enter up to 128,000 total radios into the system, a maximum of 64,000 radios per zone.</p> <p>The total range of individual identification numbers used by the system is 16,777,217. The IDs are distributed as follows:</p> <ul style="list-style-type: none"> • 1 to 16,777,211 are available for assignment to radios and console resources • 16,777,212 to 16,777,217 are reserved for system use
Broadcast Data Agency Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.
Broadcast Data Agency Data Type	IVD	<ul style="list-style-type: none"> • IVD • HPD 	Select the type of data service that is available to this Broadcast Data Agency.
Subscriber Type	IVD Radio	<ul style="list-style-type: none"> • Broadcast Data Agency • IVD Radio • HPD Radio • Console Platform 	(Read only) Displays the type of this subscriber unit.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

IP Identity

Field	Default	Allowed Values	Description
Zone	N/A	Click Choose Record to display a list of available options.	The Zone configured to broadcast data for the Broadcast Data Agency. A Zone record is generally created by the Unified Network Configuration (UNC) during the publish infrastructure data operation. See Zone on page 128 .
Access Point Name	N/A	Click Choose Record to display a list of available options.	The Network ID that can be used by the Broadcast Data Agency. The APN identifies the home network of the Broadcast Data Agency. It must consist of labels separated by "." of which the last one must not be <code>gprs</code> . See Access Point Name on page 117 .
IP Address	N/A	Use the following characters: 0 to 9, . (No leading or trailing spaces)	Enter the IP address for the object in the following format: <code>xxx.xxx.xxx.xxx</code>
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.2.4

Default Radio Access Permissions

The Default Radio Access Permissions object specifies the default radio user and profile settings used by the zone controller for all the radio users who attempt to access the system when there is no information about these radio users but the default access is enabled for them.

The configuration of this object impacts the ZC.

If on the UNC in the Zone object the **Individual Default Access Permission** attribute is set to **Yes**, radio records have the following default permissions:

- Radios that do not have a Radio record in the Zone Controller initially have access to all sites in the zone. The radio capabilities for these radios are the capabilities defined in the Radio Capabilities Profile that is configured for the Default Radio Access Permissions object.
- Radios that do not have a Radio record in the Provisioning Manager, automatically have Radio records created in the Provisioning Manager by the Zone Controller. These automatically created records use the Individual Site Access Profile configured for the Default Radio Access Permissions object. The Site Access Profile configuration takes effect when the automatically created Radio record is distributed to the Zone Controller from the Provisioning Manager.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Capabilities

Field	Default	Allowed Values	Description
Voice Enabled	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Voice Enabled indicates whether the user is allowed to initiate voice services on the system.</p> <p>Selecting Yes for this parameter enables voice capability for this user.</p> <p>If No is selected, the user is not able to initiate group calls or participate in individual calls, but can still receive group calls.</p>
Interconnect Enabled	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the radio user to initiate and receive the interconnect calls. This setting enables all interconnect-related parameters on the window.</p> <p>No prevents the radio user from initiating or receiving interconnect calls. This setting disables all interconnect-related parameters on the window.</p>
Secure Communication Mode	Both	<ul style="list-style-type: none"> • Clear • Secure • Both 	<p>Clear allows a radio user to transmit clear (non-secure) talkgroup calls only.</p> <p>Secure allows the radio user to transmit secure (encrypted) talkgroup calls only.</p> <p>Both allows the radio user to transmit both clear and secure talkgroup calls.</p>

Radio Capabilities Profile

The capabilities applied to all radios that do not have a defined IVD Radio record. Click **Choose Record** to display a list of available options.

See [Radio Capabilities Profile on page 281](#).

Interconnect Settings

Field	Default	Allowed Values	Description
Secure Land to Mobile Start Mode	Clear	<ul style="list-style-type: none"> Clear Secure 	Displays the starting mode for a land-to-mobile individual interconnect call.

Interconnect User Profile

The capabilities applied to interconnect (telephony) functions for all radios that do not have a defined IVD Radio record. If you set the **Interconnect Enabled** parameter to **Yes**, select an existing Interconnect User Profile record. Click **Choose Record** to display a list of available options.

See [Radio Interconnect Profile on page 285](#).

Interconnect Secure Key Reference

The key index used for secure interconnect call capability for all radios that do not have a defined IVD Radio record. If you set the **Interconnect Enabled** parameter to **Yes**, select an existing Common Key Reference record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Site Access Profile used for automatically created Radio Records on Radio Default Access

Select a Site Access Profile record to be used as a default for automatically created radio records. Click **Choose Record** to display a list of available options.

See [Radio Site Access Profile on page 284](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.3 Group

6.4.3.1 Talkgroup

The Talkgroup object consists of the information that identifies a group of radios that communicate and interact with each other in the system. This group can also be a small subset of a multigroup.

Talkgroup IDs are 8-digit decimal numbers, beginning with 80,000,001. Talkgroups, multigroups, and agencygroups are created from the same pool of 8-digit decimal numbers. The following numbers are reserved:

Table 13: Reserved Talkgroup IDs

Reserved ID	ID reserved for...
80,065,536	Initialization record
80,065,535	Addressing all groups in a zone-wide call
80,000,001 - 80,065,534	Valid talkgroup ID
80,000,000	System functions

You can create a total of 16,000 talkgroups and multigroups in the system using this set of decimal numbers. They can be anywhere in the range from 80,000,001 to 80,065,534.

When you create a talkgroup record on the UNC with the **Talkgroup Default Access Permissions** set to **Yes**, the ZC automatically creates a talkgroup record in Provisioning Manager.



CAUTION:

Do not exceed the maximum allowed number of configured talkgroups. This can cause degraded system operation or anomalous events.

System administrators should be certain that talkgroups are only used with sites that are capable of supporting the FDMA or TDMA mode required for that talkgroup. There are no business rules in place, for example, to prevent an operator from configuring a TDMA-only talkgroup to operate on a site with channels that are only capable of FDMA operation. The same caution applies to the configuration of FDMA-only individual radios at TDMA-only sites.


The configuration of this object impacts the following devices:

- ZC
- ATR
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Talkgroup ID	N/A	80,000,001 to 80,065,534	Enter a unique number.

Table continued...

Field	Default	Allowed Values	Description
			 NOTICE: The following ID numbers are reserved for system use: <ul style="list-style-type: none"> • 80,000,000 • 80,065,535 and greater
Talkgroup Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group




The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.


See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Talkgroup Regroupable	Yes	<ul style="list-style-type: none"> • Yes • No 	Yes enables this talkgroup to be regrouped with other talkgroups, allowing the resulting supergroup to transmit using only one repeater. No prevents this talkgroup from regrouping.
Talkgroup Enabled	Yes	<ul style="list-style-type: none"> • Yes • No 	Yes enables the talkgroup for the use on the system. No disables the talkgroup from being used on the system, except for emergency calls.
Service Mode	No	<ul style="list-style-type: none"> • Yes • No 	Yes enables the service mode. Use this field for troubleshooting purposes to test the audio path to a channel. The Service Mode field is also present in the channel records in the Unified Network Configurator (UNC). When the Service Mode field is set to Yes in both a channel (UNC) and a talkgroup (PM), the audio from the talkgroup is sent to that channel. No disables service modes.
Access Type	FDMA-only	<ul style="list-style-type: none"> • FDMA-only • TDMA-only 	Dynamic Dual Mode enables the talkgroup in the system to operate in either the FDMA or the TDMA mode based on the lowest common de-

Table continued...

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> Dynamic Du- al Mode 	<p>nominator FDMA/TDMA capabilities of all the radios affiliated to the talkgroup.</p> <p>FDMA only (Frequency Division Multiple Access) configures the talkgroup to operate only in the P25 FDMA mode.</p> <p>TDMA only (Time Division Multiple Access) configures the talkgroup to operate only in the P25 TDMA mode. This enables two calls to share a single repeater channel using alternating timeslots.</p> <p> NOTICE: For Site Trunking, Dynamic Dual Mode is the only Access Type mode available for the talkgroup at the site. Also, you cannot change the Access Type of a multigroup to TDMA only if it contains FDMA only talkgroups.</p> <p> IMPORTANT: When changing the Access Type of a talkgroup or a multigroup from FDMA only or Dynamic Dual Mode to TDMA only, verify that no FDMA-only radios or IMBE-only consoles are affiliated to the talkgroup. This needs to be done through the affiliation viewer. Otherwise, FDMA-only devices remain affiliated and are not able to participate in subsequent TDMA call assignments.</p>
SBR Channel Selection	Static	<ul style="list-style-type: none"> Static Dynamic 	<p>Static configures the talkgroup status as S-SBR (Static Sub-Band Restricted). Dynamic configures the talkgroup status as D-SBR (Dynamic Sub-Band Restricted).</p> <p> NOTICE: The Static SBR (S-SBR) method of channel utilization is based on the SBR status of a talkgroup, whereas Dynamic SBR (D-SBR) employs a channel selection algorithm to determine channel utilization and is based on the capabilities of the subscriber radios present at the RF site. The SBR Talkgroup and SBR Individual Radio ID tables contain up to 128 ranges of talkgroup IDs and individual radio IDs, which are used by the S-SBR to make channel selection decisions. The SBR Individual Radio ID table is used by the D-SBR to make channel selection decisions.</p>
Group Text Capable	Disable	<ul style="list-style-type: none"> Enable 	Determines if the talkgroup can send group text messages.

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> Disable 	 NOTICE: Group Text is not supported on Multigroups, Agencygroups, Conventional Talkgroups or Foreign Talkgroups.

Console TG/MG Capabilities Profile

The Console TG/MG Capabilities Profile assigned to this record. It defines the capabilities available for this group on the dispatch application. Click **Choose Record** to display a list of available options.

See [Console TG/MG Capabilities Profile on page 258](#).

TG/MG Capabilities Profile

The TG/MG Capabilities Profile assigned to this record. It defines the general capabilities for this group in the system. Click **Choose Record** to display a list of available options.

See [TG/MG Capabilities Profile on page 287](#).

TG/MG Site Access Profile

The TG/MG Site Access Profile assigned to this record. It defines the sites that the group can access in the system. Click **Choose Record** to display a list of available options.

See [TG/MG Site Access Profile on page 292](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Related Links

[Batch Create Functionality](#) on page 66

6.4.3.2

Multigroup

The Multigroup object contains the information identifying a group of talkgroups that periodically need to communicate and interact with each other in the system.

Multigroup IDs are 8-digit decimal numbers, beginning with 80,000,001. Talkgroups, multigroups, and agencygroups are created from the same pool of 8-digit decimal numbers. The following table lists numbers that are reserved:


Reserved ID	ID reserved for...
80,065,536	Initialization record
80,065,535	Addressing all groups in a zone-wide call
80,000,001 - 80,065,534	Valid talkgroup ID
80,000,000	System functions

You can create a total of 16,384 talkgroups and multigroups in the system using this set of decimal numbers. They can be anywhere in the range from 80,000,001 to 80,065,534. Talkgroup/multigroup ID numbers 80,000,000 and 80,065,535 are reserved for system use.

The configuration of this object impacts the following devices:

- ZC
- ATR
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Multigroup ID	N/A	80,000,001 to 80,065,534	Enter a unique number.  NOTICE: The following ID numbers are reserved for system use: <ul style="list-style-type: none"> • 80,000,000 • 80,065,535 and greater
Multigroup Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration





Field	Default	Allowed Values	Description
Multigroup Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the multigroup for the use on the system.</p> <p>No disables the multigroup from being used on the system, except for emergency calls.</p>
Access Type	FDMA-only	<ul style="list-style-type: none"> FDMA-only TDMA-only Dynamic Dual Mode 	<p>Dynamic Dual Mode enables the multigroup in the system to operate in either the FDMA or the TDMA mode based on the lowest common denominator FDMA/TDMA capabilities of all the radios affiliated to the multigroup.</p> <p>FDMA only (Frequency Division Multiple Access) configures the multigroup to operate only in the P25 FDMA mode.</p> <p>TDMA only (Time Division Multiple Access) configures the multigroup to operate only in the P25 TDMA mode. This enables two calls to share a single repeater channel using alternating timeslots.</p> <p> NOTICE: For Site Trunking, Dynamic Dual Mode is the only Access Type mode available for the talkgroup at the site. Also, you cannot change the Access Type of a multigroup to TDMA only if it contains FDMA only talkgroups.</p> <p> IMPORTANT: When changing the Access Type of a talkgroup or a multigroup from FDMA only or Dynamic Dual Mode to TDMA only, verify that no FDMA-only radios or IMBE-only consoles are affiliated to the talkgroup. This needs to be done through the affiliation viewer. Otherwise, FDMA-only devices remain affiliated and are not able to participate in subsequent TDMA call assignments.</p>
SBR Channel Selection	Static	<ul style="list-style-type: none"> Static Dynamic 	<p>Static configures the talkgroup status as S-SBR (Static Sub-Band Restricted).</p> <p>Dynamic configures the talkgroup status as D-SBR (Dynamic Sub-Band Restricted).</p>

Table continued...

Field	Default	Allowed Values	Description
			 NOTICE: The Static SBR (S-SBR) method of channel utilization is based on the SBR status of a talkgroup, whereas Dynamic SBR (D-SBR) employs a channel selection algorithm to determine channel utilization and is based on the capabilities of the subscriber radios present at the RF site. The SBR Talkgroup and SBR Individual Radio ID tables contain up to 128 ranges of talkgroup IDs and individual radio IDs, which are used by the S-SBR to make channel selection decisions. The SBR Individual Radio ID table is used by the D-SBR to make channel selection decisions.
Interrupt or Wait Mode	Wait	<ul style="list-style-type: none"> Interrupt Wait 	<p>Interrupt enables a multigroup to interrupt talkgroup calls currently in conversation to include them in a multigroup call, regardless if all talkgroup members are available.</p> <p>Wait allows a talkgroup call in progress to end before a multigroup call begins, so the multigroup waits for all talkgroup members to be available.</p>

Console TG/MG Capabilities Profile

The Console TG/MG Capabilities Profile assigned to this record. It defines the capabilities available for this group on the dispatch application. Click **Choose Record** to display a list of available options.

 **NOTICE:** A valid Console TG/MG Capabilities Profile must have **Patch**, **Remote Monitor**, **Channel Marker**, and **Priority Select** parameters set to **No**.

See [Console TG/MG Capabilities Profile on page 258](#).

TG/MG Capabilities Profile

The TG/MG Capabilities Profile assigned to this record. It defines the general capabilities for this group in the system. Click **Choose Record** to display a list of available options.

See [TG/MG Capabilities Profile on page 287](#).

TG/MG Site Access Profile

The TG/MG Site Access Profile assigned to this record. It defines the sites that the group can access in the system. Click **Choose Record** to display a list of available options.

See [TG/MG Site Access Profile on page 292](#).

Talkgroup

A list of up to 255 Talkgroups assigned to this Multigroup. Click **Choose Record** to display a list of available options.

See [Talkgroup on page 310](#).



IMPORTANT: All Talkgroups that are assigned to the Multigroup must be mapped to the same Zone in the submitted Home Zone Map.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.3.3

Agencygroup

The Agencygroup object contains the information identifying a group of multigroups that periodically need to communicate and interact with each other in the system.

You can create up to 256 multigroups and up to 16 agencygroups in the system. Each agencygroup can contain up to 16 multigroups.

Talkgroup IDs are 8-digit decimal numbers, beginning with 80,000,001. Talkgroups, multigroups, and agencygroups are created from the same pool of 8-digit decimal numbers. The following numbers are reserved:


Reserved ID	ID reserved for...
80,065,536	Initialization record
80,065,535	Addressing all groups in a zone-wide call
80,000,001 - 80,065,534	Valid agencygroup ID
80,000,000	System functions

Do not exceed the maximum allowed number of configured agencygroups. This can cause degraded system operation or anomalous events.

The configuration of this object impacts the following devices:

- ZC
- ATR
- VPM AIS
- CONSOLE

Identify

Field	Default	Allowed Values	Description
Agencygroup ID	N/A	80,000,001 to 80,065,534	Enter a unique number.  NOTICE: The following ID numbers are reserved for system use: <ul style="list-style-type: none"> • 80,000,000 • 80,065,535 and greater
Agencygroup Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group




The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Agencygroup Enabled	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the agencygroup for the use on the system.</p> <p>No disables the agencygroup from being used on the system, except for emergency calls.</p>
Interrupt Or Wait Mode	Wait	<ul style="list-style-type: none"> • Interrupt • Wait 	<p>Interrupt enables a multigroup to interrupt talkgroup calls currently in conversation to include them in a multigroup call, regardless if all talkgroup members are available.</p> <p>Wait allows a talkgroup call in progress to end before a multigroup call begins, so the multigroup waits for all talkgroup members to be available.</p>
Access Type	FDMA-only	<ul style="list-style-type: none"> • FDMA-only • TDMA-only • Dynamic Dual Mode 	<p>Dynamic Dual Mode enables the multigroup in the system to operate in either the FDMA or the TDMA mode based on the lowest common denominator FDMA/TDMA capabilities of all the radios affiliated to the multigroup.</p>

Table continued...

Field	Default	Allowed Values	Description
			<p>FDMA only (Frequency Division Multiple Access) configures the multigroup to operate only in the P25 FDMA mode.</p> <p>TDMA only (Time Division Multiple Access) configures the multigroup to operate only in the P25 TDMA mode. This enables two calls to share a single repeater channel using alternating timeslots.</p> <p> NOTICE: For Site Trunking, Dynamic Dual Mode is the only Access Type mode available for the talkgroup at the site. Also, you cannot change the Access Type of a multigroup to TDMA only if it contains FDMA only talkgroups.</p> <p> IMPORTANT: When changing the Access Type of a talkgroup or a multigroup from FDMA only or Dynamic Dual Mode to TDMA only, verify that no FDMA-only radios or IMBE-only consoles are affiliated to the talkgroup. This needs to be done through the affiliation viewer. Otherwise, FDMA-only devices remain affiliated and are not able to participate in subsequent TDMA call assignments.</p>
SBR Channel Selection	Static	<ul style="list-style-type: none"> Static Dynamic 	<p>Static configures the talkgroup status as S-SBR (Static Sub-Band Restricted).</p> <p>Dynamic configures the talkgroup status as D-SBR (Dynamic Sub-Band Restricted).</p> <p> NOTICE: The Static SBR (S-SBR) method of channel utilization is based on the SBR status of a talkgroup, whereas Dynamic SBR (D-SBR) employs a channel selection algorithm to determine channel utilization and is based on the capabilities of the subscriber radios present at the RF site. The SBR Talkgroup and SBR Individual Radio ID tables contain up to 128 ranges of talkgroup IDs and individual radio IDs, which are used by the S-SBR to make channel selection decisions. The SBR Individual Radio ID table is used by the D-SBR to make channel selection decisions.</p>

Console Group Capabilities Profile

The Console Group Capabilities Profile assigned to this record. It defines the capabilities available for this group on the dispatch application. Click **Choose Record** to display a list of available options.



NOTICE: A valid Console TG/MG Capabilities Profile must have **Patch**, **Remote Monitor**, **Channel Marker**, and **Priority Select** parameters set to **No**.

See [Console TG/MG Capabilities Profile on page 258](#).

TG/MG Capabilities Profile

The TG/MG Capabilities Profile assigned to this record. It defines the general capabilities for this group in the system. Click **Choose Record** to display a list of available options.

See [TG/MG Capabilities Profile on page 287](#).

TG/MG Site Access Profile

The TG/MG Site Access Profile assigned to this record. It defines the sites that the group can access in the system. Click **Choose Record** to display a list of available options.

See [TG/MG Site Access Profile on page 292](#).

Multigroup

A list of up to 16 Multigroups assigned to this Agencygroup. Click **Choose Record** to display a list of available options.



IMPORTANT: All Multigroups that are assigned to the Agencygroup must be mapped to the same Zone in the submitted Home Zone Map.

See [Multigroup on page 313](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.3.4

Default TG Access Permissions

The configuration of this object impacts the ZC.

If on the UNC in the Zone object the **Talkgroup Default Access Permission** attribute is set to **Yes**, talkgroup records have the following default permissions:

- Talkgroups that do not have a Talkgroup record in the Zone Controller initially have access to all sites in the zone. The group capabilities for these talkgroups are the capabilities defined in the Group Capabilities Profile that is configured for the Default TG Access Permissions object.
- Talkgroups that do not have a Talkgroup record in the Provisioning Manager, automatically have Talkgroup records created in the Provisioning Manager by the Zone Controller. These automatically



created records use the Group Site Access Profile configured for the Default TG Access Permissions object. The Talkgroup Site Access Profile configuration takes effect when the automatically created Talkgroup record is distributed to the Zone Controller from the Provisioning Manager.


Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Default Permission Configuraiton

Field	Default	Allowed Values	Description
Access Type	FDMA-only	<ul style="list-style-type: none"> Dynamic Dual Mode FDMA-only TDMA-only 	<p>Dynamic Dual Mode enables the multigroup in the system to operate in either the FDMA or the TDMA mode based on the lowest common denominator FDMA/TDMA capabilities of all the radios affiliated to the multigroup.</p> <p>FDMA only (Frequency Division Multiple Access) configures the multigroup to operate only in the P25 FDMA mode.</p> <p>TDMA only (Time Division Multiple Access) configures the multigroup to operate only in the P25 TDMA mode. This enables two calls to share a single repeater channel using alternating timeslots.</p> <p> NOTICE: For Site Trunking, Dynamic Dual Mode is the only Access Type mode available for the talkgroup at the site. Also, you cannot change the Access Type of a multigroup to TDMA only if it contains FDMA only talkgroups.</p> <p> IMPORTANT: When changing the Access Type of a talkgroup or a multigroup from FDMA only or Dynamic Dual Mode to TDMA only, verify that no FDMA-only radios or IMBE-only consoles are affiliated to the talkgroup. This needs to be done through the affiliation viewer. Otherwise, FDMA-only devices remain affiliated and are not able to participate in subsequent TDMA call assignments.</p>
SBR Channel Selection	Static	<ul style="list-style-type: none"> Static Dynamic 	<p>Static configures the talkgroup status as S-SBR (Static Sub-Band Restricted).</p> <p>Dynamic configures the talkgroup status as D-SBR (Dynamic Sub-Band Restricted).</p>

Field	Default	Allowed Values	Description
			 NOTICE: The Static SBR (S-SBR) method of channel utilization is based on the SBR status of a talkgroup, whereas Dynamic SBR (D-SBR) employs a channel selection algorithm to determine channel utilization and is based on the capabilities of the subscriber radios present at the RF site. The SBR Talkgroup and SBR Individual Radio ID tables contain up to 128 ranges of talkgroup IDs and individual radio IDs, which are used by the S-SBR to make channel selection decisions. The SBR Individual Radio ID table is used by the D-SBR to make channel selection decisions.

TG/MG Capabilities Profile

The capabilities applied to all groups that do not have a defined Talkgroup record. Click **Choose Record** to display a list of available options.

See [TG/MG Capabilities Profile on page 287](#).

Console TG/MG Capabilities Profile

The dispatch application capabilities available to all groups that do not have a defined Talkgroup record. Click **Choose Record** to display a list of available options.

See [Console TG/MG Capabilities Profile on page 258](#).

Site Access Profile used for automatically created Talkgroup Records on Talkgroup Default Access

Select a Site Access Profile record to be used as a default for automatically created Talkgroup records. Click **Choose Record** to display a list of available options.

See [TG/MG Site Access Profile on page 292](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.3.5

Conventional Talkgroup

A conventional talkgroup is a concrete group class which is a simple group of users on a single conventional talkgroup channel.



NOTICE: Changing a talkgroup from a trunking talkgroup to conventional channel talkgroup, or vice versa, requires the talkgroup to be removed, then re-established in Provisioning Manager. See the *Conventional Operations* manual for more details regarding this sequence.

Identity

Field	Default	Allowed Values	Description
Conventional Talkgroup ID	N/A	80,000,001 to 80,065,534	Enter a unique number that refers to a specific Conventional Talkgroup defined on the system. If you set the ID to 80,000,001, you cannot set the Channel Wide Talkgroup parameter to Yes .
Conventional Talkgroup Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Conventional Talkgroup Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user to initiate conventional talkgroup calls.</p> <p>No disables this capability.</p> <p> NOTICE: Radio user initiated conventional talkgroup calls are not blocked based on the setting of this parameter.</p>
Channel Wide Talkgroup	No	<ul style="list-style-type: none"> Yes No 	Indicates whether the Conventional Talkgroup is the Channel Wide Talkgroup for the associated Conventional Talkgroup Channel.

Table continued...

Field	Default	Allowed Values	Description
Conventional Talkgroup Channel Location	Local	<ul style="list-style-type: none"> Local External 	Indicates whether the Conventional Talkgroup is assigned to a local (CCGW-based) conventional talkgroup channel or an external conventional talkgroup channel accessed via CSSI.

Local Conventional Talkgroup Channel

If you set the **Conventional Talkgroup Channel Location** parameter to **Local**, select the Conventional Talkgroup Channel assigned to this record. It identifies the channel(s) partitioned by this group.

External Conventional Talkgroup Channel

If you set the **Conventional Talkgroup Channel Location** parameter to **External**, select the External Conventional Talkgroup Channel assigned to this record. It identifies the channel(s) partitioned by this group.

Console TG/MG Capabilities Profile

The Console TG/MG Capabilities Profile assigned to this record. It defines the capabilities available for this group on the dispatch application. Click **Choose Record** to display a list of available options.



NOTICE: A valid Console TG/MG Capabilities Profile must have **Remote Monitor**, **Radio Status** and **Emergency Setup** parameters set to **No**. For Channel Wide Talkgroups, **Patch** must be set to **No**.

See [Console TG/MG Capabilities Profile on page 258](#).

TG/MG Capabilities Profile

The TG/MG Capabilities Profile assigned to this record. It defines the general capabilities for this group in the system. Click **Choose Record** to display a list of available options.

See [TG/MG Capabilities Profile on page 287](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.3.6

Trunking Data Group

The trunking data group class is a Trunking Group for group data services.

Identity

Field	Default	Allowed Values	Description
Group ID	N/A	80,000,001 to 80,065,534	Enter a unique number that refers to a specific Trunking Data Group defined on the system.
Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that refers to a specific Trunking Data Group defined on the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Firmware Download Capacity	Enabled	<ul style="list-style-type: none"> Enabled Disabled 	(Read only) This parameter is used to determine if Firmware Download operations are allowed.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.3.7

Radio to Trunking Data Group Assignment

The Radio to Trunking Data Group Assignment is the assignment of Trunking Subscribers to the Trunking Data Group for group data services.

Trunking Radio

The IVD radio that this record is associated with. Click **Choose Record** to display a list of available options.

See [IVD Radio on page 297](#).

Trunking Data Group for the Radio

The Trunking Data Group that this record is associated with. Click **Choose Record** to display a list of available options.

See [Trunking Data Group on page 325](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.4

Conventional Units

6.4.4.1

Conventional Voice Unit

The Conventional Voice Unit object allows you to create Subscriber Units that only support voice.

The configuration of this object impacts the following devices:

- ZC
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
ID	N/A	1 to 16,777,215 1 to FFFFFFFF	<p>Enter a number that identifies this Conventional Voice Unit. The unique identifier for the unit is the combination of this number and the ID of the Conventional Channel Group the unit belongs to.</p> <p>You can enter the ID as an integer in the field on the left, or as a hexadecimal number in the field on the right. A value entered in any of the fields is automatically converted and entered in the other field in an appropriate format.</p>
Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name associated with the Conventional Voice Unit.

Channel Group

The Channel Group assigned to this record. It identifies the group of the channel to which the unit belongs. Click **Choose Record** to display a list of available options.

See [Conventional Channel Group on page 119](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Status Set

The Status Set assigned to this record. It refers to a set of status texts that apply to this unit. Click **Choose Record** to display a list of available options.

See [Status Set on page 294](#).

Message Set

The Message Set assigned to this record. It refers to a set of message texts that apply to this unit. Click **Choose Record** to display a list of available options.

See [Message Set on page 337](#).

Conventional Usage Configuration

Field	Default	Allowed Values	Description
Conventional Usage	Conventional Channel	<ul style="list-style-type: none"> Conventional Channel Conventional Channel and Conventional Talkgroup 	Specifies whether the Conventional Unit uses Conventional Channels or both Conventional Talkgroups and Conventional Channels. If this parameter is set to Conventional Channel and Conventional Talkgroup , and if an ID is already assigned to an IVD Radio, then both the IVD Radio and the Conventional Voice Unit must represent the same physical radio unit. See IVD Radio on page 297 .

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.4.2

Conventional Voice and Data Unit

The Conventional Voice and Data Unit object allows you to configure Subscriber Units supporting both voice and data.

When a radio user is added to the system after migration and configured with a static IP address on NM, the operator must configure a DHCP exclusion in the Border Router `boot.cfg` file. For details, refer to *EOS 16.7 Software Reference Guide* manual.

The configuration of this object impacts the following devices:

- ZC
- CIVD PDR
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Conventional Unit ID (integer)	N/A	1 to 9,999,999	This parameter specifies the Unit ID.

Table continued...

Field	Default	Allowed Values	Description
Conventional Unit Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name associated with the Conventional Unit.

Channel Group

The Channel Group assigned to this record. It identifies the group of the channel to which the unit belongs. Click **Choose Record** to display a list of available options.

See [Conventional Channel Group on page 119](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Status Set

The Status Set assigned to this record. It refers to a set of status texts that apply to this unit. Click **Choose Record** to display a list of available options.

See [Status Set on page 294](#).

Message Set


The Message Set assigned to this record. It refers to a set of message texts that apply to this unit. Click **Choose Record** to display a list of available options.

See [Message Set on page 337](#).

Conventional Usage Configuration

Field	Default	Allowed Values	Description
Conventional Usage	Conventional Channel	<ul style="list-style-type: none"> Conventional Channel Conventional Channel and Conventional Talkgroup 	<p>Specifies whether the Conventional Unit uses Conventional Channels or both Conventional Talkgroups and Conventional Channels.</p> <p>If this parameter is set to Conventional Channel and Conventional Talkgroup, and if an ID is already assigned to an IVD Radio, then both the IVD Radio and the Conventional Voice and Data Unit must represent the same physical radio unit. See IVD Radio on page 297.</p>

Data Registration Configuration

Field	Default	Allowed Values	Description
Registration Type	Dynamic	<ul style="list-style-type: none"> Manual Dynamic Data Triggered 	<p>Choose the option for the parameter that designates the use of registration type for a Conventional Voice and Data Unit.</p> <p> NOTICE: Only Conventional Voice and Data Unit with the Registration Type parameter set to Manual can be assigned to a data capable Digital Conventional Channel. Limit the number of Conventional Voice and Data Units with the Registration Type parameter set to Manual to 20,000. Avoid deleting the Conventional Channel that is associated with a Conventional Voice and Data Unit with the Registration Type parameter set to Manual.</p>
Scan Mode	Disable	<ul style="list-style-type: none"> Enable Disable 	<p>Choose the option for the parameter that designates the use of the Scan feature on a Conventional Voice and Data Unit configured for manual data registration.</p> <p>Enable enables the Scan mode.</p>
ICMP Notifications	Disable	<ul style="list-style-type: none"> Enable Disable 	<p>Choose the option for the parameter that defines whether ICMP Notifications are forwarded by the PDG for the Conventional Voice and Data Unit.</p> <p>Enable allows forwarding of ICMP notifications.</p> <p>Disable disallows forwarding of ICMP notifications.</p>

Manual Registration Channel

A data capable channel assigned to this unit for manual registration. If you set the **Registration Type** to **Manual**, select an existing channel record. Click **Choose Record** to display a list of available options.

A valid channel includes data capable Mixed Mode, Digital or Conventional Talkgroup (if Conventional Usage includes Conventional Talkgroup) channel.

See [Mixed Mode Conventional Channel on page 195](#), [Digital Conventional Channel on page 163](#) and [Conventional Talkgroup Channel on page 225](#).

IP Address Configuration

Field	Default	Allowed Values	Description
IP Type	Dynamic	<ul style="list-style-type: none"> Static Dynamic 	<p>Static means that the IP address is configured into the object. Selecting this option enables the</p>

Table continued...

Field	Default	Allowed Values	Description
			<p>IP Address field where you can enter the specific IP address for this object.</p> <p>Dynamic means that the subsystem must contact the server to source the IP address. If you select this option, the IP Address field is disabled.</p>
IP Address	0.0.0.0	Use the following characters: 0 to 9, . (No leading and trailing spaces)	<p>Enter the values for the parameter that defines the Conventional Voice and Data Unit IP Address when the IP Type is set to Static. The allowed format of the IP Address is xxx . xxx . xxx . xxx</p> <p>If the Data Capable parameter is set to True and the IP Type is set to Static, then the IP Address is editable and mandatory. If the Data Capable parameter is set to True and the IP Type is set to Dynamic, then the IP Address is "0.0.0.0" and is not editable. If the Data Capable parameter is set to True and the IP Type is set to Static, then the IP Address last octet cannot end in "0" or "255".</p>

Access Point Name


The Access Point Name assigned to this record. It specifies the network that the unit connects to for data service. Click **Choose Record** to display a list of available options.

See [Access Point Name on page 117](#).

Secure Configuration

Field	Default	Allowed Values	Description
Inbound Encryption Mode	Clear	<ul style="list-style-type: none"> Clear Secure Both 	<p>This parameter designates the use of encryption for inbound data. This value is used in Conventional IV&D when inbound data is received at the Conventional PDG.</p> <p>Clear causes the Conventional Unit not to encrypt inbound packet data. The infrastructure accepts only unencrypted data from this Conventional Unit.</p> <p>Secure causes the Conventional Unit to encrypt inbound packet data. The infrastructure accepts only encrypted data from this Conventional Unit.</p> <p>Both – the infrastructure accepts either encrypted or unencrypted data from this Conventional Unit.</p>
Outbound Encryption Mode	Clear	<ul style="list-style-type: none"> Clear Secure 	Choose the option for the parameter that designates the use of encryption for outbound data.

Table continued...

Field	Default	Allowed Values	Description
			<p>Clear causes the conventional unit not to decrypt outbound packet data. The infrastructure does not encrypt outbound data to this conventional unit.</p> <p>Secure causes the conventional unit to decrypt all outbound packet data. The infrastructure encrypts all outbound data to this conventional unit using the Data CKR Index specified for the conventional unit.</p>
OTAR Service	Enable	<ul style="list-style-type: none"> • Enable • Disable 	<p>Choose the option for the parameter that defines whether OTAR is enabled for the subscriber.</p> <p>Enable enables OTAR services.</p> <p>Disable disables OTAR services.</p> <p> NOTICE: When a KMF is deleted, OTAR Service for all Conventional Unit objects that reference the KMF ID corresponding to the deleted KMF are set to False.</p>

Data CKR

The key index used for outbound data encryption. If you set the **Outbound Encryption Mode** parameter to **Secure**, select an existing Common Reference Key record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Key Management Facility

The Key Management Facility associated with this unit for OTAR capability. If you set the **OTAR Service** parameter to **Enable**, select an existing Key Management Facility record. Click **Choose Record** to display a list of available options.

See [Key Management Facility on page 114](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.4.3

Conventional Talkgroup Unit

A Conventional Talkgroup Unit is a subscriber unit that you can configure to allow use of both conventional talkgroups and conventional channels and be distributed as a Conventional Unit when configured to use conventional channels.

When creating a Conventional Talkgroup Unit, if the Conventional Unit ID is already assigned to an IVD Radio, then both the IVD Radio and the Conventional Talkgroup Unit must represent the same physical radio unit.

When a radio user is added to the system after migration and configured with a static IP address on NM, the operator must configure a DHCP exclusion in the Border Router `boot.cfg` file. For details, refer to *EOS 16.7 Software Reference Guide* manual.

The configuration of this object impacts the following devices:

- CONSOLE
- ZC
- CIVD PDR
- VPM AIS

Identity

Field	Default	Allowed Values	Description
Conventional Unit ID	N/A	1 to 16,777,215	This parameter specifies the Unit ID.
Conventional Unit Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name associated with the Conventional Unit.

Security Group


The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Data Capable Configuration

Field	Default	Allowed Values	Description
Data Capable	False	<ul style="list-style-type: none"> • True • False 	This parameter specifies if the unit is data capable.

Data Registration Configuration

Field	Default	Allowed Values	Description
Registration Type	Dynamic	<ul style="list-style-type: none"> Manual Dynamic Data Triggered 	<p>Choose the option for the parameter that designates the use of registration type for a Conventional Voice and Data Unit.</p> <p> NOTICE: Only Conventional Voice and Data Unit with the Registration Type parameter set to Manual can be assigned to a data capable Digital Conventional Channel. Limit the number of Conventional Voice and Data Units with the Registration Type parameter set to Manual to 20,000. Avoid deleting the Conventional Channel that is associated with a Conventional Voice and Data Unit with the Registration Type parameter set to Manual.</p>
Scan Mode	Disable	<ul style="list-style-type: none"> Enable Disable 	<p>Choose the option for the parameter that designates the use of the Scan feature on a Conventional Voice and Data Unit configured for manual data registration.</p> <p>Enable enables the Scan mode.</p>
ICMP Notifications	Disable	<ul style="list-style-type: none"> Enable Disable 	<p>Choose the option for the parameter that defines whether ICMP Notifications are forwarded by the PDG for the Conventional Voice and Data Unit.</p> <p>Enable allows forwarding of ICMP notifications.</p> <p>Disable disallows forwarding of ICMP notifications.</p>

Manual Registration Channel

A data capable channel assigned to this unit for manual registration. If you set the **Registration Type** parameter to **Manual**, select an existing channel record. Click **Choose Record** to display a list of available options.

A valid channel is a data capable Conventional Talkgroup channel.

See [Mixed Mode Conventional Channel on page 195](#), [Digital Conventional Channel on page 163](#) and [Conventional Talkgroup Channel on page 225](#).

IP Address Configuration

Field	Default	Allowed Values	Description
IP Type	Dynamic	<ul style="list-style-type: none"> Static Dynamic 	<p>Static means that the IP address is configured into the object. Selecting this option enables the IP Address field where you can enter the specific IP address for this object.</p>

Table continued...

Field	Default	Allowed Values	Description
			Dynamic means that the subsystem must contact the server to source the IP address. If you select this option, the IP Address field is disabled.
IP Address	0.0.0.0	Use the following characters: 0 to 9, . (No leading and trailing spaces)	<p>Enter the values for the parameter that defines the Conventional Voice and Data Unit IP Address when the IP Type is set to Static. The allowed format of the IP Address is xxx . xxx . xxx . xxx</p> <p>If the Data Capable parameter is set to True and the IP Type is set to Static, then the IP Address is editable and mandatory. If the Data Capable parameter is set to True and the IP Type is set to Dynamic, then the IP Address is "0.0.0.0" and is not editable. If the Data Capable parameter is set to True and the IP Type is set to Static, then the IP Address last octet cannot end in "0" or "255".</p>

Access Point Name


The Access Point Name assigned to this record. It specifies the network that the unit connects to for data service. Click **Choose Record** to display a list of available options.

See [Access Point Name on page 117](#).

Secure Configuration

Field	Default	Allowed Values	Description
Inbound Encryption Mode	Clear	<ul style="list-style-type: none"> Clear Secure Both 	<p>This parameter designates the use of encryption for inbound data. This value is used in Conventional IV&D when inbound data is received at the Conventional PDG.</p> <p>Clear causes the Conventional Unit not to encrypt inbound packet data. The infrastructure accepts only unencrypted data from this Conventional Unit.</p> <p>Secure causes the Conventional Unit to encrypt inbound packet data. The infrastructure accepts only encrypted data from this Conventional Unit.</p> <p>Both – the infrastructure accepts either encrypted or unencrypted data from this Conventional Unit.</p>
Outbound Encryption Mode	Clear	<ul style="list-style-type: none"> Clear Secure 	<p>Choose the option for the parameter that designates the use of encryption for outbound data.</p> <p>Clear causes the conventional unit not to decrypt outbound packet data. The infrastructure</p>

Table continued...

Field	Default	Allowed Values	Description
			<p>does not encrypt outbound data to this conventional unit.</p> <p>Secure causes the conventional unit to decrypt all outbound packet data. The infrastructure encrypts all outbound data to this conventional unit using the Data CKR Index specified for the conventional unit.</p>
OTAR Service	Enable	<ul style="list-style-type: none"> • Enable • Disable 	<p>Choose the option for the parameter that defines whether OTAR is enabled for the subscriber.</p> <p>Enable enables OTAR services.</p> <p>Disable disables OTAR services.</p> <p> NOTICE: When a KMF is deleted, OTAR Service for all Conventional Unit objects that reference the KMF ID corresponding to the deleted KMF are set to False.</p>

Data CKR

The key index used for outbound data encryption. If you set the **Outbound Encryption Mode** parameter to **Secure**, select an existing Common Reference Key record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Key Management Facility

The Key Management Facility associated with this unit for OTAR capability. If you set the **OTAR Service** parameter to **Enable**, select an existing Key Management Facility record. Click **Choose Record** to display a list of available options.

See [Key Management Facility on page 114](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.4.4

Message Set

The Message Set object allows you to create up to 16 messages which the radio user can reference.

These messages are displayed in the dispatch console and Radio Control Manager (RCM) after the radio user selects an assigned radio button that corresponds to a status message. There are up to 2,000 Message Sets available per system.

The Message Set object uses MESSAGE-SET-1 as the Message default. The Message default is used when there is insufficient information received to determine the desired Message Set.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Message Set ID		1 to 2,000	Enter a unique number that refers to a specific message set profile defined on the system.
Message Set Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Messages

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.
Message Number	N/A	0 to 61,439	Enter a number that refers to a specific status message defined on the system.
Message Text	N/A	0 to 60 characters. Use the following characters: A to Z, a to z, 0 to 9,	Text associated with a specific Message Set Number that is displayed when the radio user selects and transmits that number.

Field	Default	Allowed Values	Description
		space ! # \$ () * + . / ; : < - > ? [\] ^ ` ~ = _ @ ,	

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.4.5


Conventional Broadcast Data Agency

The Conventional Broadcast Data Agency object allows you to configure the information needed for an agency to receive conventional broadcast data.

Before configuring the Conventional Broadcast Data Agency, it is necessary to ensure that GGSN and APN are configured in the UNC and synchronized to the PM.

The configuration of this object impacts the CIVD PDR.

Identity

Field	Default	Allowed Values	Description
Conventional Broadcast Data Agency Unit ID	N/A	10,000,000 to 16,777,215	Enter a unique number.  NOTICE: The number of Conventional Broadcast Data Agencies is limited to 20.
Conventional Broadcast Data Agency Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Time Sensitive	Disable	<ul style="list-style-type: none"> Enable Disable 	<p>This parameter defines whether the agency is designated as time sensitive or not.</p> <p>Enable designates the agency as time sensitive.</p> <p>Disable disables time sensitivity.</p>
Outbound Encryption Mode	Clear	<ul style="list-style-type: none"> Clear Secure 	<p>Choose the option for the parameter that designates the use of encryption for outbound data.</p> <p>Clear causes the conventional unit not to decrypt outbound packet data. The infrastructure does not encrypt outbound data to this conventional unit.</p> <p>Secure causes the conventional unit to decrypt all outbound packet data. The infrastructure encrypts all outbound data to this conventional unit using the Data CKR Index specified for the conventional unit.</p>

Common Key Reference

The key index used for outbound data encryption. If you set the **Outbound Encryption Mode** parameter to **Secure**, select an existing Common Reference Key record. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

IP Identity

Field	Default	Allowed Values	Description
Zone	N/A	Click Choose Record to display a list of available options.	<p>The Zone configured to broadcast data for the Conventional Broadcast Data Agency. A Zone record is generally created by the Unified Network Configuration (UNC) during the publish infrastructure data operation.</p> <p>See Zone on page 128.</p>
Access Point Name	N/A	Click Choose Record to display a list of available options.	<p>The Access Point Name is the name of the network access points that provides GGSN services.</p> <p>See Access Point Name on page 117.</p>

Table continued...

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.
IP Address for Zone	N/A	Use the following characters: 0 to 9, . (No leading or trailing spaces)	Enter the IP address for the object in the following format: xxx . xxx . xxx . xxx The last octet of the value cannot be 0 or 255.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.5

Maps

6.4.5.1

Home Zone Map

The Home Zone Map object is used to configure the home zone for each talkgroup, multigroup, and individual radio user.

Each radio user and talkgroup ID is assigned to a zone, based on ID ranges configured in the Home Zone Map object. The zone assigned to a particular ID is that ID's home zone. The home zone to which an ID is assigned has the following effect on how the system operates:

- Configuration information is distributed throughout the system based on the home zone assignment of the IDs. A zone stores configuration information only for the individual and group IDs that are home to that zone. This information is stored in the Home Location Register (HLR) for that zone.
- For group call services, the home zone of the group is always the controlling zone for the call, regardless of the zone to which the group member is currently registered.



CAUTION: Be careful when changing home zone maps to avoid loss of InterZone trunking. Home Zone Maps are critical to system operation and must be planned and configured with extreme care.



IMPORTANT: In order to avoid improper system operation, you must assign Talkgroup Home Zone Map ranges that include Conventional Talkgroups to the zone which contains the Conventional Talkgroup Channel to which the Conventional Talkgroup is assigned.

You may experience adverse effects on the system, such as loss of InterZone trunking, when changing home zone maps. Until the maps (group or individual) have completed downloading, the following occurs:

- The system drops out of InterZone trunking because of the change in group mapping.
- The system uses default records because of a change in the individual maps.

The configuration of this object impacts the following devices:

- ZC
- IVD PDR
- HPD PDR

Identity

Field	Default	Allowed Values	Description
Map ID	N/A	1 to 32	Enter a number that uniquely identifies the map.
Map Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the map.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Radio ID Home Zone Mapping

Field	Default	Allowed Values	Description
Individual Home Zone	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	The Home Zone for the range of IDs specified in the row. Select the Zone alias or ID that identifies a Home Zone for the Radio ID. See Zone on page 128 .
Radio ID Mapping Start	N/A	0 to 16,777,215	Enter the first ID in the range of Radio IDs mapped to the specified zone.

Table continued...



Field	Default	Allowed Values	Description
			<p>For single zone configurations, map the entire range of IDs to the single zone.</p> <p> IMPORTANT: All Radio IDs mappings must be set accurately and are critical to the system operation.</p> <p>You can enter up to 128,000 total radios into the system, a maximum of 64,000 radios per zone.</p> <p>The total range of individual identification numbers used by the system is 16,777,217.</p>
Radio ID Mapping End	N/A	1 to 16,777,215	<p>Enter the last ID in the range of Radio IDs mapped to the specified zone.</p> <p>For single zone configurations, map the entire range of IDs to the single zone.</p> <p>Use a full block of contiguous numbers in an ID map. For example, you can choose to use 0 to 99 for the first block. The next block of IDs must then start with 100.</p> <p> IMPORTANT: All Radio IDs mappings must be set accurately and are critical to the system operation.</p> <p>You can enter up to 128,000 total radios into the system, a maximum of 64,000 radios per zone.</p> <p>The total range of individual identification numbers used by the system is 16,777,217.</p>
ID Type	Home Range	<ul style="list-style-type: none"> • Home Range • Working Range • Foreign ID Range 	<p>Indicates the type of ID for this range.</p> <p>Home Range means that the Individual IDs in this range are home to this system. Any Radio or Console with an individual ID assigned from this range also have a Radio User or Console User record in the local database.</p> <p>Working Range means that the Individual IDs in this range are reserved for temporary allocation to foreign subscribers that roam into this system. Foreign subscribers are those with a Subscriber Unit ID that has a WACN and/or System ID that is different from the current system. The individual IDs in this range do not have a Radio user or Console user record in the local database. The Working Ranges should be assigned to the zone that has the ISGW.</p> <p>Foreign ID Range means that the individual IDs in this range are home to another system. This is used when 2 systems share the WACN/ System ID but each system owns one or more</p>

Table continued...

Field	Default	Allowed Values	Description
			ranges of the individual ID space. The only configuration where foreign IDs are supported is when a CSSI is used to connect third-party consoles to the ASTRO® 25 system. The Consoles in the console system require a range of individual IDs to assign to the third-party consoles. The individual IDs in this range do not have a Console User record in the local database.
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Talkgroup ID Home Zone Mapping




Field	Default	Allowed Values	Description
Group Home Zone	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	The Home Zone for the range of IDs specified in the row. Select the Zone alias or ID that identifies a Home Zone for the talkgroup. See Zone on page 128 .
Group ID Mapping Start	N/A	80,000,000 to 80,065,535	<p>Enter the first ID in the block of talkgroup and multigroup IDs mapped to the specified zone.</p> <p>Use a full block of contiguous numbers in an ID map. For example, you can choose to use a Mapping Start ID of 80,000,000 and a Mapping End ID of 80,000,099 for the first block. In this example, the next block of IDs must then start with 80,000,100.</p> <p> IMPORTANT: All talkgroup and multigroup IDs mappings must be set accurately and are critical to the system operation.</p> <p> NOTICE: TG/MG ID Mapping Start must be equal to 80,000,000 or be greater by 1 than the TG/MG ID Mapping End of the previous range.</p>
Group ID Mapping End	N/A	80,000,000 to 80,065,535	<p>Enter the last ID in the block of talkgroup and multigroup IDs mapped to the specified zone.</p> <p>Use a full block of contiguous numbers in an ID map. For example, you can choose to use a Mapping Start ID of 80,000,000 and a Mapping</p>

Table continued...

Field	Default	Allowed Values	Description
			<p>End ID of 80,000,099 for the first block. In this example, the next block of IDs must then start with 80,000,100.</p> <p> IMPORTANT: All talkgroup and multi-group IDs mappings must be set accurately and are critical to the system operation. The ID Mapping End field must contain an odd number.</p>
ID Type	Home Range	<ul style="list-style-type: none"> Home Range Working Range 	<p>Indicates the type of ID for this range.</p> <p>Home Range means that the Talkgroup IDs in this range are home to this system. Any Talkgroup with an ID assigned from this range also has a Talkgroup record in the local database.</p> <p>Working Range means that the Talkgroups in this range are reserved for temporary allocation to foreign talkgroups that are affiliated from devices within the local system. Foreign Talkgroups are those with a Talkgroup ID that has a WACN and/or System ID that is different from the current system. The Talkgroups in these ranges may have a Foreign Talkgroup record. If not, these talkgroups use the talkgroup profile that is configured as part of the Foreign System record. The Working Ranges should be assigned to the zone that has the ISGW.</p>
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.5.2

Conventional Home Zone Map

The Conventional Home Zone Map object is used to configure the home zone for Conventional Units. The configuration of this object impacts the CIVD PDR.

Identity

Field	Default	Allowed Values	Description
Map ID	N/A	1 to 32	Enter a number that uniquely identifies the map.
Map Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the map.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Conventional Unit ID Home Zone Mapping



Field	Default	Allowed Values	Description
Home Zone	N/A	Click Choose Record to display a list of available options.	The Home Zone for the range of IDs specified in the row. Select the Zone alias or ID that identifies a Home Zone for the Conventional Unit. See Zone on page 128 .
Conventional Unit ID Mapping Start	N/A	0 to 16,777,215	Enter the first ID in the range of Conventional Unit IDs mapped to the specified zone. For single zone configurations, map the entire range of IDs to the single zone.  IMPORTANT: All Conventional Unit IDs mappings must be set accurately and are critical to the system operation.
Conventional Unit ID Mapping End	N/A	0 to 16,777,215	Enter the last ID in the range of Conventional Unit IDs mapped to the specified zone. For single zone configurations, map the entire range of IDs to the single zone.

Table continued...

Field	Default	Allowed Values	Description
			 IMPORTANT: All Conventional Unit IDs mappings must be set accurately and are critical to the system operation.
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.5.3

Subscriber Modulation Map

The Subscriber Modulation Map object allows the system manager to map up to 32 sets of radio and talkgroup ID ranges to designated modulation types (ASTRO[®] 25 or Analog).

This object is used when SmartZone[®] sites are connected to an ASTRO[®] 25 system through a SmartX Site Converter. The modulation ranges are used by the zone controller to determine the type of resources assigned to a radio or talkgroup operating in the sites that were interfaced to the ASTRO[®] 25 system through the SmartX Site Converter. For example, a radio or talkgroup ID that falls in an analog range is assigned analog resources at its site location.

The configuration of this object impacts the ZC.

Identity

Field	Default	Allowed Values	Description
Map ID	1	1	Enter a number that uniquely identifies the map.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Modulation Mapping Ranges

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.
Radio ID Start	N/A	700,000 to 765,520	Enter the ID of the first radio in the range. The ID must be an even number that is a multiple of 16.
Radio ID End	N/A	700,015 to 765,535	Enter the ID of the last radio in the range. The ID must be an odd number that is a multiple of 15. The last ID in the last range must be 765,535.
TGMG ID Start	N/A	800,000 to 804,095	(Read only) This field cannot be edited. The values are added automatically, once the radio IDs are entered.
TGMG ID End	N/A	800,000 to 804,095	(Read only) This field cannot be edited. The values are added automatically, once the radio IDs are entered.
Modulation Type	Analog	<ul style="list-style-type: none"> Analog Astro Reserved 	Specify whether the range created contains Analog or ASTRO ® 25 System radios. Reserved option has been created for future use and currently does not affect the system.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.4.5.4

Sub-Band Restricted Map

The system manages the resources for sub-band restricted subscribers. By managing these resources, the zone controller and repeater site controllers can steer radio traffic calls made by and to these sub-band restricted subscribers to only those channels that use the same sub-band range.

A sub-band range is a smaller subset of a full frequency range. Each frequency range is broken into two or more sub-band ranges. The following table lists the available full range frequencies and identifies the smaller sub-band ranges for each frequency.

Available Sub-Band Ranges within Full Range Frequencies	Full Band Range Sub-Band Range
VHF (136-174 MHz) 136-162 MHz	146-174 MHz
UHF (380-470 MHz) 380-453 MHz	438-470 MHz
UHF (450-520 MHz) 450-482 MHz	470-520 MHz
700 MHz	746-776 MHz
800 MHz	806 MHz, 821 MHz

No sub-band requirements apply to the 806 MHz and 821 MHz sub-bands because the 800 MHz frequency range contains standardized frequency channel assignments.

The Sub-band Restricted Map object is read-only.

Identity

Field	Default	Allowed Values	Description
Map ID	1	1	(Read only) Displays a number that uniquely identifies the map.

Sub-Band Restricted Group Range




Field	Default	Allowed Values	Description
Group ID Mapping Start	N/A	80,000,000 to 80,065,535	<p>(Read only) Displays the first ID in the block of talkgroup and multigroup IDs mapped to the specified zone.</p> <p>Use a full block of contiguous numbers in an ID map. For example, you can choose to use a Mapping Start ID of 80,000,000 and a Mapping End ID of 80,000,099 for the first block. In this example, the next block of IDs must then start with 80,000,100. ID numbers 80,000,000 and 80,065,535 are reserved for system use.</p> <p> IMPORTANT: All talkgroup and multi-group IDs mappings must be set accurately and are critical to the system operation.</p> <p> NOTICE: TG/MG ID Mapping Start must be equal to 80,000,000 or be greater by 1 than the TG/MG ID Mapping End of the previous range.</p>
Group ID Mapping End	N/A	80,000,000 to 80,065,535	(Read only) Displays the last ID in the block of talkgroup and multigroup IDs mapped to the specified zone.

Table continued...

Field	Default	Allowed Values	Description
			<p>Use a full block of contiguous numbers in an ID map. For example, you can choose to use a Mapping Start ID of 80,000,000 and a Mapping End ID of 80,000,099 for the first block. In this example, the next block of IDs must then start with 80,000,100. ID numbers 80,000,000 and 80,065,535 are reserved for system use.</p> <p> IMPORTANT: All talkgroup and multi-group IDs mappings must be set accurately and are critical to the system operation. The ID Mapping End field must contain an odd number.</p>
Sub-Band Restricted	No	<ul style="list-style-type: none"> • Yes • No 	<p>(Read only) Yes specifies that the radios in the range are limited to the ones operating only on the frequencies within the sub-band restricted range.</p> <p>No specifies that the radios in the range can operate on any frequency within the system.</p>

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

6.5

Foreign Parameters

6.5.1

Foreign System

The Foreign System object represents another Inter-RF Subsystem Interface-compliant trunked system connected via a wireline interface to the ASTRO® 25 system. A Foreign System may be another ASTRO® 25 system or a non-Motorola Solutions system.

6.5.1.1

Foreign System

The Foreign System object represents another Inter-RF Subsystem Interface-compliant trunked system connected via a wireline interface to the ASTRO® 25 system. A Foreign System may be another ASTRO® 25 system or a non-Motorola Solutions system.

The configuration of this object impacts the following devices:

- ZC
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Foreign WACN ID (hex)	N/A	1 to FFFFE	The factory assigned wide-area communications network identifier that references a particular network of systems that are connected to one another.
Foreign System ID (hex)	N/A	1 to FFE	The factory assigned number that identifies a specific system.
Foreign System Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a name that uniquely identifies an individual system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Foreign Individual Profile

Field	Default	Allowed Values	Description
Voice Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables a radio to make or receive calls on the system.</p> <p>No disables a radio from making or receiving calls on the system.</p>

Foreign Individual Capabilities Profile



Field	Default	Allowed Values	Description
Dispatch Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables a radio to initiate a talkgroup call on the system.</p> <p>No means that a radio can receive but cannot initiate talkgroup calls.</p>
Dispatch Priority Level	10	2 to 10	Enter the value that indicates the priority level of dispatch.


Foreign Individual Site Access Profile

The site access configuration applied to all Radios from this foreign system. Click **Choose Record** to display a list of available options.

See [Radio Site Access Profile](#) on page 284.

Foreign Group Profile

Field	Default	Allowed Values	Description
Access Type	FDMA Only	<ul style="list-style-type: none"> FDMA Only TDMA Only 	<p>FDMA only (Frequency Division Multiple Access) configures the multigroup to operate only in the P25 FDMA mode.</p> <p>TDMA only (Time Division Multiple Access) configures the multigroup to operate only in the P25 TDMA mode. This enables two calls to share a single repeater channel using alternating timeslots.</p> <p> NOTICE: For Site Trunking, Dynamic Dual Mode is the only Access Type mode available for the talkgroup at the site. Also, you cannot change the Access Type of a multigroup to TDMA only if it contains FDMA only talkgroups.</p> <p> IMPORTANT: When changing the Access Type from FDMA only to TDMA only, verify that no FDMA-only radios or IMBE-only consoles are affiliated to the talkgroup. This needs to be done through the affiliation viewer. Otherwise, FDMA-only devices remain affiliated and are not able to participate in subsequent TDMA call assignments.</p>
Group Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the group for the use on the system.</p> <p>No disables the group from being used on the system.</p>
SBR Channel Selection	Static	<ul style="list-style-type: none"> Static Dynamic 	<p>Static configures the talkgroup status as S-SBR (Static Sub-Band Restricted).</p> <p>Dynamic configures the talkgroup status as D-SBR (Dynamic Sub-Band Restricted).</p>

Field	Default	Allowed Values	Description
			 NOTICE: The Static SBR (S-SBR) method of channel utilization is based on the SBR status of a talkgroup, whereas Dynamic SBR (D-SBR) employs a channel selection algorithm to determine channel utilization and is based on the capabilities of the subscriber radios present at the RF site. The SBR Talkgroup and SBR Individual Radio ID tables contain up to 128 ranges of talkgroup IDs and individual radio IDs, which are used by the S-SBR to make channel selection decisions. The SBR Individual Radio ID table is used by the D-SBR to make channel selection decisions.

Foreign Group Capabilities Profile

The capabilities applied to all groups from this foreign system that do not have a defined Foreign Group record. Click **Choose Record** to display a list of available options.

See [Foreign Group Capabilities Profile on page 357](#).

Foreign Group Site Access Profile

The site access configuration applied to all groups from this foreign system that do not have a defined Foreign Group record. Click **Choose Record** to display a list of available options.

See [Foreign Group Site Access Profile on page 356](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.5.2

Foreign Subscribers

The Foreign Subscribers objects define parameters for users and groups in foreign systems.

6.5.2.1


Foreign Group

The Foreign Group object contains the capabilities each group from the associated foreign system is allowed in the system. A group is identified as Foreign if the WACN and/or System ID assigned to the group do not match the WACN and System ID of the local system.

The configuration of this object impacts the following devices:

- ZC
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Foreign Group ID	N/A	80,000,001 to 80,065,535	Enter a unique number that refers to a specific foreign group defined on the system.  NOTICE: The following ID numbers are reserved for system use: <ul style="list-style-type: none"> • 80,000,000 • 80,065,535 and greater
Foreign Group Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that refers to a specific foreign group defined on the system.

Foreign System

The Foreign System that this group record is associated with. Click **Choose Record** to display a list of available options.

See [Foreign System on page 349](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Group Configuration

Field	Default	Allowed Values	Description
Group Enabled	Yes	<ul style="list-style-type: none"> • Yes 	Yes enables the group for the use on the system.

Table continued...

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> No 	No disables the group from being used on the system.
Foreign Group Type	Trunking	<ul style="list-style-type: none"> Trunking Conventional 	Select if the foreign group is a trunking or conventional group.

Foreign Group Capabilities Profile

The Foreign Group Capabilities Profile assigned to this record. It defines the capabilities for this group in the system. Click **Choose Record** to display a list of available options.

See [Foreign Group Capabilities Profile on page 357](#).

Console TG/MG Capabilities Profile for a Conventional Group

If you set the **Foreign Group Type** parameter to **Conventional**, select a Console TG/MG Capabilities Profile assigned to this record. It defines the capabilities available for this group on the dispatch application. Click **Choose Record** to display a list of available options.

Console TG/MG Capabilities Profile for a Trunking Group

If you set the **Foreign Group Type** parameter to **Trunking**, select a Console TG/MG Capabilities Profile assigned to this record. It defines the capabilities available for this group on the dispatch application. Click **Choose Record** to display a list of available options.

Trunking Configuration




Field	Default	Allowed Values	Description
Access Type	FDMA Only	<ul style="list-style-type: none"> FDMA Only TDMA Only 	<p>FDMA only (Frequency Division Multiple Access) configures the multigroup to operate only in the P25 FDMA mode.</p> <p>TDMA only (Time Division Multiple Access) configures the multigroup to operate only in the P25 TDMA mode. This enables two calls to share a single repeater channel using alternating timeslots.</p> <p> NOTICE: For Site Trunking, Dynamic Dual Mode is the only Access Type mode available for the talkgroup at the site. Also, you cannot change the Access Type of a multigroup to TDMA only if it contains FDMA only talkgroups.</p>

Table continued...

Field	Default	Allowed Values	Description
			 IMPORTANT: When changing the Access Type from FDMA only to TDMA only , verify that no FDMA-only radios or IMBE-only consoles are affiliated to the talkgroup. This needs to be done through the affiliation viewer. Otherwise, FDMA-only devices remain affiliated and are not able to participate in subsequent TDMA call assignments.
SBR Channel Selection	Static	<ul style="list-style-type: none"> Static Dynamic 	<p>Static configures the talkgroup status as S-SBR (Static Sub-Band Restricted).</p> <p>Dynamic configures the talkgroup status as D-SBR (Dynamic Sub-Band Restricted).</p>  <p>NOTICE: The Static SBR (S-SBR) method of channel utilization is based on the SBR status of a talkgroup, whereas Dynamic SBR (D-SBR) employs a channel selection algorithm to determine channel utilization and is based on the capabilities of the subscriber radios present at the RF site. The SBR Talkgroup and SBR Individual Radio ID tables contain up to 128 ranges of talkgroup IDs and individual radio IDs, which are used by the S-SBR to make channel selection decisions. The SBR Individual Radio ID table is used by the D-SBR to make channel selection decisions.</p>

Trunking Site Access Profile

If you set the **Foreign Group Type** parameter to **Trunking**, select a Foreign Group Site Access Profile assigned to this record. It defines the sites that the group can access in the system. Click **Choose Record** to display a list of available options.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.5.2.2

Foreign Group Site Access Profile

The Foreign Group Site Access Profile object defines for which sites the foreign group has access permission in the system.

Every foreign group is assigned a Foreign Group Site Access Profile. You can use the Foreign Group Site Access Profile record to define a set of parameters that are common for a specific foreign group. The Foreign Group Site Access Profile object is created with the TEMPLATE default record.

The configuration of this object impacts the ZC.

Identity

Field	Default	Allowed Values	Description
Foreign Group Site Access Profile ID	N/A	1 to 2,000	Enter a unique number that refers to a specific Foreign Group Site Access Profile defined on the system.
Foreign Group Site Access Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that refers to a specific Foreign Group Site Access Profile defined on the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Include or Exclude Valid Sites

Field	Default	Allowed Values	Description
Include/Exclude, only System Manager	Include Sites in List as Valid Sites	<ul style="list-style-type: none"> Include Sites in List as Valid Sites 	Define which sites a group is allowed to use on the system.

Field	Default	Allowed Values	Description
ers can Exclude Sites		<ul style="list-style-type: none"> Exclude Sites in List, All unlisted Sites are Valid 	<p>Include Sites in Lists as Valid Sites means that a group can use the sites included in the List of Valid Sites to Include or Exclude on the system.</p> <p>Exclude Sites in List, All unlisted Sites are Valid means that a group cannot use the sites included in the List of Valid Sites to Include or Exclude on the system.</p>

List of Valid Sites to Include or Exclude

The list used to specify the RF sites that can be accessed by foreign groups assigned to this profile. The list can be:

- Inclusive - the list of sites the foreign group can access
- Exclusive - the list of sites the foreign group cannot access



NOTICE: Only Provisioning Manager users assigned as the System Manager can configure an exclusive list.

Click **Choose Records** to display a list of available options.

See [RF Site on page 134](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.5.2.3

Foreign Group Capabilities Profile

The Foreign Group Capabilities Profile object defines a set of parameters that are common for a specific foreign group. Each Foreign Group Capabilities Profile contains capability parameters that can be customized per configured profile. Every foreign group is assigned a Foreign Group Capabilities Profile. The Foreign Group Capabilities Profile object is created with the TEMPLATE default record.

The configuration of this object impacts the following devices:

- ZC
- VPM AIS
- CONSOLE

Identity

Field	Default	Allowed Values	Description
Foreign Group Capabilities Profile ID	N/A	1 to 2,000	Enter a unique number that refers to a specific Foreign Group Capabilities Profile defined on the system.
Foreign Group Capabilities Profile Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that refers to a specific Foreign Group Capabilities Profile defined on the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Configuration

Field	Default	Allowed Values	Description
Multi-System Group Call Service Timeout (sec)	1000	0 to 30 (increments of 100)	This parameter is used to synchronize the non-emergency group call RF hang time between the serving system and home system for ISSI calls.
Multi-System Emergency Call Hang Time (sec)	30	0 to 3,660	This parameter is used for emergency ISSI calls. It specifies the number of seconds that an emergency call on a foreign talkgroup is permitted after the last transmission on the call ends. The value of 3660 seconds for this parameter is interpreted as unlimited time.
Use Home Group Call Service Timeout	Yes	<ul style="list-style-type: none"> • Yes • No 	This parameter indicates if the non-emergency group call RF hang time information from the home should be used when received during group registration.

Table continued...




Field	Default	Allowed Values	Description
			 NOTICE: If the Use Home Group Call Service Timeout NM parameter is set to Yes and if the Group Call Hang Time information is received from the home during group registration, the information from the home is used instead of the local Multi-System Group Call Service Timeout value in the serving system.
Call Start Resources	AllStart	<ul style="list-style-type: none"> AllStart FastStart 	<p>FastStart means that the requester for this foreign group can override a busy and request to start the call even if all members are not able to join the call yet.</p> <p>AllStart means that the requester for this foreign group waits for all members to be present.</p>
Emergency Enabled	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables radio users in the talkgroup to initiate emergency calls or alarms.</p> <p>No disables this capability. Emergency calls are processed under normal priority level control.</p>
Emergency Queue Mode	Top Of Queue	<ul style="list-style-type: none"> Ruthless Top Of Queue 	<p>Ruthless enables an emergency call to terminate the call with the lowest priority at all sites involved. This occurs when there are no available channel resources at the sites requested by the call.</p> <p>Top of Queue specifies that emergency calls have the highest priority and receive the next available repeater. This only applies at the initiating site. All other sites are ruthlessly preempted. Console emergency calls are always ruthlessly preempted.</p>
Emergency at 'Not Valid' Sites	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables emergency calls to be placed at non-valid sites for the talkgroup as determined by the selection of valid sites in the TG/MG Site Access Profile.</p> <p>No disables this capability.</p>
Affiliation Inactivity Timeout (hr)	12	4 to 72 73 (increments of 4)	Select the time when an inactive radio or console Channel Control window affiliated to the current talkgroup or multigroup is polled to determine if it is no longer on the system. Infinite means that it is never polled.
Group Priority Level	10	2 to 10	Select a priority level to determine how the system responds to talkgroup call requests if all resources are not immediately available and the call must be busied. Talkgroup calls use the lower-number (better) priority of either the requesting individual or the requested talkgroup.

Table continued...

Field	Default	Allowed Values	Description
			 IMPORTANT: The priority value of 1 is reserved by the system for emergency calls.
Priority Monitor	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows a radio user with Priority Monitor capability to monitor a talkgroup call. Information regarding activity on this talkgroup is sent out on voice channels assigned to other talkgroup calls. Radios monitoring talkgroup calls can detect this information and use it to scan over to more important talkgroup conversations on other channels. In order to access this functionality, the radio must:</p> <ul style="list-style-type: none"> • Be programmed for Priority Monitor scan. • Have a configured scan list. • Be in scan mode. <p>No disables this capability.</p>  NOTICE: Enable Priority Monitor only on a small subset of the total talkgroups in the system, due to the limited bandwidth of the embedded voice channel signaling. This increases the speed with which a radio is notified of a priority message. Radios monitoring Private Call or Interconnect calls are not interrupted by Priority Monitor talkgroup activity.
Resource Protection Timer (sec)	1000	0.5 to 30 (increments of 100)	Indicates the maximum time period when the ISSI group call can be granted, after which the RF resource is released.
Allow Foreign Console Emergency Hang Time	Yes	<ul style="list-style-type: none"> • Yes • No 	<p>Yes means that if a console in another system performs an emergency call setup, the call has infinite hangtime in this system.</p> <p>No disables this capability.</p>
Secure Communication Mode Default	Clear	<ul style="list-style-type: none"> • Clear • Secure 	Specify the default security mode for the group.
Secure Communication Mode	Both	<ul style="list-style-type: none"> • Clear • Secure • Both 	<p>Select the mode of secure transmission for the group.</p> <p>Clear allows a radio user to transmit clear (non-secure) talkgroup calls only.</p> <p>Secure allows the radio user to transmit secure (encrypted) talkgroup calls only.</p>

Field	Default	Allowed Values	Description
			Both allows the radio user to transmit both clear and secure talkgroup calls.

Common Key Reference

The key index used for secure communication. Click **Choose Record** to display a list of available options.

See [Common Key Reference on page 112](#).

Additional Configuration for Trunking Group

Field	Default	Allowed Values	Description
Transcoding Capability	Disable	<ul style="list-style-type: none"> Enable Disable 	Defines whether transcoding is used on the foreign talkgroup.

Trunking User Group

The User Group assigned to this record for channel partitioning. Channel Partitioning controls which trunked groups or radio units are assigned to each trunked RF channel resource in the system. Click **Choose Records** to display a list of available options.

See [User Group on page 296](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.5.2.4

Foreign Subscriber Data Profile

The Foreign Subscriber Data Profile object defines a set of parameters for data service that are applied for individual users in all foreign systems.

The configuration of this object impacts IVD PDR.

Identity


Field	Default	Allowed Values	Description
Profile ID	N/A		(Read-only) Specifies an ID for the profile.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Capabilities and Settings

Field	Default	Allowed Values	Description
Data Capability	Disable	<ul style="list-style-type: none">• Enable• Disable	Indicates whether data service is supported for the foreign subscribers. Data service includes P25 Classic Data service and P25 Enhanced Data service.  NOTICE: You cannot set the value to Enable if the Intersystem Data Feature option is not purchased.

Data Settings

If you set the **Data Capability** parameter to **Enable**, configure the following parameters

Field	Default	Allowed Values	Description
Generate ICMP Message	On	<ul style="list-style-type: none">• On• Off	On allows ICMP messages in the outbound stream. Off filters all ICMP messages out of the outbound stream.
Source Address Checking	On	<ul style="list-style-type: none">• On• Off	Indicates whether the source IP address of inbound messages is checked against the assigned IP address to see if the source of the message is a valid user of the system.
Ready Timer (sec)*	10	3 to 250	Specifies the amount of time a radio remains on a data channel after data transfer is complete.

Data Agency Group

The Data Agency Group assigned to this record. It is used to arbitrate site utilization when there is contention for Enhanced Data services. Click **Choose Record** to display a list of available options.

See [Data Agency Group on page 115](#).

Access Point Name

The Access Point Name assigned to this record. It identifies the data network assignment for foreign subscribers. Click **Choose Record** to display a list of available options.

See [Access Point Name on page 117](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.5.3

External Subsystem

6.5.3.1

External Conventional Talkgroup Channel

An External Conventional Talkgroup Channel is a conventional talkgroup channel that is external to the ASTRO System. It is partitioned into multiple conventional talkgroups that are accessible by consoles via a ISGW connection to the CSSI.

The External Conventional Talkgroup Channel is not a physical channel configuration, but it enables grouping talkgroups in logical entities called the External Conventional Talkgroup Channel.

The External Conventional Talkgroup Channel interfaces with the ASTRO® 25 system through CSSI. You can configure up to 20 conventional talkgroups per External Conventional Talkgroup Channel.

Identity

Field	Default	Allowed Values	Description
Channel ID	N/A	1 to 2000	Enter a unique number that identifies a specific channel within a site.
Channel Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the channel. Since these channels are external to the system, they are not assigned to a conventional site

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group](#) on page 365.

External Conventional Talkgroups

Conventional Talkgroup records assigned to this channel.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6

Applications Parameters

The Applications class of objects defines management user configuration information for the system through the Provisioning Manager (PM). If you have the proper rights in your own user record, you can create security groups, configure other management users, and assign passwords. Each management application user account must be assigned to a security group.

With the Provisioning Manager User object, you can view a list of users in the PM main window, or you can create and maintain user account configuration information within the User Configuration window.



CAUTION: The rights assigned with the Applications class of objects enable users to significantly affect system settings and configuration. Carefully consider the access and configuration rights you assign to users in the Applications objects. Assign permissions to only those users who need to access and configure the Applications objects.

To set and maintain security, configure the following objects:

- Security Group creates the names for logical groups used to partition subscriber and infrastructure components. The system comes with one default security group (SYSTEM). Creating additional security groups is an option that your agency might not have purchased.
- CAD User creates and manages all Computer Aided Dispatch (CAD) users who have access to the system, including assigning access rights and responsibilities.
- Provisioning Manager User determines who has access to the application, and what privileges are associated with a particular user.

6.6.1 Provisioning Manager

6.6.1.1 Security Group

The Security Group object allows you to partition the system by creating logical groupings of radios and infrastructure components. Every object record is assigned a security group.

You can create a maximum of 2,000 security groups. Once created, security groups can never be deleted.

When you create a Security Group, close and reopen the application for the new group to appear in the available list.



NOTICE: You cannot create additional Security Group records if the Security Partitioning System Feature option is not purchased.

The configuration of this object impacts the AUC.

Identity

Field	Default	Allowed Values	Description
Security Group Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies an individual security group.

Configuration

Field	Default	Allowed Values	Description
Require Unique Subscriber Aliases	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables this capability. All aliases for trunking (or conventional) subscriber records associated to the set of Security Groups with this flag set to Yes are unique.</p> <p>No disables this capability.</p>

Notes

Field	Default	Allowed Values	Description
Notes	N/A	0 to 255 characters. No character choice restrictions	Enter a relevant description of the record.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,000	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.1.2

Provisioning Manager Group

The Provisioning Manager Group object controls access to configuration data and user operations in the application.

Identity

Field	Default	Allowed Values	Description
Group Name	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the role in the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Security Group Access

Field	Default	Allowed Values	Description
Security Group	N/A	Click Choose Record to display a list of available options.	The Security Group the user can access (read). Additional permissions can be granted or removed for this Security Group. See Security Group on page 365 .

Table continued...

Field	Default	Allowed Values	Description
Read	Yes	<ul style="list-style-type: none"> • Yes • No 	(Read only) Specifies whether the user can read records that belong to the specified security group.
Insert	Yes	<ul style="list-style-type: none"> • Yes • No 	Yes enables the user to add records that belong to the specified security group. No disables this capability.
Update	Yes	<ul style="list-style-type: none"> • Yes • No 	Yes enables the user to modify the information in a record that belongs to the specified security group. No disables this capability.
Delete	Yes	<ul style="list-style-type: none"> • Yes • No 	Yes enables the user to delete a record that belongs to the specified security group. No disables this capability.
Attach	Yes	<ul style="list-style-type: none"> • Yes • No 	Yes enables the user to make attachment group assignments for talkgroups that belong to the specified security group when creating RTA users. No Disables this capability.
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.


Restricted Role Configuration

Field	Default	Allowed Values	Description
Restrict to Updating Aliases	No	<ul style="list-style-type: none"> • Yes • No 	Yes restricts the user from any configuration or distribution operations other than updating alias for subscriber records. If a user is assigned to a Provisioning Manager group that has this parameter enabled, then this user is only able to access the search list page for the Trunking and Conventional Subscribers. See Searching Trunking Subscribers on page 60 and Searching Conventional Subscribers on page 61 . In essence, this user can only modify the alias for Trunking and Conventional Subscribers. No disables this capability.

User Configuration Permissions

Field	Default	Allowed Values	Description
Create Console In-	No	<ul style="list-style-type: none"> • Yes • No 	Yes enables the user to create console infrastructure and application objects.

Table continued...

Field	Default	Allowed Values	Description
frastructure and Appli-cation			No disables this capability.
Create RF Site Infra-structure	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the user to create RF Site Infra-structure objects.</p> <p>No disables this capability.</p>
Create Subscribers	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the user to create records for Subscribers in the Provisioning Manager, such as radios, radio users, talkgroups, and multi-groups.</p> <p>No disables this capability.</p> <p> CAUTION: For security purposes, only those users who need to create records in the system should be given permissions to create records for Subscribers.</p>
Create Sys-tem Objects	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the user to create system objects.</p> <p>No disables this capability.</p>
Create Traffic Filter Profile Ob-jects	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the user to create traffic filter pro-files.</p> <p>No disables this capability.</p>
Create PM User and PM Group Objects	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the user to create or modify the access permissions and roles of other network management users.</p> <p>No disables this capability.</p>
Allow Full Access to All Security Groups	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the user to have full access to all security groups.</p> <p>No disables this capability.</p>
Create Se-curity Groups / ID Restriction	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the user to create Security Groups and ID Restriction.</p> <p>No disables this capability.</p>

User Distribution Permissions

Field	Default	Allowed Values	Description
Distribute Configura-tion	No	<ul style="list-style-type: none"> • Yes • No 	Yes enables the user to distribute configuration in UNC. No disables this capability.
Force Initi-alization	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes enables the user to distribute full configura-tion and to force initialize the system devices.</p> <p>No disables this capability.</p>

Table continued...

Field	Default	Allowed Values	Description
Distribute Home Zone Map	No	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the user to distribute the Home Zone Map.</p> <p>No disables this capability.</p>

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 8,000	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.1.3

Provisioning Manager User

The Provisioning Manager User object manages all users who have access to the system and the rights associated with a particular user, that is all users and management users for the Provisioning Manager and for other applications.



CAUTION: The default user record is super manager (administrator login), which is the highest-level user and has access to all areas of the system. You can use the default super manager record as a template to quickly create new users. Using the default super manager record as a template to create a user provides system-wide access to the new user. Carefully consider the permissions you assign to a user, particularly the permissions enabling a user to create or modify users or other objects in the system. Assign permissions to only those users who need to create or modify users or other objects in the system.

The configuration of this object impacts the following devices:

- VPM AIS
- CONSOLE

Identity



Field	Default	Allowed Values	Description
Domain Name	N/A	1 to 15 characters. Use the following characters: A to Z, a to z, 0 to 9, . _ (Cannot start with a period; cannot be com-	<p>A domain name for a user logging in to the system.</p> <p> NOTICE: To see the list of all names available in the Active Directory, click in the field and enter any character.</p>

Table continued...

Field	Default	Allowed Values	Description
		posed of numbers only; no leading and trailing spaces)	
User Login Name	N/A	1 to 104 characters. Use the following characters: A to Z, a to z, 0 to 9, ! # \$ () - . ^ ` ~ _ (Must start with a lower case English letter or underscore)	Enter the unique alias name that refers to a specific user logging on to the system.  NOTICE: To see the list of all names available in the Active Directory, click in the field and enter any character.
User Full Name	N/A	0 to 256 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + . / ; : < - > ? [\] ^ ` ~ = _ (No leading and trailing spaces)	Enter a unique name that identifies the user to the system. This is not the same name as the User Login Name , which provides the user with access to the system.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Provisioning Manager Group Assignment

The Provisioning Manager Group(s) assigned to this user. This determines the user's ability to read, create, modify and delete configuration records based on the Security Group assigned to the record and the Security Group Access settings in the Provisioning Manager Group(s) assigned to this user. Click **Choose Record** to display a list of available options.



NOTICE: When more than one group is assigned to a user, the least restrictive setting from all assigned groups is applied when there is an overlap in Security Group Access configuration.

See [Provisioning Manager Group on page 366](#).

UNC User Configuration

Field	Default	Allowed Values	Description
UNC Login Name	N/A	0 to 255 characters. No character choice restrictions	Enter a unique alias name that refers to a specific user logging on to the system. This field defines the UNC users who are in the system.
Password	N/A	0 to 255 characters. Use the following charac-	Text that ensures the security of the user logging on to the system. The "*" character appears in the field for each letter typed.

Field	Default	Allowed Values	Description
		ters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Passwords are case-sensitive.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.1.4

ID Restriction

ID Restriction allows an agency, identified by its associated Security Group, to be restricted to a set of Radio or Group IDs.

System managers can implement such a restriction by creating an instance of the ID Restriction record for the agency. Once a record is created for the agency, users are restricted to the Radio or Group IDs specified in the Radio ID Partitions and TG/MG ID Partitions section when creating or updating Radio or Group records that are associated with that agency.



NOTICE: An ID Restriction record with an empty partition blocks all IDs for the agency. To allow all IDs, either enter the entire ID range in the Radio and/or Group ID Partition section, or do NOT create the ID Restriction record for the agency.

Agency Name (Security Group) for ID Restriction

The Security Group associated with the agency for which you configure Radio and Group ID restrictions. Click **Choose Record** to display a list of available options..

See [Security Group on page 365](#).

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Radio ID Partitions

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.
Radio ID Range Start		0 to 16,777,215	Enter the first ID in the range of Radio IDs restricted for the specified agency. You can enter up to 128,000 total radios into the system, a maximum of 64,000 radios per zone. The total range of individual identification numbers used by the system is 16,777,217.
Radio ID Range End		0 to 16,777,215	Enter the last ID in the range of Radio IDs restricted for the specified agency. You can enter up to 128,000 total radios into the system, a maximum of 64,000 radios per zone. The total range of individual identification numbers used by the system is 16,777,217.

TG/MG ID Partitions

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.
TG/MG ID Range Start	N/A	80,000,000 to 80,065,535	Enter the first ID in the block of talkgroup and multigroup IDs restricted for the specified agency.
TG/MG ID Range End	N/A	80,000,000 to 80,065,535	Enter the last ID in the block of talkgroup and multigroup IDs restricted for the specified agency.

Notes

Field	Default	Allowed Values	Description
Notes	N/A	0 to 255 characters. No character choice restrictions	Enter a relevant description of the record.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.2

RCM/CAD

6.6.2.1

Radio Traffic Application User

The Radio Traffic Application User object allows you to control a management application used to issue commands to radios and monitor events from radios. The Radio Traffic Application (RTA) is part of the Motorola Solutions Private Radio Network Management (PRNM) Suite.

The configuration of this object impacts the ATR.

Identity



Field	Default	Allowed Values	Description
Domain Name	N/A	1 to 15 characters. Use the following characters: A to Z, a to z, 0 to 9, . _ (Cannot start with a period; cannot be composed of numbers only; no leading and trailing spaces)	A domain name for a user logging in to the system.  NOTICE: To see the list of all names available in the Active Directory, click in the field and enter any character.
User Login Name	N/A	1 to 104 characters. Use the following characters: A to Z, a to z, 0 to 9, ! # \$ () - . ^ ` ~ _ (Must start with a lower case English let-	Enter the unique alias name that refers to a specific user logging on to the system.  NOTICE: To see the list of all names available in the Active Directory, click in the field and enter any character.


Table continued...

Field	Default	Allowed Values	Description
		ter or under-score)	
User Full Name	N/A	0 to 256 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the user to the system. This is not the same name as the User Login Name , which provides the user with access to the system.

Password Authentication Method

Field	Default	Allowed Values	Description
Authentication Method	Active Directory Authentication	<ul style="list-style-type: none"> Active Directory Authentication Provisioned Authentication 	Specifies whether the user authenticates using configuration-based authentication or active directory-based authentication. Active Directory Authentication is the advised authentication method.

Provisioned Authentication Method Password

Field	Default	Allowed Values	Description
Password	N/A	0 to 32 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	<p>Enter a password if you selected Provisioned Authentication as your authentication method.</p> <p>Text that ensures the security of the user logging on the system. The “*” character appears in the field for each letter typed.</p> <p>Passwords are case-sensitive.</p> <p> IMPORTANT: The system uses only the first eight characters of the password entry.</p> <p>The Radio Traffic Application User operates many applications, but the password is used only for the RCM application.</p>
Confirm Password	N/A	0 to 32 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading	Re-enter the password that you provided in the Password field.

Field	Default	Allowed Values	Description
		and trailing spaces)	

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Security Group Access

Field	Default	Allowed Values	Description
Security Group	N/A	Click Choose Record to display a list of available options.	The Security Group the user has access to on the Radio Control Manager application. Regroup permission can be granted or removed for this Security Group. See Security Group on page 365 .
Regroup	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the user to regroup a radio that belongs to that security group. The user must have Regroup access to the security group of that talkgroup within the RCM Dynamic Regrouping application. No disables this capability.
Record identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record identifier	N/A	0 to 50,000,000	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.2.2

CAD User


The CAD User object creates and manages all Computer Aided Dispatch (CAD) users who have access to the system, including assigning access rights and responsibilities.

The configuration of this object impacts the ATR.

Configuration

Field	Default	Allowed Values	Description
Authentication Method	Provisioned Authentication	<ul style="list-style-type: none"> Active Directory Authentication Provisioned Authentication 	This parameter identifies if the CAD user account uses the Provisioning Manager for authentication.
Domain Name	N/A	0 to 32 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces). A password should not be entered if Active Directory Authentication is used.	Used when Active Directory Authentication is used for the CAD User Authentication Method. The domain name for the Active Directory domain used to authenticate the user.
User Login Name	N/A	1 to 104 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter the unique alias name that refers to a specific user logging on to the system. This field defines the CAD users who are in the system.
User Full Name	N/A	1 to 32 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the user to the system. This is not the same name as the User Login Name , which provides the user with access to the system.

Password

Field	Default	Allowed Values	Description
Password	N/A	0 to 32 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Text that ensures the security of the user logging on the system. The "*" character appears in the field for each letter typed. Passwords are case-sensitive.  IMPORTANT: The system uses only the first eight characters of the password entry.

Security Group Access

Field	Default	Allowed Values	Description
Security Group	N/A	Click Choose Record to display a list of available options.	The Security Group the user has access to through the CADI interface. Additional permissions can be granted or removed for this Security Group. See Security Group on page 365 .
Affiliation	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the user to view affiliations for all radios in the attachment group. No disables the user and CAD host from receiving any affiliation information.
Change Me	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the RTA user to receive Change Me requests from radio users within this attachment group. No disables this capability.
Emergency Alarm	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the console user Emergency Alarm indications. No disables the console user Emergency Alarm indications.
Push To Talk	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the system manager to view the status of the Push to Talk (PTT) button for the users in this group. No disables this capability.
Status	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the RTA user to receive status events from radio users who belong to this attachment group. No disables this capability.
Tactical Alert	Yes	<ul style="list-style-type: none"> Yes No 	Yes enables the CAD user to receive Tactical Alert messages from radio users of a security group. No disables this capability.

Table continued...

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Radio Control Management


Field	Default	Allowed Values	Description
Attachment Group	N/A	Click Choose Record to display a list of available options.	<p>The attachment group(s) the user has access to through the CAD interface. Attachment group refers to a specific talkgroup or multigroup defined in the system.</p> <p> NOTICE: To add an attachment group, the Provisioning Manager user must have Attach rights to the Security Group assigned to the TG/MG. Attach permissions for the Provisioning Manager user is configured using the Provisioning Manager Group(s) assignment in the user record.</p>
Affiliation	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the user to view affiliations for all radios in the attachment group.</p> <p>No disables the user and CAD host from receiving any affiliation information.</p>
Change Me	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the RTA user to receive Change Me requests from radio users within this attachment group.</p> <p>No disables this capability.</p>
Emergency Alarm	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the console user Emergency Alarm indications.</p> <p>No disables the console user Emergency Alarm indications.</p>
Push To Talk	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the system manager to view the status of the Push to Talk (PTT) button for the users in this group.</p> <p>No disables this capability.</p>
Status	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the RTA user to receive status events from radio users who belong to this attachment group.</p> <p>No disables this capability.</p>
Tactical Alert	Yes	<ul style="list-style-type: none"> Yes No 	<p>Yes enables the CAD user to receive Tactical Alert messages from radio users of a security group.</p> <p>No disables this capability.</p>

Table continued...

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 9,223,372,036,854,775,807	(Read only) Displays a number that identifies the record in the set of records of a given object type.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	50,000,000 to 100,000,000	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.2.3

Storm Plan

The Storm Plan object allows you to create a predefined Storm Plan to use in disaster management to dynamically regroup different groups or organizations so they can communicate with each other. You can also control a radio by locking its talkgroup selector.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Storm Plan Alias	N/A	1 to 16 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name.
Purpose	N/A	0 to 60 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + . / ; : < - > ? [\] ^ ` ~ = _ @ ,	Text that clearly describes the situations that trigger a specific Storm Plan. Together with the Storm Plan Alias, this provides a clear idea of the plan objective and how it is to be used.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Storm Plan Commands

Field	Default	Allowed Values	Description
Command ID	N/A	1 to 4	Contains a number indicating the number of commands in the storm plan.
Talkgroup Selector Lock	No Change	<ul style="list-style-type: none"> • Unlocked • Locked • No Change 	<p>Unlocked specifies the talkgroup selector lock is not locked onto one talkgroup for all associated radios. The radio user can manually change talkgroups by moving the selector on the radio.</p> <p>Locked specifies the talkgroup selector is locked onto one talkgroup for all associated radios and cannot be changed by the radio user.</p> <p>No Change specifies the talkgroup selector lock remains unchanged for all associated radios on their current setting.</p>
Talkgroup	N/A	Click Choose Record to display a list of available options.	The Talkgroup that the selected Radios should be regrouped into.
Radios	N/A	Click Choose Record to display a list of available options.	A list of up to 100 Radios that should be regrouped by this command. A valid Radio is one with a Primary Talkgroup assigned.
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

User Configuration

The Radio Control Manager (RCM) users who can execute this Storm Plan. Click **Choose Record** to display a list of available options.

See [Radio Traffic Application User on page 373](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3

Zone Watch

6.6.3.1

Zonewatch Profile

The Zonewatch Profile object contains one or more WatchWindow Definitions. Zonewatch Profiles must contain Watch Window Definitions from the same security group. Complete at least one profile to open ZoneWatch.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Watch Profile Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies a specific Watch Profile.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Watch Windows In Profile

A list of up to 20 different Watch Windows associated with this profile. Click **Choose Records** to display a list of available options.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.


6.6.3.2

Site Watch Window

Each zonewatch window has characteristics and filters that define what system traffic it shows. The type of window defines which filters are important for that window.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Watch Window Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the Watch Window.
Track By	ID	<ul style="list-style-type: none"> ID Alias 	<p>ID displays the data using ID numbers.</p> <p>Alias displays the data using alias names.</p> <p> NOTICE: If you choose Alias and the alias is not available, the ID numbers are used instead. Whenever an ID number is displayed, the pound sign (#) proceeds the number.</p>
Radio Type Filter	ALL	<ul style="list-style-type: none"> IVD HPD ALL 	<p>IVD allows the ZoneWatch user to view only IVD radios.</p> <p>HPD allows the ZoneWatch user to view only HPD radios.</p> <p>ALL allows the ZoneWatch user to view all radios.</p>

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Window Configuration

Field	Default	Allowed Values	Description
Grid Display	Yes	<ul style="list-style-type: none"> Yes No 	<p>(Read only) Yes allows the ZoneWatch user to view information in a grid display format for the site.</p> <p>No disables this capability, so you would view information in either a Scroll Display or Busy Queue, depending on the settings in those fields.</p>
Scroll Display	No	<ul style="list-style-type: none"> Yes No 	<p>(Read only) Yes allows the ZoneWatch user to view information in a scroll display format for the site.</p> <p>No disables this capability, so you would view information in either a Grid Display or Busy Queue, depending on the settings in those fields.</p>
Busy Queue	No	<ul style="list-style-type: none"> Yes No 	<p>(Read only) Yes allows the ZoneWatch user to view information in a busy queue format for the site.</p> <p>No disables this capability, so you would view information in either a Grid Display or Scroll Display, depending on the settings in those fields.</p>

Site Monitored

The RF Site (trunking) associated with this watch window. Click **Choose Record** to display a list of available options.

See [RF Site on page 134](#).

Message Qualifier Filter

Field	Default	Allowed Values	Description
Emergency Call Selection	No Filter	<ul style="list-style-type: none"> Non-Emergency Only Emergency Only No Filter 	<p>Controls whether the Zone Watch user can view emergency calls and alarms.</p> <p>Non-Emergency Only enables the user to view only non-emergency calls and alarms.</p> <p>Emergency Only enables the user to view only emergency calls.</p> <p>No Filter enables the user to view all calls and alarms.</p>
Secure Call Selection	No Filter	<ul style="list-style-type: none"> Non-Secure Only Secure Only No Filter 	<p>Controls whether the Zone Watch user can view secure call traffic.</p> <p>Non-Secure Only enables the user to view only non-secure call traffic.</p>

Field	Default	Allowed Values	Description
			<p>Secure Only enables the user to view only secure call traffic.</p> <p>No Filter enables the user to view both types of call traffic.</p>

Message Set Filter

Field	Default	Allowed Values	Description
Message Set Filter Selection	No Filter	<ul style="list-style-type: none"> • Subscriber All Call • Subscriber All Busy • Subscriber Talkgroup Activity (TG, MG, AG, MSEL, Patch) • Subscriber Multigroup Activity • Subscriber Patch Activity • Subscriber MSEL Activity • Subscriber Private Call Activity • Subscriber Phone Call Activity • Subscriber Affiliations • Dispatcher Emergency Activity • Dispatcher Call Alert • Dispatcher Status • Dispatcher RCM Activity • Dispatcher Dynamic Activity 	This parameter controls whether the zone watch user can view one of the available messages from radio users to the zone.

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> • Dispatcher Regrouping • Dispatcher Selector • Dispatcher Inhibit • Dispatcher Change Me • Dispatcher Rejects • Dispatcher Patch MSEL Update • Group Text Activity • Tactical Alert Activity • Infrastructure Dynamic Channel Blocking • Infrastructure Controlling Zone Update • Infrastructure BSI Reports • Infrastructure Zone Controller Status • Infrastructure Resource Failed • Infrastructure Resource Preempted • Infrastructure Unknown • Infrastructure Site Selectable Alert • Transcoder Activity • No Filter 	

Channel Filters

A list of up to 64 Channel Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Channel Filter on page 407](#).

Radio ID Filters

A list of up to 64 Radio ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio ID Filter on page 408](#).

Radio Range Filters

A list of up to 64 Radio Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio Range Filter on page 409](#).

TG/MG Filters

A list of up to 64 Talkgroup/Multigroup ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup ID Filter on page 410](#).

TG/MG Range Filters

A list of up to 64 Talkgroup/Multigroup Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup Range Filter on page 411](#).

Raw Data Filter

An optional Raw Data Filter used to limit the traffic display on this watch window. Click **Choose Record** to display a list of available options.

See [Raw Data Filter on page 412](#).

System Filters

A list of up to 25 System Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [System Filter on page 416](#).

Transcoder Filter

This filter allows traffic which involves the specific transcoder to be selected and displayed in the zonewatch window.

Click **Choose Record** to display a list of available options.

See [Transcoder Filter on page 417](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.


6.6.3.3

Channel Grid Watch Window

Each zonewatch window has characteristics and filters that define what system traffic it shows. The type of window defines which filters are important for that window.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Watch Window Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the Watch Window.
Track By	ID	<ul style="list-style-type: none"> ID Alias 	<p>ID displays the data using ID numbers.</p> <p>Alias displays the data using alias names.</p> <p> NOTICE: If you choose Alias and the alias is not available, the ID numbers are used instead. Whenever an ID number is displayed, the pound sign (#) proceeds the number.</p>
Radio Type Filter	ALL	<ul style="list-style-type: none"> IVD HPD ALL 	<p>IVD allows the ZoneWatch user to view only IVD radios.</p> <p>HPD allows the ZoneWatch user to view only HPD radios.</p> <p>ALL allows the ZoneWatch user to view all radios.</p>

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Message Qualifier Filter

Field	Default	Allowed Values	Description
Emergency Call Selection	No Filter	<ul style="list-style-type: none"> Non-Emergency Only Emergency Only No Filter 	<p>Controls whether the Zone Watch user can view emergency calls and alarms.</p> <p>Non-Emergency Only enables the user to view only non-emergency calls and alarms.</p> <p>Emergency Only enables the user to view only emergency calls.</p> <p>No Filter enables the user to view all calls and alarms.</p>
Secure Call Selection	No Filter	<ul style="list-style-type: none"> Non-Secure Only Secure Only No Filter 	<p>Controls whether the Zone Watch user can view secure call traffic.</p> <p>Non-Secure Only enables the user to view only non-secure call traffic.</p> <p>Secure Only enables the user to view only secure call traffic.</p> <p>No Filter enables the user to view both types of call traffic.</p>

Message Set Filter

Field	Default	Allowed Values	Description
Message Set Filter Selection	No Filter	<ul style="list-style-type: none"> Subscriber All Call Subscriber All Busy Subscriber Talkgroup Activity (TG, MG, AG, MSEL, Patch) Subscriber Multigroup Activity Subscriber Patch Activity Subscriber MSEL Activity 	<p>This parameter controls whether the zone watch user can view one of the available messages from radio users to the zone.</p>

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> • Subscriber Private Call Activity • Subscriber Phone Call Activity • Subscriber Affiliations • Dispatcher Emergency Activity • Dispatcher Call Alert • Dispatcher Status • Dispatcher RCM Activity • Dispatcher Dynamic Activity • Dispatcher Regrouping • Dispatcher Selector • Dispatcher Inhibit • Dispatcher Change Me • Dispatcher Rejects • Dispatcher Patch MSEL Update • Group Text Activity • Tactical Alert Activity • Infrastructure Dynamic Channel Blocking • Infrastructure Controlling Zone Update 	

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none">• Infrastructure BSI Reports• Infrastructure Zone Controller Status• Infrastructure Resource Failed• Infrastructure Resource Preempted• Infrastructure Unknown• Infrastructure Site Selectable Alert• Transcoding Activity• No Filter	

Site Filters

A list of up to 64 Site Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Site Filter on page 406](#).

Channel Filters

A list of up to 64 Channel Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Channel Filter on page 407](#).

Radio ID Filters

A list of up to 64 Radio ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio ID Filter on page 408](#).

Radio Range Filters

A list of up to 64 Radio Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio Range Filter on page 409](#).

TG/MG Filters

A list of up to 64 Talkgroup/Multigroup ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup ID Filter on page 410](#).

TG/MG Range Filters

A list of up to 64 Talkgroup/Multigroup Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup Range Filter on page 411](#).

Raw Data Filter

An optional Raw Data Filter used to limit the traffic display on this watch window. Click **Choose Record** to display a list of available options.

See [Raw Data Filter on page 412](#).

System Filters

A list of up to 25 System Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [System Filter on page 416](#).

Transcoder Filter

This filter allows traffic which involves the specific transcoder to be selected and displayed in the zonewatch window.

Click **Choose Record** to display a list of available options.

See [Transcoder Filter on page 417](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.


6.6.3.4

Raw Display Watch Window

Each zonewatch window has characteristics and filters that define what system traffic it shows. The type of window defines which filters are important for that window.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Watch Window Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the Watch Window.
Track By	ID	<ul style="list-style-type: none"> ID Alias 	<p>ID displays the data using ID numbers.</p> <p>Alias displays the data using alias names.</p> <p> NOTICE: If you choose Alias and the alias is not available, the ID numbers are used instead. Whenever an ID number is displayed, the pound sign (#) proceeds the number.</p>
Radio Type Filter	ALL	<ul style="list-style-type: none"> IVD HPD ALL 	<p>IVD allows the ZoneWatch user to view only IVD radios.</p> <p>HPD allows the ZoneWatch user to view only HPD radios.</p> <p>ALL allows the ZoneWatch user to view all radios.</p>

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Raw Display Configuration

Field	Default	Allowed Values	Description
Raw Data Bytes	No	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the ZoneWatch user to view raw data bytes in the raw data display.</p> <p>No disables this capability.</p>
Decoded Messages	No	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the ZoneWatch user to view the information in a formatted message that is easier to read. This format is the same as what appears in the Site or Multi Site Scroll windows.</p> <p>No disables this capability.</p>
All Fields	No	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the ZoneWatch user to view all fields in the raw data display that breaks down the data by bytes.</p>

Field	Default	Allowed Values	Description
			No disables this capability. When disabled, an abbreviated format for raw display is used.

Message Qualifier Filter

Field	Default	Allowed Values	Description
Emergency Call Selection	No Filter	<ul style="list-style-type: none"> Non-Emergency Only Emergency Only No Filter 	<p>Controls whether the Zone Watch user can view emergency calls and alarms.</p> <p>Non-Emergency Only enables the user to view only non-emergency calls and alarms.</p> <p>Emergency Only enables the user to view only emergency calls.</p> <p>No Filter enables the user to view all calls and alarms.</p>
Secure Call Selection	No Filter	<ul style="list-style-type: none"> Non-Secure Only Secure Only No Filter 	<p>Controls whether the Zone Watch user can view secure call traffic.</p> <p>Non-Secure Only enables the user to view only non-secure call traffic.</p> <p>Secure Only enables the user to view only secure call traffic.</p> <p>No Filter enables the user to view both types of call traffic.</p>

Message Set Filter

Field	Default	Allowed Values	Description
Message Set Filter Selection	No Filter	<ul style="list-style-type: none"> Subscriber All Call Subscriber All Busy Subscriber Talkgroup Activity (TG, MG, AG, MSEL, Patch) Subscriber Multigroup Activity Subscriber Patch Activity Subscriber MSEL Activity 	<p>This parameter controls whether the zone watch user can view one of the available messages from radio users to the zone.</p>

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> Subscriber Private Call Activity Subscriber Phone Call Activity Subscriber Affiliations Dispatcher Emergency Activity Dispatcher Call Alert Dispatcher Status Dispatcher RCM Activity Dispatcher Dynamic Activity Dispatcher Regrouping Dispatcher Selector Dispatcher Inhibit Dispatcher Change Me Dispatcher Rejects Dispatcher Patch MSEL Update Group Text Activity Tactical Alert Activity Infrastructure Dynamic Channel Blocking Infrastructure Controlling Zone Update 	

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> Infrastructure BSI Reports Infrastructure Zone Controller Status Infrastructure Resource Failed Infrastructure Resource Preempted Infrastructure Unknown Infrastructure Site Selectable Alert Transcoding Activity No Filter Group Text Activity 	

Site Filters

A list of up to 64 Site Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Site Filter on page 406](#).

Channel Filters

A list of up to 64 Channel Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Channel Filter on page 407](#).

Radio ID Filters

A list of up to 64 Radio ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio ID Filter on page 408](#).

Radio Range Filters

A list of up to 64 Radio Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio Range Filter on page 409](#).

TG/MG Filters

A list of up to 64 Talkgroup/Multigroup ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup ID Filter on page 410](#).

TG/MG Range Filters

A list of up to 64 Talkgroup/Multigroup Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup Range Filter on page 411](#).

Raw Data Filter

An optional Raw Data Filter used to limit the traffic display on this watch window. Click **Choose Record** to display a list of available options.

See [Raw Data Filter on page 412](#).

System Filters

A list of up to 25 System Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [System Filter on page 416](#).

Transcoder Filter

This filter allows traffic which involves the specific transcoder to be selected and displayed in the zonewatch window.

Click **Choose Record** to display a list of available options.

See [Transcoder Filter on page 417](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.


6.6.3.5

Multisite Scroll Watch Window

Each zonewatch window has characteristics and filters that define what system traffic it shows. The type of window defines which filters are important for that window.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Watch Window Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the Watch Window.
Track By	ID	<ul style="list-style-type: none"> ID Alias 	<p>ID displays the data using ID numbers.</p> <p>Alias displays the data using alias names.</p> <p> NOTICE: If you choose Alias and the alias is not available, the ID numbers are used instead. Whenever an ID number is displayed, the pound sign (#) proceeds the number.</p>
Radio Type Filter	ALL	<ul style="list-style-type: none"> IVD HPD ALL 	<p>IVD allows the ZoneWatch user to view only IVD radios.</p> <p>HPD allows the ZoneWatch user to view only HPD radios.</p> <p>ALL allows the ZoneWatch user to view all radios.</p>

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Message Qualifier Filter

Field	Default	Allowed Values	Description
Emergency Call Selection	No Filter	<ul style="list-style-type: none"> Non-Emergency Only Emergency Only No Filter 	<p>Controls whether the Zone Watch user can view emergency calls and alarms.</p> <p>Non-Emergency Only enables the user to view only non-emergency calls and alarms.</p> <p>Emergency Only enables the user to view only emergency calls.</p> <p>No Filter enables the user to view all calls and alarms.</p>
Secure Call Selection	No Filter	<ul style="list-style-type: none"> Non-Secure Only 	Controls whether the Zone Watch user can view secure call traffic.

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> Secure Only No Filter 	<p>Non-Secure Only enables the user to view only non-secure call traffic.</p> <p>Secure Only enables the user to view only secure call traffic.</p> <p>No Filter enables the user to view both types of call traffic.</p>

Message Set Filter

Field	Default	Allowed Values	Description
Message Set Filter Selection	No Filter	<ul style="list-style-type: none"> Subscriber All Call Subscriber All Busy Subscriber Talkgroup Activity (TG, MG, AG, MSEL, Patch) Subscriber Multigroup Activity Subscriber Patch Activity Subscriber MSEL Activity Subscriber Private Call Activity Subscriber Phone Call Activity Subscriber Affiliations Dispatcher Emergency Activity Dispatcher Call Alert Dispatcher Status Dispatcher RCM Activity 	This parameter controls whether the zone watch user can view one of the available messages from radio users to the zone.

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none"> • Dispatcher Dynamic Activity • Dispatcher Regrouping • Dispatcher Selector • Dispatcher Inhibit • Dispatcher Change Me • Dispatcher Rejects • Dispatcher Patch MSEL Update • Group Text Activity • Tactical Alert Activity • Infrastructure Dynamic Channel Blocking • Infrastructure Controlling Zone Update • Infrastructure BSI Reports • Infrastructure Zone Controller Status • Infrastructure Resource Failed • Infrastructure Resource Preempted • Infrastructure Unknown • Infrastructure Site Selectable Alert • Transcoding Activity 	

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none">No Filter	

Site Filters

A list of up to 64 Site Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Site Filter on page 406](#).

Channel Filters

A list of up to 64 Channel Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Channel Filter on page 407](#).

Radio ID Filters

A list of up to 64 Radio ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio ID Filter on page 408](#).

Radio Range Filters

A list of up to 64 Radio Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio Range Filter on page 409](#).

TG/MG Filters

A list of up to 64 Talkgroup/Multigroup ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup ID Filter on page 410](#).

TG/MG Range Filters

A list of up to 64 Talkgroup/Multigroup Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup Range Filter on page 411](#).

Raw Data Filter

An optional Raw Data Filter used to limit the traffic display on this watch window. Click **Choose Record** to display a list of available options.

See [Raw Data Filter on page 412](#).

System Filters

A list of up to 25 System Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [System Filter on page 416](#).

Transcoder Filter

This filter allows traffic which involves the specific transcoder to be selected and displayed in the zonewatch window.

Click **Choose Record** to display a list of available options.
See [Transcoder Filter on page 417](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.6

Busy Queue Watch Window

Each zonewatch window has characteristics and filters that define what system traffic it shows. The type of window defines which filters are important for that window.

The configuration of this object impacts the ATR.

Identity


Field	Default	Allowed Values	Description
Watch Window Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies the Watch Window.
Track By	ID	<ul style="list-style-type: none"> ID Alias 	<p>ID displays the data using ID numbers.</p> <p>Alias displays the data using alias names.</p> <p> NOTICE: If you choose Alias and the alias is not available, the ID numbers are used instead. Whenever an ID number is displayed, the pound sign (#) proceeds the number.</p>

Table continued...

Field	Default	Allowed Values	Description
Radio Type Filter	ALL	<ul style="list-style-type: none"> IVD HPD ALL 	<p>IVD allows the ZoneWatch user to view only IVD radios.</p> <p>HPD allows the ZoneWatch user to view only HPD radios.</p> <p>ALL allows the ZoneWatch user to view all radios.</p>

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Message Qualifier Filter

Field	Default	Allowed Values	Description
Emergency Call Selection	No Filter	<ul style="list-style-type: none"> Non-Emergency Only Emergency Only No Filter 	<p>Controls whether the Zone Watch user can view emergency calls and alarms.</p> <p>Non-Emergency Only enables the user to view only non-emergency calls and alarms.</p> <p>Emergency Only enables the user to view only emergency calls.</p> <p>No Filter enables the user to view all calls and alarms.</p>
Secure Call Selection	No Filter	<ul style="list-style-type: none"> Non-Secure Only Secure Only No Filter 	<p>Controls whether the Zone Watch user can view secure call traffic.</p> <p>Non-Secure Only enables the user to view only non-secure call traffic.</p> <p>Secure Only enables the user to view only secure call traffic.</p> <p>No Filter enables the user to view both types of call traffic.</p>

Message Set Filter

Field	Default	Allowed Values	Description
Message Set Filter Selection	No Filter	<ul style="list-style-type: none"> Subscriber All Call Subscriber All Busy Subscriber Talkgroup Activity (TG, 	<p>This parameter controls whether the zone watch user can view one of the available messages from radio users to the zone.</p>

Field	Default	Allowed Values	Description
		MG, AG, MSEL, Patch) <ul style="list-style-type: none"> • Subscriber Multigroup Activity • Subscriber Patch Activity • Subscriber MSEL Activity • Subscriber Private Call Activity • Subscriber Phone Call Activity • Subscriber Affiliations • Dispatcher Emergency Activity • Dispatcher Call Alert • Dispatcher Status • Dispatcher RCM Activity • Dispatcher Dynamic Activity • Dispatcher Regrouping • Dispatcher Selector • Dispatcher Inhibit • Dispatcher Change Me • Dispatcher Rejects • Dispatcher Patch MSEL Update • Group Text Activity 	

Field	Default	Allowed Values	Description
		<ul style="list-style-type: none">Tactical Alert ActivityInfrastructure Dynamic Channel BlockingInfrastructure Controlling Zone UpdateInfrastructure BSI ReportsInfrastructure Zone Controller StatusInfrastructure Resource FailedInfrastructure Resource PreemptedInfrastructure UnknownInfrastructure Site Selectable AlertTranscoding ActivityNo Filter	

Site Filters

A list of up to 64 Site Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Site Filter on page 406](#).

Channel Filters

A list of up to 64 Channel Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Channel Filter on page 407](#).

Radio ID Filters

A list of up to 64 Radio ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio ID Filter on page 408](#).

Radio Range Filters

A list of up to 64 Radio Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Radio Range Filter on page 409](#).

TG/MG Filters

A list of up to 64 Talkgroup/Multigroup ID Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup ID Filter on page 410](#).

TG/MG Range Filters

A list of up to 64 Talkgroup/Multigroup Range Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [Talkgroup/Multigroup Range Filter on page 411](#).

Raw Data Filter

An optional Raw Data Filter used to limit the traffic display on this watch window. Click **Choose Record** to display a list of available options.

See [Raw Data Filter on page 412](#).

System Filters

A list of up to 25 System Filters used to limit the traffic display on this watch window. Click **Choose Records** to display a list of available options.

See [System Filter on page 416](#).

Transcoder Filter

Selecting this filter for this watch window filters out the whole traffic, so that no traffic is displayed.

Click **Choose Record** to display a list of available options.

See [Transcoder Filter on page 417](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.7

Site Filter

The Site Filter object allows you to specify the site that the ZoneWatch user can monitor.

You can filter one or more sites per the Site Filter record. The Site Filter essentially limits the view to only a specific site in a zone.

You cannot see information in this window from other sites. You can, however, have other windows open to show that information. In ZoneWatch, an error message appears if you attempt to use a Site Filter that has no sites in the selected zone. Select a site within your zone to view ZoneWatch activity on that site.

The site that you are viewing, however, does show radios that receive a talkgroup call from a different site, if your site includes a radio that is involved in the talkgroup call. For example, you only view Site2 and a radio in Site2 is part of the Police talkgroup. If a radio in Site1 that is also part of the Police talkgroup sends a talkgroup call, the call shows in Site2, even though you filtered out all other sites.



IMPORTANT: HPD and Conventional sites are not supported by ZoneWatch.



NOTICE: For the consistent view of single call related events, the following filtering rule applies: if the one of call events is displayed, then all consecutive events related to the call are also displayed, even if they do not match the applied filter criteria.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Filter Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies a specific Site Filter.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

RF Sites in Filter

A list of up to 100 RF Sites (trunking) associated with this filter. Click **Choose Record** to display a list of available options.

The total number of RF Sites and Console Sites in this filter cannot exceed 100.

See [RF Site on page 134](#).

Console Sites in Filter

A list of up to 100 Console Sites associated with this filter. Click **Choose Record** to display a list of available options.

The total number of RF Sites and Console Sites in this filter cannot exceed 100.

See [Console Site on page 234](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.8

Channel Filter

The Channel Filter object allows you to specify which channels the ZoneWatch user can monitor.

You can filter one or more channels per the Channel Filter record. You can select channels in different sites.

Select a channel within a site to view ZoneWatch activity on the channel. The Channel Filter essentially limits the view to only a specific channel for a site. You cannot see information in this window from other channels. You can, however, have other windows open to show that information. In ZoneWatch, an error message appears if you attempt to use a Channel Filter that has no channels for the sites in that zone.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Filter Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies a specific Channel Filter.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Channels In Filter

A list of 1 to 64 Channels (trunking) associated with this filter. See [Channel on page 136](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.9

Radio ID Filter

The Radio ID Filter object allows you to specify the radios that the ZoneWatch user can monitor.

You can filter one or more radios per the Radio ID Filter record.

This filter is useful if you want to view only a certain radio interconnect calls to determine excessive usage.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Filter Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies a specific Radio ID Filter.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Radios in Filter

A list of 1 to 64 Trunking Radio/Unit IDs associated with this filter. Click **Choose Record** to display a list of available options.

See [HPD Radio on page 303](#) and [IVD Radio on page 297](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.10

Radio Range Filter

The Radio Range Filter object allows you to specify the range of radios that the ZoneWatch user can monitor. You can filter one or more radio ID ranges per the Radio Range Filter record. This object provides a shortcut that you can use instead of selecting radio IDs individually.

The configuration of this object impacts the ATR.

Identity


Field	Default	Allowed Values	Description
Filter Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies a specific Radio Range Filter.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Radio ID Range Filter

Field	Default	Allowed Values	Description
Start At	N/A	1 to 16,777,210 16,777,216	Enter an ID to be the start of the range.
End At	N/A	2 to 16,777,211 16,777,217	Enter an ID to be the end of the range.  NOTICE: The ID number for the End At field must be greater than the ID number for the Start At field.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.11

Talkgroup/Multigroup ID Filter

The Talkgroup/Multigroup ID Filter object enables you to specify the talkgroups and multigroups that the ZoneWatch user can monitor. You can filter one or more talkgroups or multigroups per the Talkgroup/Multigroup ID Filter record.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Filter Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies a specific Talkgroup/Multigroup ID Filter.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

TG/MG IDs in Filter

A list of 1 to 64 Trunking Group IDs associated with this filter. Click **Choose Record** to display a list of available options.

See [Talkgroup on page 310](#), [Multigroup on page 313](#), [Foreign Group on page 353](#) and [Agencygroup on page 317](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.12

Talkgroup/Multigroup Range Filter

The Talkgroup/Multigroup Range Filter object enables you to specify the range of talkgroups and multigroups that the ZoneWatch user can monitor.

You can filter one or more talkgroups or multigroup ranges per the Talkgroup/Multigroup Range Filter record. This object provides a shortcut that you can use instead of selecting the talkgroup and multigroup IDs individually.

You can create a total of 16,000 talkgroups and multigroups in a system.



CAUTION: Do not exceed the maximum allowed number of configured talkgroups. This can cause degraded system operation or anomalous events.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Filter Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\]	Enter a unique name that identifies a specific Talkgroup/Multigroup Range Filter.


Field	Default	Allowed Values	Description
		^ ` ~ (No leading and trailing spaces)	

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

TG/MG Range in Filter

Field	Default	Allowed Values	Description
Start At	N/A	80,000,001 to 80,065,533	Enter an ID to be the start of the range.
End At	N/A	80,000,002 to 80,065,534	Enter an ID to be the end of the range.  NOTICE: The ID number for the End At field must be greater than the ID number for the Start At field.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.13

Raw Data Filter

The Raw Data Filter object filters detailed packet information sent by the system.

You can filter out specific types of data using this object. For example, you can exclude all radio commands.

You can only filter one raw data packet within the Raw Data Filter record.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Filter Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies a specific Raw Data Filter.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Subscriber Data

Field	Default	Allowed Values	Description
Radio Command	No	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the ZoneWatch user to view radio command data from the RCM or console to the radio.</p> <p>No filters out all radio command data, so you do not see this information.</p>
Command Status	No	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the ZoneWatch user to view command status data. RCM or CAD users can check on the status of a command.</p> <p>No filters out all command status data, so you do not see this information.</p>
Command Control	No	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the ZoneWatch user to view command control data sent from the RCM or CADI to query the zone controller for the status of a command.</p> <p>No filters out all command control data, so you do not see this information.</p>
End of Call	No	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the ZoneWatch user to view end-of-call data.</p> <p>No filters out all end-of-call data, so you do not see this information.</p>
Radio Status Traffic	No	<ul style="list-style-type: none"> Yes No 	<p>Yes allows the ZoneWatch user to view radio status traffic data. This traffic is from the radio to another radio, the RCM, or a console.</p>

Table continued...

Field	Default	Allowed Values	Description
			No filters out all radio status traffic data, so you do not see this information.
Mobility Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view mobility update data. This is the APCO affiliation information.</p> <p>No filters out all mobility update data, so you do not see this information.</p>
Interconnect Call Info	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view the interconnect call data.</p> <p>No filters out all interconnect call data, so you do not see this information.</p>

Infrastructure Data

Field	Default	Allowed Values	Description
Database Request	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view a database SnapShot request from the RCM to the zone controller.</p> <p>No filters out all database request data, so you do not see this information.</p>
Database Response	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view a database response from the zone controller to the RCM to respond to a SnapShot request.</p> <p>No filters out all database response data, so you do not see this information.</p>
System Activity Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view system activity update data from the infrastructure to see if the system status has changed.</p> <p>No filters out all system activity update data, so you do not see this information.</p>
System Activity Request	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view system activity request data from the infrastructure, for example, a request for a Control Channel or the status of the zone controller.</p> <p>No filters out all system activity request data, so you do not see this information.</p>
InterSystem Session Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view Inter-System session update information.</p> <p>No disables this capability.</p>
Controlling Zone Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view controlling zone update data.</p>

Table continued...

Field	Default	Allowed Values	Description
			No filters out all controlling zone update data, so you do not see this information.
Home Zone Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view Home Zone update information.</p> <p>No disables this capability.</p>
DFB Channel Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view Dynamic Frequency Blocking (DFB) channel update data from the infrastructure. An interfering channel is any channel whose frequency interferes with another channel. DFB prevents both channels from being used at the same time. When a channel is in use, any channels listed as interfering with that channel are made unavailable (blocked).</p> <p>No filters out all DFB channel update data, so you do not see this information.</p>
Resource Removed Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view resource removed update data from the infrastructure. For example, if you remove a channel, the zone controller sends a message to notify the system.</p> <p>No filters out all resource removed update data, so you do not see this information.</p>
Site Data Load Update	No	<ul style="list-style-type: none"> • Yes • No 	<p>Yes allows the ZoneWatch user to view Site Data Load Information.</p> <p>No filters out all Site Data Load Update data, so you do not see this information.</p>

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.14

System Filter

The System Filter object defines specific system/foreign system data that are shown in the window.

The configuration of this object impacts the ATR.

Identity

Field	Default	Allowed Values	Description
Filter Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + = _ . / ; : < - > ? [\] ^ ` ~ (No leading and trailing spaces)	Enter a unique name that identifies a specific System Filter.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

System in Filter

The optional default (local) system associated with this filter. Click **Choose Record** to display a list of available options.

See [System on page 103](#).

Foreign Systems in Filter

A list of up to 24 Foreign Systems associated with this filter. Click **Choose Record** to display a list of available options.

See [Foreign System on page 349](#).

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	1 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

6.6.3.15 Transcoder Filter

Identity

Field	Default	Allowed Values	Description
Filter Name	N/A	1 to 31 characters. Use the following characters: A to Z, a to z, 0 to 9, space ! # \$ () * + . / \ ; : < - > ? [] ^ ` ~ = _ (No leading and trailing spaces)	Enter a unique name that identifies a specific Transcoder Filter.

Security Group

The Security Group assigned to this record. It determines which Provisioning Manager user(s) can create, modify or delete this record. Click **Choose Record** to display a list of available options.

See [Security Group on page 365](#).

Transcoder in Filter

Select an existing Transcoder record.
 Click **Choose Record** to display a list of available options.

Change Audit

Field	Default	Allowed Values	Description
Date Modified	N/A	N/A	(Read only) Displays the time of the most recent modification.

Record Identifier

Field	Default	Allowed Values	Description
Record Identifier	N/A	0 to 2,147,483,647	(Read only) Displays a number that identifies the record in the set of records of a given object type.

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Appendix A

Viewing the ADS Connections Report

The Advanced Distribution Service (ADS) server is a part of the Zone Data Server (ZDS) that provides the connection between the Provisioning Manager and several network elements.

The network elements that connect via the ADS are:

- Air Traffic Router (ATR)
- Authentication Center (AuC) Server
- Dispatch Consoles
- Tsub Zone Controllers
- Zone Controllers

The ADS Connections Report is a web-based user interface that displays information about the network elements connected to the Provisioning Manager via the ADS.

Figure 37: ADS Connections Report

Host Name	User Name ↑	Connection Time
host.example.com	user01	Jul 19, 2016 2:54:05 PM
host.example.com	user02	Jul 19, 2016 2:54:05 PM

Total number of items: 2

Host Name

Host name of a network element or its IP address if the host name is not resolvable in DNS.

User Name




Network element logon name

Connection Time



Date and time of establishing a connection between a network element and the ADS


Procedure:

- 1 In the Internet Explorer browser address field, enter the URL of the ADS Connections Report interface: `https://<zds_host_name>:49619/ads-report`
where `<zds_host_name>` is the host name of the ZDS server connected to the Provisioning Manager.
If the logon page appears, log on to the interface by using the same credentials that you use to log on to the Provisioning Manager.
- 2 Search for user and host names, perform one of the following actions:

If...	Then...
If you want to do a quick search,	in the search field on the right side of the page, enter the search phrase and click the search icon  .
If you want to apply more specific search criteria,	perform the following actions: a Click the advanced search icon  on the left side of the page. b In the Host name and User name fields, enter the search phrase. c In the drop-list, specify the search criteria and click the apply icon  .

- 3 Optional: Sort the records by an ascending or descending value of a property by clicking the title row in the devices list.

The arrows next to the property's name indicate the ascending (up arrow ) or descending (down arrow ) order.

- 4 Optional: Refresh the page by clicking the refresh icon .
- 5 Log off from the report by clicking **Logout** on the menu bar.

Related Links

[Troubleshooting Procedures](#) on page 97

Appendix B

Custom Settings

If your equipment requires custom tone tables or paging formats that do not match the default settings available in the Provisioning Manager, you can create custom tables and formats.

B.1

Creating Custom Tone Tables

A tone table is a set of tone sequences used by the Analog Conventional Channel Gateway (CCGW) to execute specific commands on a channel. A tone table consists of tone commands and tone sequences. A tone sequence is a set of tone segments.

Tone Commands

Aliases that identify a function. Example: Key F1, Select F1.

Tone Segments

Definitions of each frequency delivered by the Provisioning Manager, and needed by the end Tone Remote Control (TRC) device.

Tone Sequences

Tone commands and segments used to make the end device change modes. Example: A sequence of "2175-HLGT, 1950-Key Freq1, 2175 LLGT" means "key on Frequency 1".

Tone Table

A complete set of sequences for a specific channel type, such as T8R8, that includes the High Level Guard Tone (HLGT) to wake up the device, the function tone to put the device into a specific mode, and Low Level Guard Tone (LLGT) to keep the device keyed for the duration of the Push-to-Talk (PTT). Other function tones are used to select the frequency at the console, set PL codes, change frequency modes or invoke wildcard user defined functions.

If your equipment requires a TRC table that does not match the pre-configured tone tables available in the Provisioning Manager, you can create a custom tone table.

You must assign the custom tone table to the correct channel and associate the channel with the correct channel interface on the CCGW which will use the custom tone table.

Perform the following procedures in the order in which they are provided.

Related Links

[Tone Table](#) on page 126

[System Level Scenarios](#) on page 87

Planning a Custom Tone Table

Procedure:

- 1 In the Provisioning Manager, click **System** → **Tone Table**.
- 2 Review a default tone table with tone commands and tone sequences closest to what the equipment needs. Use the default table as reference for planning and creating your custom tone table.

Step example: You identify the default tone table 2175 T8R8 as a model to design your custom table 2175 T8R8 SP1.

- 3 On a piece of paper or in a spreadsheet, structure the commands and sequences for the new tone table. Plan which default tone commands, segments, and sequences you want to use and what custom segments and sequences you need to create.



IMPORTANT:

The custom tone table must have the same number and type of commands as the default tone table that you selected as reference. This requirement must be met for the CCGW to be able to use the custom table.

You must also include both Key commands and Select commands in your table. Both types are needed for a console to work.

- 4 View the **Tone Commands**, **Tone Segments**, and **Tone Sequences** objects. Note down the aliases and record identifiers of the tone commands, segments, and sequences that you want to use as reference for your custom tone table.

Step example: Your plan for custom table 2175 T8R8 SP1 includes the following items. You view and note down the following aliases and record identifiers:

Table 14: Reference Default Tone Commands

Alias	Record Identifier
Select Freq1	1
Select Freq2	2
Select Freq3	3
Select Freq4	4
Select Freq5	5
Select Freq6	6
Select Freq7	7
Select Freq8	8
Key Freq1	32
Key Freq2	33
Key Freq3	34
Key Freq4	35
Key Freq5	36
Key Freq6	37
Key Freq7	38
Key Freq8	39

Step example:

Table 15: Reference Default Tone Segments

Tone Segments	Record Identifier
Freq5	12

Step example:

Table 16: Reference Default Tone Sequences

Alias	Record Identifier
2175 Guard	3
2175 Key Freq1	1
2175 Key Freq2	28
2175 Key Freq3	29
2175 Key Freq4	30
2175 Key Freq5	12
2175 Key Freq6	13
2175 Key Freq7	14
2175 Key Freq8	15
2175 Select Freq5	31

Step example:

Table 17: Planned Custom Tone Sequence




You want to add a custom tone sequence with a similar segment structure to the default sequence 2175 Key Freq5. The custom sequence will use Freq6 instead of Freq5.

Alias	Record Identifier	Segments
2175 Key Freq5 SP1	322	1 2175 HLGT 2 Freq6 3 2175 LLGT

Creating Custom Tone Sequences

If your table requires any custom tone sequences, refer to your plan and create the required sequences.

Procedure:

- 1 In the Provisioning Manager, click **System** → **Tone Sequence**.
- 2 In the top left corner of the window, click the **New** icon .
- 3 In the **Tone Sequence ID** field, enter an identifier for the sequence.
Step example: 322
- 4 In the **Tone Sequence Alias** field, enter a name for the sequence.
Step example: 2175 Key Freq5 SP1
- 5 In the **Security Group** section, select the security group.
- 6 Add as many records as needed to build the tone sequence by clicking the **Add Record(s)** icon .
- 7 Select a tone segment and click the **View/Edit** icon .

- 8 In the **Tone Segment Selection** section, select the required tone segment.

You can enter the ID of the segment or click **Choose Record** and select the segment from the list. The filter option allows you to narrow down the selections.

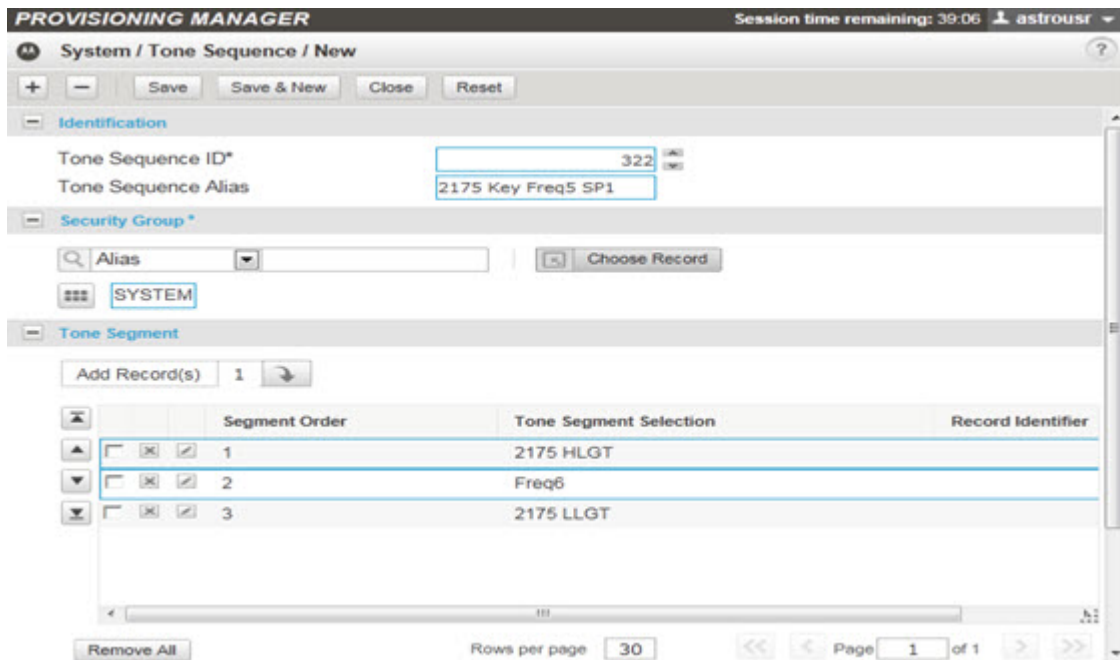
Step example:

2175 HLGT
Freq6
2175 LLGT

- 9 Click **Apply**.
- 10 Complete the remaining segments by repeating [step 7](#) through [step 9](#).
- 11 Ensure that the segments are placed in the correct order.

Step example:

Figure 38: Custom Sequence 2175 Key Freq5 SP1




- 12 Click **Save**.

Creating a Tone Table

Using your plan, you must create the custom tone table.

Procedure:



- 1 In the Provisioning Manager, click the **System** → **Tone Table** tab.
- 2 In the top left corner of the window, click the **New** icon .
- 3 In the **Table ID** field, enter an identifier for the table.

It is recommended to use sequential numbers above 39, unless you are creating blocks of custom tables for a specific agency or type of TRC controlled device.

Step example: 40

- 4 In the **Table Alias** field, enter a name for the table.



Step example: 2175 T8R8 SP1

- 5 In the **Security Group** field, select the security group.
- 6 Add the total records needed to build the tone table by clicking **Add Record(s)** .
- 7 Select a row and click the **View/Edit** icon .
- 8 In the **Tone Command** section, select the required tone command.
Step example: Key Freq1
- 9 In the **Tone Sequence** section, select the tone sequence that you want to associate with the tone command.
Step example: 2175 Key Freq1
You can enter the ID of the command or sequence or click **Choose Record** and select the command or sequence from the list. The filter option allows you to narrow down the selections.
- 10 Click **Apply**.
- 11 Complete the remaining table rows by repeating [step 7](#) through [step 10](#).
- 12 Click **Save**.

Removing the Channel from the CCGW-HD

You must remove the channel for which you created the custom tone table from the CCGW-HD record.

Procedure:

- 1 In the Provisioning Manager, click **Zone** → **CCGW-HD**.
- 2 Select the CCGW-HD record that has the correct channel and click **Edit**.
- 3 In the **Channel Interface Configuration** section, select the correct channel interface and click the **View/Edit** icon .
- 4 In the **Associated Channel using both Analog Parts** section, select the channel and click the **Remove** icon .
- 5 Click **Apply**.
- 6 Click **Update**.

Adding the Custom Tone Table to the Channel

You must assign the custom tone table to the channel that you removed from the CCGW-HD record.


Procedure:

- 1 In the Provisioning Manager, click **Zone** and then click the object appropriate for your channel:
 - **Analog Conventional Channel**
 - **MDC 1200 Conventional Channel**
- 2 Select the channel for which you created the custom tone table and click **Edit**.
- 3 In the **Tone Tables** section, add the custom tone table.
You can enter the ID of the custom tone table or click **Choose Record** and select the table from the list. The filter option allows you to narrow down the selections.
- 4 In the **Channel Frequencies** section, add the necessary frequency records.
- 5 Click **Update**.

Reassigning the Channel to the CCGW-HD

You must add the updated channel to the CCGW-HD record from which it was removed.

Procedure:

- 1 In the Provisioning Manager, click **Zone** → **CCGW-HD**.
- 2 Select the CCGW-HD record from which the channel was removed and click **Edit**.
- 3 In the **Channel Interface Configuration** section, select the correct channel interface and click the **View/Edit** icon .
- 4 In the **Associated Channel using both Analog Parts** section, select the channel with the custom tone table. Click **Apply**.
- 5 Click **Update**.

Distributing the Configuration Changes

You must synchronize the configuration changes made in the Manager with the configuration on the network devices.

Procedure:

- 1 In the Provisioning Manager, click **Update Manager** → **Manage**.
- 2 From the list of distribution types, select the **Distribute Configuration Changes** tab.
- 3 In the distribution menu, click **Distribute Changes**.
One or more jobs are scheduled and a message with the IDs of the jobs scheduled appears.
- 4 In the **Distribute Configuration Changes** tab, click **Generate Changes Report**.
- 5 Check if any jobs have failed and take actions to correct the issues.

Verifying that the CCGW-HD Database Has Been Updated

Procedure:

- 1 Connect to the CCGW-HD by using PuTTY.
- 2 Check the date and time of the last update of the CCGWDB file.
- 3 If needed, reset the CCGW-HD.

B.2

Creating Custom Paging Formats

If your paging infrastructure and equipment or your work environment require the use of custom paging tones that do not match the default settings in the Provisioning Manager, you can create custom paging formats.

After you create a custom paging format, you must add a paging tone group to the format. Then, you must assign the paging format to the correct channel on the Analog Conventional Channel Gateway (CCGW).

Perform the following procedures in the order in which they are provided.

Procedure:

- 1 In the Provisioning Manager, click **Consoles** → **Paging Format**.
- 2 On the **Paging Format** list, identify the desired Paging Format Type.

Step example: Quick Call II B

- 3 For future reference, write down the highest Paging Format ID on the list and the Paging Format Alias for the selected Paging Format Type.
- 4 Select the paging format record which has the most parameters and the page type closest to what you need. Click **Save As**.
- 5 In the **Paging Format ID** field, enter the next consecutive number from the ID that you written down.
- 6 In the **Paging Format Alias** field, enter a name for the custom paging format.
- 7 In the **Tone Timing** section, set the tone **Delay** and **Duration** parameters to the desired custom values.
- 8 Click **Save**.
- 9 Click **Close**.

The new custom page format appears on the list.

Related Links


[Integrated Paging](#) on page 270

[System Level Scenarios](#) on page 87

Creating the Custom Paging Tone Group

A custom paging format requires a paging tone group with matching tone settings.

Procedure:

- 1 Click **Paging Tone Group**.
- 2 For future reference, write down the highest Paging Tone Group ID on the list and the Paging Format Alias for the selected Paging Tone Group.
- 3 Select the custom Page Tone Group with parameters closest to what you need. Click **Save As**.
- 4 In the **Tone Group ID** field, enter the next consecutive number from the ID that you written down.
- 5 In the **Tone Group Alias** field, enter a name for the custom Paging Tone Group.
- 6 In the **Paging Tone** section, choose the row for which you want to modify and click the **View/Edit** icon .
- 7 In the **Tone Frequency (Hz)**, type in the desired frequency for the paging tone.
- 8 Click **Apply**.
- 9 Verify that the desired tone frequency for the digit is displayed.
- 10 Click **Save**.

A message appears confirming the the configuration update has been successful.

- 11 Click **Close**.

Adding the Custom Paging Tone Group to the Custom Paging Format

To complete the configuration of your custom paging format, you must assign the correct paging tone group to the format.

Procedure:

- 1 Click **Paging Format**.
- 2 Select the custom paging format that you created and click **Edit**.
- 3 In the **Tone Group** section, select the row that you want to edit.
- 4 In the **Paging Tone Group Configuration** section, enter the ID of the custom tone group that you created.
Step example: 77
- 5 Verify that the correct group alias appears below the ID.
- 6 Click **Apply**.
- 7 Click **Update**.

Assigning the Custom Paging Format to the CCGW Channel

You must assign the custom paging format to the CCGW channel.

Procedure:

- 1 Click **Zone** → **Analog Conventional Channel**.
- 2 Select the correct channel record and click **Edit**.
- 3 Go to the **Paging Format** section appropriate for the custom paging format that you created.
- 4 Enter the ID of the custom paging format.
- 5 Verify that the correct alias appears below the ID.
- 6 Click **Update**.
A message appears confirming the the configuration update has been successful.
- 7 Click **Close**.

Distributing the Configuration Changes

You must synchronize the configuration changes made in the Manager with the configuration on the network devices.

Procedure:

- 1 Click **Update Manager** → **Manage**.
- 2 From the list of distribution types, select the **Distribute Configuration Changes** tab.
- 3 In the distribution menu, click **Distribute Changes**.
One or more jobs are scheduled and a message with the IDs of the jobs scheduled appears.
- 4 In the **Distribute Configuration Changes** tab, click **Generate Changes Report**.
- 5 Check if any jobs have failed and take actions to correct the issues.