



Netcrypt Bulk Encryptor Software Version 1.2 Release Notes

Overview

Introduction

These release notes contain the following information:

- Descriptions of the new features introduced with this software release
- Information you need to prepare for an upgrade to Netcrypt™ 1.2
- The list of software applications that make up Netcrypt 1.2
- Change requests (CRs) that were found in previous software releases and corrected in Netcrypt 1.2
- A summary of open issues for Netcrypt 1.2
- General information on contacting us for technical support

Scope

These release notes provide an executive overview of this software release. If you have questions about this release or require more detailed information, refer to the documents listed in the **Related Publications** section of this document, or call Cisco Services.

Audience

These release notes are written for system operators, sales and program managers, and field technicians.

Related Publications

You may find the following publications useful as resources when you implement the procedures in this document *DBDS Utilities Version 6.1 Installation Instructions and DNCS Utilities User Guide* (part number 4020695)

- *Netcrypt Bulk Encryptor Hardware Installation and Operation Guide* (part number 4001444)
- *Netcrypt Bulk Encryptor Software Installation Instructions* (part number 4021238)

Document Version

This is the second release of this document.

About This Software Version

Netcrypt 1.2 includes many features and enhancements implemented at the request of our customers. Review this section to learn more about these exciting changes.

Note: For more information about a Netcrypt Bulk Encryptor, such as theory of operation, instructions for hardware installation, provisioning, or operation, refer to *Netcrypt Bulk Encryptor Hardware Installation and Operation Guide* (part number 4001444).

What's New in this Release?

Netcrypt Bulk Encryptor software version 1.2 provides the following key features:

Support for IGMP Version 3

Netcrypt 1.2 provides multicasting support using Internet Group Management Protocol version 3 (IGMPv3).

Shared Key Support for Encrypted VOD

Provides full shared-key support for encrypted VOD in an Overlay environment. Full shared key support enables the Netcrypt Bulk Encryptor to operate in a mode where on-demand content is encrypted using methods compatible with legacy (third-party) conditional access (CA) systems. This mode is enabled during session creation and remains in effect until the session is deleted. Content that is protected using this mode will not be viewable by devices with integrated QAM demodulators (such as TVs with QAM tuners) that are able to display clear digital content.

Differentiated Services Code Point (DSCP) Support

Differentiated Services is a networking architecture that specifies a simple, scalable, and coarse-grained mechanism for classifying, managing network traffic and providing quality of service (QoS) guarantees on modern IP networks. The addition of this feature allows the Netcrypt to pass the per-hop behavior DSCP value transparently.

Support for PCR Filtering

A craft port command “filter_extra_pcrs” was added to Netcrypt software version 1.2.8. This command allows users to enable and disable a feature that filters program clock reference (PCR) information from packet identifiers (PIDs) that are not specified as the PCR PID in the program map table (PMT). This feature addresses an XDQA-24 PCR jitter issue that caused chroma loss on some QAM-ready TVs. This feature is disabled by default and should only be enabled when the XDQA-24 is used.

Applications Included in this Release

Netcrypt software version 1.2 includes the following software applications:

- Netcrypt Host Application code 1.2.11
- Netcrypt Host Boot code 1.2.11
- Netcrypt Input Application code 1.2.11
- Netcrypt Input Boot code 1.2.11
- Netcrypt Output Application code 1.2.11
- Netcrypt Output Boot code 1.2.11
- Field Programmable Gate Array (FPGA) code 16.8

Compatible Tools

To install and maintain Netcrypt 1.2 use the tools included in DBDS Utilities Version 6.1.

Installation Media

Netcrypt software version 1.2 can be obtained from our File Transfer Protocol (FTP) site.

For instructions on accessing our FTP site, refer to *Netcrypt Bulk Encryptor Software Installation Instructions* (part number 4021238).

Important: When using this document, follow only the procedures for downloading Netcrypt software from the FTP site. Do not follow instructions for downloading Netcrypt software from a CD.

What Are the Site Requirements?

This section includes important information to help you ensure that your site is prepared to upgrade to this software version. Please read this entire section before you upgrade to Netcrypt software version 1.2.

System Release Compatibility and Prerequisites

Netcrypt software can be installed on a network that is running System Release (SR) 2.7/3.7/4.2 SP2 and later releases.

For a complete configuration listing, or to upgrade your system, contact Cisco Services.

Software Requirements

To upgrade a Netcrypt Bulk Encryptor with this software version, Netcrypt software version 1.1.3 or greater must be installed on the Netcrypt Bulk Encryptor.

Hardware Requirements

Install Netcrypt software version 1.2 on only a Netcrypt Bulk Encryptor chassis (part number 4007553).

What's Fixed

Introduction

This section provides a description of the CRs implemented since Netcrypt version 1.1.3.

CR 71968: For Some VOD Applications, Set-Tops Receive No Content

In some VOD applications, circumstances can cause an intermittent condition that may result in an incorrect MAC address to be used for the resulting session. When this occurs the set-top does not receive the requested content. **CR 71968** corrects this potential condition.

CR 79849: CRC Calculated Incorrectly for IGMP Queries from the CRS Router

An IGMPv3 protocol compatibility issue with the Cisco CRS router was causing the Netcrypt output video to freeze for 1 second every 2 minutes. This problem was isolated to the Netcrypt using an incorrect structure size to calculate the cyclic redundancy check (CRC) of the IGMPv3 membership query. This issue only affects Netcrypt operation with the Cisco CRS router. **CR 79849** corrects this compatibility issue.

CR 80459: Source Switching Occasionally Causes Memory Corruption

A potential memory corruption may be triggered when more than 63 multicast groups exist on a single Netcrypt port and all content suddenly drops. The drop in content triggers a source switch event that corrupts random memory locations when more than 63 sessions are included in the IGMP report. This corruption can lead to unpredictable operation and may result in spontaneous reboot events. **CR 80459** corrects this condition.

Known Issues

At the time of this release, no new known issues were found during the test cycle.

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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