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Release Notes for Cisco MICA Portware Version 2.3.1.0

June 9, 1998

These release notes document Cisco MICA Portware, Version 2.3.1.0. This document includes the following sections:

- Overview
- Features of Portware Version 2.3.1.0
- Known Problems with Portware Version 2.3.1.0
- Problems Resolved in Portware Version 2.3.1.0
- Portware Download Instructions
- Cisco Connection Online

Overview

The Portware Version 2.3.1.0 software is designed for the MICA 6-port modem module carrier card (HMM). The card requires the following images:

- Cisco IOS image
- Cisco IOS boot image (for Cisco AS5200 access servers only)
- Portware image

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The Portware version must be compatible with the Cisco IOS software release level. Table 1 provides a compatibility matrix.

Table 1 Portware Compatibility

Hardware Platform	Portware Version	Cisco IOS Release	Cisco IOS Boot Image
Cisco AS5200	2.3.1.0	11.3(2)T and higher	11.2(11)P1[1]
Cisco AS5300	2.3.1.0	11.2(10a)P1 and higher or 11.3(2)T and higher	–
Cisco AS5800	2.3.1.0	11.3(2)T and higher	–
Cisco 3600 series	2.3.1.0	11.2(9)XA and higher or 11.3(2)T and higher	–

1. If you are not using this image, you must upgrade your system in order to run Portware 2.3.1.0 on a Cisco AS5200 access server.

Features of Portware Version 2.3.1.0

Table 2 lists the features in Portware Version 2.3.1.0.

Table 2 Portware Feature Summary

Modulation	Rockwell K56flex Version 1.1 at 56000 to 32000 in 2000 bps increments
	ITU-T V.34 Annex 12 at 33600 and 31200 bps
	ITU-T V.34 at 28800, 26400, 24000, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, and 2400 bps
	ITU-T V.32*bis* at 14400, 12000, 9600, 7200, and 4800 bps
	ITU-T V.32 at 9600 and 4800 bps
	ITU-T V.23 in two modes: split speed and half-duplex 1200/75 (backchannel) bps
	ITU-T V.22*bis* at 2400 and 1200 bps
	ITU-T V.22 at 1200 bps
	ITU-T V.21 at 300 bps
	Bell212A at 1200 bps
	Bell103A at 300 bps (async)
Signaling	MF
	DTMF
	R1 noncompelled and semicompelled[1]
	R2 compelled, noncompelled, and semicompelled
Protocols	ITU-T V.42 (including MNP 2-4 and LAPM) Error Correction
	ITU-T V.42*bis* (1K nodes) and MNP 5 Data Compression
Modem Standards	ITU-T V. 25—Automatic calling or answering equipment on dialup lines. This standard includes the procedures for disabling echo control devices for calls that are established manually and automatically.

1. This feature is new in this release.

Known Problems with Portware Version 2.3.1.0

This section lists known problems with Portware Version 2.3.1.0. For the latest information on known problems, follow these steps to consult Cisco Connection Online (CCO):

Step 1 Connect to CCO as directed in the section "Cisco Connection Online."

Step 2 On the CCO home page, click LOGIN, which appears in green in the menu bar at the top of the page, and log into CCO. (If you are not a registered CCO user, follow the instructions to register so that you can log in.)

Step 3 After you log in, click Software & Support on the CCO home page.

Step 4 On the Software & Support page, click Technical Tools.

Step 5 On the Technical Tools page, click Bug Toolkit II. (Bug Toolkit II is not visible on the Technical Tools page unless you log in to CCO as directed in Step 2.)

Step 6 Use one of the tools to get up to date bug information. For example, click Search for Bug by ID Number, then enter a bug ID, such as CSCdj80580, when prompted. For instructions on using the bug tools, go to the bottom of the Bug Toolkit II page and click Help—How to Use the Bug Toolkit.

The following list describes known problems with Portware Version 2.3.1.0. If a workaround is not provided, the problem requires further investigation or a solution is being developed.

- CSCdj80580—V.42*bis* call drops (illegal tokens) may occur with US Robotics (USR) modems. This has been seen only with USR Courier modems in a Total Control Hub.
- CSCdj84343—A small percentage of calls are not negotiating error correction and are remaining in normal mode.
- CSCdj71728—On rare occasions, the uplink (receive) rate of a K56flex call shifts to speeds as low as 4800 bps.
- CSCdj50614—ARAP connections are unreliable.
- CSCdj56697, CSCdj58605—Error correction is not properly negotiated with MNP.
- CSCdj56126—File transfer failures may occur with V.22, V.22*bis*, and Bell212 with no error correction.
- CSCdj64121—File transfer failures may occur with V.21 and Bell103 with error correction.
- CSCdj55455—There is a problem with V.23 in which MICA sends garbage data when a call is initially connecting.
- CSCdk09088—Call Success Rate (CSR) is down for USR Megahertz 33.6 PCMCIA modems. Testing shows that this modem will reliably connect only 90% to 95% of the time.
- CSCdk08302—V.8bis CL & MS message revisions for Lucent & Rockwell are incorrect. Lucent-based K56 modems will respond to a Flex 1.0 version request by attempting to connect using K56Plus. MICA does not support the Rockwell proprietary 56KPlus modulation scheme. This results in failed calls or in connecting at V.34 rates.
- CSCdk11008—MICA does not handle power control well for large echoes. MICA has difficultly negotiating power level settings with client modems that have a higher than normal transmit power level and a smaller than normal echo return loss. This will result in failures to connect and/or in call drops. This problem is most prevalent on lines that allow strong transmit levels and that have large impedance mismatches.
- CSCdk11019—The Cisco IOS status command **show modem** sometimes produces incorrect data. Under certain conditions, the data reported for RX level and SNR is inaccurate by as much as 3 dB.

Problems Resolved in Portware Version 2.3.1.0

This section lists problems with Portware Version 2.2.3.0 that are fixed in Version 2.3.1.0.

- CSCdk03600, CSCdk05007—MICA modems infrequently became locked in a speed shift state on CAS loop-start lines.
- CSCdj94310—Hayes Lucent-based modems sometimes violated the V.42 protocol specification, and a call drop resulted.
- CSCdj87158—Improvements were made in the handling of "hot" MICA receiver levels.
- CSCdj84843—Fixed problem at 1200/2400 and no error correction where MICA would send garbage data when a call initially connected.
- CSCdj73645—Fixed problem in dialout where MICA would disconnect before the client had a chance to answer.
- CSCdj91539—Fixed V.42*bis* compression call drop problem with Multitech modems.
- CSCdj91441—Fixed problem in MNP where call would disconnect if the line was idle (no data) for 1 minute.
- CSCdj73494—The combination of MNP4 and V.42*bis* now works properly.
- CSCdj44302—The MICA receive connect rate is no longer limited to 31.2K.
- CSCdj90110—The default setting for the S0 register is now 2 (1 second).
- CSCdj92494—To reduce call drops, improvements have been made in handling client modems whose oscillator speeds are marginal.
- CSCdj85961—Fixed problem where a MICA modem reverted to default settings after a call disconnected, rather than maintaining its modem cap settings. To work, this fix requires the fix for an associated Cisco IOS problem, DDTs CSCdj61966, which has been incorporated in Cisco IOS Release 11.2(11)P1 and later.
- CSCdj92429—Applications that run async with 7 data bits, even parity, 1 stop bit, and no error correction are now supported properly.
- CSCdk01266—Improved connectivity for client modems that do not properly handle handshaking in V.34 phase 4. The problem was observed in the Jack O Diamonds client modem.
- CSCdj45522—Improvements have been made in the handling of the reception of FRMRs (LAPM frame rejects), so that the number of call drops is reduced.
- CSCdj85230, CSCdj87297—Fixed a problem where status reporting was not always accurate, and in rare cases data stopped passing.
- CSCdj91951, CSCdj87845—Fixed a problem that could eventually bring down a whole HMM.
- CSCdj86475—Fixed problem where DTMF/MF tones were generated at excessively high levels.

Portware Download Instructions

For Portware download instructions, see the following documents:

- Cisco AS5300 access servers: See Appendix A, "Managing Modems," in the *Cisco AS5300 Universal Access Server Software Configuration Guide*.
- Cisco AS5200 access servers: See Appendix B, "Managing Modems," in the *Cisco AS5200 Universal Access Server Software Configuration Guide*.

- Cisco AS5800 access servers: See Appendix A, “Modem Management,” in the *Cisco AS5800 Universal Access Server Software Installation and Configuration Guide.*
- Cisco 3600 series: See the *Cisco 3600 Series Modem Portware Upgrade Configuration Note.*

Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems’ primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco’s customers and business partners. CCO services include product information, product documentation, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com
- WWW: http://www-europe.cisco.com
- WWW: http://www-china.cisco.com
- Telnet: cco.cisco.com
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO’s Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

Note If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco’s Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

Part number:

This document is to be used in conjunction with Cisco hardware and software documentation for the system in which the MICA modems are installed.

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