



GQAM Modulator Software Version 4.2.7 Release Note

Overview

Introduction

This document describes the new features and benefits of upgrading a Model D9479 Gigabit Quadrature Amplitude Modulation (GQAM) Modulator to GQAM software version 4.2.7. This document also includes a description of the change requests (CRs) implemented in this release.

Audience

This document is intended for system operators or field service engineers who are responsible for installing the GQAM software onto the GQAM.

Scope

This release note provides an executive overview of GQAM software version 4.2.7. If you have questions about this release or require more detailed information, refer to the **Related Publications** section of this Preface, or call Cisco® Services at 1-866-787-3866.

Document Version

This is the first formal release of this document.

Introducing GQAM Software Version 4.2.7

GQAM software version 4.2.7 is designed to be installed on a GQAM. After the software is installed and the modulator is active, it provides additional support for sites that deploy video-on-demand (VOD), *anything*-on-demand (xOD), and other interactive broadcast services.

Note: For a complete description of a GQAM, refer to the following documents:

- *Dual SFP Gigabit QAM Modulator Installation and Operation Guide* (part number 4014102)
- *Gigabit QAM Modulator Model D9479 Hardware Installation and Operation Guide* (part number 745431)

System Release Compatibility and Prerequisites

GQAM software version 4.2.7 can be installed on a Digital Broadband Delivery System (DBDS) that is running one of the following system releases (SR) and Digital Network Control System (DNCS) application versions:

- SR 2.7/3.7/4.2 and associated Service Packs
- SR 2.7.1/3.7.1/4.2.1
- SR 2.8/3.8/4.3

For a complete configuration listing, or to upgrade your system, contact Cisco Services at 1-866-787-3866.

Software

GQAM 4.2.7 includes the following software code:

- GQAM Host Boot code 4.2.7
- GQAM Host Application code 4.2.7
- GQAM Input Boot code 4.2.7
- GQAM Input App code 4.2.7
- GQAM Output Boot code 4.2.7
- GQAM Output App code 4.2.7
- GQAM RF 2.6

The *QAM Software Installation Instructions* (part number 4026030) provides instructions to obtain the code for this release from an FTP server. Follow the instructions in the *Obtaining the QAM Software File* section to download the following file:

GQAM427.tar.gz

Hardware

GQAM 4.2.7 supports both the single GigE Port and dual GigE Port models of the D9479 GQAM Series.

Operational Consideration

There is a limitation in the dual port GQAM that prevents it from supporting both GigE ports and the ASI ports simultaneously. If you are utilizing any of the ASI ports, the second GigE port is automatically disabled. If you want to use both GigE ports, the ASI ports must be empty and contain no sessions. You must tear down any sessions on the ASI ports. Once you enable the second GigE port, you will not be able to add sessions on the ASI ports.

What's Fixed?

This section provides a description of the fixes implemented in GQAM software version 4.2.7.

ID: CSCzk55744: GQAM Reports Invalid Performance Data on VOD Redundancy Sessions

Previously, the data rate and error counters on VOD redundancy sessions contained erroneous data. This issue has been corrected with GQAM 4.2.7.

ID: CSCzk58705: GQAM RPC Communication Failure when 4 SDV Servers are Connected

Previously, a remote procedure call (RPC) communication link failure occurred when the GQAM was connected to a Digital Network Control System (DNCS) running SR 4.3 and four Switched Digital Video (SDV) servers. This condition prevented the addition of new sessions and led to spontaneous GQAM resets. This issue has been corrected with GQAM 4.2.7.

CR CSCzk42843: GQAM ethernet buffer elasticity problem

Previously, if multiple GQAM input feeds used an actual data rate not supported by the PCR data rate, the input ethernet buffers impacted services on all QAM outputs. A GQAM reboot was required to recover services. This issue has been corrected with GQAM 4.2.7.

Known Issues

Introduction

This section provides a list of known system issues identified during testing of GQAM software version 4.2.7. Resolutions to these issues are currently under investigation or in development.

For More Information

The list in this section is not intended to be comprehensive. If you have questions about a particular change request, contact your account representative.

CA Descriptor and VOD Sessions

Overview

Versions of GQAM software prior to software version 2.5 inserted the PowerKEY® Conditional Access (CA) descriptor into the Program Map Table (PMT) for unencrypted on-demand content. If the Digital Home Communication Terminal (DHCT) operating system (OS) found the CA descriptor in the PMT, the OS started the PowerKEY decryptor.

The PowerKEY scheduler within the DHCT then prioritized entitlement control messages (ECMs) by waiting until an ECM was processed before allowing any other CA messages or requests to be processed.

Background

During this waiting period, when no ECMs were delivered, non-ECM requests (for example, a request for a Multi-Room DVR session) remained in the queue and were not processed until the PowerKEY decryptor was stopped. Therefore, no Multi-Room DVR sessions could be established while the Multi-Room DVR server was streaming unencrypted VOD.

Solution

GQAM software version 4.2.7 carries forward the modification from GQAM software version 1.0.6 to insert the CA descriptor only for encrypted sessions, including those that will be encrypted after interactive session key (ISK) setup. Consequently, the OS now correctly detects the encryption status of the stream. Detecting the encryption status enables sessions (including VOD and Multi-Room DVR sessions) to be established correctly on a Multi-Room server.

For Information

If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.



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