



System Release 2.8.2/3.8.2/4.3.2 Release Note

Please Read

Important

Please read this entire guide. If this guide provides installation or operation instructions, give particular attention to all safety statements included in this guide.

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About This Guide

Introduction

System Release 2.8.2/3.8.2/4.3.2 (SR 2.8.2/3.8.2/4.3.2) is a maintenance release of Cisco's Digital Broadband Delivery System (DBDS) software. This release note contains the following information:

- A list of highlights with descriptions
- The list of media and software versions for this release
- Site requirements
- A description of closed and open CRs (Change Requests) for SR 2.8.2/3.8.2/4.3.2.
- General information on contacting Cisco® Systems

Purpose

The purpose of this release note is to inform system administrators contemplating an upgrade of the new features, known issues, related documents, and upgrade notes for SR 2.8.2/3.8.2/4.3.2.

Audience

This document was written for system operators. Field service engineers and Cisco Services engineers may also find the information in this document helpful.

Document Version

This is the first formal release of this document.

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Highlights

Introduction

New features and product improvements for SR 2.8.2/3.8.2/4.3.2 are described in this chapter.

In This Chapter

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New Features and Improvements

SR 2.8.2/3.8.2/4.3.2 introduces the following features and benefits:

EPG Advanced Search

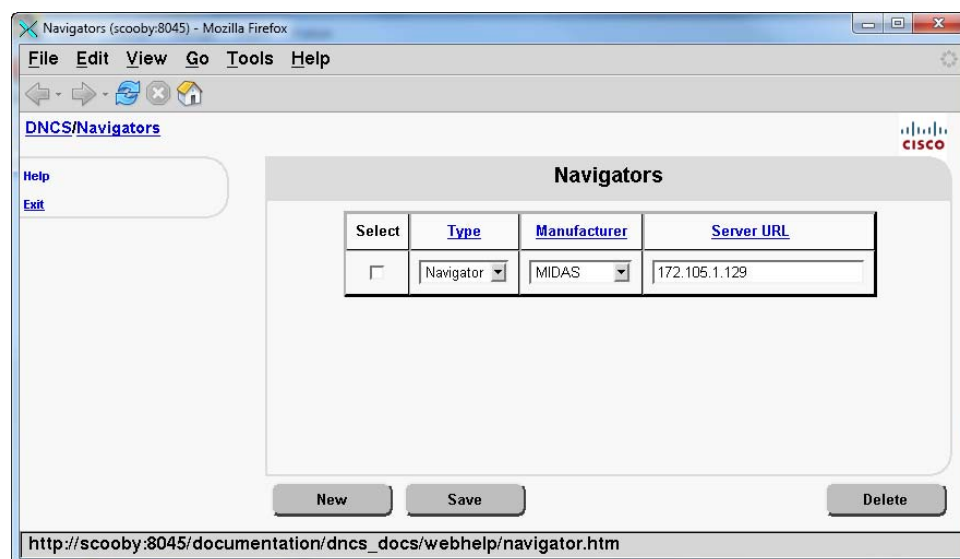
The DNCS, together with the Application Server, now support the third-party MIDAS CDS Navigator (Content Delivery System Video Navigator server). The CDS Navigator caches subscriber data (service entitlements, rental history, etc.) and provides advanced EPG (Electronic Program Guide) search options for set-tops. To access the EPG, set-tops must run the RTN (Reference Television Navigator) client application (provided separately).

Notes:

- The EPG is operator-enabled, default disabled
- The Application Server downloads the program guide from the service provider via FTP at specified intervals (for configuration instructions, refer to the IPG sections in the *Application Server 3.5 User Guide* (part number 4023142))
- EPG is automatically updated when services are added, changed or deleted
- Each RTN client is synchronized with the individual subscriber database on the CDS Navigator

CDS Navigator Configuration

A WUI window on the DNCS has been provided for CDS Navigator configuration. Open the DNCS Administrative Console and click **Navigator** to open the Navigators window.



To add a Navigator to your system, select the **Type** and **Manufacturer** (which defaults to Navigator and MIDAS, respectively), enter the Server URL and click **New**. All CDS Navigators in the system are listed in the Navigators window. For more information, click **Help/This Window**.

VOD Redundancy

SR 2.8.2/3.8.2/4.3.2 restores the functionality of VOD redundancy, which had been hampered by an issue with dual Gigabit Ethernet redundancy (see CSCzk58688/CR 107989-06). For a list of all bug fixes included in SR 2.8.2/3.8.2/4.3.2, see *Implemented CRs* (on page 14).

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Site Requirements

Introduction

This chapter provides information to help you prepare for the upgrade to System Release 2.8.2/3.8.2/4.3.2. Read this entire chapter before you upgrade.

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Upgrade Logistics

Introduction

This section contains information that can help system operators plan the upgrade to SR 2.8.2/3.8.2/4.3.2.

Supported Upgrade Path

Note these important upgrade requirements:

- Systems that upgrade to SR 2.8.2/3.8.2/4.3.2 must currently be operating with system software from SR 4.3 or later, as well as DHCT client operating system (OS) 3.1 or later.
- The upgrade software is on CD. For upgrade instructions, refer to *System Release 2.8.2/3.8.2/4.3.2 CD Upgrade Installation Guide* (part number 4038415). Rollback procedures and software are also provided in the event that the upgrade is unsuccessful.
- You must already have the DBDS Utilities software installed on the DNCS and should have already run the pre-upgrade checks to ensure system compatibility with SR 2.8.2/3.8.2/4.3.2 CD upgrade requirements. Refer to *DBDS Utilities Version 6.3 Installation Instructions and User Guide* (part number 4031374) for instructions on installing and executing the DBDS Utilities.

Time to Complete

The entire upgrade to SR 2.8.2/3.8.2/4.3.2 must be completed within a single maintenance window that usually starts around midnight. A few pre-upgrade procedures, consisting mainly of system checks, backups, and various operations upon the metadevices of the DNCS, can be completed *before* the maintenance window begins.

Cisco engineers have determined that a typical site can be upgraded within one maintenance window. See *Scheduling Requirements* (on page 9) for additional details.

System Performance Impact

Interactive services will not be available during the maintenance window.

DNCS and Application Server Hardware Platforms

Introduction

This section describes the hardware configurations that are supported by SR 2.8.2/3.8.2/4.3.2.

Running the Doctor Report

- 1 If necessary, open an xterm window on the DNCS.
- 2 Type `cd /dvs/dnCS/Utilities/doctor` and then press **Enter**. The `/dvs/dnCS/Utilities/doctor` directory becomes the working directory.
- 3 Type `doctor` and then press **Enter**. The system generates a list of parameters that you can use to run the Doctor Report. Each parameter causes the Doctor Report to generate output with specific configuration information.

```

xterm
$ cd /dvs/dnCS/Utilities/doctor
$ doctor
= Doctor package version 6.4.0.4 =
  doctor -agestpbinqrx [ vd ] or
  doctor [-c(number)]

  a - (almost) All options (except q and x)
  g - General Info: info, installed software info, and
    App Server disk utilization, and App Server swap space,
    database utilization, database extents, load average,
    and App Server debug flags, tracing levels, and App
    Server processes, and App Server corefiles, DNS, check
    force tune for valid service, dnCS license check, large log file check
    Install options
  e - Element Info: DHCP state summary, DHCP type summary, active
    elements, mod slot tolerance, source, source definitions,
    segments, sessions, subscription packages, EMTs expiring soon.
  s - SI Info: SI_INDEXT_RMTS, system time message, distinguished
    SI DM, SI out of band interval.
  t - Time Info: and App Server time sync, timezone, DST.
  p - PPV Info: PPV services and events, PPV and SRM service
    discrepancies, event use services, PPV files, phoneactivetime,
    EUT, GBMTs.
  b - BFS Info: BFS carousels, BFS sessions, BFS source definitions.
  i - IPG Info: IPG collector, IPG data files.
  n - Ping Elements: EPMK Ethernet, EPMK RS, DM, NETCRYPT, BIG, TED.
  q - Check for quarantined qans and ping elements.
    This option is NOT included in all (-a).
  x - Check one-to-one correspondence of DHCPs and serial numbers.
    This option is NOT included in all (-a).
  v - Verbose mode: Detailed output, even if OK.
  d - Suppress screen output. Write to output file only.
  h - Generate this help text.
  c - Clean up (delete) all but the last (number) doctor reports.
    Use this switch independently of all others. Report NOT GENERATED.

  r - and one of the following options:
  hubqanList - list what hub are associated to which QMTs
  smdgInfo - list SMDG (StatMUX Dejitter Group)
  trInfo - list TSR (Transport Stream Route)
  sdbegInfo - list SDB Service Group Mini Carousel Info
  genericQanInfo - display generic QMTs and IPs
  dualQanInfo - display generic QMTs and IPs
  sdbInfo - display SDB server info and status
  pcgInfo - display PCGs info and status

One or more of the a, g, e, s, t, p, b, i, n, c, x or q options is required.
d and v are optional but should be used with a required option.
Option order is irrelevant.

Note the q option must be explicitly chosen. It can be time consuming.
The q option automatically sets the v (verbose) option and pings and checks rpc bind for qans.
$ █

```

- 4 Type `doctor -g` and press **Enter** to view the version of DNCS software installed and the DNCS and Application Server platform, CPU, and disk information.

What to Verify Using the Doctor Report

Using the results of the Doctor Report, verify that your system meets the following requirements. For detailed information on reading the data in the Doctor Report, see the *DBDS Utilities Version 6.3 Installation Instructions and User Guide* (part number 4031374).

Important: DBDS Utilities 6.3 is required for SR 2.8.2/3.8.2/4.3.2.

DNCS System Release Required

Your system must be running SR 4.3 or later. In the Doctor Report, look for the **SAIdnCS** entry under the **All SAI Installed Package Information** section. Ensure the **SAIdnCS** version is 2.8.2/3.8.2/4.3.2 .14 or later. If you have installed Service Packs for your system release, your version may include additional characters.

DNCS Hardware Configurations

Ensure your site meets the following DNCS hardware requirements before upgrading to SR 2.8.2/3.8.2/4.3.2. The following table lists the minimum requirements for the DNCS hardware platforms that are supported by SR 2.8.2/3.8.2/4.3.2.

DNCS Server Platform	Hard Drive Configuration	Memory	Processor
Sun Fire V445	■ 4 X 73 GB	■ 4 GB min	■ 2 X 1.5 GHz min.
Sun Fire V890	■ 6 X 146 GB	■ 8 GB min.	■ 4 X 1.5 GHz min.
	■ 12 X 146 GB	■ 16 GB min.	■ 2 X 1.5 GHz min.
Sun Fire V880	■ 12 X 73 GB	■ 8 GB min.	■ 4 X 900 MHz min.
	■ 6 X 73 GB	■ 4 GB min.	■ 2 X 900 MHz min.

Application Server Hardware Configurations

The following table lists the Application Server hardware platforms that are supported by SR 2.8.2/3.8.2/4.3.2.

Application Server Platform	Hard Drive Configuration	Memory	Processor
Sun V240	2 X 36 GB min.	512 MB min.	1 X 1.34 GHz min.
Sun V245	2 X 73 GB min.	2 GB min.	2 X 1.5 GHz min.
Sun Blade 150	1 X 20 GB min.	512 MB min.	1 X 550 MHz min.

Scheduling Requirements

With the live upgrade, your site only needs to be down for 2 to 3 hours during the entire upgrade process. Most of the upgrade procedures have no system impact. The pre-install and pre-upgrade steps can be performed at any time of day. However, the actual upgrade process normally takes place during a maintenance window beginning at midnight. The following table provides a breakdown of each upgrade process.

Process	Length of Time	Activity
Pre-install	1-3 hours	Activities are performed by Cisco Services, including checking the overall health of the system. These activities do not impact the system.
Pre-upgrade	3-4 hours	Backing up the system: <ul style="list-style-type: none"> ■ Back up the system components ■ Back up the DNCS and Application Server files ■ Complete system checks These activities do not impact the system.
Upgrade	6-8 hours total; 2-3 of these hours require system outage Note: Actual time may vary based on the number of devices being upgraded.	Upgrade the DBDS network: <ul style="list-style-type: none"> ■ Back up the DNCS database ■ Install the DNCS and Application Server software ■ Determine which optional features (licensed or unlicensed) need to be enabled as a result of this upgrade ■ Install and download the component software (QAM, MQAM, GQAM, and QPSK modulator) ■ Reboot the hardware ■ Complete functional checks QPSK modulator upgrades and some QAM and MQAM upgrades can be completed with little or no subscriber impact. However, 2-3 hours of the upgrade require system outage.
Post-Upgrade	3-4 hours	Back up the system: <ul style="list-style-type: none"> ■ Back up the file system ■ Back up the DNCS database These activities do not impact the system.

Software Configuration

Introduction

This section lists the software versions in each media kit supplied with SR 2.8.2/3.8.2/4.3.2.

Antecedents

This release succeeds and carries forward all of the enhancements, features, and improvements of previous system releases and related service packs.

Software Versions

The following table lists the configuration of System Release and headend components after an upgrade to SR 2.8.2/3.8.2/4.3.2.

DBDS Component	New Version Number
DNCS	
DNCS Application	4.3.2.8
DNCS GUI	4.3.2.8
DNCS WUI	4.3.2.8
DNCS Application Patch P2	
DNCS Application Patch P2	4.3.2.8p2
DNCS Support Software	
SAITools	4.2.1.16
DNCS Spectrum Kit	4.2.1.0
DNCS Report Writer	1.0.0.3
DNCS Online Help	4.3.2.3
DNCS/ Application Server Platform	
DNCS/ Application Server Platform	4.3.0.5
Solaris	10 08/07 Update 4
Solaris Patches	4.3.0.1
Fore ATM Drivers	4.2.0.0

DBDS Component	New Version Number
ASI Drivers	1.0.0.6
Informix IDS	9.21.UC3
Spectrum Installation	
Spectrum Enterprise Manager App Version	5.0R1
Spectrum CS1/MMS1 Supplement	CS3/MMS3 P122
Application Server	
App Server Application	3.6.2.0
ATM/BFS BIG	
MSYNC Control Card D9711 App	2.25
MSYNC Control Card D9710 Boot	0.75
ATM OC3 Card D9722 Application	3.01.0
SWIF Receiver Card D9730 Application	2.02
SWIT Transmitter Card D9714 Application	2.03
Grooming BIG	
MSYNC Control Card D9711-2 App	3.01
MSYNC Control Card D9711-2 Boot	0.75
GPI Card D9476 App	0.8.2
GPI Card D9476 Boot	0.6.7
Automux Script	2.3
Sonet/ASI (STA)	
Sonet/ASI (STA)	1.3.4
DBDS Maintenance	
DBDS Maintenance DVD	3.3.8
Backup and Restore	6.0.18
Spectrum Support	
Spectrum_Support	4.3.2.6

Chapter 2 Site Requirements

Headend Components	New Version Number
Netcrypt	
Netcrypt Bulk Encryptor	1.2.12
CAQAM	
CAQAM App	2.5.8
MultiQAM	
MQAM App	2.6.18
	2.7.2
GQAM	
GQAM	4.4.7
GoQAM RF / GoQAM IF	
GoQAM RF / GoQAM IF	1.1.4
QPSK Mod/Demod	
QPSK Modulator	G13
QPSK Demodulator	G13

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Implemented and Open CRs

Introduction

This section contains information on implemented and open CRs for SR 2.8.2/3.8.2/4.3.2.

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Implemented CRs

This section provides a list of CRs that have been implemented in software for SR 2.8.2/3.8.2/4.3.2. All of them are fixes for software defects, except where noted. The CRs are indexed by ID number in ascending order.

CR/CDETS ID	Title
85131-02 CSCzk52740	Add saMgr HTTP post of XML file for EPG Search feature
91265-06 CSCzk47188	Multicast Session setup fails on GQAM TSR port
93645-06 CSCzk45430	qamManager can nest sesison audits on incoming session with dup MPEG
105637-04 CSCzk61067	qamManager recovery does not complete
107989-06 CSCzk58688	Dual GbE redundancy requests have incorrect data
109299-01 CSCzk58691	Insta-staging zeroized bit maps are not sent when STB goes OOS
110020-02 CSCzk43164	QpskManager not sending SI data, database connection error
110321-05 CSCzk44811	1024 EID maximum exceeded.
111216-03 CSCzk58670	qamManager core dump on cert library exception on DER encoding of qam cert
111540-04 CSCzk43167	qamManager needs to quarantine QAMs when it times out on messages
111905-02 CSCzk37828	qamManager needs to quarantine QAMs if lowest RPC version not supported
112115-04 CSCzk61091	qamManager can crash on modified auditList traversal
112165-03 CSCzk47042	qamManager core dump after RFGW reset
112244-04 CSCzk43200	siManager removes c3 packet when there is test hub with no session streamed to it

CR/CDETS ID	Title
112281-02 CSCzk55211	Implement environment variable to support multicast ip/udp variations
112422-06 CSCzk47263	camTedChecker does not detect loss of connection to the ted
114616-01 CSCzk47258	Interactive Eid allocation in camEx is incrementing by 2
115282-05 CSCzk45424	Encrypted VOD video freeze when ECM is delivered to Netcrypt upstream of GQAM
115326-01 CSCzk43206	pkeMgr retries create session requests on comm failure
118338-01 CSCzk46977	QamManager cored and failed when Dual Gbe Port is enabled without dual IP addr
118655-01 CSCzk58661	qamManager does not recover sessions on QAMs rebooting during recovery
119165-01 CSCzk58632	pkeMgr ECM delivery throughput improvements w/ non communicating Netcrypts.
119304-01 CSCzk58657	qamManager needs to throttle session and packet audits for SA QAMs
119661-01 CSCzk55151	qamManager cores intermittently
119669-04 CSCzk44091	drm not setting multicast indicator correctly for SMDGs
119761-01 CSCzk44712	qamManager not clearing packets during audit

Open CRs

This section provides a list of open CRs that were identified during testing of SR 2.8.2/3.8.2/4.3.2. CRs are indexed by ID number in ascending order. Resolutions to these CRs are currently under investigation or in development.

This list is not intended to be comprehensive. If you have questions about a particular CR, contact your account representative.

CR/CDETS ID	Title/Impact
113095-02 CSCzk45575	<p>Prevent user from adding or updating SAM service record of IPPV type</p> <p>Impact: Users will not be able to delete or update the SAM service record.</p> <p>Workaround: SAM service records are created automatically when a new PPV service record is created at the PPV UI. Users don't need to create SAM service records manually.</p>
113103-06 CSCzk43928	<p>perfUIServer is getting cored when drmpperfmon.csv file has service group data</p> <p>Impact: perfUIServer should support the service group data present in drmpperfmon.csv. However, coring may continue until drmpperfmon.csv is removed and performance monitoring for VOD is discontinued.</p> <p>Workaround: Open the Administrative Console and perform these steps:</p> <ol style="list-style-type: none"> 1 Open DNCS/Utilities and click Performance Monitoring. 2 Click Configuration. 3 Set the value for VOD Session Performance to 0 (zero) and click Save. This will halt performance monitoring for VOD. <p>Now open an xterm window and perform these steps:</p> <ol style="list-style-type: none"> 4 Type <code>cd /dvs/dnscs/tmp/PerformanceMonitoring</code> and press Enter. 5 Type <code>mv drmpperfmon.csv drmpperfmon.csv.bk</code> and press Enter. <p>This copies drmpperfmon.csv to a back up file and deletes the original.</p>
114601 CSCzk46670	<p>Session List UI not displaying sessions</p> <p>Impact: Users can not see the active sessions on the GQAM, via the Session List UI.</p> <p>Workaround: There is no workaround.</p>
114761 CSCzk45233	<p>TSIDs not being removed from servicegroupmap.dat when QAM ports disabled</p>

CR/CDETS ID	Title/Impact
	<p>Impact: Disabling QAM ports will not prevent their TSIDs from appearing to be available for use. They are left in the service group, and thus appear to be viable options.</p> <p>Workaround: Open the Service Group ID and remove the TSID.</p>
116765 CSCzk62312	<p data-bbox="553 464 1341 497">Dashboard 'SDV Session Transactions' Does Not Display Anything</p> <p>Impact: No data is displayed for 'SDV Session Transactions' in the DNCS dashboard.</p> <p>Workaround: There is no workaround.</p>
116972 CSCzk47252	<p data-bbox="553 695 1386 758">SAIdncs: SR 2.8.2/3.8.2/4.3.2.x - SR 2.8.2/3.8.2/4.3.2.4 upgrade fails to create copyControlParams.inf file</p> <p>Impact: The copyControlParams.inf file does not exist.</p> <p>Workaround: Copy the copyControlParams.inf.bak files to copyControlParams.inf.</p>
118043-01 CSCzk63664	<p data-bbox="553 926 1357 959">qamManager hangs intermittently with over 2000 QAMs configured</p>

CR/CDETS ID	Title/Impact
	<p>Impact: VOD is down. No new sessions can be built and QAMs cannot be provisioned.</p> <p>Workaround: Stop and restart the SRM processes by following the procedure below.</p> <p>Note: The workaround must be performed in a maintenance window.</p> <ol style="list-style-type: none"> 1 Shut down the SRM processes in this order at the DNCS Process window: <ol style="list-style-type: none"> a. dsm; b. drm; c. qamManager; d. pkeManager 2 Verify SRM processes have stopped by entering the following commands at an xterm window: <pre>ps -ef grep dsm ps -ef grep drm ps -ef grep qamManager ps -ef grep pkeManager</pre> <p>Note: The SRM processes should not appear.</p> 3 Clear completed sessions by entering the following command at an xterm window: <pre>clearDbSessions -c</pre> 4 Restart the SRM processes in this order at the DNCS Process window: <ol style="list-style-type: none"> a. dsm; b. drm; c. qamManager; d. pkeManager <p>Note: It is not necessary to wait for the process LED to turn green before starting the next process.</p> 5 Confirm the ability to order VOD on a test DHCT. <p>Note: Verify that all of the SRM processes have restarted first.</p>
118055-01 CSCzk58665	<p>Impact: USRM provisioning information is not sent out to some USRMs until sdvManager is restarted. That includes any video add/removal or Service Group change information.</p> <p>Workaround: The workaround is to bounce sdvManager after making changes to the provisioning for any USRM.</p>
119547 CSCzk45476	<p>DNCS should reject TSR with same input parameters as SMDG on different output.</p> <p>Impact: Users can create a TSR that uses the same input criteria as SMDG but on a different output.</p> <p>Workaround: SMDGs and TSRs using the same IP/UDP should be paired on a single GQAM RF output port.</p>

CR/CDETS ID	Title/Impact
119653 CSCzk45776	DNCS GQAM should not ask for SMDG BW value Impact: Users are tasked with inputting a piece data that is not used. The SMDG BW value is not needed anymore because of changes in the way GQAMs and the DNCS handle SMDGs. Workaround: Users must enter a value.
120123-03 CSCzk63530	qamManager issues a "cancelAll" in rpc to qam Impact: Some setstops may not have a CVT available in-band and other SI and/or PSIP packets may be unavailable. Availability will depend on the environment, e.g., if open cable compliant, in band SI turned on, etc. Workaround: There is no workaround.
120307-02 CSCzk45451	qamManager cores when processing session query from command line Impact: qamManager cores on response processing. Workaround: There is no workaround. However, the issue does not affect normal operations.

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Customer 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.

Access your company's extranet site to view or order additional technical publications. For accessing instructions, contact the representative who handles your account. Check your extranet site often as the information is updated frequently.



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