



DBDS Utilities Version 5.1 Release Notes

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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Contents

About This Guide	v
Introducing the DBDS Utilities Version 5.1	1
DNCS Utilities	3
Application Server Utilities	5
CoolTools Utilities	6
DHCT Status Reporting and signonCount Utilities.....	8
Implemented Change Requests	9
Enhancements Implemented in DBDS Utilities Version 5.1	10
Issues Resolved in DBDS Utilities Version 5.1.....	12
Open Change Requests	17
Known Issues in DBDS Utilities Version 5.1.....	18
Customer Information	21

About This Guide

Purpose

The DBDS Utilities Version 5.1 includes four sets of utility programs that system operators and Cisco field service engineers can use to manage and troubleshoot Cisco's Digital Broadband Delivery System (DBDS). This document lists and describes the implemented and open change requests (CRs) associated with version 5.1 of the DBDS Utilities product.

The *DNCS Utilities* (on page 3), *Application Server Utilities* (on page 5), *CoolTools Utilities* (on page 6), and *DHCT Status Reporting and signonCount Utilities* (on page 8) sections of Chapter 1 provide a brief description of these utilities that comprise DBDS Utilities.

Scope

Most of the utilities and CRs described in these release notes pertain to systems running either Cisco or other resident applications. The Application Server utilities, however, pertain strictly to sites that support the Cisco Resident Application (SARA).

Audience

These release notes are written for system operators of Cisco's DBDS who deploy DBDS Utilities on the sites that they manage. Cisco field service engineers who help system operators manage their sites may also find the information in these release notes useful.

Document Version

This is the fourth release of these release notes. Revision A of these release notes pertained to DBDS Utilities Version 2.2. Revision B of these release notes pertained to DBDS Utilities Version 3.1. Revision C of these release notes pertained to DBDS Utilities Version 4.1.

1

Introducing the DBDS Utilities Version 5.1

Introduction

DBDS Utilities Version 5.1 consists of the following four sets of utility programs that system operators and Cisco engineers can use to manage and troubleshoot the Cisco DBDS:

- DNCS Utilities
- Application Server Utilities
- CoolTools Utilities
- DHCT Status Reporting and signonCount Utilities

DBDS Utilities Version 5.1 replaces DBDS Utilities Version 4.1. Each utility included with DBDS Utilities Version 4.1 is included in DBDS Utilities Version 5.1, unless specifically noted. This chapter provides a short description of each individual utility included in DBDS Utilities Version 5.1.

System Release Compatibility

DBDS Utilities version 5.1 replaces DBDS Utilities version 4.1 and is compatible with the following System Releases (SR):

- SR 2.2 and SR 3.2 (and related service packs)
- SR 2.5 and SR 3.5 (and related service packs)
- SR 3.3
- SR 4.0 (and related service packs)

For a complete compatibility listing for SR 2.2, SR 2.5/3.5, SR 3.2, SR 3.3, or SR 4.0, please contact Cisco Services.

In This Chapter

- DNCS Utilities 3
- Application Server Utilities 5
- CoolTools Utilities 6
- DHCT Status Reporting and signonCount Utilities 8

DNCS Utilities

Overview of DNCS Utilities

The DBDS Utilities CD includes a collection of utility programs called DNCS Utilities. The following list contains the utilities that comprise DNCS Utilities, as well as a brief description of each utility:

- dbOptimizer – Deletes unneeded Entitlement Management Messages (EMMs) from the DNCS database
- delete-sm – Resets the configuration of Digital Home Communication Terminals (DHCTs)
- doctor – Compiles a report on system configuration
- dncsDbData – Unloads and loads the DNCS and Application Server databases
- del-hct-cd – Deletes selected Digital Home Communications Terminals (DHCTs) with a status of "out-of-service" from the database
- hostnmchg – Changes the hostname and IP address of the DNCS and Cisco Application Server
- checkDB – Identifies and corrects DHCT records in the database that do not contain serial numbers, required corresponding records in other tables, or that have EMMs ready to expire
- smMix – Generates a histogram graph that shows the distribution of DHCT EMMs
- updateOUI – Changes the Organizationally Unique Identifier (OUI) of DHCTs in systems that have upgraded to PowerTV® Operating System 3.1 (PowerTV OS 3.1)
- keyFileFinder – Compiles a list of files that may have to be backed up separately prior to upgrading to System Release (SR) 2.5/3.5 or 4.0 using the UniPack
- slotchk – Examines the Peripheral Component Interconnect (PCI) card configuration on the DNCS prior to a system upgrade
- tellDhct – Queries the database for information related to DHCT conditional access, return path, and staging information
- runCvtGroup – Expedites the process by which DHCTs are assigned to download groups
- check_metadevices – Monitors the status of system metadevices
- qtail and sesstail – Monitors the logfiles of DNCS processes

- `parseIppvRept` – Converts unreadable binary impulse pay-per-view (IPPV) purchase data into readable text format
- `outdump` – Associates session IDs with entitlement IDs
- `tellDhctInfo` – Provides authorization data about a single DHCT or a list of DHCTs
- `podConvert` – Converts the CableCARD MAC Address to the CableCARD POD ID, and vice-versa.

Note: The DBDS Utilities CD also contains a utility called `chkSamUrl`. The Doctor Report recommends that system operators run the `chkSamUrl` utility when the `bulk.tbl` file on the DNCS grows too large. Appendix E of the *DBDS Utilities Version 5.1 Installation Instructions and DNCS Utilities User's Guide* provides instructions on running the `chkSamUrl` utility.

Installation of the DNCS Utilities

Installation of the DNCS Utilities occurs automatically when you install the DBDS Utilities. Refer to *DBDS Utilities Version 5.1 Installation Instructions and DNCS Utilities User's Guide* for installation instructions for the DBDS Utilities.

Application Server Utilities

Overview of the Application Server Utilities

The following list includes the utilities that comprise the Application Server Utilities, as well as a brief description of each utility:

- `addRppvAuth` and `removeRppvAuth` – Authorizes and deauthorizes a DHCT for a reservation pay-per-view (RPPV) event
- `advanchk`, `immedchk`, `indexchk`, and `servchk` – Converts binary pay-per-view (PPV) data to text format
- `evtdef` and `genPpvFromIpg` – Generates test PPV data
- `purge_ipg_data` – Deletes Interactive Program Guide (IPG) data from the database
- `ipgUpdate` – Forces an immediate update of the Broadcast File System (BFS) server with IPG data
- `ipgFileDump` – Converts binary IPG data to text format

Important! Some of the Application Server Utilities are designed for test labs and are not intended for use on live systems.

Refer to *Application Server Utilities User's Guide* for detailed information on the Application Server Utilities.

Installation of the Application Server Utilities

The Application Server Utilities are already included as part of system software SR 2.2 and later. Therefore, the Application Server Utilities included in DBDS Utilities Version 5.1 only install when used on systems running software earlier than SR 2.2.

Installation of the Application Server utilities occurs automatically during installation of the DBDS Utilities when the following conditions are met:

- The installation script detects the presence of a Cisco Application Server.
- The Application Server runs the Solaris Version 2.5.1 OS (used in system software earlier than SR 2.2).

CoolTools Utilities

Overview of the CoolTools Utilities

The DBDS Utilities CD includes a collection of utility programs called CoolTools Utilities. The following list includes the utilities that comprise the CoolTools Utilities, as well as a brief description of each utility:

- **dblook**—Queries the database for information related to the following system components:
 - DHCTs
 - Quadrature Amplitude Modulation modulators (QAMs)
 - Multi QAM modulators (MQAMs)
 - Quadrature Phase-Shift Keying (QPSK) modulators and demodulators
 - Broadcast File System (BFS) server
- **savecore**—Saves core files for later examination
- **bkchk**—Improves database backup reliability and provides a status of the previous database backup
- **syncwait**—Monitors DNCS mirror synchronization
- **emm_check**—Examines the database for expiring EMMs
- **emmlst**—Tracks the progress through the database of the emmDistributor program
- **listQpsk**—Reboots DHCTs and obtains DHCT sign-on data per QPSK
- **IIH**—Transmits DHCT billing transactions
- **2way2oos**—Changes DHCT status to out-of-service
- **mirrState**—Attaches and detaches Enterprise 450 DNCS mirrored disks
- **convertIP**—Converts IP addresses between decimal and dotted-decimal format, and vice-versa
- **getEASdata**—Troubleshoots the DBDS Emergency Alert System (EAS)
- **modDhctCfg**—Transmits the ModifyDhctConfiguration transaction to DHCTs

Installation of the CoolTools Utilities

Installation of the CoolTools utilities occurs automatically when you install the DBDS Utilities. Refer to *DBDS Utilities Version 5.1 Installation Instructions and DNCS Utilities User's Guide* for installation instructions for the DBDS Utilities.

DHCT Status Reporting and signonCount Utilities

Overview of the DHCT Status Reporting and signonCount Utilities

The DBDS Utilities CD includes the DHCT Status Reporting Utility, as well as the signonCount utility. The following list briefly describes each of these utilities:

- DHCT Status Reporting Utility – Troubleshoots non-responding DHCTs on the DBDS
Note: DHCTs that are unable to establish or maintain two-way communication with the headend are known as non-responding DHCTs.
- signonCount – Helps system operators monitor the rate at which DHCTs sign on to the network

Refer to *DHCT Status Reporting and signonCount Utilities User's Guide* for detailed information on the DHCT Status Reporting Utility and the signonCount utility.

Installation of the DHCT Status Reporting and signonCount Utilities

Installation of the DHCT Status Reporting Utility and signonCount utility occurs automatically when you install the DBDS Utilities. Refer to *DBDS Utilities Version 5.1 Installation Instructions and DNCS Utilities User's Guide* for installation instructions for the DBDS Utilities.

2

Implemented Change Requests

Introduction

This chapter lists the change requests (CRs) that were implemented during development and testing of DBDS Utilities Version 5.1. The chapter is organized so that CRs associated with enhancements to the DBDS Utilities are presented first, followed by CRs that pertain to issues that were corrected in version 5.1 of DBDS Utilities.

In This Chapter

- Enhancements Implemented in DBDS Utilities Version 5.1 10
- Issues Resolved in DBDS Utilities Version 5.1..... 12

Enhancements Implemented in DBDS Utilities Version 5.1

Introduction

This section provides information about enhancements that were implemented during development of version 5.1 of the DBDS Utilities. Enhancement CRs pertain to DNCS Utilities.

DNCS Utilities

This section presents the CRs associated with enhancements to the DNCS Utilities. The CRs are listed in a quick-reference format, followed by a format that provides a more detailed description.

Quick Reference to the Implemented CRs

This section contains a quick reference to the CRs associated with enhancements to the DNCS Utilities.

CR Number	Short Description
37844	The Doctor Report now checks and reports on the number of SAM URL entries.
39287	The Doctor Report now checks and reports on the file size of the SAM URL bulk table.
45498	The smMix utility has been enhanced to run more efficiently.
45503	The tellDhct utility now supports CableCARD data.
47743	A new utility, podConvert, has been added to DNCS Utilities to convert POD IDs and MAC Addresses of CableCARD modules.

Detailed Descriptions of the Implemented CRs

This section contains a detailed description of the CRs associated with enhancements to the DNCS Utilities.

Doctor Report Checks Number of SAM URL Entries

The Doctor Report has been modified to report on the number of entries in the `applicationurl` and `samservices` tables. DHCT performance may be affected if the number of these entries grows too large. The Doctor Report now displays a recommendation to run the `chkSamUrl` utility, which deletes unused entries, when the number of entries grows too large. CR **37844** addresses this issue.

Doctor Report Checks File Size of SAM URL Bulk Table

The Doctor Report has been modified so that it provides a warning when the file size of the SAM URL bulk table reaches 50K. The report identifies application URLs that are in the database but not in use, and instructs the user to delete the unused URLs in order to maintain system health. CR **39287** addresses this issue.

The smMlx Utility Runs More Efficiently

The `smMix` utility has been enhanced to increase the speed of execution and to improve the order in which database rows are processed. CR **45498** addresses this issue.

The tellDhct Utility Now Supports CableCARD Data

The `tellDhct` utility has been enhanced to support the `-C` option, which reports on CableCARD data. CR **45503** addresses this issue.

The podConvert Utility Implemented to Convert POD IDs and MAC Addresses of CableCARD Modules

Cisco engineers have developed the `podConvert` utility to convert the POD ID of a CableCARD module to the MAC Address, and vice-versa. Chapter 20 of the *DBDS Utilities Version 5.1 Installation Instructions and DNCS Utilities User's Guide* provides information about the `podConvert` utility. CR **47743** addresses this issue.

Issues Resolved in DBDS Utilities Version 5.1

Introduction

This section provides information about the CRs that were implemented during development of version 5.1 of the DBDS Utilities in order to resolve issues discovered with previous releases of DBDS Utilities. The CRs are grouped in the following order:

- DNCS Utilities
- DHCT Status Reporting and signonCount Utilities

DNCS Utilities

This section presents the CRs associated with resolved DNCS Utilities issues. The CRs are listed in a quick-reference format, followed by a format that provides a more detailed description.

Quick Reference to Implemented CRs

This section contains a quick reference to the CRs associated with resolved DNCS Utilities issues.

CR Number	Short Description
37536, 39236, 39246	The Doctor Report can now access the database on a DNCS running SR 2.5/3.5 software.
38011	The Doctor Report now correctly identifies the inband data source when the Direct ASI feature is used.
38176	The Doctor Report now correctly reports the SI_OOB_INTERVAL value in milliseconds.
39240	The -g option of the Doctor Report now reports package information correctly on an SR 2.5/3.5 system.
44111	The Doctor Report now correctly identifies sources as inband or out-of-band when checking data rates.
44957	The dbOptimizer utility now deletes unneeded Entitlement Management Messages (EMMs) from DHCTs for which entries in the secure_micro table have been deleted. These DHCTs have typically been removed from service.

CR Number	Short Description
46778	The Doctor Report now correctly reports the default SI_INSERT_RATE of 1000, if the SI_INSERT_RATE is not specifically defined in the .profile file.
47343	The Doctor Report no longer includes data rates from disabled sources when computing aggregate BFS data rates.

Detailed Descriptions of the Implemented CRs

This section contains a detailed description of the CRs associated with resolved DNCS Utilities issues.

The Doctor Report is Now Compatible With SR 2.5/3.5 DNCS Database

The Doctor Report can now successfully access the database on a system running SR 2.5/3.5 software. CRs **37536**, **39236**, and **39246** address this issue.

The Doctor Report Identifies Inband data Sources When Direct ASI Feature is Used

The Doctor Report has been modified to correctly identify inband data sources when the Direct ASI feature is implemented. CR **38011** addresses this issue.

The Doctor Report Now Correctly Reports the SI_OOB_INTERVAL in Milliseconds

The Doctor Report has been modified to report the SI_OOB_INTERVAL value in milliseconds, rather than in seconds. CR **38176** addresses this issue.

The -g Option of the Doctor Report Reports Correct Package Information on an SR 2.5/3.5 System

The Doctor Report has been modified so that the -g option now reports all package information correctly on an SR 2.5/3.5 system. CR **39240** addresses this issue.

The Doctor Report Now Correctly Identifies Sources as Inband or Out-of-band

The Doctor Report has been modified so that during a check of data rates, all sources are correctly identified as being inband or out-of-band. CR **44111** addresses this issue.

The dbOptimizer Utility Deletes Unneeded EMMs From DHCTs With No secure_micro Entries

The dbOptimizer utility has been modified so that it now deletes unneeded EMMs from DHCTs, even though the DHCTs have no entries in the secure_micro table. CR **44957** addresses this issue.

Chapter 2 Implemented Change Requests

The Doctor Report Correctly Reports the Default SI_INSERT_RATE if the Rate is not Specifically Set in the .profile File

The Doctor Report has been modified to report a default SI_INSERT_RATE of 1000 in those instances where the rate is not specifically set in the .profile file. CR **46778** addresses this issue.

The Doctor Report No Longer Includes Disabled Sources When Computing Aggregate Data Rates

The Doctor Report has been modified to no longer include data rates from sources that have been disabled when computer total BFS data rates. CR **47343** addresses this issue.

DHCT Status Reporting and signonCount Utilities

This section presents CRs associated with issues that were resolved with the release of the DHCT Status Reporting Utility or the signonCount utility in version 5.1 of DBDS Utilities. The CRs are listed in a quick-reference format, followed by a format that provides a more detailed description.

Quick Reference to the Implemented CRs

This section contains a quick reference to the CRs associated with resolved issues in the DHCT Status Reporting Utility or the signonCount utility.

CR Number	Short Description
37236	The system now requires less CPU usage than before when generating or reviewing reports.
38336	An issue regarding polling by QPSK modulator has been corrected.
40369	The DHCT Status Reporting Utility is now compatible with SR 2.5/3.5 systems.

Detailed Descriptions of the Implemented CRs

This section contains a detailed description of the CRs associated with issues that were resolved with the release of the DHCT Status Reporting Utility or the signonCount utility in version 5.1 of DBDS Utilities.

CPU Usage Allocated More Efficiently During Report Generation and Review

Improvements to the report generating and review functions have reduced the amount of CPU usage that is required. CR **37236** addresses this issue.

Polling by QPSK Demodulator No Longer Halts Full System Polling

Cisco engineers have corrected an issue with polling by the QPSK modulator. Full system polling and polling by the QPSK demodulator can now proceed simultaneously. CR **38336** addresses this issue.

DHCT Status Reporting Utility Now Runs on SR 2.5/3.5 Systems

The package information pertaining to the DHCT Status Reporting Utility was modified so that the utility can now locate several needed SR 2.5/3.5 library files. CR **40369** addresses this issue.

3

Open Change Requests

Introduction

This chapter provides a list of CRs that were found during testing of the DBDS Utilities Version 5.1 product. Efforts to address these issues are ongoing in the Cisco laboratories.

In This Chapter

- Known Issues in DBDS Utilities Version 5.1..... 18

Known Issues in DBDS Utilities Version 5.1

Introduction

This section lists any issues that were discovered during testing of the DBDS Utilities product.

Note: The information describing the CRs is in summary form. System operators may contact their Cisco Program Manager for a detailed description of these CRs.

Known Issues -- DNCS Utilities

The following known issues pertain to DNCS Utilities.

The Doctor Report Does Not Recognize Correct MAC Address of Session 199

The MAC address for Session 199 was modified in version 3.5 of DNCS software. The Doctor Report needs to be modified so that it recognizes the new MAC address. CR **55074** tracks this issue.

The Doctor Report Reports an Incorrect Disk Configuration if Disks Are Not Mirrored

If the Doctor Report runs while mirrored disks on the DNCS are detached, the Doctor Report will report an incorrect disk configuration. CR **56859** tracks this issue.

The Doctor Report Should No Longer Check for the Presence of the diskcheck.pl File

The Doctor Report needs to be modified so that it no longer checks for the presence of the diskcheck.pl file before it runs. CR **60251** tracks this issue.

Known Issues -- signonCount Utility

The following known issue pertains to the signonCount utility.

The signonCount Output File Needs Occasional Truncation

Each time the signonCount utility runs, the utility writes data to the /dvs/dnccs/tmp/signonCount.out file. Over time, this file may grow so large as to risk filling up the /disk1 filesystem. The signonCount utility needs to be modified so that the output file is automatically reduced whenever the size of the file approaches 50 MB. CR **58648** tracks this issue.

Note: Refer to the Operations Alert Bulletin *Reducing the Size of the signonCount Log File* (part number 4002149, published May 2006) for instructions on how to use the Doctor Report to monitor the size of the signonCount.out file, as well as a procedure for reducing the size of the file when necessary.

4

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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March 2012 Printed in USA

Part Number 749636 Rev E