Release Notes for Cisco INA2320 Interactive Network Adapter for Release 2.2a

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These release notes for the Cisco INA2320 Interactive Network Adapter support Cisco INA2320 Software Release 2.2a. These release notes are updated as needed to describe new features; memory requirements; hardware support; and changes to the microcode, configuration software, and related documents.

For a list of caveats that apply to Release2.2a, see the "Open Caveats for Release 2.2a" section on page 4.

Contents

These release notes discuss the following topics:

CISCO SYSTEMS

Introduction

The Cisco INA2320 Interactive Network Adapter is the headend unit controlling the bidirectional broadband data communication over the hybrid fiber coaxial (HFC) network to the customer premises equipment (CPE) that is connected to the HFC network. The Cisco INA2320 Interactive Network Adapter is based on the open Digital Video Broadcast (DVB) standards.

The Cisco INA2320 interfaces to DVB-compliant CPE and provides the link to the backbone network toward the Internet Protocol (IP) hosts using an Ethernet interface.

You can configure and monitor the Cisco INA2320 using the Cable DVB/DAVIC Management Program; this program is based on Simple Network Management Protocol (SNMP) standard.

The Cisco INA2320 complies with the DVB standard ES 200800 and the SNMP v.2c.

System Requirements

Hardware Supported

The hardware components supported in this release include:

- Cisco INA2320 chassis
- CPU-LAN module
- Modulator module with 2 downstream channels
- Demodulator module 1 and 2 (4 upstream channels per module)
- Power supply unit
- Upconverter module 1 and 2
- IF Amplifier module 1 and 2
- Power connector

EMC Considerations

Unless properly installed, the Cisco INA2320 Demodulators are sensitive to RF signals induced on the cables at the upstream frequencies.

To ensure the immunity of the Cisco INA2320 Demodulator module all cables connected to the INA must be of a high quality with double screening or solid outer conductor. RG216 cables or bamboo cables are recommended.

Signal couplers should be located as close to the Cisco INA2320 as possible, preferably in the same rack section, and connected to the Cisco INA2320 by the shortest possible sections of cable.

The CPU-LAN, Modulator modules, and Demodulator modules are equipped with contact springs at the front panels. When replacing the modules, it is important that the springs remain undamaged. Even small openings in the front panel make the Cisco INA2320 sensitive to electrostatic discharge.

Safety

The Cisco INA2320 must be mounted with an air separation plate beneath it to meet the safety requirements. It is mandatory that the front edge of the air separation plate be equipped with a device collecting particles coming from the Cisco INA2320 mounted above the air separation plate.

For further instructions how to mount forced cooling devices and how to ventilate the Cisco INA2320 correctly, see the *Cisco DVB INA2320 Installation and Configuration Guide*.

Forced Cooling

To meet the temperature requirements, the Cisco INA2320 must be mounted with a fan tray above it to ensure forced cooling of the unit.

> **Note** Make sure that the fan tray secures air flow on all modules in the Cisco INA2320, that is, across the full width of the Cisco INA2320.

Configuration Hint When Configuring Using the Terminal Interface

When the INA2320 is configured from the terminal interface it is important that the host name is not equal to the Target name.

New and Changed Information

New Hardware Features in Cisco INA2320 Release 2.2a

The following new hardware feature is supported by the Cisco INA2320 for Release 2.2a:

- Two IF amplifier modules added

New Software Features in Cisco INA2320 Release 2.2a

The following new software feature is supported by the Cisco INA2320 for Release 2.2a:

- Support of 2 downstream channels
- MAC bridging support
- The Cisco INA2320 supports Llcsnap encapsulation for running with bridged and routed cable modems connected to the same Cisco INA2320.
- Support of CSRC for automatic provisioning of CPE devices.
- Support of Out-of-Band operation according to the DVB ES 200 800 standard.

Alarm Connector

The alarm connector is not supported in the software release 2.2a.

Upgrading the INA2320 to Software Version 2.2a

Saving the Current Configuration

Before performing a software upgrade it is recommended to save the current Cisco INA2320 configuration in a file. See Chapter 3, "To Save the INA Configuration in a File," of the *Cisco DVB Interactive Network Adapter INA2320 Installation and Configuration Guide*.

Performing the Software Upgrade

How to perform the software upgrade is described in Chapter 5, "Upgrading the INA Software," of the *Cisco DVB Interactive Network Adapter INA2320 Installation and Configuration Guide*.

Loading the INA2320 Configuration

When the Cisco INA2320 has loaded the new Software Release 2.2a, you can reload the previous configuration into the unit. See Chapter 3, "To Load the INA Configuration from a File," of the *Cisco DVB Interactive Network Adapter INA2320 Installation and Configuration Guide*.

The INA2320 is now operating with the new software and the unchanged individual settings.

Caveats

Caveats describe unexpected behavior in the Cisco INA2320 Software Release 2.2a. Severity 1 caveats are the most serious caveats; severity 2 caveats are less serious. Severity 3 caveats are moderate caveats.

Note   If you have an account with CCO, you can use Bug Navigator II to find caveats of any severity for any release. To reach Bug Navigator II, go to CCO and click **Login**. Then go to **Software Center: Cisco IOS Software: Cisco Bugtool Navigator II**. Another option is to go to http://www.cisco.com/support/bugtools.

Open Caveats for Release 2.2a

- CSCdr27136

   Some MIB-II variables cannot be set from SNMP. These MIB variables are defined as write variables in the MIB file, but they cannot be changed:

   - sysContact
   - sysName
   - sysLocation
   - ipForwarding

- – ipDefaultTTL

- – snmpEnableAuthenTraps

- CSCdr72034

  Multicast messages are not relayed from the HFC network to the Ethernet.

- CSCdr61672

  Rebooting a PC connected to the INA by using the COM port causes a reboot of the Cisco DVB INA2320

  When rebooting a PC that is connected to the COM port of the INA2320, the PC can cause the Cisco DVB INA2320 to reboot.

  Workaround: Disconnect the cable to the com port before the PC is rebooted.

- CSCds17983

  The Cisco DVB INA2320 does not boot from an FTP server across a CISCO switch 5509.

  There are two possible workarounds:

  - – Set the Cisco DVB INA2320 to boot from Flash.

  - – Enable fast startup on the switch port connected to the Cisco DVB INA2320.

- CSCdt41250 Out of order IP fragments (ping to Linux) NAT caveat

  If Network Address Translation is enabled in the Cisco DVB INA2320, IP fragments arriving out of order are be discarded. This happens if the first fragment is not received as the first packet.

Closed or Resolved Caveats—Release 2.2a

All the caveats listed in this section are closed or resolved in Cisco INA2320 Software Release 2.2a.

- CSCdp80814 FTP performance not sufficient

  The Cisco INA2320 has a downstream limitation of approximately 16 Mbps. There is also a limitation on the upstream, where the Cisco INA2320 is limited to approximately 90% of the expected value.

- CSCdr26390 Spectral inversion ignored when changed.

  Spectral inversion is currently not supported. When the field is set by the management program, the spectral will not be inverted.

- CSCds19840 Not able to view log and connection stat entries.

  The connection and log table may disappear from the management program. This can be solved by rebooting the INA2320.

- CSCds30172 Setting demodulator RF input value to high values causes boot fatal

  If the input level is set to a value higher than 75 dB, the INA2320 will not boot. The workaround is to set the input level to a value less than 75 dB.

- CSCds30176 Lower demodulator RF input levels not supported by hardware

  The upstream power range for the Cisco INA2320 has changed from 58-75 dBmicroV to 44-83 dBmicroV, effective from software version 2.2. Also the power level calculation has been adjusted to match the actual physical power level on typical demodulators in a better way. Note that the upstream power level is not calibrated, it may vary by as much as 6 dB from the specified level.

> **Note** When upgrading the INA software from an earlier version than 2.2, the actual upstream power level will increase by approximately 8 dB, to more closely match the value given in the INA management program.

- CSCds82919 When using QOS the modems gets 20% more data than specified

  The INA2320 grants 16% more bandwidth to each user than specified in the management program. Workaround: Set the maximum bandwidth 16% lower.

- CSCds82924 Softreboot can cause the INA to fail after a couple of hours (3 - 8 hours)

  This behavior is caused by a malformed check in the software. Workaround: Run a power cycle on the Cisco DVB INA2320.

Related Documentation

Platform-Specific Documents

These documents are available for the Cisco DVB INA2320 Interactive Network Adapter on CCO:

- *Cisco DVB INA2320 Installation and Configuration Guide*

Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

World Wide Web

The most current Cisco documentation is available on the World Wide Web at http://www.cisco.com. Translated documentation can be accessed at http://www.cisco.com/public/countries_languages.shtml.

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or as an annual subscription.

Ordering Documentation

Cisco Documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco product documentation from the Networking Products MarketPlace:

  http://www.cisco.com/cgi-bin/order/order_root.pl

- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:

  http://www.cisco.com/go/subscription

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-4000 or, in North America, call 800 553-NETS (6387).

Documentation Feedback

If you are reading Cisco product documentation on the World Wide Web, you can submit technical comments electronically. Click **Feedback** in the toolbar and select **Documentation**. After you complete the form, click **Submit** to send it to Cisco.

You can e-mail your comments to bug-doc@cisco.com.

For your convenience, many documents contain a response card behind the front cover for submitting your comments by mail. Otherwise, you can mail your comments to the following address:

Cisco Systems, Inc.
Document Resource Connection
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate and value your comments.

Obtaining Technical Assistance

The following sections provide sources for obtaining technical assistance from Cisco Systems.

Cisco.com

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information and resources at anytime, from anywhere in the world. This highly integrated Internet application is a powerful, easy-to-use tool for doing business with Cisco.

Cisco.com provides a broad range of features and services to help customers and partners streamline business processes and improve productivity. Through Cisco.com, you can find information about Cisco and our networking solutions, services and programs. In addition, you can resolve technical issues with online technical support, download and test software packages, and order Cisco learning materials and merchandise. Valuable online skill assessment, training, and certification programs are also available.

Customers and partners can self-register on Cisco.com to obtain additional personalized information and services. Registered users can order products, check on the status of an order, access technical support, and view benefits specific to their relationships with Cisco.

To access Cisco.com, go to the following website:

http://www.cisco.com

Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P¤) problem, contact TAC by going to the TAC website:

http: www.cisco.com/tac

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeable impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

http://www.cisco.com/register/

Cisco.com registered users who cannot resolve a technical issue by using the TAC online resource can open a case online by using the TAC Case Open tool at the following website:

http://www.cisco.com/tac/caseopen

Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.

- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.