



Release Notes for Cisco Voice Switch Service Module (VXSM) Release 5.0

These release notes are part number OL-4627-01 Rev. A0, April 15, 2004.

The Voice Switch Service Module (VXSM) product is supported by the MGX 8880 Media Gateway and the MGX 8850 Multiservice Switch. Refer to these release notes for platform and version level support guidelines.

The VXSM software release notes are supported by the *Cisco Voice Switch Services (VXSM) Configuration Guide and Command Reference, Release 5.0*, which is available on cisco.com.

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About Release 5.0

The VXSM 5.0 Release is the first release of the VXSM card.

VXSM Management Information Base

The VXSM Management Information Base (MIB) Version 5.0.0 is available by request through your Cisco VXSM product marketing representative.

Compatibility



Note

VXSM Release 5.0 is only supported with PXM-45.

VXSM software interoperability with the Cisco MGX 8850 (PXM45) Multiservice Switch or the MGX 8880 Media Gateway platform software is listed in [Table 1](#).

Table 1 *VXSM Software Interoperability*

Product	Latest Firmware	Min. Firmware
PXM45	5.0.0	5.0.0
RPM-XF	12.3.2-T5	12.3.2-T5
CWM	15.0.00	15.0.00
VISM-PR	3.2.10	3.2.10
MGX-AXSM-16-155/B	5.0.0	5.0.0
MGX-AXSM-4-622/B	5.0.0	5.0.0

[Table 2](#) describes the software images available for Release 5.0 for VXSM.

Table 2 *Software Images for Release 5.0 for VXSM*

Board Pair	Latest Boot Code Version	Minimum Boot Code Version	Firmware
MGX-VXSM-155	vxsm_005.000.000.200_bt.fw	vxsm_005.000.000.200_bt.fw	vxsm_005.000.000.200.fw
MGX-VXSM-T1E1	vxsm_005.000.000.200_bt.fw	vxsm_005.000.000.200_bt.fw	vxsm_005.000.000.200.fw

Caveats for VXSM Release 5.0.0

This section describes open software caveats for Release 5.0.0.

Open Caveats in Release 5.0.0

Table 3 describes the open caveats in VXSM Release 5.0.0.

Table 3 Open Caveats for Software Release 5.0.0 for VXSM

DDTS Issue	Description
CSCed84520	<p>Bulk delcid/addcid fails intermittently on OC3 card.</p> <p>Symptom: This issue is seen with cnfdiag enable. Deleting and adding bulk CIDs sometimes fails with "unknown error".</p> <p>Condition: The impact is after that you are unable to add the cids again, and have to reset the card to bring it back to normal state. The scenario is not very common where adding and deleting happens at the same time.</p> <p>Workaround: (NONE) However it is found that when using bulk value to delete cids the problem is seen less often rather than using the script to delete CIDs.</p>
CSCed88312	<p>CID alarm not reported for last cid when ds1 is in alarm.</p> <p>Symptom: The CID alarm does not get propagated for the last CID.</p> <p>Condition: The last CID is added when there is a DS1 line alarm. To prevent this problem, ensure that all line alarms are cleared before adding CIDs.</p> <p>Workaround: (NONE)</p>
CSCed92138	<p>VXSM reports presence of RCON when there is none installed.</p> <p>Symptom: Rarely TDM HP call without DSP resource requirements will crash the card.</p> <p>Condition: The call must be Hairpin and must not request ecan or other properties which may require DSP resources.</p> <p>Workaround: The card will switchover once the crash is encountered.</p>
CSCed93276	<p>It takes 1 minute to connect to MGC after MGC switchover.</p> <p>Symptom: After MGC switchover, if announcements are playing, sometimes the VXSM takes close to 1 minute to connect to the newly active MGC.</p> <p>Condition: Announcements must be playing on the VXSM while MGC switches over, this problem can also be seen with any other situation where MG initiated messages are being sent to the MGC while MGC switches over.</p> <p>Workaround: Configure the <NumConnRetries> parameter in "cnfh248delay" CLI to be 3 (The default is 11)</p>

Table 3 Open Caveats for Software Release 5.0.0 for VXSM (continued)

DDTS Issue	Description
CSCed93674	<p>VXSM HSS Toolkit Suspend while IP network outage.</p> <p>Symptom: Task Crashes.</p> <p>Condition: Problem has been observed at 7700 active contexts and all of these terminations sending RTCP timeouts due to IP network outage on all network connections. More testing is necessary to determine how many simultaneous RTCP timeouts can be sent. A Switchover should clear this situation, this also will be verified in that case the customer impact is zero. You have to reboot VXSM. This bug belongs to negative test case.</p> <p>Workaround: (NONE)</p>
CSCed95634	<p>VXSM card comes in Failed state after card reinsertion.</p> <p>Symptom: The VXSM card comes up as failed after reinsertion, or Newly Standby VXSM comes up as failed after switchover.</p> <p>Condition: This is a very rare situation where the card boot up happens during a certain very small time window while the daughter card is not ready to accept calls.</p> <p>Workaround: Reset the card one more time.</p>
CSCee01411	<p>MCCI memory allocation failure for play tone list inside sequential.</p> <p>Symptom: Modifies with certain sequential signal list requests would get rejected if they require over a certain memory block.</p> <p>Condition: The size of the memory required for each sequential signal should be more than 128 bytes.</p> <p>Workaround: (NONE)</p>
CSCee02176	<p>Race condition in crml when stream_del/res_dealloc flow is changed.</p> <p>Symptom: VXSM goes into Failed State.</p> <p>Condition: TDMC package must be turned off on the tdm terminations and under call load we run into this issue.</p> <p>Workaround: Enable TDMC package on all TDM terminations at all times.</p>
CSCee02614	<p>With Back Card failure APS fails to respond</p> <p>Symptom/Condition: This problem happens when the secondary card (standby) boots up without a backcard, and if the backcard is later inserted, then when the switchover happens to that card, there will be no traffic. This is very unlikely in customer environment.</p> <p>Workaround: The workaround is after inserting the backcard, reset the standby.</p>
CSCee02940	<p>With HHM enabled and FDL, subsequent call on DS1 fails.</p> <p>Symptom: Calls fail on a particular DS1 line repeatedly.</p> <p>Condition: This happens under a rare situation if FDL loopback test has been run on that DS1 line with HHM enabled. Subsequent calls on that DS1 line will fail.</p> <p>Workaround: Disable HHM on the card.</p>

Table 3 Open Caveats for Software Release 5.0.0 for VXSM (continued)

DDTS Issue	Description
CSCee03061	<p>Crash when playing SSL over both SCN & PDN terminations</p> <p>Symptom: The card fails with watchdog reset.</p> <p>Condition: The problem happens when playing SSL over both SCN & PDN terminations within the same Context that contain multiple digits to be played out. This call flow is not going to be used by customer, the call flow itself is very unlikely.</p> <p>Workaround: SSL should not contain multiple digits to be played out.</p>
CSCee03737	<p>70 cps memory leak when MGC disconnects.</p> <p>Symptom: VXSM logs events of low memory in the event log and may eventually fail.</p> <p>Condition: This problem happens when running at a high call rate, if the MGC disconnects the association several times, in continues to send calls to the MG while MG and MGC are still trying to bring up the association.</p> <p>Workaround: When memory is low card can be forced to switchover.</p>
CSCee05324	<p>Megaco PPC in suspend state with 7K calls and 96 announcements.</p> <p>Symptom: MEGACO PPC task suspends and card goes into Failed state.</p> <p>Condition: Stress run which included - 7K calls at 60CPS and 96 announcement sessions at 5CPS, it was later determined that the root cause is due to a particular audit call flow where the end point is audited by the MGC right after a modify.</p> <p>Workaround: No announcements.</p>
CSCee09371	<p>BFG MB console sends out garbage characters during boot up.</p> <p>Symptom: During bootup sequence the main board console sends out garbage.</p> <p>Condition: This is a problem will not be observed at the customer environment.</p> <p>Workaround: NONE</p>
CSCee10529	<p>VQ issues with 5.0(0.24)P1 with VAD enabled.</p> <p>Symptom: Voice Quality is slightly degraded when VAD is enabled while using G.711 or G.726 due to packets being dropped or temporary additional delays being introduced when the Jitter Buffer is updated.</p> <p>Condition: During the silence period the Jitter Buffer may need to adjust the current nominal playout delay. This adjust happens both when using adaptive and fixed jitter mode. When silence suppression (VAD) is enabled this update happens more frequently (during every silence period) compared to the case when silence suppression is disabled. In this case the Jitter Buffer update happens in case of a Jitter Buffer under-run (lost packets in the network) or over-run (burst in the network).</p> <p>Workaround: Disable VAD. Please note that this may not prevent this issue from happening since Jitter Buffer adjustments are done in case of under/over-runs.</p>
CSCee10536	<p>Calls keep failing after VXSM sw/o during sw upgrade</p> <p>Symptom: Close to 2% of calls fail during upgrade.</p> <p>Condition: In some rare conditions graceful upgrade with calls running under load leads to this problem, not all graceful upgrade leads to call failures.</p> <p>Workaround: NONE.</p>

Table 3 Open Caveats for Software Release 5.0.0 for VXSM (continued)

DDTS Issue	Description
CSCee11279	<p>Need to disable humvee for standby card.</p> <p>Symptom: Switchover of PXM caused one way speech path on VXSM.</p> <p>Condition: This happens more frequently when PXM is pulled out and reinserted while active calls are present on the VXSM card. This condition does not happen at all PXM switchover or PXM reinsert.</p> <p>Workaround: NONE</p>
CSCee13014	<p>After VXSM 4xOC3 reset cids stay in InAlm but there is none present.</p> <p>Symptom: After a reset, CIDs stay in Alarm, and display does not show any of them.</p> <p>Workaround: NONE</p>
CSCee18475	<p>Backcards come up in mismatch mode.</p> <p>Symptom: After a switchover, both backcards on active and standby cards would come up as mismatch and calls will fail.</p> <p>Condition: This happens upon switchover during a very short time window and is extremely rare.</p> <p>Workaround: Reset both the cards.</p>
CSCee23125	<p>After resetsys, one redundant pvc failed.</p> <p>Symptom: After a resetsys is issued and the chassis resets, some PVCs on VXSM are in "Failed" State.</p> <p>Condition: This problem happens when after a system reset, VXSM comes up before RPM and tries to bring up the PVCs while RPM is still booting, VXSM then times out and declares the PVC in Failed State. Since this is a timing issue this problem will not be observed after every resetsys operation.</p> <p>Workaround: The workaround is to reset the VXSM card one more time if the PVCs come up as Failed. It is recommended that after every resetsys the PVCs on VXSM card are checked to ensure that they are in operational status.</p>
CSCin70838	<p>TDM HP without DSP crashes the card.</p> <p>Symptom: Rarely TDM HP call without DSP resource requirements will crash the card.</p> <p>Condition: The call must be Hairpin and must not request ecan or other properties which may require DSP resources.</p> <p>Workaround: The card will switchover once the crash is encountered.</p>

Table 3 Open Caveats for Software Release 5.0.0 for VXSM (continued)

DDTS Issue	Description
CSCin71355	<p>IL: Tones not passing in HP call after ECAN set OFF, switchback.</p> <p>Symptom: If ecan is turned off on a tdm hairpin call, and a switchover is performed, the bearer path is not there.</p> <p>Condition: The call must be hairpin call, and the ecan must be turned off before the switchover.</p> <p>Workaround: NONE.</p>
CSCin72233	<p>addcon fail with exception err when NULL pointer enable in this image.</p> <p>Symptom: This is an engineering ddts and no symptom will be visible to the customer since all NULL pointer access is blocked in the released images.</p> <p>Condition: Executing addcon command.</p> <p>Workaround: All NULL pointer access is blocked in released images so no impact to the customer.</p>

The MGX-VXSM-155 card is also known as the MGX-VXSM-4OC card.

The MGX-VXSM-T1/E1 card is also known as the MGX-VXSM-48T1/E1 card.

Related Documentation

The following documents contains information that may be useful to software Release 5.0 for VXSM:

- *Cisco MGX 8850 (PXM1E/PXM45), Cisco MGX 8950, and Cisco MGX 8830 Configuration Guide, Release 5*
- *Cisco MGX Route Processor Module (RPM-XF) Installation and Configuration Guide, Release 4*

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

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

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

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

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:

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- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit e-mail comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour-a-day, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance. If you do not hold a valid Cisco service contract, please contact your reseller.

Cisco TAC Website

The Cisco TAC website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year. The Cisco TAC website is located at this URL:

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

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Opening a TAC Case

Using the online TAC Case Open Tool is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using the recommended resources, your case will be assigned to a Cisco TAC engineer. The online TAC Case Open Tool is located at this URL:

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

For P1 or P2 cases (P1 and P2 cases are those in which your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

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

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Go to this URL to visit the company store:

<http://www.cisco.com/go/marketplace/>

- The Cisco *Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:

<http://cisco.com/univercd/cc/td/doc/pcat/>

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press online at this URL:
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:
<http://www.cisco.com/packet>
- *iQ Magazine* is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:
<http://www.cisco.com/go/iqmagazine>
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:
<http://www.cisco.com/ipj>
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:
<http://www.cisco.com/en/US/learning/index.html>

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