System Release 7.17
ASTRO® 25
INTEGRATED VOICE AND DATA

Radio Control Manager

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- Before any software reload.
- To confirm troubleshooting results and analysis before removing and replacing a Field Replaceable Unit (FRU) and Field Replaceable Entity (FRE) to repair the system.

For...	Phone
United States Calls	**800-221-7144**
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Document History

Version	Description	Date
MN003348A01-A	Original release of the *Radio Control Manager* manual	November 2016

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About Radio Control Manager

The Radio Control Manager (RCM) is a Private Radio Network Management (PRNM) Suite web application used primarily by dispatchers to monitor and manage radio events, issue, and monitor commands, and make informational queries of the system database.

RCM can also be used to create, view, schedule, and export reports on its activity on the system. The report information reflects the actual RCM server database information.

The RCM is accessible from the browser on PC client and console. Depending on the configuration in the Domain Controller, the RCM can access multiple zones. The RCM is a purchasable option.

What Is Covered In This Manual?

This manual contains the following chapters:

- Radio Control Manager Description on page 19 presents an overview and purpose of the Radio Control Manager (RCM).
- Radio Control Manager Operation on page 21 describes how to use the RCM to monitor and manage radio events, issue, and monitor commands, and make informational queries of the system database. It also describes how to generate reports on RCM activity.
- Radio Control Manager Reference on page 35 describes the elements of the RCM window and dialog boxes, and other reference information related to the RCM.

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
Standards and Guidelines for Communication Sites	Provides standards and guidelines that should be followed when setting up a Motorola communications site. Also known as R56 manual. This may be purchased on CD 9880384V83, by calling the North America Parts Organization at 800-422-4210 (or the international number: 302-444-9842).
System Overview and Documentation	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.
Dynamic System Resilience	Provides information necessary to understand, operate, maintain, and troubleshoot the Dynamic System Resilience (DSR) feature which may be implemented on your ASTRO®25 system. This feature adds a geographically separate backup zone

Table continued…

Related Information	Purpose
	core to an existing zone core to protect against catastrophic zone core failures.
Provisioning Manager	Provides a description of the Provisioning Manager server application. Includes information to tailor this application for system use and contains information to provision your ASTRO® 25 radio communication system with various system-level, user-level, and device-level configuration parameters required for proper system operation. This manual also includes reference and troubleshooting information to ensure efficient and effective use of this application.
License Manager	Provides information about the use of licenses to gain access to features and functions in the ASTRO® 25 system. It describes the installation of the License Manager in the system and explains how to use the Web-based License Manager user interface (UI) to load, view, and manage licenses in the system.

Chapter 1

Radio Control Manager Description

This chapter provides a high-level description of Radio Control Manager (RCM) and the function it serves on your system.

1.1
Radio Control Manager Overview

The Radio Control Manager (RCM) is a Private Radio Network Management (PRNM) Suite web application used primarily by dispatchers to monitor and manage radio events, issue, and monitor commands, and make informational queries of the system database.

RCM can also be used to create, view, schedule, and export reports on its activity on the system. The report information reflects the actual RCM server database information.

You can export RCM reports to `.csv` (Comma Separated Values) format or schedule them to be generated later in PDF or `.csv` format.

The RCM is accessible from the browser on PC client and console. Depending on the configuration in the Domain Controller, it can access multiple zones. The RCM is a purchasable option.

If Dynamic System Resilience is implemented on your system, the application can use either the primary zone core or the backup zone core. The information is displayed in the title bar. Refer to the *Dynamic System Resilience* manual in this documentation set for details.

Radio Control Manager Licensing

In the ASTRO® 25 system, you need to purchase a license or licenses to get access to selected applications, features, and services. Radio Control Manager is a licensed application. This means that to use Radio Control Manager, you need to purchase one or more session licenses. The session license is used to manage a number of application client sessions. For Radio Control Manager, you can buy several licenses for a group of users. When a user starts a Radio Control Manager session, a license from a pool of your session licenses is used. For more information, see the *License Manager* manual.

1.2
Purpose of Radio Control Manager

Using the RCM, you can perform the following actions:

- Send commands to radios over the air and monitor their status.
- Check the status of a radio.
- Monitor events sent from radio users in near real time as the information becomes available in the system.
- Create, view, schedule, and export standard reports on RCM activity on the system.

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Chapter 2

Radio Control Manager Operation

This chapter explains how the RCM works in the context of your system.

2.1 Radio Control Manager Events

Events are sent from the radio user to the Radio Control Manager (RCM), and therefore are inbound functions. When a new event is received from the radio, the event information is displayed on the events dashboard. Since radio users can select their current affiliation group, they maintain primary control over event routing.

To address more than one event at a time, select check boxes next to the events you want to respond.

2.1.1 Types of Events

The three types of events that a radio user can send to the RCM are:

- **Emergency Alarms** — initiated when a radio user presses the Emergency button on the radio
- **ChangeMe Requests** — initiated by a user when the user's radio is regrouped and locked, and the user wishes to regain control of talkgroup selection
- **Status Events** — predefined messages indicating the radio user's current status (Example, “En route”, “Arrived at scene”)

2.1.2 Monitoring Events

You can monitor all events together or selected types of events on the dashboard. Archive events can be viewed in **Reports** tab.

Procedure:

1. From the menu, select the **Events** tab.
2. Optional: To display only selected type of events on the dashboard, select the check boxes next to the types of events.

2.1.3 Responding to Emergency Events

When you receive a new emergency event, you hear an alarm tone. The alarm beeps once every second, the event is displayed in red color with mild red background, and the 2 icon with the number of not responded events is displayed below the icon on the dashboard.

Procedure:

1. Click the icon.

   The **Events** dashboard opens.

2 To display Emergency Events only, from the menu select **Emergency Events** check box and deselect others.

3 Optional: Select the event you want to respond.

NOTICE: The status of event is New, and the bell next to the event is marked in red. You can respond to more than one event at once by selecting multiple events and clicking the button at the **Events** dashboard.

4 Click the button next to the event.

The event status changes to Responded, the color of the event changes to black, the confirmation is displayed at the top of the pane, and the number of not responded emergency events on the dashboard decreases.

2.1.4
Responding to ChangeMe Requests

You receive ChangeMe Requests only if your system is set up with the Dynamic Regrouping feature. The request is displayed in orange color with mild orange background. The icon on the dashboard starts blinking and the icon with the number of not responded requests is added to the icon.

Procedure:

1 Click the icon.

The **Events** dashboard opens.

2 To display ChangeMe Requests only, from the menu select **ChangeMe Request** check box and deselect others.

3 Optional: Select the request with the New status you want to respond.

NOTICE: You can respond to more than one request at once by selecting multiple requests you want to respond.

4 Perform one of the following actions:

- Click to indicate that you are taking responsibility for the request.
- Click to unlock the talkgroup selector on the requesting radio. You can send a Cancel Lock command only if the selector is locked.

The request status changes to Responded, the color of the request changes to black, the confirmation is displayed at the top of the pane, and the number of not responded ChangeMe requests on the dashboard decreases.

2.1.5
Responding to Status Events

The Status Events icon on the dashboard starts blinking and the icon with the number of not responded events is added to the icon.

Procedure:

1 Click the icon.

The **Events** dashboard opens.

2 To display Status Events only, from the menu select **Status Events** check box and deselect others.

3 Optional: Select the event with the New status you want to respond.

NOTICE: You can respond to more than one event at once by selecting multiple events you want to respond.

4 Click the button.

The event status changes to Responded, the confirmation is displayed at the top of the pane, and the number of not responded status events on the dashboard decreases.

2.1.6
Deleting Events

You can only delete events with Responded or Deleted status. Events that have a status of Deleted were deleted by other RCM users.

Procedure:

1 Select the events that you want to delete.

2 Click button.

The event is deleted from your dashboard, but leaves the event listed (with a status of Deleted) on the dashboards of other RCM users.

2.2
Radio Control Manager Commands

Commands are sent from the Radio Control Manager (RCM) to the radio, and therefore are outbound functions. You can send a single command to up to 100 individual radios. Radios selected to receive a command are referred to as “tasks” within that command.

2.2.1
Statuses of Commands

The command statuses you may see are:

- Successful – All tasks in command are successful. Successful means that a single radio processed a command (task) and sent an Acknowledgment (ACK) back
- Unsuccessful – At least one task is unsuccessful or invalid
- Initializing – The command is submitted to the RCM
- In Progress – The command is in the process of being sent to the radio
- In Passive – All unsuccessful tasks are put to the passive search queue and wait until radio is affiliated
- Overflow – The command indicates that the maximum number of radio commands are exceeded
- Invalid – The command was rejected for any reason
- Pruning – The command is being deleted in order to make resource for overflowed commands
- Deleted – The command and all tasks were deleted by the System Manager or another RCM user
- Pruned – The command is deleted from the database

NOTICE: See: Using Passive Search Mode on page 28 and Selective Inhibit Command in Passive Search Mode on page 56 for details on the passive search mode.

2.2.2
Monitoring Commands

Once you have submitted a command, you can monitor its status on the Commands dashboard. Statuses are updated in near real time. Archive events can be viewed in **Reports** tab.

Procedure:

1. If the **Commands** dashboard is not opened, do one of the following:
   - Select the **Commands** tab.
   - Click .
2. In the **Command's details for <command>** dashboard, examine the columns for information about the command.

   The following columns provide key information for commands:
   - **Status** Commands and tasks have similar statuses. The status of a command depends on the status of the task or tasks within that command. When the status of a task changes, the updated information is propagated to the command if necessary.
   - **Reason** If a command has only one task, this column shows the reject reason for that task. If a command has more than one task, this column does not show any information. Reject reasons are displayed for particular tasks within the command.

2.2.3
Aborting Commands

You can abort a command that is in any of the following statuses:

- Initializing
- In Progress
- In Passive

You cannot abort a command with a status of Successful, as this command has already been received by the radio. To undo a successful command, use **Revert**

Procedure:

1. From the **Commands** dashboard, select the command you want to abort.
2. Click

   The status of the aborted command changes to Unsuccessful. When a command with multiple tasks is aborted, it also aborts all tasks within that command that are in any of the three statuses noted in the preceding paragraph.

2.2.4
Reverting Commands

You can only revert a command with Successful status. The existing command is replaced with the new one. In that case, the command number remains the same, however a new opposite command is sent, for example Cancel Regroup to revert a Regroup.

Procedure:

1. From the **Commands** dashboard, select the command you want to revert.

2 Click ↺

The command name changes to that of the opposite command, then it is submitted and sent to the radio.

2.2.5
Retrying Commands

You can retry an unsuccessful command.

Procedure:

1 From the **Commands** dashboard, select the command you want to retry.

2 Click ↻ to attempt to resend the command to the radio.

2.2.6
Deleting Commands

You can only delete a command that is in any of the following statuses:

- Successful
- Unsuccessful
- Deleted
- Pruning
- Invalid

Procedure:

1 From the **Commands** dashboard, select the command you want to delete.

2 Click 🗑.

2.2.7
Radio Commands

You can use RCM to issue the following types of radio commands:

- Regroup
- Cancel Regroup
- Selector Lock
- Cancel Lock
- Selective Inhibit
- Cancel Inhibit

2.2.7.1
Issuing Radio Commands

You can issue commands only to those radios whose primary talkgroup is in your talkgroup attachment list. The talkgroup attachment list is set up in the Provisioning Manager .

Procedure:

1 From the **Commands** dashboard, click the **+** button on the menu.

2 In the **Submit Command** dialog box, select the command you want to issue.

You can select **Regroup** and **Selector Lock** or **Cancel Regroup** and **Cancel Lock** at the same time.

3 In the **Talkgroup** field, enter the ID or alias of the target talkgroup into which you want to regroup the radios.

NOTICE: Talkgroup ID range is 80,000,001 to 80,065,534. Talkgroup alias range is 1 to 16 characters.

4 In the **Radio selected** field, type the ID or alias of the target radio to which you want to send the command.

NOTICE: Radio ID range is 1 to 16,777,211. Radio alias range is 1 to 16 characters. You cannot enter duplicate radio IDs or aliases within a single command.

You can select up to 100 radios.

5 Click **+** button.

Radios appear in the **Radios selected** list. To deselect the radio, click the **-** button.

6 In the **Comments** field, type text to describe the purpose of the command or the reason for submitting it.

7 Click **Submit**.

The command appears in the **Command** dashboard where you can modify it when needed.

2.2.8
Tasks Monitor

Tasks refers to the radios selected to receive a command. When you issue a command to multiple radios, you can monitor the status of individual tasks within that command through the **Command's details for <command>** dashboard.

2.2.8.1
Monitoring Tasks

Procedure:

1 From the **Command** dashboard, click the command whose tasks you want to monitor.

2 In the **Command's details for <command>** dashboard, examine the columns for information about the command.

The following columns provide key information for tasks:

- **Task Status** Commands and tasks have similar statuses. The status of a task, however, refers only to that task and is not dependent on the status of the command. When the status of a task changes, the updated information is propagated to the command if necessary.
- **Reject Reason** Shows the reject or failure reasons for failed tasks. If a command has only one task, the reject reason for that task is displayed in the **Reason** column for that command.

2.2.8.2
Aborting Tasks

You can abort a task that is in any of the following statuses:

- Initializing
- Busy
- In Passive

You cannot abort a task with a status of Successful, as the command has already been received by the radio. To undo a successful task, use Revert.

Procedure:

1. From the **Command's details for <command>** dashboard, select the task that you want to abort.
2. Click ✕.

   The status of the aborted task changes to `Unsuccessful`.

2.2.8.3
Retrying Tasks

You can retry an unsuccessful task.

Procedure:

1. From the **Command's details for <command>** dashboard, select the task that you want to retry.
2. Click the ↻ icon.

2.2.8.4
Reverting Tasks

You can only revert a task that is in a successful status.

Procedure:

1. From the **Command's details for <command>** dashboard, select the task that you want to revert.
2. Click ↺.

   The command name changes to that of the opposite command, then it is submitted and sent to the radio.

2.2.8.5
Deleting Tasks

The active task cannot be deleted.

Procedure:

1. From the **Command's details for <command>** dashboard, select the task that you want to delete.
2. Click the 🗑 icon.

2.2.9
Managing Unsuccessful Commands

This section provides information on managing unsuccessful commands:

- Invalid Commands/Tasks
- Timed-Out Commands/Tasks

- Passive Search Mode

2.2.9.1
Invalid Commands and Tasks

All commands and all tasks within the commands sent by the RCM are validated before being sent to the zone controller. Only validated commands and tasks are issued to the zone controller and then to the target destination. Invalid commands and tasks are rejected, stored in the command database, and displayed on the dashboard with a status of Invalid.

A command or task may be not validated for the following reasons:

- There is a duplicate ID/alias within the command
- The RCM user does not have access to that command*
- The RCM user is not attached to the primary talkgroup of that radio*
- The primary talkgroup field in the Radio User record is blank
- The radio or talkgroup is not included in the Home Location Register (HLR)
- The command/task was issued to a console

*Contact your System Manager regarding configuration within the Provisioning Manager.

2.2.9.2
Timed-Out Commands and Tasks

A validated command or task may still show up on the dashboard with a status of Unsuccessful. If the command is valid but the radio is in a powered-off state, the status of this command is Unsuccessful. This situation occurs when a command/task times out.

The reasons that a command/task times out are:

- The command/task was received by the zone controller, but the zone controller was unable to locate the target radio within the programmed search time of 10 seconds.
- The command/task was received by the zone controller, and the zone controller located the target radio, but the zone controller was unable to forward the command/task to the radio (Example, because the radio was already on a call) within the programmed wait time of five minutes.
- A Radio Check request was received by the zone controller, but the zone controller was unable to locate the target radio within the programmed search time of 30 seconds.

Commands/tasks that have timed out can be retried (see Retrying Commands on page 25) or placed in passive search mode (see Using Passive Search Mode on page 28).

2.2.9.3
Using Passive Search Mode

You can place any unsuccessful command or task in passive search mode. This places the command/task into a queue where it is kept until the target radio is located or becomes available. Then the command/task is sent to the radio.

NOTICE: See: Selective Inhibit Command in Passive Search Mode on page 56 for details on the impacts of placing the Selective Inhibit command into passive search mode.

Procedure:

1. On the **Command** dashboard, select the commands that you want to put in passive search mode.
2. Click .

NOTICE: You can still abort a command/task that is in passive search mode.

The command/task is placed in a queue and its status shows up as `Passive`.

2.3
Storm Plans

A storm plan is a set of predefined commands for use during an emergency or planned activity, such as a parade. In the storm plan, those radio users who are required for a given event are set up for regrouping into a designated talkgroup. When the event occurs, you issue the storm plan command, and the users are dynamically regrouped into the predefined talkgroup, without the need to regroup them individually.

Although you use the RCM to issue the storm plan, it is created in the Provisioning Manager .

2.3.1
Issuing Storm Plans

Procedure:

1. From the dashboard, select **Storm Plans** tab.
2. Click **Apply** button next to the Storm Plan you want to issue.

2.4
Status Commands

You can use RCM to issue the three types of status commands:

Radio Check
to query a radio for its affiliation status. If the radio check status command is issued from the RCM, the appropriate query message is sent directly to the subscriber radio.

Snap Shot
to query the Air Traffic Router (ATR) database for the affiliation status of radio and recently received commands.

Zone Status
to check the status of the InterZone links between the zone controllers (ZCs) in the system.

2.4.1
Issuing Radio Check

You can issue a Radio Check for the radios that are in your primary talkgroup through Provisioning Manager. The radio check command is used to query a radio for its affiliation status. If the radio check cannot contact the radio, no affiliation information appears.

Procedure:

1. From the dashboard, select **Status** → **Radio Check**.
2. In the **Radio** field, enter the radio ID or alias. Click ☑.

2.4.2
Issuing Snap Shot Requests

Snap Shot sends a request to the radio and retrieves information from the RCM database. Snap Shot displays last known affiliation and additional status information for a radio, including complete and pending commands.

Procedure:

1. From the dashboard, select **Status** → **Snap Shot**.
2. In the **Radio** field, enter the radio ID or alias. Click ☑.

2.4.3
Issuing Zone Status Requests

The **Zone Status** dialog box immediately displays the current zone information, and updates the display in real time.

Procedure:

From the dashboard, select **Status** → **Zone Status**.

2.5
Radio Control Manager Reports

Radio Control Manager (RCM) can be used to create, view, schedule, and export reports on its activity on the system. Reports reflect the actual RCM server database information.

2.5.1
Viewing and Creating Reports

Use this procedure to view reports on Radio Control Manager (RCM) activity and export them to `.csv` files.

Procedure:

1. In the **Reports** tab, from the **Reports** section, choose the type of RCM activity you want to view or for which you want to create a report. Example: **Commands**.

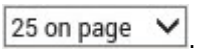
   Clicking the **Events** icon shows reports containing all three types of events: Change Me Requests, Emergency Alarms, and Status Events. You can limit your selection to only one type of events by clicking the appropriate icon.

   A window with reports for the chosen type of RCM activity opens.

2. To choose records columns details that you want to display, click the  icon.
3. To search for a subset of records, like a specific Radio Alias, use the search box above the dashboard table. Simply start typing the desired phrase in the search box. The dashboard is updated in real time as you type.

   All fields are searched for a match.

4. To limit your search to one or more specific record details, use **Advanced Search** 
5. To sort the records by an ascending or descending value of a record detail, click the name of the record detail in the title row of the dashboard table. The arrow next to the record detail's name indicates descending (up arrow) or ascending (down arrow) order.

6 To select the number of results displayed on the page, choose the number from the drop-down list 

.

7 To export the report into a `.csv` file, click the **Export to CSV** button.

NOTICE: The exported report will include all results, not only the ones that are displayed on the page. For example, if 50 results apply to your search criteria and you set 25 results to be displayed on the page, the `.csv` report will include all 50 results.

8 To schedule a report that displays values for currently selected records details, click the **Schedule** button. **Schedule Job** window opens.

The following fields are read-only: **Report**, **Parameters** (**Filters** and **Selected fields**). Use them to review currently selected records details.

a In the **Job Name** field, type the name of the job.

b Choose the **File Format**. Available formats are **PDF** and **CSV**.

c From the **Start Time** field, choose the time and date where you want the report to be generated for the first time.

d Optional: To create a periodically generated report, in the **Recurring** field, choose **Yes** (**Yes** is chosen by default). In the **Repeat every** field, choose how often the report should be generated. Type the number and choose the time unit (days, weeks, months or years).

e To schedule a report, click **Schedule**. To return to the report view dashboard, click **Cancel**.

2.5.2
Using Basic Search

Use the basic search to look for phrases without specifying record type.

Procedure:

In the search bar, type in the desired phrase. For example, to search for Emergency Alarms, start typing `emergency`. The dashboard is updated in real time as you type.

Your search phrase is displayed as **ANY** filter on the dashboard. To remove it, click **x** next to the filter name.

2.5.3
Using Advanced Search

Advanced Search allows you to limit your search to one or more specific record details and narrow your search results.

Procedure:

1 Click the **Advanced Search**  icon on the right side of the dashboard.

2 Optional: If you want to modify the set of available search fields, click the  button and select or clear the check boxes of specific search fields.

For each report, there are fields that cannot be hidden.

3 Type the values of the record details you are looking for in the appropriate fields.

The dashboard is updated in real time as you type. For numerical values (for example, radio IDs), you can search for defined values, ranges, and the combination of the two. For string values, you can enter search for a specific string of characters. The search is case-insensitive.

Step example:

Single numerical value: `10`

Range: `10-20`

Single values and range combined: `10, 30-40, 60`

4 To display results dating back from a specified period of time until the current day, select the **Show last** check box. Type the number and the time unit (days, weeks, months or years).

5 To display results from a specific period of time, select the **Dates** check box. Use **to:** and **from:** fields to choose the dates and times from the calendar.

6 Click the **Apply filter** button.

The active filters are displayed on the dashboard. To remove a filter, click **x** next to applied filter name.

7 Optional: To close the **Advanced Search** without entering any search criteria, click the **Advanced Search**  icon.

2.5.4
Scheduled Reports

Scheduled reports are useful when you want to generate a report more than once in regular periods of time. In Radio Control Manager (RCM),you can create, view, edit, and delete existing scheduled reports. Scheduled reports are referred to as "jobs".

2.5.4.1
Creating a Scheduled Report

You can save Radio Control Manager (RCM) reports on the server to be created later and choose whether they should generate periodically or just once. Scheduled reports are referred to as "jobs".

Procedure:

1 In the **Reports** tab, from the **Scheduling** section, select **Manager**.

Scheduler window with a list of jobs opens.

2 To add a new job, click the **+** icon.

Add Job windows opens.

3 In the **Job Name** field, type the name of the job.

4 From the **Report** drop-down list, select the type of RCM activity for which you want to schedule a report.

5 Choose the **File Format**. Available formats are **PDF** and **CSV**.

6 From the **Start Time** field, choose the time and date where you want the report to be generated for the first time.

7 Optional: To create a periodically generated report, perform the following actions:

a In the **Recurring** field, choose **Yes**.

b In the **Repeat every** field, choose how often the report should be generated. Type the number and choose the time unit (days, weeks, months or years).

8 To schedule a report, click **Schedule**. To return to **Scheduler** dashboard, click **Cancel**.

2.5.4.2

Viewing and Editing Scheduled Reports

In RCM you can preview the details of scheduled reports (referred to as "jobs") or edit them.

Procedure:

1. To view the job details in read-only mode, click the **View Details**  icon.
2. To edit a job, click the **Edit** icon  . Editing a job is identical to creating a job. Follow the same procedure as in Creating a Scheduled Report on page 32 and click **Update**.

2.5.4.3

Deleting a Scheduled Report

Use this procedure when you do not want to generate a scheduled report (job) anymore.

Procedure:

1. To delete a job, click the **Delete** icon  . When a **Delete job?** prompt appears, make sure you want to delete the job and select **OK**

   NOTICE: Deleting the job also deletes all reports related to this job. If you want to keep the reports, download them.

The job is crossed out. It disappears from the list the next time you open the **Scheduler** dashboard.

2.5.5

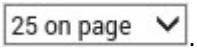
Viewing and Downloading Archive Reports

In RCM you can view the list of all scheduled reports (referred to as "jobs") and download Successful jobs as `.pdf` or `.csv` files.

Procedure:

1. To download a job, on the **Report's Archive** dashboard, click the 

or 

icon. The file extension depends on what you chose while creating a job.
2. To select the number of results displayed on the page, click the page icon 

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Chapter 3

Radio Control Manager Reference

3.1
Radio Control Manager Main Page

The main page is comprised of the following elements:

- Menu bar
- Main dashboard

3.1.1
Radio Control Manager Menu Bar

The menu bar at the top of the website enables you to navigate through the RCM options.

Figure 1: RCM Menu Bar

Table 1: RCM Menu Bar

Menu	Option	Description
Status bar		The status bar displays the status of connections to the NM servers (ZC, ATR). ZC Green text indicates that the server is connected. ZC Red, crossed-out text indicates that the server is disconnected.
Help		Opens the RCM online help.
ON/OFF		Enables/disables automatic logout. When enabled, the session is limited to 30 minutes since the last activity.
<User Name>		Logs out from the RCM.
Events		Opens the Events dashboard.
Commands		Opens the Commands dashboard.
Storm Plans		Opens the Storm Plans dashboard.
Status	Radio Check	Opens the Radio Check view.
	Snap Shot	Opens the Snap Shot view.
	Zone Status	Opens the Zone Status view.
Reports		Opens the Reports dashboard.
		Displays the Events status.

Table continued…

Menu	Option	Description
		NOTICE: When new events are submitted, ② with the number of not responded events or requests is added to the appropriate icon.
		Opens the Commands dashboard.
/		Turns on/off the beep.

3.1.2 Radio Control Manager Tabs

You can view the following tabs from the RCM web page:

- Events
- Commands
  - Command's details for ***<command>***
  - Submit Command
- Storm Plans
- Status
  - Radio Check
  - Snap Shot
  - Zone Status
- Reports

3.1.2.1 Events Dashboard

Events dashboard enables you to monitor tasks that radio users initiate.

On the Events dashboard you may display all events or selected from the following task types:

Emergency Events

When a radio user initiates an emergency alarm, the Emergency Alarms event is displayed to the following:

- Users, who are attached to the current affiliation group of the requesting radio and who are logged to the requesting zone
- Users of the home zone of the requesting radio's current affiliation group

  NOTICE: To ensure that the RCM in the home zone always receives the emergency alarm, even when there are no affiliations to the talkgroup in the home zone, the home zone should configure a requested site in the home zone for the talkgroup.
- Users of any zone with a current talkgroup member affiliated

When a new Emergency Alarm appears on the Events dashboard, you hear an alarm tone. The alarm beeps once every second until you turn it off by clicking the **Respond** button.

Status Events

When a radio user initiates a status event it is displayed to the Status Events dashboards for all RCM users who are attached to the requesting radio's affiliation group and who are logged to the requesting zone or home zone of the requesting radio's current affiliation group. The text for the event may vary among radio users. Each radio user can have a set of up to eight text messages for status events. The RCM stores up to 500 status events.

ChangeMe Requests

When a radio user whose radio selector is locked with the Selector Lock command, wishes to regain control of talkgroup selection, the user initiates a ChangeMe Request.

When the request is submitted, the ChangeMe Requests event is displayed to all RCM users who are attached to the requesting radio's affiliation group and who are logged to the requesting zone or home zone of the requesting radio's current affiliation group. The subscriber automatically receives the Ack (acknowledgement) from the zone that a radio is affiliated to, not from its primary zone. The RCM database can store up to 500 ChangeMe Requests.

Figure 2: Events Dashboard

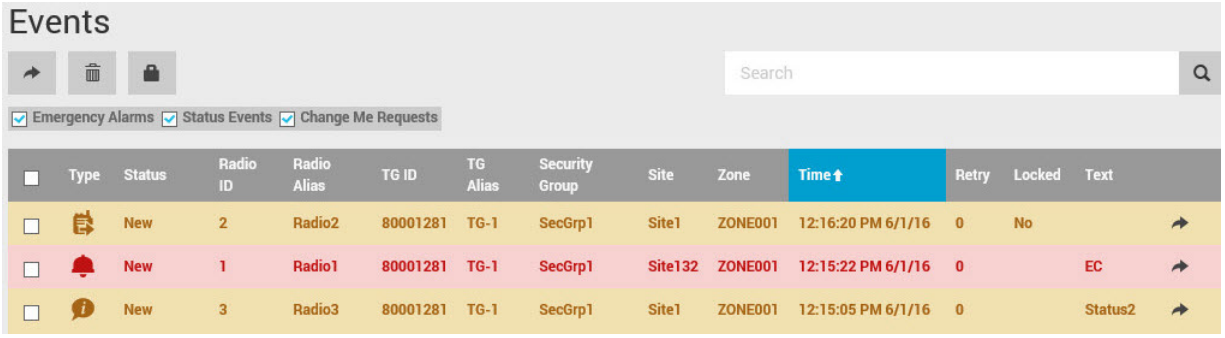


Table 2: Events Parameters

Name	Description
Check box	Enables the user to select events.
Type	Icon symbolizing the type of event. (Read-only field)
Status	Current status of the event. (Read-only field)
Radio ID	ID of the radio requesting the event. (Read-only field)
Radio Alias	Alias of the radio requesting the event. (Read-only field)
TG ID	ID of the talkgroup or multigroup to which the requesting radio was affiliated when the event was sent. (Read-only field)
TG Alias	Alias of the talkgroup or multigroup to which the requesting radio was affiliated when the event was sent. (Read-only field)
Security Group	
Site	Alias of the site to which the requesting radio was affiliated when the event was sent. (Read-only field) **NOTICE:** If the site is configured in the current zone, then the site alias is displayed in this field. Otherwise, site ID is displayed instead of the site alias.
Zone	Name of the zone to which the requesting radio was affiliated when the event was sent. (Read-only field)
Time	Time and date when the event was submitted. (Read-only field)
Retry	Count of occurrences of a particular event. (Read-only field)
Locked	Lock status of the event. (Read-only field)
Text	Additional comments sent with the event. (Read-only field)

Table 3: Events Action Buttons

Name	Description
	Indicates that you are taking responsibility for an event, notifies all other RCM users and updates the RCM database.
	Deletes an event from the dashboard and the RCM database.
	Cancels lock for selected events.
	Enables you to search for a particular event.
Emergency Events check box	When checked, displays Emergency Events on the list.
Status Events check box	When checked, displays Status Events on the list.
ChangeMe Requests check box	When checked, displays ChangeMe Requests on the list.

3.1.2.2

Commands Dashboard

The Command dashboard allows you to view the status of all commands that you have submitted to the system. You can see only the commands that you have initiated. If you send a command to a single radio, the Command dashboard displays the radio ID and alias. If you send a command to multiple radios, the Command dashboard does not display the radio ID or alias.

Figure 3: Commands Dashboard

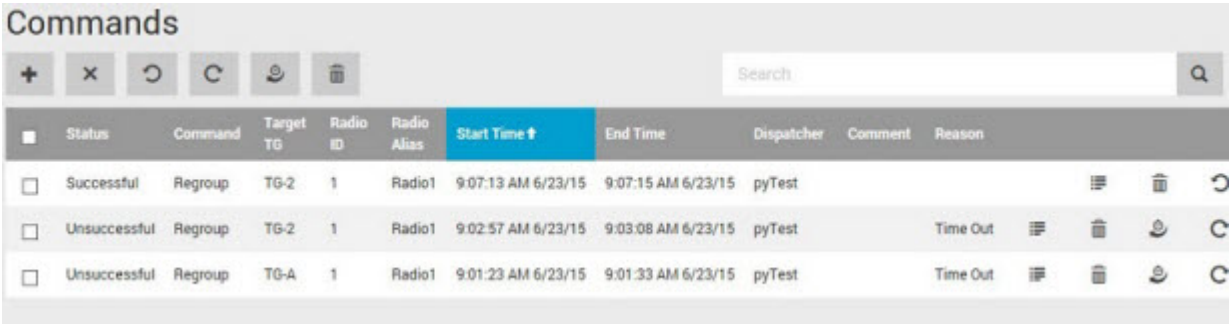


Table 4: Commands Parameters

Name	Description
Status	Status of the command. (Read-only field)
Command	Name of the command. (Read-only field)
Target TG	Alias of the target regrouped talkgroup. (Read-only field)
Radio ID	ID of the single radio to receive the command. If you send the command to multiple radios, the ID for each radio appears in the **Command's details for <command>** dashboard. (Read-only field)

Table continued…

Name	Description
Radio Alias	Alias of the single radio to receive the command. If you send the command to multiple radios, the alias for each radio appears in the **Command's details for <command>** dashboard. (Read-only field)
Security Group	Security group of the single radio to receive the command. If you send the command to multiple radios, the alias for each radio appears in the **Command's details for <command>** dashboard. (Read-only field)
Start Time	Time when the command was submitted to the RCM server. (Read-only field)
End Time	Time when the command was completed (that is, designated as either Successful, Unsuccessful, or Invalid). (Read-only field)
Dispatcher	Name of the RCM user who submitted the command. (Read-only field)
Comment	Comments submitted with the command. (Read-only field)
Reason	Reason why the command was rejected. This is filled in only if the command was designated as Invalid or Unsuccessful. (Read-only field)

Table 5: Commands Action Buttons

Name	Description
	Opens the **Submit Command** dialog box.
	Aborts a command (only for commands in Initializing, In Progress or Passive state).
	Reverts a successful command.
	Retries an unsuccessful command.
	Places an unsuccessful command into a queue until the target radio reaffiliates to the system. Then the command is resent to the radio.
	Deletes a command from the **Commands** dashboard and the RCM database.
	Searches for a command.
	Opens the **Command's details for <command>** dashboard.

3.1.2.2.1
Command's Details Dashboard

The Command's Details dashboard allows you to view the status of all tasks for the selected command in the Command dashboard. Details refer to the radios selected to receive the command. Therefore, the Command's Details dashboard displays the status of the command for each radio selected to receive it. All status updates to radio tasks appear in real time in an active Command's Details dashboard.

Figure 4: Command's Details Dashboard

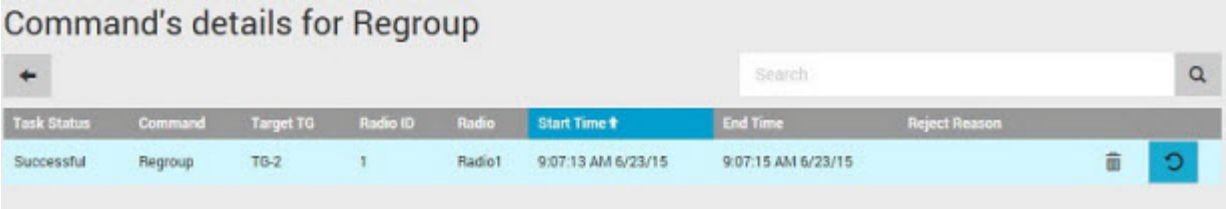


Table 6: Command's Details Parameters

Name	Description
Task Status	Status of the command. (Read-only field)
Command	Name of the command. (Read-only field)
Target TG	Alias of talkgroup to receive the command. (Read-only field)
Radio ID	ID of the single radio to receive the command. (Read-only field)
Radio	Alias of the single radio to receive the command. (Read-only field)
Start Time	Time when the command was submitted to the RCM server. (Read-only field)
End Time	Time when the command was completed (that is, designated as either Successful, Unsuccessful, or Invalid). (Read-only field)
Reject Reason	Reason why the command was rejected. This is filled in only if the command was designated as Invalid or Unsuccessful. (Read-only field)

Table 7: Command's Details Action Buttons

Name	Description
←	Returns to the **Commands** dashboard.
🔍	Searches for a task.
✕	Aborts a command (only for commands in Initializing, In Progress or Passive state).
↺	Reverts a successful command.
↻	Retries an unsuccessful command.
⏱	Places an unsuccessful command into a queue until the target radio reaffiliates to the system. Then the command is resent to the radio.
🗑	Deletes a command from the **Command's details for <command>** dashboard and the RCM database.

3.1.2.2.2

Submit Command Dialog Box

The Submit Command dialog box enables you to send commands to one or more selected radios.

Figure 5: Submit Command Dialog Box

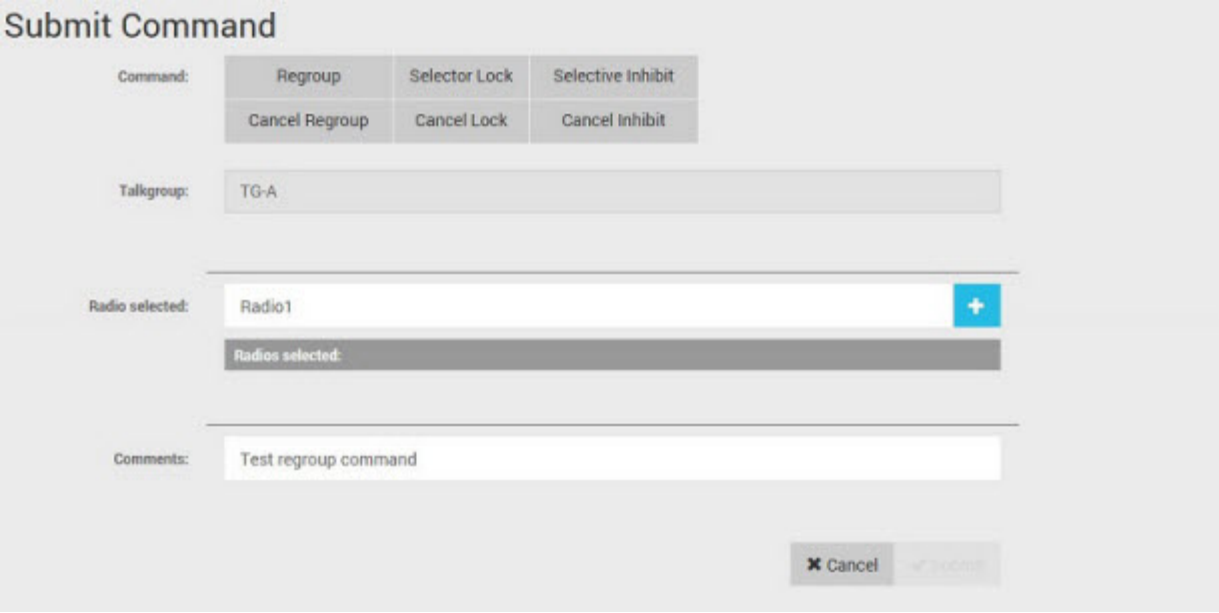


Table 8: Submit Command Dialog Box Parameters

Field	Description	Range of Values
Command	List of radio commands.	• Regroup • Cancel Regroup • Selector Lock • Cancel Lock • Selective Inhibit • Cancel Inhibit
Talkgroup	Used for Regroup command only: ID or alias of the target talkgroup into which the radios are to be regrouped.	• Talkgroup ID range is 80000001 to 80065534 • Talkgroup Alias range is 1 to 16 characters
Radio selected	ID or alias of the target radio to which you wish to send the command.	• Radio ID range is 1 to 16777211 • Radio Alias range is 1 to 16 characters
+ button	Adds a radio to the **Radios Selected** list.	
- button	Removes a radio from the **Radios Selected** list.	
Radios Selected	Displays the list of radios you have selected to receive the command.	0 to 100
Comments	Purpose of the command.	0 to 64 characters

Table 9: Submit Command Dialog Box Action Buttons

Name	Description
Submit	Submits the command.
Cancel	Clears all information from the dialog box. Returns to **Commands** dashboard.

Table 10: RCM Radio Commands

Command	Description
Regroup	Assigns an affiliated radio to a new talkgroup. Use regrouping to enable communication between radios from different talkgroups. Radios can be reassigned over the air without intervention by the radio user. You can regroup missing radios to a talkgroup called “stolen” rather than issuing a Selective Inhibit command to the missing radios. This way, missing radios can still communicate with you, but are isolated from normal talkgroup communication. The Regroup command has no effect on the tactical or non-tactical operations of the radio. **IMPORTANT:** Issue a Selector Lock command after a Regroup command to prevent the radio user from manually switching to a different talkgroup.
Cancel Regroup	Cancels the last Regroup command and removes the selected radios from the regrouped talkgroup, allowing the radios to return to their original talkgroups. **IMPORTANT:** If you cancel a Regroup without canceling a Selector Lock, no talkgroup is associated with the dynamic regroup position. The radio emits a tone to notify the radio user of the problem.
Selector Lock	Disables the talkgroup selector switch on a radio so that the radio user cannot switch to another talkgroup. The Selector Lock command is used following the Regroup command to lock a radio onto the regrouped talkgroup. This command can only be issued after the Regroup command is issued.
Cancel Lock	Cancels the last Selector Lock command for a selected radio, unlocking the selector.
Selective Inhibit	Functionally disables selected radios that are currently affiliated to the system. A radio that received a Selective Inhibit command can still be powered on and off, but can only accept a Cancel Inhibit command. All buttons, selector switches, and menu operations are disabled, and no voice communications are possible, but the radio continues to listen to the control channel and reaffiliates to the system. You can use Selective Inhibit to disable a stolen radio, invalid radio user, or non-critical radios during an emergency situation. **NOTICE:** An Inhibit command is initiated from the RCM, and an inhibited radio cannot initiate a PTT request or participate in the call process in any way.

Table continued...

Command	Description
Cancel Inhibit	Cancels a Selective Inhibit command and reactivates the selectively inhibited radios.

3.1.2.3
Storm Plans Dashboard

The Storm Plan feature provides the ability to send a group of predefined commands to be executed easily in an emergency or as planned.

A complete storm plan can have a maximum of four commands, with each command containing a maximum of 100 individual radios. Each individual radio within each command can be regrouped.

The details of Storm Plans are defined and set up using the Provisioning Manager and distributed to the RCM. See *Provisioning Manager Online Help* for more information.

Figure 6: Storm Plans Dashboard

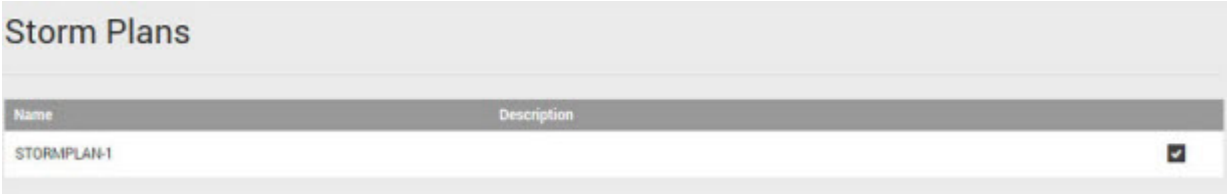


Table 11: Storm Plans Parameters

Field	Description	Range of Values
Name	Names of all available storm plans.	1 to 16 characters
Description	The situations a specific storm plan handles.	1 to 60 characters

Table 12: Storm Plans Action Buttons

Name	Description
Apply	Submits the currently selected storm plan and then de-selects it in the list.

3.1.2.4
Status Tab

From the **Status** tab you may access the following views:

- Radio Check
- Snap Shot
- Zone Status

3.1.2.4.1
Radio Check View

The Radio Check view lets you query a radio for its current radio user, talkgroup, site, and zone information. The Radio Check feature operates over the air and across zone boundaries.

Figure 7: Radio Check View

Table 13: Radio Check View Parameters

Field	Description	Range of Values
Radio	Radio Alias or ID that you want to check	
Devices/ Groups	Type of device or group that you want to verify.	• Radio User • Talkgroup • Site • Zone
Alias	Currently affiliated alias for the radio user, talkgroup, site, or zone.	1 to 16 characters
ID	Currently affiliated ID for the radio user, talkgroup, site, or zone.	• Radio ID range is 1 to 16777211 • Talkgroup ID range is 80000001 to 80065534 • Site ID range is 1 to 150 (for simulcast subsystems, range is 1 to 64) • Zone ID range is 1 to 7

Table 14: Radio Check View Action Buttons

Name	Description
☑	Requests current information for the selected radio.

3.1.2.4.2

Snap Shot View

The Snap Shot view lets you query the Air Traffic Router (ATR) database for the last status and affiliation information for a selected radio.

Figure 8: Snap Shot View

Table 15: Snap Shot View Parameters

Field	Description	Range of Values
Radio	ID or alias of the radio that you want to check.	• Radio ID range is 1 to 16777211 • Radio Alias range is 1 to 16 characters
Devices/ Groups	Lists types of devices and groups	• Radio • Talkgroup • Multigroup • Site • Zone
Alias	Last-known affiliated alias for the device/group.	1 to 16 characters
ID	Last-known affiliated ID for the device/ group.	• Radio ID range is 1 to 16777211 • Talkgroup ID range is 80000001 to 80065534 • Site ID range is 1 to 150 (for simulcast subsystems, range is 1 to 64) • Zone ID range is 1 to 7
Command	Lists commands or status events.	
Type	Last completed command, currently pending command, or status event.	• Inhibit • Pending Inhibit • Regroup • Pending Regroup • Selector Lock

Table continued…

Field	Description	Range of Values
		• Pending Selector Lock • Status
Time Completed	Time when command was completed **Successfully**.	N/A
Dispatcher/ Text	RCM user or text message for the last completed command, currently pending command, or status event.	N/A

Table 16: Snap Shot View Action Buttons

Name	Description
☑	Requests current information for the selected radio.

3.1.2.4.3 Zone Status View

The Zone Status view requests and receives information regarding the status of the RCM zone controller and the status of the RCM zones Interzone links.

Figure 9: Zone Status View

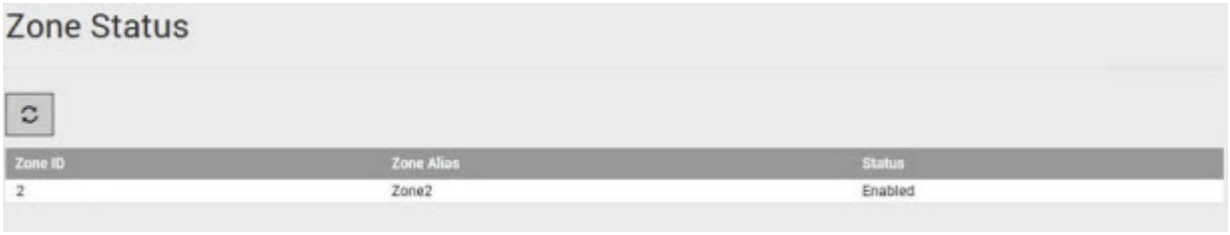


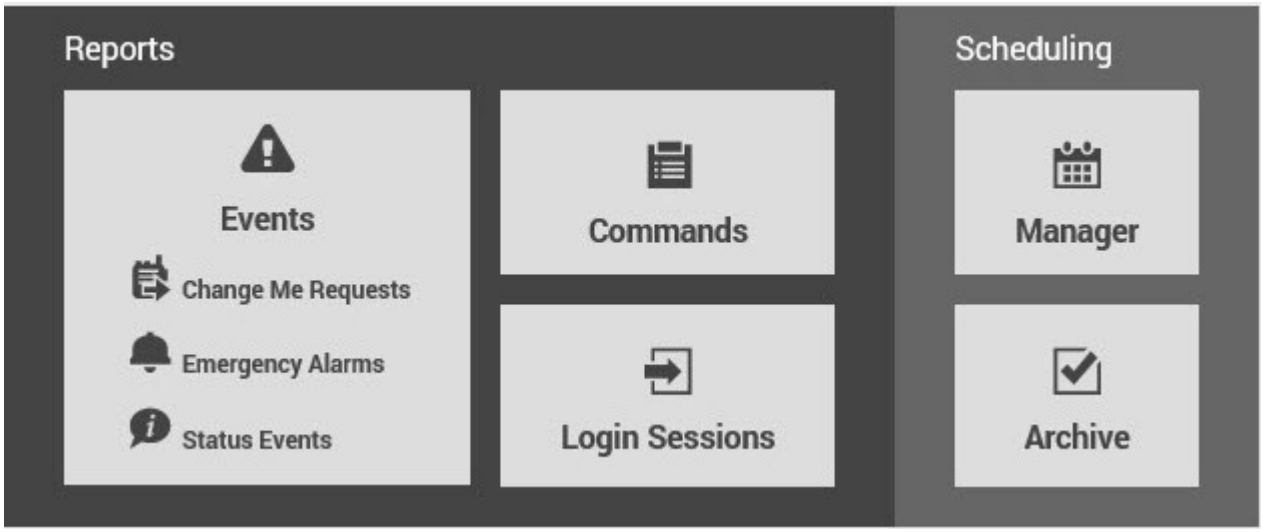
Table 17: Zone Status View Parameters

Field	Description	Range of Values
Zone ID	ID of a specific zone. (Read-only field)	1 to 56
Zone Alias	Alias of a specific zone. (Read-only field)	1 to 14 characters
Status	Status of the InterZone trunking link between the current zone and the indicated zone.(Read-only field)	Interzone Trunking Link Failure – Not Available

3.1.2.5 Reports Tab

The **Reports** tab allows you to view, create, export and schedule reports on Radio Control Manager (RCM) activity.

Figure 10: RCM Reports Tab



By clicking the options in the **Reports** tab, you can perform the following actions:

Events
View reports for all kinds of events.

Change Me Requests
View only reports for ChangeMe Requests.

Emergency Alarms
View only reports for Emergency Alarms.

Status Events
View only reports for Status Events.

Commands
View reports for Radio Commands.

Login Sessions
View who is currently logged in to the RCM.

Manager
Create, edit, and delete scheduled reports.

Archive
Download reports as PDFs.

3.1.2.5.1
Events Reports Dashboard

The **Events Reports** section allows you to view, export, and schedule reports for all types of events. Action buttons and parameters for specific types of events accessible through the **Reports** main tab (**Change me Requests**, **Emergency Alarms**, or **Status Events**) are exactly the same as in Events Reports.

Table 18: Events Details Displayed by Default

Name	Description
Status	Status of the event
Type	Type of the event

Table continued…

Name	Description
	NOTICE: To view only one type of event, you can also choose it from the **Reports** main tab.
Radio Alias	Alias of the radio requesting the event.
TG Alias	Alias of the talkgroup or multigroup to which the requesting radio was affiliated when the event was sent.
Security Group Alias	Alias of the security group that a radio was assigned to when the event was sent.
Site Alias	Alias of the site to which the requesting radio was affiliated when the event was sent.
Zone Alias	Alias of the zone to which the requesting radio was affiliated when the event was sent.
Time	Time and date when the event was submitted.

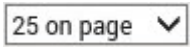
Table 19: Additional Events Details

Name	Description
Radio ID	ID of the radio requesting the event.
Retry	Count of occurrences of a particular event.
Security Group ID	ID of the security group that a radio was assigned to when the event was sent.
Site ID	ID of the site to which the requesting radio was affiliated when the event was sent.
TG ID	ID of the talkgroup or multigroup to which the requesting radio was affiliated when the event was sent.
Text	Additional comments sent with the event.
User Deleted	Name of the user who deleted the event.
User Responded	Name of the user who responded to the event.
Zone ID	ID of the zone to which the requesting radio was affiliated when the event was sent.

Table 20: Events Reports Dashboard

Name	Description
Schedule	Schedule a report with current parameters.
Export to CSV	Export the report to `.csv` (Comma Separated Value) file.
	Advanced Search

Table continued…

Name		Description
	Show last	Limit the results to last <number specified by user> days, weeks, months or years. This option is available only in **Advanced Search** and only if **Time** parameter is selected in the  section.
	Dates • From: • To:	Limit the results to the time period of your choice. This option is available only in **Advanced Search** and only if **Time** parameter is selected in the  section.
		Choose records details that are displayed.
		Number of results dispayed on a page. Available options are 10, 25, 50, 100.

3.1.2.5.2

Commands Reports

The **Commands Reports** section in Radio Control Manager (RCM) allows you to view, export, and schedule reports for commands submitted to the system.

Table 21: Commands Details Displayed by Default

Name	Description
Status	Status of the command.
Command	Name of the command.
Radio ID	ID of the single radio to receive the command.
Radio Alias	Alias of the single radio to receive the command.
Target TG Alias	Alias of the target regrouped talkgroup.
Security Group Alias	Alias of the security group that a radio was assigned to when the event was sent.
Submit Time	Time when the command was submitted to the RCM server.
Dispatcher	Name of the RCM user who submitted the command.

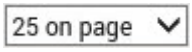
Table 22: Additional Commands Details

Name	Description
Comment	Comments submitted with the command
Reject Reason	Reason why the command was rejected. This is filled in only if the command was designated as Invalid or Unsuccessful.
Security Group ID	ID of the security group that a radio was assigned to when the event was sent.
Target TG ID	ID of the target regrouped talkgroup.

Table continued…

Name	Description
Dispatcher User ID	ID of the RCM user who submitted the command.

Table 23: Commands Reports Action Buttons

Name		Description
Schedule		Schedule a report with current parameters.
Export to CSV		Export the report to `.csv` (Comma Separated Value) file.
		Advanced Search
	Show last	Limit the results to last `<number specified by user>` days, weeks, months or years. This option is available only in **Advanced Search** and only if **Time** parameter is selected in the  section.
	Dates • From: • To:	Limit the results to the time period of your choice. This option is available only in **Advanced Search** and only if **Time** parameter is selected in the  section.
		Choose records details that are displayed.
		Number of results dispayed on a page. Available options are 10, 25, 50, 100.

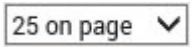
3.1.2.5.3
Login Sessions Reports

The **Login Sessions Reports** section allows you to view, export, and schedule reports for current login sessions.

Table 24: Login Sessions Details

Name	Description
User Alias	Name of the RCM user who logged in.
Login Time	Time and date when the user logged in.
Host IP Address	IP address of the PC or a console from which the RCM was accessed.
User Type	

Table 25: Login Sessions Action Buttons

Name		Description
Schedule		Schedule a report with current parameters.
Export to CSV		Export the report to `.csv` (Comma Separated Value) file.
		Advanced Search
	Show last	Limit the results to last `<number specified by user>` days, weeks, months or years. This option is available only in **Advanced Search** and only if **Time** parameter is selected in the  section.
	Dates • From: • To:	Limit the results to the time period of your choice. This option is available only in **Advanced Search** and only if **Time** parameter is selected in the  section.
		Choose records details that are displayed.
		Number of results dispayed on a page. Available options are 10, 25, 50, 100.

3.1.2.5.4

Manager

The **Manager** section in Radio Control Manager (RCM) allows you to schedule, edit, view, and remove reports. Scheduled reports are referred to as "jobs".

Table 26: Manager Parameters

Name	Description
Job name	Report name that user types in when adding a job.
Report name	Type of activity that is reported. It is chosen from a list when adding a job. Example: Events.
Start time	Time and date when the job was added.
Recurring	How often the report is generated.

Table 27: Manager Action Buttons

Icon	Description
+	Add a new job.
	Edit a job.

Table continued…

Icon	Description
	View job details in read-only mode.
	Delete a job.

Table 28: Job Window

Name	Description
Job name	Enter or edit the job name.
Report	Type of RCM activity that will be reported. Example: Commands.
Start Time	The time the job starts.
Recurring	Whether the report is recurring or not.
Repeat every	How often the report recurs
Cancel	Go back to Scheduler.
Schedule	Schedule a new job. Only available in the **Add Job** window.
Update	Apply changes that you made to the job. Only available in the **Edit Job** window.

3.1.2.5.5

Archive

The **Archive** section in Radio Control Manager (RCM) allows you to view status and completion time of scheduled reports, and to download successfully completed reports as PDF files. Scheduled reports are referred to as "jobs".

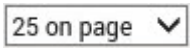
Table 29: Archive Parameters

Name	Description
Job Name	Job name entered by the user
Started on	Time the job is scheduled to start
Status	Status of the report. Available vaules are: Successful, Unsuccessful
Completed on	Time the job actually finished. It may be different from **Started on** parameter, especially when there are many jobs in the queue.

Table 30: Archive Action Buttons

Name	Description
	Download the report

Table continued…

Name		Description
		Advanced Search
	Show last	Limit the results to last <number specified by user> days, weeks, months or years. This option is available only in **Advanced Search** and only if **Time** parameter is selected in the  section.
	Dates • From: • To:	Limit the results to the time period of your choice. This option is available only in **Advanced Search** and only if **Time** parameter is selected in the  section.
		Choose records details that are displayed.
		Number of results dispayed on a page. Available options are 10, 25, 50, 100.

3.2
User Configuration and User Access

The way that the Radio Control Manager (RCM) user is configured in the Provisioning Manager determines which RCM users can issue radio commands to a radio user, and from which radio users the RCM user can receive radio events. Current talkgroup affiliation or zone affiliation of the radios have no impact on the RCM user's ability to communicate with radios. However, talkgroup attachment and security group assignment do have an impact.

The way that the RCM user is configured in the Domain Controller determines zones where the user can launch the RCM. It also determines which RCM tabs are available to the user.

3.2.1
Talkgroup Attachment

RCM users can communicate with and monitor traffic on only their attached talkgroups. Talkgroup attachment distributes responsibility for talkgroups across multiple RCM users.

- Through the **Radio Traffic Application User** record in the Provisioning Manager, RCM users are attached to a number of talkgroups or to all talkgroups.
- RCM User receives events (except ChangeMe requests) only from radio users to whose current talkgroup the RCM User is attached.
- Through the **IVD Radio** record in the Provisioning Manager, radio users are assigned a primary talkgroup. The RCM user can send commands and receive ChangeMe requests only to/from radio users to whose primary talkgroup the RCM user is attached. Primary talkgroups do not change based on the target radio's current site, talkgroup, or zone affiliation.

3.2.2
Security Group Assignment

Through the **Radio Traffic Application User** record in the Provisioning Manager, RCM users are assigned access permissions to one or more security groups. Security groups partition the system by creating logical groupings. Every talkgroup record is also assigned a security group. This means that

the RCM user manages talkgroups that belong to their assigned security groups. The radio's primary talkgroup must belong to one of the RCM user's assigned security groups.

3.3 Zone Access

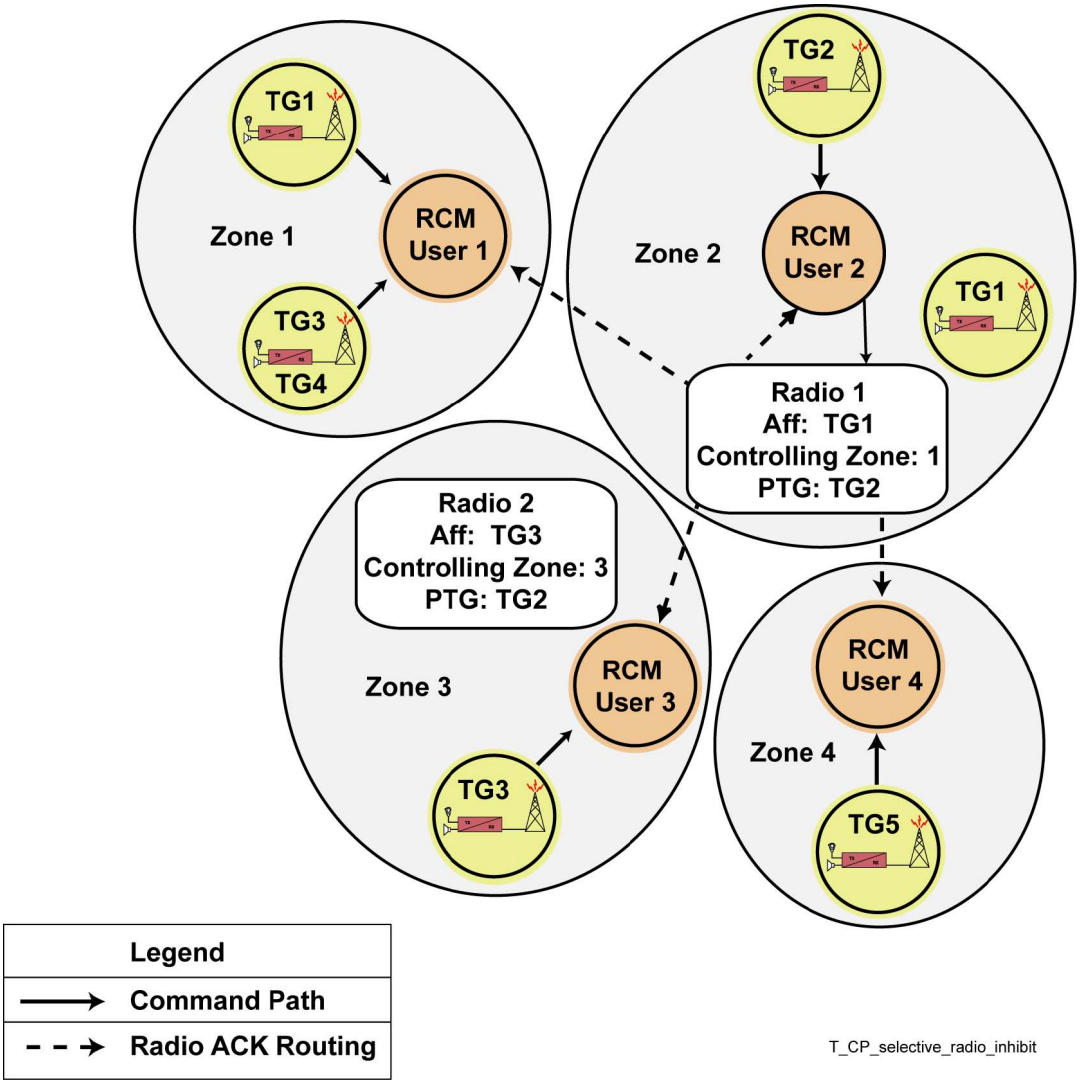
You can send commands from any zone in which you have login access. Access to zones is configured in the Domain Controller. During normal system operations, when all sites and zones are fully communicating with one another, the RCM sends or receives both inbound and outbound functions to or from the zone controller (ZC), across multiple zones.

3.4 Command Path and Radio Acknowledgment Routing

A radio Acknowledgment (ACK) of a command is sent to all reachable zones but only displayed at the RCM user who issued the command. Figure 11: Radio Common Path and Radio ACK Routing for Radio 1 on page 55 shows an example of command path and radio ACK routing. The following conditions apply to the example:

- Radio 1 is currently affiliated to TG1 at Zone 2.
- TG1 talkgroup is controlled by Zone 1.
- The primary talkgroup (PTG) for Radio 1 is TG2.
- TG2 is controlled by Zone 2.
- Radio 2 is currently affiliated to TG3 at Zone 3.
- The primary talkgroup for Radio 2 is TG2.
- TG2 is controlled by Zone 3.
- RCM User 2 has TG2 in its attachment list.

Figure 11: Radio Common Path and Radio ACK Routing for Radio 1



The following events take place when a command such as Selective Inhibit is sent to Radio 1:

1. A Selective Inhibit radio command is sent to Radio 1 from RCM User 2. TG2 is the primary talkgroup assignment for the radio.
2. The command reaches the target radio, Radio 1, and the radio responds with an ACK. This radio ACK is broadcast to all reachable zones.
3. On receiving this event, the RCM client in each zone stores the information in its SnapShot database.
4. The radio ACK event is only visible at the display of the RCM user who initiated the command. In this scenario, the RCM user with TG2 attachment in Zone 2 displays the event since this RCM user is the one who generated the command and is expecting the radio ACK.

RCM users with TG1, TG3, TG4, or TG5 attachment list in Zone 1, Zone 2, Zone 3, and Zone 4 cannot issue the command to either Radio 1 or Radio 2 since both radios are assigned to primary talkgroup TG2.

3.5

Selective Inhibit Command in Passive Search Mode

The following table lists some of the events that impact the operation of the Selective Inhibit command when it is placed in the passive mode and the radio is allowed to operate in multiple zones.

Table 31: Events Impacting the Selective Inhibit Command

Event	Impact
The radio is turned off when the Selective Inhibit command is executed successfully.	The radio is inhibited immediately if the radio powers up and registers in the same zone as the RCM user who sent the inhibit command.
The radio is turned off when the Selective Inhibit command is executed successfully. When the Radio User moved to the new Zone while radio was powered off, the radio roams to different Zone.	• When the radio powers up and attempts to register at the new zone, a request is sent to the radio's Home Zone for the Home Location Register (HLR) information pertinent to the radio attempting to register and affiliate. The HLR information for the radio is transferred to the new zone and the radio is allowed to register. • When the radio affiliates to any talkgroup and the talkgroup has members in the same zone as the RCM with responsibility for the radio's primary talkgroup, the radio is inhibited on its first PTT request. • If the radio affiliates to a talkgroup and the talkgroup **does not** have members in the same zone as the RCM with responsibility for the radio's primary talkgroup, the radio is allowed to receive and make talkgroup calls from the zone where the radio is registered. **NOTICE:** The User Enabled field in the Radio User record can be set to **No** to deny transmit access to a radio. A radio with the User Enabled field set to **No** cannot initiate talkgroup or individual calls.