



Cisco VCO/4K System Software Version 5.2(2) Release Notes

April 2002

These release notes describe the open and resolved caveats in system software Version 5.2(2) for the Cisco Systems VCO/4K switch. There are no new features introduced with this release. Use these release notes in conjunction with the *Cisco VCO/4K Software Installation Guide*, the *Cisco VCO/4K System Administrator's Guide*, and *Cisco VCO/4K System Messages*.

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System Requirements

This section provides system requirements for operating VCO/4K system software. These requirements are categorized by hardware, firmware, and software. Contact Cisco Systems Technical Assistance Center (TAC) for any site-specific information.



Hardware Requirements

To operate VCO/4K system software Version 5.2(2), make sure your Cisco VCO/4K switch is equipped with the following minimum components and revisions:

- System Controller
 - Combined Controller (16-MB 68030-based CPU)
 - Refer to the *Cisco VCO/4K CPU Upgrade Procedure* if you need to replace a 25-MHz/8-MB CPU with a 33-MHz/16-MB CPU.
 - Storage/control I/O module
- Storage Subsystem
 - SCSI interface hard drive, 42 MB or larger
 - 3.5-inch SCSI interface floppy drive
- Control Circuit Cards
 - NBC3 card, rev E0AR
 - Two NBC3 cards are required for redundant systems.
 - Alarm Arbiter Card (AAC), rev COUR
- Service Circuit Cards
 - SPC—revision B13P (if you require an SPC)
 - SRM—revision A13P
 - DTG2 or DTG (Digital Tone Generator)—not used with the multiple tone plan feature or
 - SPC-TONE and SPC-OUTPULSE—mandatory if using the multiple tone plan feature
- Network Circuit Cards
 - ICC, rev C09P
 - 16-span ICC-E1 I/O module, rev A15P
 - 16-span ICC-T1 I/O module, rev A16P



Note

Use the I/O module specific to your needs. You do not need all of the I/O modules listed above to meet the hardware minimum requirements.

Firmware Requirements

Table 1 lists the VCO/4K system software Version 5.2(2) firmware requirements. Refer to the *Cisco VCO/4K Card Technical Descriptions* for firmware locations for each card.

For tone plan-specific firmware requirements (which affect DTG2 or DTG cards), refer to the *Cisco VCO/4K Tone Plan Release Notes*.



Note

The firmware label applied by Cisco Systems may list only the last four digits of the checksum. The checksum for the NBC3 LP125 is not listed because the programming for this item is part of the NBC3 download file.

Table 1 *Firmware Requirements*

Card	Firmware	Checksum	Versions	Location	Changed Since V5.2(1)
CPU	Boot EVEN	006E691D	5.00	U1	N
	Boot ODD	00866CBF	5.00	U15	
	MVME147-023	5741B41F	2.44	U30	
	MVME147-023	5741B42F	2.44	U22	
D+I	D+I	00003158	2.02	U9	N
ICC I/O Module	Comm Bus	00299FE4	8.01	U48	N
	J3	00275397	8.01	U76	
	CS	002A9F8A	8.01	U12	
	5x7, Rev B	000B5C9A	8.01	U11	
	PCM Interface	00257696	8.02	U41	
IPRC-8	IPRC 8-PORT	00220D75	1.03	U2	N
IPRC-64	IPRC 64-PORT	00220DC1	1.03	U2	N
IPRC-128	IPRC 128-PORT	00220E0A	1.03	U2	N
NBC3 Card Rev E	LP141 SWI	0019204D	LP141A	U31	N
	LP140 Counter	0015E220	LP140H	U73	
	LP139 Chip Select	000D4209	LP139A	U30	
	LP125 Comm Bus FPGA	—	LP125C	U53	
	Boot PROM	00F597BE 00F5D06E	1.02 or 1.03	U1	
SSC	Comm Bus Control	00186169	LP101A	U24	N
	PCM Interface	00185A34	LP130B	U76	
	Quad 9 to 1	0017878C	LP129A	U71/U70	
	Redundancy Control	0017F249	LP128A	U100	
	Subrate Matrix Control	000BB573	LP131	U31	
	Boot PROM	00400736	1.02	U10	

Software Requirements

[Table 2](#) lists valid software checksums and versions for the VCO/4K system software Version 5.2(2) and optional software products.

Use the Software/Firmware Configuration utility to identify the version and checksum of each software file after Version 5.2(2) has been installed on the system (refer to the *Cisco VCO/4K System Administrator's Guide* for more information). System software files are distributed across the installation floppy diskettes. Optional software products are contained on two floppy diskettes.

Table 2 VCO/4K System Software Version 5.2(2) Checksum Values

VCO/4K System Software	Filename	Checksum	File Version ¹	Changed Since V5.2(1)
Executable Files	GLOBALS.EXE	015417E6	—	Y
	HOSTMGR.EXE	04C83C98	—	Y
	SYSWD.EXE	01A1EB73	—	Y
	REDMGR.EXE	0100C2EA	—	Y
	PERMGR.EXE	00000000	—	N
	NETMGR.EXE	03342D2A	—	Y
	SNMP.EXE	0315383F	—	Y
	INSTALL.EXE	02323BEC	—	N
	TELERTE.EXE	00007ADA	4.00	N
	NFAS.EXE	00007B0C	6.48	N
	NI2.EXE	00007B0C	6.48	N
	ETHERMGR.EXE	00007B0C	4.02	N
Download Files	NBC.DWN	01095D96	1.09	N
	DNI.DWN	006F3224	1.03	N
	SSC.DWN	006C84CB	1.00	N
	IPRC.DWN	0023113E	1.05	N
	SPC.DWN	064C666B	5.12	Y
	ICC.DWN	06377F71	5.14	N
	DVC.DWN	005ADA02	1.08	N
	DTMF.DWN	00053D1A	2.02	N
	CPA.DWN	003079F3	8.09	N
	4XT1.DWN	0037015B	1.55	N
	4XE1.DWN	0037A584	1.45	N
	MVDCT1.DWN	00F2D33A	1.08	N
	PRI.DWN	0091BB77	8.04	N
	PRIN.DWN	009665C2	9.00	N
	NTTPRI.DWN	008DF385	1.09	N
	NTDASS2.DWN	009F44C9	3.08	N
	DPNSS.DWN	00AB15B6	3.12	N
NET5.DWN	008774E7	1.29	N	

Table 2 VCO/4K System Software Version 5.2(2) Checksum Values (continued)

VCO/4K System Software	Filename	Checksum	File Version ¹	Changed Since V5.2(1)
Protocol Files ²	ICCCASR2.UPG	000007B4	—	N
	ICCCCS31.UPG	0000012D	—	N
	ICCCLEAR.UPG	0000012D	—	N
	ICCEM.UPG	00000669	—	Y
	ICC01.UPG	00000666	—	N
	ICC02.UPG	0000077A	—	N
	ICCFXOGS.UPG	000007C2	—	N
	ICCFXOLS.UPG	00000773	—	N
	ICCFXSGS.UPG	000007F4	—	N
	ICCFXSLS.UPG	00000699	—	N
	ICCGR303.UPG	000009E1	—	
Operating System Files	VRTX OS	—	1.08	N
	IFX	—	1.11	N
	TNX	—	1.45	N
SNMP				
Management Information Base	VCO.MIB ³	—	2.2.8	N

1. The software no longer lists the individual executable file (.EXE) version numbers in the Software/Firmware Configuration screen. A “—” character in the File Version column signifies that the file version matches the system software release, for example, Version 5.2. If a version number appears in the File Version column for an .EXE file, it is strictly for reference purposes; it does not appear in the Software/Firmware Configuration screen.
2. The checksum values for .upg files (protocol files) are displayed by accessing the Display File screen. Go to Maintenance Menu > Disk Utilities > Display File, and type: **c:boot/<filename>**. The .upg file checksum value is displayed in the first four bytes of the second row.
3. The VCO.MIB file is not installed on the switch; it is intended for the SNMP host system.

New and Changed Information

VCO/4K system software Version 5.2(2) is a maintenance release which includes several caveat resolutions. Refer to the [“Caveats” section on page 16](#) for more information on resolved caveats.

This release contains an enhancement for the Password Configuration screen, which allows you to change SNMP read and write community strings of up to ten characters. See the [“Changeable SNMP Community Strings” section on page 6](#).

Diskettes containing Version 5.2(2) system software are not provided. You must complete the procedures in the following sections to make your diskettes:

- [“Downloading the Perl Interpreter” section on page 6](#)
- [“Downloading VCO/4K System Software Version 5.2\(2\)” section on page 7](#)
- [“Making VCO/4K System Software Version 5.2\(2\) Diskettes” section on page 10](#)

Changeable SNMP Community Strings

The Password Configuration screen allows you to change SNMP read and write community strings with the previous release, VCO/4K system software Version 5.2(1). The Version 5.2(2) release increases the password length from eight to ten uppercase and/or lowercase alphanumeric characters.

Complete the following steps to configure SNMP community strings:

-
- Step 1** Access the Password Configuration screen. Refer to the *Cisco VCO/4K System Administrator's Guide* for more information on the Password Configuration screen.
- Step 2** Delete the following two usernames:
- snmpget
 - snmpset
- Step 3** Add and save the two usernames you deleted in Step 2.
- The password of the snmpget serves as the SNMP GET community string, and the password of the snmpset serves as the SNMP SET community string.
- Step 4** Establish passwords for the usernames added in Step 3. Refer to the *Cisco VCO/4K System Administrator's Guide* for instructions.



Note Passwords must consist of up to ten uppercase and/or lowercase alphanumeric characters. If you type a password more than twelve characters, the tenth character is overwritten until you stop typing. Follow all existing user password restrictions described in the *Cisco VCO/4K System Administrator's Guide*.

The passwords are displayed as asterisks (*) on your screen.

- Step 5** Change your passwords as often as necessary.
-

The SNMP community string configuration is complete. The VCO/4K system compares the passwords of the snmpget and snmpset usernames with the community strings given by incoming SNMP request messages—community strings used by the network management station (NMS) for GET and SET commands.

Changeable SNMP Community Strings Restrictions and Limitations

- The snmpget and snmpset usernames must be added and not removed from your system.
- In releases prior to V5.2(1) of the VCO/4K product, you can configure 16 users on one system with the Password Configuration screen; however, due to the implementation of changeable SNMP community strings, you can configure a maximum of 14 users on one system in addition to the snmpget and snmpset usernames.
- Passwords must consist of up to ten uppercase and/or lowercase alphanumeric characters.

Downloading the Perl Interpreter

Complete the following steps to download the Perl interpreter to your PC or workstation:

-
- Step 1** Open a Web browser on your PC or workstation.
- Step 2** Access the ActivePerl download site from <http://perl.com>.
- Step 3** Download the currently released ActivePerl interpreter appropriate for your PC or workstation and operating system.



Note You may have to register at the ActivePerl site before you download the interpreter. The ActivePerl interpreter is a free download.

- Step 4** Follow the online download instructions and make a notation of where the ActivePerl interpreter resides on your PC or workstation.
-

You have completed downloading the ActivePerl interpreter. Proceed to the “[Downloading VCO/4K System Software Version 5.2\(2\)](#)” section on page 7.

Downloading VCO/4K System Software Version 5.2(2)

You must download the following components to download the complete VCO/4K system software for Version 5.2(2):

- VCO/4K generic system software
- VCO/4K prompt library
- VCO/4K tone plans

Downloading the Generic System Software

Complete the following steps to download the VCO/4K generic system software for Version 5.2(2):

-
- Step 1** Open a Web browser on your PC or workstation and access the Cisco VCO/4K software site at <http://www.cisco.com/kobayashi/sw-center/telephony/vco/vco-planner.shtml>.
The Cisco VCO/4K Software page is displayed.
- Step 2** Click on the **VCO v5.2** hypertext.
The Software Download page is displayed.
- Step 3** Select one of the following options:
- If you are a Windows user, click the **vco.v52fsr02.readme** filename.
 - If you are not a Windows user, proceed to Step 7.
- The Software Download screen is refreshed with the .readme file details displayed.
- Step 4** Click the **vco.v52fsr02.readme** filename and save the file to your desktop.
- Step 5** Double-click the **vco.v52fsr02.readme** file on your Desktop to open it.
- Step 6** Read the instructions contained in the .readme file before continuing with the download.
- Step 7** Access the Software Download screen at <http://www.cisco.com/cgi-bin/tablebuild.pl/vco-52>.
- Step 8** Click the **vco.v52fsr02.tar** filename.

The Software Download screen is refreshed with the .tar file details displayed.

- Step 9** Click the **vco.v52fsr02.tar** filename to save the file to your hard drive and make a notation of the location.



Note You must follow DOS filename and path name conventions for all steps in these instructions.

- Step 10** Use Winzip to extract the files contained in **vco.v52fsr02.tar** in a specified directory path, for example, C:\Newver.

A new directory named disks is created. The following folders and files are extracted and placed in the disks directory, which is located in the path you specified:

- generic1
- generic2
- generic3
- generic4
- generic5
- generic6
- mibdisk
- options1
- options2
- protocol
- v50disks.bat
- vcodisks.pl

You have completed downloading the VCO/4K generic system software. Proceed to the [“Downloading the VCO/4K Prompt Library”](#) section on page 8.

Downloading the VCO/4K Prompt Library

Complete the following steps to download the VCO/4K prompt library—the A-law and Mu-law software.



Note This procedure is not mandatory. If you do not use the prompt library, you can proceed to the [“Making VCO/4K System Software Version 5.2\(2\) Diskettes”](#) section on page 10.

- Step 1** Open a Web browser on your PC or workstation and access the Cisco VCO/4K software site at <http://www.cisco.com/kobayashi/sw-center/telephony/vco/vco-planner.shtml>.

- Step 2** Click the **VCO Prompt Library** hypertext.

The Cisco VCO/4K Prompt Library Software Download page is displayed.

- Step 3** Select one of the following options:

- If you are a Windows user, click the **vco.promptlib.readme** filename.

- If you are not a Windows user, proceed to Step 7.

The Software Download screen is refreshed with the .readme file details displayed.

- Step 4** Click the **vco.promptlib.readme** filename and save the file to your desktop.
- Step 5** Double-click the **vco.promptlib.readme** file on your Desktop to open it.
- Step 6** Read the instructions contained in the .readme file before continuing with the download.
- Step 7** Access the Software Download screen at **<http://www.cisco.com/cgi-bin/tablebuild.pl/vco-52>**.
- Step 8** Click the **vco.promptlib.tar** filename.

The Software Download screen is refreshed with the .tar file details displayed.

- Step 9** Click the **vco.promptlib.tar** filename to save the file to your hard drive and make a notation of the location.



Note You must follow DOS filename and path name conventions for all steps in these instructions.

- Step 10** Use Winzip to extract the files contained in **vco.promptlib.tar** in a specified directory path, for example, C:\Newver.

A new directory named vcoprompts is created. The following folders are extracted and placed in the vcoprompts directory, which is located in the path you specified:

- disk1
- disk2
- disk3
- disk4

You have completed downloading the VCO/4K prompt library. Proceed to the [“Downloading the VCO/4K Tone Plans”](#) section on page 9.

Downloading the VCO/4K Tone Plans

Complete the following steps to download the VCO/4K tone plans.



Note This procedure is not mandatory. If you use the North America tone plan only, you can proceed to the [“Making VCO/4K System Software Version 5.2\(2\) Diskettes”](#) section on page 10.

- Step 1** Open a Web browser on your PC or workstation and access the Cisco VCO/4K software site at **<http://www.cisco.com/kobayashi/sw-center/telephony/vco/vco-planner.shtml>**.
- Step 2** Click the **VCO Toneplans** hypertext.
- The Cisco VCO/4K Toneplans Software Download page is displayed.
- Step 3** Select one of the following options:
- If you are a Windows user, click the **vco.toneplan.readme** filename.
 - If you are not a Windows user, proceed to Step 7.

The Software Download screen is refreshed with the .readme file details displayed.

- Step 4** Click the **vco.toneplan.readme** filename and save the file to your desktop.
- Step 5** Double-click the **vco.toneplan.readme** file on your Desktop to open it.
- Step 6** Read the instructions contained in the .readme file before continuing with the download.
- Step 7** Access the Software Download screen at <http://www.cisco.com/cgi-bin/tablebuild.pl/vco-52>.
- Step 8** Click the **vco.toneplan.tar** filename.
The Software Download screen is refreshed with the .tar file details displayed.
- Step 9** Click the **vco.toneplan.tar** filename to save the file to your hard drive and make a notation of the location.



Note You must follow DOS filename and path name conventions for all steps in these instructions.

- Step 10** Use Winzip to extract the files contained in **vco.toneplan.tar** in a specified directory path, for example, C:\Newver.

A new directory named vcotoneplan is created. Several folders, identified by country name, are extracted and placed in the vcotoneplan directory, which is located in the path you specified.

You have completed downloading VCO/4K system software Version 5.2(2). Proceed to the [“Making VCO/4K System Software Version 5.2\(2\) Diskettes”](#) section on page 10.

Making VCO/4K System Software Version 5.2(2) Diskettes

Complete the following steps to make a set of VCO/4K system software Version 5.2(2) diskettes. You need up to 13 diskettes to complete these instructions.

- Step 1** Place a diskette in the A:\ drive of your PC.
- Step 2** Execute the Perl script, for example, **perl C:\Folder\vcodisks.pl**.
The script runs and asks you for a source drive.
- Step 3** Enter the drive name identifying the path you selected in Step 10 in the [“Downloading VCO/4K System Software Version 5.2\(2\)”](#) section on page 7.
The script asks you for the target drive.
- Step 4** Type **A:**.
The script asks you which option you want to install.
- Step 5** Type **1**.
The contents for Generic Disk 1 are placed on your diskette in the A:\ drive.
- Step 6** Remove the diskette from the A:\ drive and label it Generic Disk 1.
- Step 7** Repeat Step 1 to Step 6 for the following Perl script options to make a complete set of diskettes, and label the diskettes appropriately:
- 1) Make Generic Disk 1
 - 2) Make Generic Disk 2
 - 3) Make Generic Disk 3

- 4) Make Generic Disk 4
- 5) Make Generic Disk 5
- 6) Make Generic Disk 6
- 7) Make Toneplan Disk
- 8) Make Options Disk 1
- 9) Make Options Disk 2
- 10) Make MIB Supplemental Disk



Note Executing Perl script option 10 is not mandatory. Execute this option if you are using SNMP.

- 11) Make Protocol Disk



Note Executing Perl script option 11 is not mandatory. Use this option if you are using ICC protocols.

- 12) Make Prompts Alaw Disk1
- 13) Make Prompts Alaw Disk2



Note Execute Perl script options 12 and 13 if you are using A-law on your VCO/4K system and do not use options 14 and 15. Executing Perl script options 12 to 15 is not mandatory.

- 14) Make Prompts Mulaw Disk1
- 15) Make Prompts Mulaw Disk2



Note Execute Perl script options 14 and 15 if you are using A-law on your VCO/4K system and do not use options 12 and 13. Executing Perl script options 12 to 15 is not mandatory.

You have completed making VCO/4K Version 5.2(2) diskettes. Refer to the following for information about installing this new version of software:

- [“Important Notes” section on page 13](#)
- *Cisco VCO/4K Software Installation Guide*

Limitations and Restrictions

If you are using the VCO/4K product for Communication Assistance for Law Enforcement Act (CALEA) conferencing, you must administratively detach each CALEA one-way port when the CALEA conference is completed. CALEA one-way conference ports remain in the Class of Service (COS) state of 2C if you do not detach them, which makes them unavailable for other calls. Refer to the *Cisco VCO/4K System Administrator's Guide* for information about administratively detaching ports.

Table 3 lists the design constraints which have been identified in VCO/4K system software and related software. Unless noted, these limitations and restrictions apply to all Cisco VCO/4K releases up to and including 5.2(2). Cisco Systems currently has no plans to address the following known design constraints.

Table 3 Known Design Constraints up to and Including Version 5.2(2)

DDTs Issue	Description
—	Do not pull the active side NBC3 on an operating production switch. If you pull an active NBC3, it can impact traffic and the system will generate errors. If you suspect a problem with an NBC3 card and you wish to remove it, first switch sides to make it the standby side.
—	The ICC and SPC automatically reset after downloads. After a download to the ICC or the SPC, the card resets itself for the new download to take effect.
—	The system does not allow the operational mode to be set back to standard once it has been set to extended. This is due to larger values which could be set in extended mode and are not valid in standard mode. The mode is stored in one of the database files. If you must return to standard mode during testing, do so by reverting to the saved database files which were copied before you set the extended mode.
CSCdm18135	If a resource group contains SPC-CONF, the system hunts by means of the Rotary method only (regardless of whether you select Rotary or Cyclic in the Hunt Type field from the Resource Group Summary screen).
CSCdm45047	The Disk Utilities screen option I, Format Disk, is unavailable for users of system software V5.x and higher. If you attempt to format a floppy disk in the A:/ drive, the "Formatting A Drive Is Not Permitted" message appears.
CSCdp49217	FTP hangs while running FTP scripts to the VCO.
CSCdp78129	ICC quiet tone: the administration diagnostic screen indicates that the port is attached/listening to 4C0, when it is actually generating the quiet tone itself and is not attached to 4C0.
CSCdp84909	The VCO receives alarms FRM506/FRM531 under the rare circumstances of the SWI buffer not being allocated for sending messages to the NBC, during very high volume traffic. Loss of traffic may result.
CSCsf31137	After a warm start, the system sends a \$DC report to start call processing before IPRC prompt downloading is complete.
CSCsf41717	Avoid using the Software/Firmware Configuration screen to view the contents of floppy diskettes (device A:).
CSCsf51960	If you use an Ethernet system host interface with up to four hosts and high loads, the system may fail. Higher loads may support even fewer host connections. Use minimum host connections for high load switches.
CSCsf52581	Aux1 alarms triggered by the hardware (power supply, fan unit, or ring voltage failure) are not displayed on the System Alarms Display screen. Therefore, remote users cannot determine if a major hardware alarm is set.
CSCsf62790	A load seize on impulse rules with record and speak tokens at 22 seizures causes IPRC cards to go OOS.
CSCsf62917	There is a mismatch between the online and diskette disk utilities. Underscores and special characters are not supported in directory and file names.

Table 3 *Known Design Constraints up to and Including Version 5.2(2) (continued)*

DDTs Issue	Description
CSCsf62982	You do not get major alarm ALM011: No Hosts Available when all hosts connections are lost if TeleRouter is enabled. TeleRouter causes this problem. If TeleRouter is disabled and all host connections are lost, the alarm appears.
CSCsf63022	TeleRouter Routing Action (\$D5) reports do not appear in the system trace file, but they are sent to the host.
CSCsf63245	If you attempt to update the gateway routing tables before you install and enable Ethernet, the gateway routing tables get corrupted.
CSCsf63261	If you use SNMP to configure resource groups on redundant systems, the port.tbl file gets corrupted and ports are missing from the resource groups.
CSCsf63398	If you add or delete a tone generator card while another tone generator is outpulsing, the switch may be unable to do further outpulsing and may even fail.
CSCsf84601	Can't delete large files from administration console.
CSCsf84771	A shutdown to the system results in a reboot. If you need to prevent a reboot, you must follow one of the following workaround procedures: <ul style="list-style-type: none"> Remove the Combined Controller on a VCO/4K. Rebooting attempts are prevented. Reboot the system from a floppy disk. The system enters and remains in the installation state, and prevents further reboots.
CSCsf84962	All impulse rules are aborting on port \$47F, when using the physical address \$47F as a trunk resource. Impulse rule aborting occurs because \$47F is adjacent to the tone card. Do not use physical address \$47F.
CSCsf85137	If a DSP SRM is not physically installed on the SPC, but the DSPs are configured in the database, the system displays the SPC with a status of M (maintenance) rather than the expected O (out of service) status.
CSCsf85214	Spans that have been taken OOS before a reboot must be manually taken OOS after the reboot is complete. It is also recommended that the system is not run with cards defined and OOS; remove cards from the database. This workaround will improve overall performance.

Important Notes

This section contains important information for operating the VCO/4K system efficiently. The following sections are included to enhance configuration and performance:

- [“Mandatory Database Conversion for Upgrade from Version 5.1\(4\) and Lower” section on page 14](#)
- [“Live Upgrade” section on page 14](#)
- [“ICC-T1 ISDN Span as Primary Timing Source” section on page 15](#)

Mandatory Database Conversion for Upgrade from Version 5.1(4) and Lower

If you are upgrading from VCO/4K system software Version 5.1(4) or lower, you must complete a database conversion immediately after upgrading to VCO/4K system software Version 5.2(0) and higher. Refer to the *Cisco VCO/4K Software Installation Guide* for database conversion procedures.



Note

The database conversion is performed by the system without the usual advisory system messages.

Live Upgrade

You can use Live Upgrade to upgrade to system software Version 5.2(2); however, refer to the following two sections for version-specific workaround procedures.



Caution

Do not operate conferences on the VCO/4K system while performing a Live Upgrade. Failure to follow this guideline may result in loss of calls. Ensure that the host is not sending Conference Control (\$6D) commands to the VCO/4K system during the system reset/file synchronization phase of the Live Upgrade procedure. Refer to Step 5 through Step 11 in the “Perform a Live Upgrade” section of the *Cisco VCO/4K Software Installation Guide* for more information.

Live Upgrade Procedures from Version 4.2 and Higher

Complete the following steps to use Live Upgrade if you are using system software Version 4.2 and higher. This procedure is a workaround for DDT's issue CSCdp23217—Live Upgrade failure with a Process Event Handler.



Caution

If you are using system software from Version 5.0.0.25 through Version 5.1.0.26, you must complete the following steps, and the steps in the [“Live Upgrade Procedures from Version 5.0.\(0.25\) through Version 5.1.\(0.26\) with SPCs”](#) section on page 15, so that you do not lose all calls.



Caution

Do not access the Software/Firmware Configuration screen at any time during Live Upgrade procedures. Failure to follow this instruction results in Live Upgrade failure. Proceed to Step 1; do not deviate from these procedures.

- Step 1 Boot the standby side of the switch.
- Step 2 Wait for file synchronization and perform a switchover.
- Step 3 Boot the new standby side and wait for file synchronization.
- Step 4 Follow the Live Upgrade procedures in the *Cisco VCO/4K Software Installation Guide*.

Live Upgrade Procedures from Version 5.0.(0.25) through Version 5.1.(0.26) with SPCs

Complete the following steps to use Live Upgrade from system software Version 5.0.(0.25) through Version 5.1.(0.26). This procedure prevents DSP failure on switchover and is a workaround for DDT's issue CSCdm22671.



Caution

Follow this workaround procedure when using Live Upgrade from Version 5.0.(0.25) through Version 5.1.(0.26). Failure to do so will result in the loss of all calls that require SPC resources. Use this procedure to minimize the volume of lost calls, limiting them to calls that are active on the SPC and that are taken out of service in order to reflash.

-
- Step 1** Load the new SPC.DWN on the active side of the system.
 - Step 2** Take one SPC out of service (OOS).
 - Step 3** Place the same SPC in the active state.
 - Step 4** Wait for the download to complete and all DSPs to become active on the SPC.
 - Step 5** Repeat Step 2 through Step 4 for all other SPCs, one at a time.
 - Step 6** Follow the Live Upgrade procedures in the *Cisco VCO/4K Software Installation Guide*.
-

ICC-T1 ISDN Span as Primary Timing Source

When an ICC-T1 ISDN span is configured as the primary timing source, the incoming clock on the ICC-T1 ISDN fails to synchronize if you are upgrading from an existing database—prior to system software Version 5.1(1)—to a new database in VCO/4K system software Version 5.2(1).

To utilize your existing ICC-T1 ISDN (NI2, 4ESS, 5ESS, NTI, NTT) span as the primary timing source, complete the following steps when you upgrade to 5.2(2).



Note

You do not need to perform the following procedure if you are adding a new T1 span as the primary timing source to the database or if you are currently running system software Version 5.1(1) or higher.



Note

When you upgrade your software to 5.2(2), Cisco Systems recommends that you perform this procedure on the ICC-T1 ISDN spans configured as the primary and secondary timing source.

-
- Step 1** Take the existing ICC-T1 ISDN span, configured as the primary timing source, out of service (OOS).
 - Step 2** From the ICC ISDN Span Configuration screen, perform the following steps:
 - a. Change the REF CLOCK field parameter from **LOOP** to **1544**.
 - b. Press **Enter**.
 - c. Change the REF CLOCK field parameter from **1544** to **LOOP**.
 - d. Press **Enter**.

- Step 3** Return the ICC-T1 ISDN span (from Step 1) back in service.
-

Caveats

This section contains resolved and open software caveats for this release of the Cisco VCO/4K. Caveats describe unexpected behavior or defects in Cisco VCO/4K system software or related hardware. Complete the following steps to access detailed information on resolved and open caveats:

- Step 1** Open an Internet browser application.
- Step 2** Go to <http://www.cisco.com>.
- Step 3** Click on the site menu's **Login** hypertext.
The Username and Password Required dialog box is displayed.
- Step 4** Enter your username and password.



Note If you do not have a valid username and password, contact your Cisco Systems representative.

The Cisco Systems Technical Assistance (TAC) Center Web page is displayed.

- Step 5** Click on the **Tool Index** button, which is located on the left of the page.
The TAC Tool Index page is displayed.
- Step 6** Scroll down the page and click on the **Software Bug Toolkit** hypertext, which is located beneath the Tools Index.
The Bug Toolkit page is displayed in a new Web browser window.
- Step 7** Use the three available options to search for DDTs issues.
-

Resolved Caveats

[Table 4](#) lists the caveats issued against VCO/4K system software, and related optional software applications, that have been resolved in system software Version 5.2(2).

Table 4 *Resolved Caveats for Version 5.2(2)*

DDTs Issue	Description
CSCdm94205	SPC does not know when DSPs are dead when using MRC.
CSCdr49239	Adding 8 SPC-DTMF, SPC-CPA, or SPC-MFRC types to a resource group will produce the Alarm Set For Loss Of ALL message for that type of resource. You must add 7 or 9 DSPs to service circuit resource groups to work around this issue.
CSCdr71390	Using the Next Screen key followed by the Previous Screen key with the Card Maintenance screen results in bypassing the previous screen and displaying the first screen.

Table 4 *Resolved Caveats for Version 5.2(2) (continued)*

DDTs Issue	Description
CSCdt41477	If SPC-CONF resources are used to set up a conference, voice path problems and voice quality degradation occurs after multiple switchovers. Use SPC-ENHCNF instead of SPC-CONF or reseal the SPC as a workaround for this issue.
CSCdt83631	The Subrate Connection Display screen fields are not large enough to enter the rack, level, slot, group, and span of ICC cards. The Display Filter field, and when the command ADD is selected, the Source and Dest Fields are affected—the Slot field is not large enough to enter the group and span of an ICC card.
CSCdu28879	The Card Alarm Display screen shows Remote Alarm and D channel Failure on normal ICC-E1 CAS spans that have carrier failure and OOF. On ICC-T1 CAS spans, the Card Alarm Display screen shows Remote Alarm, D channel Failure, and Card Failure when it should show Carrier Failure and OOF. Carrier failure and OOF are shown in the Display Card Data screen under the Diagnostics menu and these same alarms should show in the Card Alarm Display screen under the Maintenance menu.
CSCdu34234	When a Voice Port Control (\$6C) command is issued to play a voice prompt, in conjunction with an outbound ISDN port, and before the voice prompt stops playing—no Voice Port Status (\$DE) report sent—and another \$6C command is issued to stop the voice prompt, the voice prompt will stop but will leave the ISDN port in the CP_ATT state instead of returning it to the CP_SETUP state. Both the ISDN Port Control (\$49) command issued to cross connect this port to another port or a Conference Control (\$6D) command issued to add it to conference are rejected. The VCO/4K system returns the network status byte \$20 or \$1E.
CSCdu65580	You may encounter a call chain corruption on the standby side while running a call transfer load on the VCO/4K. This has the potential to reset the standby side. The active side is not affected. A call transfer load consists of a complex call scenario where two calls (a call started by using a virtual incoming port and an incoming call from the network) are interchanged using the Change Incoming Port (\$6B) command on the VCO/4K.
CSCdu74201	When using an inbound SS7 port to receive a call and making an outbound call using an SS7 port and then connecting them together, two start records are used and kept for the length of the call instead of one start record. This reduces the total amount of start records available for call processing.
CSCdu75941	The system may stop PRI/N downloads after 10:03 minutes, which may lead to repeated download attempts in order to complete the download process.
CSCdu85266	The Standard DTMF Digit (\$D1) report is reporting the incorrect (according to the published documentation) values for *, 0, and #. It is reporting the values documented in the Enhanced D1 report.
CSCdu85623	If the Change Port Status (\$90) command is sent to deactivate a PRI port which is in the CP_STAB state, the associated NBC \$15 message will inappropriately identify ports 19 and 21 of a E1 PRI NET5 span as D channels. This may result in the card reporting a parsing error to the system software and cause the following message to be entered in the logfile: PRI INTERNAL ERROR CODE 1,15.
CSCdv05076	Both sides crashed causing core file on the active side.
CSCdv16247	A single-span PRI/N card (PRI/N, NTTPRI) added under generic 5.2.1 will not clear alarms for newly added spans. You must change the span framing type to D3/D4 and then back to ESF, which resets the framing type to 2 (which is ESF).

Table 4 Resolved Caveats for Version 5.2(2) (continued)

DDTs Issue	Description
CSCdv19403	A glare condition on ISDN PRIs configured as USER (access type) causes the start record/end record (SR/ER) to remain allocated to the virtual port (the port originally involved in the outbound) and is never de-allocated. This SR/ER is never assigned to a new call and the system may run out of SR/ER as the number of “stuck” records increase with the glare condition.
CSCdv63138	SNMP functions (such as gets) do not work on SPC DSPs above 4; attempts return a null response.
CSCdv65189	Using the Conference Control (\$6D) command to delete a talk-only port from a second conference is rejected with a network status byte of \$29 (internal error), and the port becomes unusable. The Display Port Data Screen displays the port in the first conference, the second conference port is not displayed.
CSCdv69069	A T1/E1 you configure as your incoming timing source may return as your external timing source.
CSCdv69993	SNMP trap on alarm 42 occurs with ICC and SPC cards.
CSCdw01835	Variable length community strings on VCO/4K SNMP. There is a limit of eight character passwords and a processing speed issue with moderate use of SNMP.
CSCdw16770	<p>When a VCO/4K is configured with two SPCs and both have SPC-DTMF, SPC-CPA, and SPC-CONF DSPs configured and active, you may get the following messages when you unseat or take out of service one of the SPCs:</p> <ul style="list-style-type: none"> • ALM050: Loss Of All DTMF Receivers • ALM047 Loss Of All Call Prog. Analyzers • ALM078: Loss Of All CONFERENCE ports <p>These messages occur even though they are invalid, due to the second active SPC retaining the same resources.</p>
CSCdw16830	ICC-T1 COS A2, E&M signaling ports stuck in the CP_GARD state when an alarm is detected on the span. The ports remain in the CP_GARD state after the alarm clears. You must place the span in the out of service state and then place it in the in service state to clear this situation.
CSCdw25481	The counters for attempts and completions may not be correct in the Port Status screen of the Diagnostic Menu.
CSCdw40478	When you change the master timing from incoming to external, the VCO/4K may fail over to internal timing, yet the Master Timing Link Selection screen displays the current timing source as external. You must first set the master timing to internal, then change it to external.
CSCdw46077	The Port Supervision Control (\$72) command does not work with ICC cards.
CSCdw49214	When a card with a port range around FF is activated, a master timing selection of external will fail over to internal timing. You must change the Master Timing back to External through either the Master Timing Link Selection screen under the Maintenance Menu or with a Change Active Controllers (\$C0 02) command from the host. This workaround does not stop the VCO/4K from failing over to internal but restores the master timing to an external source.
CSCdw62289	SPC DSPs stop responding when running MF/DTMF digit collection.

Open Caveats

Table 5 describes possible unexpected behavior by Cisco VCO/4K Version 5.2(2). Unless noted, these caveats apply to all Cisco VCO/4K system software releases up to and including 5.2(2).

Table 5 Open Caveats up to and Including Version 5.2(2)

DDTs Issue	Description
CSCdp64900	The SPC-OUTP fails to work the first time after defining in the database.
CSCdr39175	Single power supply causes Major alarm on fully populated switch.
CSCdr98769	VCO shows incorrect Alarm Occurrences MIB value (systemAlarmOccur).
CSCds21994	OID incorrect for VCO/4K.
CSCds24360	Changing protocol to Foreign Exchange Office Loop Start (FXOLS) on a span basis is not possible.
CSCds45890	When using an inpulse rule with the token TONE ENAB 3, there are intermittently inpulse rule aborts due to the generic not responding to a \$4B command with a \$4D report. When this happens, there is no dial tone played through the port.
CSCds89831	T309 Timer does not stop after D-Channel is reestablished following a reboot.
CSCdt05993	ICC-E1/NET5-UK goes out of service under load. This event is preceded by an ICC Congestion Alarm Clear message.
CSCdt51511	ICC revision level COAR drops all the existing calls when the card is set to maintenance.
CSCdu38965	Adding and deleting an IPRC to a Version 5.2 VCO/4K system database causes the following errors: FRM340, FRM503, and FRM510.
CSCdu48116	If a NOTIFY message from the network is received by the VCO/4K system and the ISDN state is active (10), the system passes the NOTIFY message to the host in bytes 26 through n of an ISDN Port Change of State (\$EA) report. In all other states, the system ignores the NOTIFY message from the network.
CSCdv05327	The ICC downloads in system software V5.1.4, V5.2, and V5.2.1 produce an idle pattern of FF, which may cause an alarm indication signal (AIS) alarm. The ICC downloads should produce an idle pattern of 7F.
CSCdv67971	An entire ICC may stay out of service after a complete reboot of a VCO/4K system. You must unseat and reseat the ICC card to allow the card to enter the in service state.
CSCsf63269	The RELEASE DTG token does not work: The RELEASE outpulse rule token does not release the DTG/DTG2 and causes the system to log an error during inpulse rule execution.
CSCsf84766	Subrate error during Live Upgrade—from 4.2.0.23 to 5.0.51.24 a "Subrate RS ack numbers: expected ==0x2, got==0x1" error message was printed to the log.
CSCsf84879	Standby crash when SPCs added and modified using SNMP.

Table 5 Open Caveats up to and Including Version 5.2(2) (continued)

DDTs Issue	Description
CSCsf85166	When the system is running in extended mode, the <code>api_stat.c</code> routine to format the rack, level, and slot in the <code>\$83</code> command from tokens does not work correctly.
CSCec52889	<p>Problem:</p> <p>When the host sends a <code>\$69</code> or <code>\$49</code> command with an empty IP field and the SPC-outpulse is used to complete the outpulsing, calls fail.</p> <p>Workaround:</p> <p>Avoid having the host outpulse an empty field the using the SPC-outpulse or direct the host to use a different outpulse rule to outpulse an empty field.</p>

Related Documentation

The following documents contain information that may be useful to system software Version 5.2(2) users.

- *Cisco VCO/4K Software Installation Guide*
- *Cisco VCO/4K System Administrator's Guide*
- *Cisco VCO/4K Card Technical Descriptions*
- *Cisco VCO/4K System Messages*
- Product supplements for optional software, including:
 - *Cisco VCO/4K Management Information Base (MIB) Reference Guide*
 - *Cisco VCO/4K Standard Programming Reference*
 - *Cisco VCO/4K Extended Programming Reference*
 - *Cisco VCO/4K ASIST Programming Reference*
 - *Cisco VCO/4K TeleRouter Reference Guide*
 - *Cisco VCO/4K ISDN Supplement*
 - *Cisco VCO/4K Ethernet Guide*
 - *Cisco VCO/4K Tone Plan Release Notes*
 - Applicable tone plan supplements

Obtaining Documentation

The following sections explain how to obtain documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following URL:

<http://www.cisco.com>

Translated documentation is available at the following URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped 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 through 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 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

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Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web Site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web Site.

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<http://www.cisco.com>

Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available through the Cisco TAC: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Inquiries to Cisco TAC are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

Which Cisco TAC resource you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

Cisco TAC Web Site

The Cisco TAC Web Site allows you to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to the following URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco services contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to the following URL to register:

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

If you cannot resolve your technical issues by using the Cisco TAC Web Site, and you are a Cisco.com registered user, you can open a case online by using the TAC Case Open tool at the following URL:

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

If you have Internet access, it is recommended that you open P3 and P4 cases through the Cisco TAC Web Site.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses issues that are classified as priority level 1 or priority level 2; these classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer will automatically open a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to the following URL:

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

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled; for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). In addition, please have available your service agreement number and your product serial number.

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