Netcrypt Overlay Bulk Encryptor Software Version 1.0 Release Notes

Overview

These release notes contain the following information:

- Descriptions of the features this software release provides
- Information required to prepare for installing or upgrading to Netcrypt™ Overlay Bulk Encryptor software version 1.0 (NOBE 1.0), such as hardware requirements
- The list of software applications that make up NOBE 1.0
- A summary of any open issues for NOBE 1.0
- Information on contacting us for technical support regarding NOBE 1.0

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 Software Installation Instructions* (part number 4021238)
- *Netcrypt Overlay Bulk Encryptor Installation and Operation Guide* (part number 4012215)

Document Version

This is the second release of this document.

About This Software Version

NOBE 1.0 is the first release of NOBE 1.0. A key feature of NOBE software is its ability to use two different conditional access (CA) systems, such as Motorola DigiCipher and Cisco PowerKEY®. This feature allows the NOBE to be deployed in an Overlay™ environment where a PowerKEY Digital Broadband Delivery System (DBDS) network is laid over an existing, but different cable network, such as a Motorola network. Overlay technology gives cable service providers the ability to offer value-added services and technologies that Explorer® set-tops and CableCARD™ modules provide and still support existing third-party set-tops and CableCARD modules.

Note: For more information about a NOBE, such as theory of operation, instructions for hardware installation, provisioning, or operation, refer to *Netcrypt Overlay Bulk Encryptor Installation and Operation Guide* (part number 4012215).

Features in this Release

NOBE 1.0 provides the following key features:

Support for Overlay-Encrypted Sessions

NOBE 1.0 is capable of encrypting a maximum of 17 multi-program transport streams suitable for digital broadcast.

IGMPv3 Support

NOBE 1.0 provides multicasting support using Internet Group Management Protocol Version 3 (IGMPv3).

Flexible Design

NOBE 1.0 offers a flexible design for broadcast and on-demand applications in systems that use MPEG transport over UDP, IP, and Ethernet.

Status Alarms for Monitoring and Maintenance

NOBE 1.0 provides status alarms to help you monitor and maintain the NOBE. In addition, if our optional Alarm Management System is used, alarms can be monitored on the Digital Network Control System (DNCS).

Want to Learn More About NOBE Features?

For more information about the NOBE, including theory of operation, refer to *Netcrypt Overlay Bulk Encryptor Installation and Operation Guide* (part number 4012215). This guide also provides instructions for installing Netcrypt hardware, provisioning, operating, and using alarms to troubleshoot a NOBE.

Applications Included in this Release

NOBE 1.0 includes the following software applications:

- NOBE Host Application code 1.0.9
- NOBE Host Boot code 1.0.9
- NOBE Input Application code 1.0.9
- NOBE Input Boot code 1.0.9
- NOBE Output Application code 1.0.9
- NOBE Output Boot code 1.0.9
- Field Programmable Gate Array (FPGA) code 16.8

Compatible Tools

To install and maintain NOBE 1.0, use the tools included in DBDS Utilities Version 6.1.

Installation Media

NOBE 1.0 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 NOBE 1.0 software from the FTP site. Do not follow instructions for downloading NOBE 1.0 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 NOBE software. Please read this entire section before you upgrade to NOBE 1.0.

System Release Compatibility and Prerequisites

NOBE 1.0 can be installed on a network that is running System Release (SR) 4.3 and later releases.

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

Hardware Requirements

Install NOBE 1.0 on only a Netcrypt Bulk Encryptor chassis (part number 4007553).

Known Issues

This section lists the CRs that were found while testing this software product. Efforts to address these issues are ongoing in the Cisco laboratories.

CR 80798: NOBE 1.0 Does Not Warn Users of an MPTS Over-Provision Condition, Which Can Result in Packets Being Sent in the Clear

A multiprogram transport stream (MPTS) over-provision condition can cause the output bandwidth to reach 95%. When this occurs, NOBE software begins dialing back the encryption percentage to prevent dropping packets. This encryption percentage dialback occurs to the point where all packets are sent in the clear. Currently, NOBE software provides no warning that an MPTS over-provision condition has occurred and gives users no indication for the cause of packets being sent in the clear.

CR 82832: NOBE 1.0 Allows Users to Exceed the Maximum Number of Overlay TSRs, Which May Cause Macroblocking to Occur

NOBE software supports the creation of up to 17 Overlay transport stream routes (TSRs) but does not prevent users from creating more than 17 Overlay TSRs. When more than 17 TSRs are created for a single NOBE, macroblocking may occur.

CR 86433: Bursty HD Music Programs Cause Occasional-to-Severe Macroblocking

Very bursty high definition (HD) music programs can cause the SmartStream Encryptor Modulator (SEM) to introduce additional delay that exceeds the one-third second overlay buffer on the NOBE. When this occurs, content coming from the SEM that contains the HD music program can experience occasional-to-severe macroblocking.

CR 87089: Encrypted Source Switch Ping Pongs When Both Clear Sources Are Removed

When both clear sources are missing, the third-party video glitches when the encrypted source switch occurs. This behavior continues every four seconds with another encrypted source switch until the clear input is restored.

CR 87184: Occasionally, NOBE 1.0 Rejects Overlay TSRs Even Though the Maximum Number of Overlay TSRs Has Not Been Reached

NOBE software allows a maximum of 17 Overlay TSRs to be created. However, after adding and deleting multiple Overlay TSRs, NOBE software may prevent a new Overlay TSR from being created even when the maximum number of Overlay TSRs has not been reached. To recover from this condition, users must reboot the NOBE.

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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June 2012 Printed in USA Part Number 4012216 Rev B