



Cisco RF Gateway 1 Software Release Notes, Release 5.01.04

Overview

Introduction

The Cisco RF Gateway 1 software version 5.01.04 supports DVB Scrambling control and PowerKEY®.

Purpose

The purpose of this document is to notify RF Gateway 1 users of the enhancements included in the current release, and to inform users of any special upgrade procedures needed for using Release 5.01.04.

Audience

This document is intended for system engineers or managers responsible for operating and/or maintaining this product.

Related Publications

Refer to the following documents for additional information regarding hardware and software.

- *Cisco RF Gateway 1 Configuration Guide*, part number 4025112
- *Cisco RF Gateway 1 System Guide*, part number 4024958

Safe Operation for Software Controlling Optical Transmission Equipment

If this document discusses software, the software described is used to monitor and/or control ours and other vendors' electrical and optical equipment designed to transmit video, voice, or data signals. Certain safety precautions should be observed when operating equipment of this nature.

For equipment specific safety requirements, refer to the appropriate section of the equipment documentation.

For safe operation of this software, refer to the following warnings.



WARNINGS:

- Ensure that all optical connections are complete or terminated before using this equipment to remotely control a laser device. An optical or laser device can pose a hazard to remotely located personnel when operated without their knowledge.
- Allow only personnel trained in laser safety to operate this software. Otherwise, injuries to personnel may occur.
- Restrict access of this software to authorized personnel only.
- Install this software in equipment that is located in a restricted access area.

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Simulcrypt/PowerKEY Support

The RF Gateway 1 software version 5.01.04 supports DVB Scrambling control and PowerKEY. See chapter 3, *General Configuration and Monitoring* of the *Cisco RF Gateway 1 Configuration Guide*, part number 4025112.

- RF Gateway 1 Release 5.01.04 supports DVB Scrambling control
- PowerKEY is now supported
- Broadcast session operation on up to 48 QAM carriers
- PowerKEY and DVB_Scrambling licenses are required
- DNCS 4.4.1 is required for session setup
- EIS operating in an AC Reference Mode to configure scrambling

Known Issues

The following list identifies known limitations planned to be resolved as part of an upcoming GA release.

- The RF Gateway 1 Web interface is not fully tested with IE-8 and FireFox-3.5.x or newer. The RF Gateway 1 web management interface is tested with IE-6 or FireFox-2.0.0.14 and above. Use of Java 1.6.x is also recommended.
- When using /31 IP addressing, although the RF Gateway 1 allows setting IP addresses and masks that correspond to this point-to-point protocol, it will not respond to ICMP ping requests.

Licensing

After an upgrade to 5.01.04, users do not have access to 96 QAM channel support (8 channels per port). For information regarding RF Gateway 1 licensing requirements and procedures, see the *Cisco RF Gateway 1 Configuration Guide*, part number 4025112.

The following features require a system license:

Data streams requiring use of the DOCSIS® Timing Interface

- DVB® Encryption
- PowerKEY Encryption

If licenses are not pre-installed at the factory, activation of the features listed above will require that a license file be obtained from Cisco after an upgrade to 3.01.04. Contact your account representative for details on obtaining your license files.

Note: Performing an upgrade without a license file will not affect the configuration of a chassis already operating in release 1.03.X, 2.02.X, or 1.02.X. The unit continues to function as configured earlier until configuration or any license changes are made. No alarms or warnings are currently present that indicate the absence of the 8 channel per port license.

For systems requiring a license upgrade, a licensing-capable RF Gateway 1 provides the operator with a new tree menu item, *License Management*, located under the **System** tab. See the screen below. It provides an FTP mechanism to transfer license files to the device.

The screenshot shows the web interface for 'rfgw1'. The top navigation bar includes buttons for Login, Reboot, Save, Refresh, and Help, along with a Cisco logo and a timestamp of 16:08:05. The main menu has tabs for Summary, Monitor, Alarms, QAMS, Maps, and System (which is selected). On the left, a sidebar lists configuration options: System Configuration, About, ARP & Routes, Authentication, Backup Configuration, Clock, IP Network, **License Management** (highlighted), Logs, Release Management, Restore Configuration, Scrambler, and SNMP & Traps. The main content area displays the 'License Management' section. It features a 'Device Host ID' field with the value '00000006311020'. Below this is a 'License Overview' table with columns: Type, Installed, Count, Usage, Expiration Date, Remaining Time, Expired, and Key. The table lists three licenses: DATA, DVB_SCRAMBLING, and 8_CHANNELS_PER_PORT. At the bottom, the 'License File Information' section shows the 'License File Path' as '/SW_Release/License/' and the 'License File Name' as '6311020_AllThree_Ravi_license.dat'. There are 'Download License' and 'Cancel' buttons at the bottom of this section.

Type	Installed	Count	Usage	Expiration Date	Remaining Time	Expired	Key
DATA	Yes	1	0	00-000-0000	0	No	7E4164E829C42CD5AFEF8EE0CC9A1EA4
DVB_SCRAMBLING	Yes	1	1	00-000-0000	0	No	60EC99759BFSFBF00F438AB4C7B06F2F
8_CHANNELS_PER_PORT	Yes	1	1	00-000-0000	0	No	8525539400A24111EFB92CA9F518D5E2

License File Information	
License File Path	/SW_Release/License/
License File Name	6311020_AllThree_Ravi_license.dat

Download License Cancel

Upgrade Information

An RF Gateway 1 unit running release 1.02.20 or higher can be upgraded directly to 5.01.04. Refer to Chapter 3, *General Configuration and Monitoring (Release Management)* of the *Cisco RF Gateway 1 Configuration Guide*, part number 4025112, for more information. The RF Gateway 1 reboots automatically at the end of the upgrade process. However, when upgrading to 3.01.04 from 1.02.09, an intermediate step of using the bridge release 1.02.19 to arrive at 1.02.20 and finally 3.01.04 must be followed. The bridge release designated as 1.02.19 has been created to provide a secure and robust upgrade path. Releases 1.02.19 (bridge) and 1.02.20 (final) have identical user features and functionality.



WARNING:

Upgrading to 1.02.20 or 5.01.04 directly from 1.02.09 must not be attempted. This may cause the RF Gateway 1 to be non-operational.

Software Release 5.01.04 Miscellaneous Enhancements

The following list identifies all 5.01.04 enhancements made since the Software Release 5.00.03 version released. These items refer to incidents recorded in the Issue Management Utility.

Item	Enhancement
103392	SW: Continuous reboot encountering stream with greater than 15 ES pids
112758	Continuous Reboot issue resolved when a static route entry is added on the CA port
112877	User should be able to view SCG information in GUI
112944/112947	SI data lost for all sessions on RFGW1-7
113059	User should be able to view SRM information corresponding to a session
113318	Improve console debug printouts for PowerKEY/NDS sessions in RFGW-1
113319	RFGW PowerKEY software must handle multiple ECMG message in TCP buffer from SCS
113322	RFGW-1 PowerKEY-only enhancement
113323	RFGW-1 PowerKEY needs to handle cryptoperiod extension
113360	Relax frequency range alarm limits for 79.992 MHz clock
113383	Mud-task gets suspended when accessing SCG details page
113388	Assign ECM pid from stream manager when session is PowerKEY only
113390	Session Locks on GUI incorrectly displayed
113391	Stdio Stack Overflow during debugging of Insert Packets
113392	1-time insert packets cause RFGW to reboot
113393	Reject "Createsessions" that override a session that does not exist
113394	Reject session overrides that conflict with another program number on carrier
113395	Move dynamically assigned PIDs to a new block when there is a conflict
113396	Reject session if greater than 32 PIDs are specified
113398	RFGW-1 Fails to clear data PIDs
113399	Broadcast sessions not rejected when "Simulcrypt" is set and "is_encrypted" is not
113400	RFGW-1 does not reject duplicate session ids with the correct response code
113454	Scrambling log displays TSID incorrectly
113457	Change PowerKEY default values
113488	QAM channel html id is incorrect for 2/1.4 and 3/1.1 channel number
113656	Link to view details of all SCGs
113718	Delete sessions needed to reset SCS session state
113719	ECMG Alarm stays raised when connection is deleted
113720	SCG alarm cleanup
113721	Improve ECM request robustness

IP Port Configuration Parameter Settings

The RF Gateway 1 has four physical GbE input ports that receive video and data streams from the upstream network. These ports may be used independently (in software releases 02.02.11 or later) or configured to implement input redundancy. See Chapter 3, *General Configuration and Monitoring of the Cisco RF Gateway 1 Configuration Guide*, part number 4025112 for details.

Displaying IP Port Configuration Settings

Follow these instructions to display the *System/IP Network* page.

- 1 Launch your web browser.
- 2 In the IP Address field, enter the RF Gateway 1 IP address.
- 3 Click **Enter**.
- 4 Click the *System/IP Network* tab and review the IP settings. See the following screen.

The screenshot shows the Cisco RF Gateway 1 web interface. The top navigation bar includes tabs for Summary, Monitor, Alarms, QAMS, Maps, and System. The System tab is selected. The left sidebar shows a tree view of configuration options, with IP Network selected. The main content area displays the IP Network configuration page. The 10/100 Ports section shows settings for Management and Conditional Access. The GbE Input Ports section is highlighted with a red box and contains the following configuration:

GbE Input Ports				
GbE Data Port Mode	Dual Port Pairs			
Port Configuration	Port 1	Port 2	Port 3	Port 4
MAC Address	00:50:4b:11:20:98	00:50:4b:11:20:9f	00:50:4b:11:20:90	00:50:4b:11:20:b1
IP Address	76.59.89.139	150.158.233.253	76.59.91.195	150.158.234.250
Subnet Mask	255.255.255.248	255.255.255.252	255.255.255.248	255.255.255.252
Negotiation Mode	On	On	On	On
Port Pair Configuration	Port Pair 1		Port Pair 2	
Video/Data IP	76.59.89.130		76.59.91.194	
Redundancy Mode	Manual		Manual	
Primary Port	1		3	
Current Active Port	1		3	
Redundancy Configuration				
Detection Mode	Ethernet Link		Ethernet Link	
LOS Timeout (s)	1		1	
Revert To Primary	Enabled		Enabled	
Revert Check Time (s)	2		2	

Recording IP Port Configuration Settings

Follow these instructions to record IP port configuration settings.

- 1 Navigate to the *System/IP Network* page.
- 2 Click the **Alt-PrtScrn** keys to copy the IP Network parameter settings to the clipboard.
- 3 Launch Microsoft Word (or WordPad if you don't have Microsoft Word) and paste the clipboard contents to page 1.
- 4 Save the Microsoft Word document as ipsettings.doc.



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