



Report Writer Version 4.3  
for DNCS and ISDS  
User Guide



# 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.

# Notices

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# About This Guide

## Introduction

The Report Writer software enables you to generate reports that collect data from the Digital Network Control System (DNCS) or IPTV Service Delivery System (ISDS) database, poll Digital Home Communication Terminals (DHCTs) for information, and collect system information. The reports are created in a Hypertext Markup Language (HTML) format, so you can view them through a web browser, and you can print them.

This guide supports Report Writer 4.3, which is compatible in the following system controllers and system releases (SRs):

- System Controllers
  - DNCS 4.3
  - ISDS 2.3
- System Releases
  - DBDS SR 4.3/4.4
  - International SR i4.2.1
  - IBDS SR 1.2.0
  - ISDP SR 2.3

## Purpose

This guide provides the following information about the Report Writer software:

- Descriptions of new features introduced in this version of Report Writer
- Descriptions of the reports you can access in Report Writer
- Instructions for installing Report Writer on your system
- Instructions for using Report Writer to access reports through a web browser
- Instructions for troubleshooting the most common Report Writer error situations

## Audience

This document is written for system operators. Our engineers may also find this document to be useful.

## Document Version

This is the second release of this document.

## Conventions

This document applies to one or more of our network-control platforms. These platforms include, but are not limited to, the Digital Network Control System (DNCS) and the IPTV Service Delivery System (ISDS). For the purpose of this document, we will refer to these platforms as DNCS/ISDS.

# 1

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## Installing Report Writer Version 4.3 Software

### Introduction

This chapter describes the software you need to install this version of Report Writer on your system, and it provides the procedures to complete the installation process.

### In This Chapter

- Before You Begin..... 2
- Install the Software ..... 3
- Rollback Procedures ..... 5

## Before You Begin

### System Requirements

Before installing this version of Report Writer, you must have one of the following DNCS or ISDS software versions installed on your system:

- DNCS i4.2/4.3/4.4
- ISDS 2.3

### Installation CD

To install this version of Report Writer you must have the Report Writer Software 4.3 CD.

**Note:** The Report Writer software package is included with the system release DVD and is installed by default during the initial setup of a new DNCS/ISDS server and during any subsequent system release upgrade. These instructions are for installing incremental version of Report Writer between system release upgrades.

### Identifying the SAIttools Packages Currently Installed

In the unlikely event that you experience a problem installing Report Writer, you may need to roll back to the previous versions of the SAIttools package for Report Writer. Complete the following steps to identify your current SAIttools package.

- 1 Open an xterm window on the DNCS/ISDS Admin console.
- 2 Type **pkginfo -l SAIttools** and press **Enter**.
- 3 Write the current SAIttools version here: \_\_\_\_\_
- 4 Locate the SAIttools CD and keep it available in case you need to roll back.

## Install the Software

### Mount the CD

- 1 Insert the **Report Writer Software V4.3** CD into the CD-ROM drive of the DNCS/ISDS server.
- 2 Allow the File manager window to appear, which may take several minutes; then, type **df -n** and press **Enter**. A list of the mounted file systems appears.
- 3 Does the output from step 2 show that the system mounted the CD?
  - If **yes**, go to **Install the Software**.
  - If **no**, continue with step 4.
- 4 Type **/etc/init.d/volmgt stop** and press **Enter**. The volume manager utility stops.
- 5 Did the CD user interface appear?
  - If **yes**, go to **Install the Software**.
  - If **no**, type **/etc/init.d/volmgt start** and press **Enter**. The volume manager utility starts.
- 6 Repeat steps 2 through 5. Contact Cisco Services if the system still does not recognize the CD.

### Install the Software

- 1 From the xterm window, type **su - root** and press **Enter** to login as the root user.
- 2 Type **cd /cdrom/cdrom0** and press **Enter** to access the cdrom0 directory.
- 3 Type **/usr/sbin/install\_pkg** and press **Enter**.  
**Results:**
  - The system lists the packages that will be installed.
  - A confirmation message appears asking you to confirm that you want to proceed with the installation.
- 4 Type **y** and press **Enter** to start the installation. When the installation is complete, the system displays a message stating that the installation was successful and a prompt for the root user appears.  
**Note:** The installation should take less than 30 seconds.
- 5 Was the installation successful?
  - If **yes**, go to step 6.
  - If **no**, contact Cisco Services.
- 6 From the xterm window where you are logged in as root, type **exit** and press **Enter**. You are logged out as root user.

## Chapter 1 Installing Report Writer Version 4.3 Software

- 7 Complete one of the following steps:
  - a **If the File Manager is present:** From the File Manager window, click **File** and select **Eject**. The CD is ejected from the CD drive and the File Manager window closes.
  - b **If the File Manager is not present:** From an xterm window, type the following command: **cd /.; eject; exit**. The CD is ejected from the CD drive.
- 8 Type **exit** and press **Enter** to close the xterm window.

## Rollback Procedures

In the event that you experience a problem installing the software, you must first delete all of the files in the Report Writer directory before reinstalling the Report Writer software.

### Deleting the Report Writer Directory Files

- 1 On the DNCS/ISDS, log in as **root**.
- 2 Type **pkgrm SAirptwrt** and press **Enter**.
- 3 Type **cd /dvs/RepWriter** and press **Enter**.
- 4 Type **rm -rf \*** and press **Enter**. The files in the Report Writer directory are deleted. You can now reinstall the Report Writer software.



# 2

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## Using Report Writer

### Introduction

Report Writer provides a web server that enables you to access reports through a web browser, which is installed by default on the DNCS/ISDS.

The Firefox web browser on the DNCS/ISDS server enables you to display and generate reports at the DNCS/ISDS console. You can then generate up-to-the-minute data-on-demand by simply clicking a button on each page of a report.

This chapter describes how to use Report Writer to add users and display reports.

### In This Chapter

- Add Report Writer Users..... 8
- Displaying Reports ..... 9
- Customize Reports..... 11

## Add Report Writer Users

Access to Report Writer requires that the user ID and password are different and unrelated to the system user ID and passwords.

Report Writer is shipped with the user name *sareports* and the password *report*. When adding users or changing passwords, follow these guidelines:

- The user name *sareports* should be the first entry after the group name.
- Each user name is separated by a space.
- In the following example, only the "normal" group has access to the reports.

**Example:** normal: sareports [username] [username]

**Note:** To remove a user, remove the user's name from the groups file.

### Adding New Users or Changing Passwords

- 1 Log in as **root** on the DNCS/ISDS.
- 2 Type **cd /usr/local/apache2/bin** and press **Enter**.
- 3 Type **/htpasswd /usr/local/apache2/conf/users [username]** and press **Enter**. Replace [username] with the user you are adding or the user whose password you are changing. Do not type the brackets [ ] in the command.
- 4 Type and confirm the **password**.
- 5 Add the user to the groups file. Use a text editor to open the **/usr/local/apache2/conf/groups** file and append the user name to the line that begins with the word "normal."

## Displaying Reports



### CAUTION:

Before opening Report Writer to display reports, exit all instances of Firefox associated with your UNIX user ID. When you try to open Report Writer with more than one instance of Firefox associated with your UNIX user ID, a message appears on the screen stating that Firefox has detected a locked file. Do not continue. If you attempt to continue, Report Writer may exhibit unpredictable behavior.

### Switch to DNCS Role

If you are operating on an ISDS, you must switch to the DNCS Role before you proceed.

- 1 Start an xterm session. The system displays a new xterm window with a system prompt.
- 2 Enter **su - dncs** at the system prompt on the new xterm window. The system displays a prompt to enter a password for the dncs role.
- 3 Enter the dncs password.

### Launch Report Writer

Report Writer can be accessed directly from the DNCS/ISDS Administrative Console or by launching Firefox.

- 1 Use one of the following options to launch Firefox:
  - From the DNCS/ISDS Administrative Console, click the **Reports** button on the **Utilities** tab. The web server will open in a Firefox browser window.
  - From an xterm window on the DNCS/ISDS, type **firefox** and press **Enter**.
- 2 From the web server browser window, click the **Report Manger** link. A prompt for the user ID and password appears for the DNCS/ISDS host server.

Prompt

Enter username and password for "Reports" at http://dncs:8045

User Name:

Password:

Cancel OK

- 3 Type your user ID and password and then click **OK**. The web browser displays the DNCS/ISDS Reports page. Notice the hyperlinks to the specific reports and a brief description of each report. For more information about reports and how to access them, refer to the chapter, *Generating Reports* (on page 13).

**Note:** The default user name is **sareports** and the default password is **report**. See *Add Report Writer Users* (on page 8) for user and password management instructions.

## Customize Reports

### Insert Your Company Logo

You can customize reports by inserting your company's logo, in GIF format, at the top of each Report Writer page. To do this, exit your browser, name your logo file **top.gif**, and place it in the **/dvs/RepWriter/current/webSPACE/images** directory.

### Sort the Generated Reports

You can display report data in a different order by sorting any column field. To sort a generated report, click the underlined column heading. After you click the column heading, it is no longer underlined. This indicates that the report was sorted by the selected column.

**Note:** Sorting a report does not regenerate the report data; it only displays the report data in a different order.



# 3

---

## Generating Reports

### Introduction

This chapter describes the different report categories and provides instructions for generating the reports. Also included in this chapter are detailed descriptions of the reports within each category.

### In This Chapter

- Before You Begin..... 14
- Generating Database Reports..... 16
- Generating SNMP Poll Reports ..... 20
- Generating System Reports ..... 23

## Before You Begin

Before you read about each type of report and its description, you need to understand that some of the reports refer to the DHCT (set-top) administrative status.

Each DHCT stored in the DNCS/ISDS database has an associated administrative status, assigned through the Business Operations Support System (BOSS) Application Programming Interface (API). The administrative status can be set by the billing systems or through the DNCS/ISDS Administrative Console.

The four DHCT administrative statuses as follows:

- Out of Service
- Deployed
- In Service-One Way
- In Service-Two Way

### Notes:

- A DHCT whose upstream plant is not two-way mode capable will not function in two-way mode, even though its administrative status has been set to In Service-Two Way.
- A DHCT in an RF+IP 55-1 environment will not have an IP address record stored on the ISDS. The DHCT IP address will be displayed as **not assigned** in the applicable reports.

## Report Types

Reports are categorized into three types:

- **DNCS/ISDS Database Reports** (on page 16) collect data only from the DNCS/ISDS database.
- **SNMP Poll Reports** (on page 20) poll DHCTs (set-tops) for information using SNMP (Simple Network Management Protocol).  
**Note:** SNMP Poll Reports are not applicable to i4.2 environments. This link is disabled or suppressed in the i4.2 implementation.
- **DNCS/ISDS System Reports** (on page 23) collect system information from the DNCS/ISDS server.

If you do not see data that you expect in a particular report, refer to the description for that report. It is possible that some filtering has been applied by the report that caused the expected data to be excluded.

## Report Formats

### HTML Format

The HTML format allows you to view and/or print reports from any workstation on your network. You can view reports generated in HTML format online with any web browser and print them from the web browser.

**Note:** If the web browser is unable to display all of the columns and rows on your screen, a message will appear on the screen. When this occurs, it is recommended that you view the DAT file. For more information about DAT files, see *Pipe-Delimited Text (.dat) File Format* (on page 15) and *Web Browser Unable to Display Data* (on page 32).

**Note:** For security purposes, reports are not available using web browsers from remote workstations on your network. Access to the reports is limited to the Administrative Console or by executing the **firefox** command from an xterm window on the ISDS.

### Pipe-Delimited Text (.dat) File Format

Pipe-delimited text files have a .dat extension. For example, ZeroCredit.html.dat is the pipe-delimited Report Writer file for the Zero Credit report.

Report Writer automatically generates pipe-delimited text files for internal processing and/or importing into other software programs such as Excel. The "pipe" delimiter is the | symbol. Each field in the pipe-delimited text files has the pipe symbol separating it from the next field. Pipe-delimited text files reside in the /dvs/RepWriter/current/webospace/reports directory on the hard drive, and you can view them as text files using a text editor.

## Generating Database Reports

- 1 From the DNCS/ISDS Reports page, click the hyperlink for one of the DNCS/ISDS Database reports. Did the selected report appear?
  - If yes, the report generation is completed, the report name, the resulting data, and the message **Data Refreshed on MM/DD/YYYY @ HH:MM** appears, along with a **Run Report** button. (The HH:MM portion of the date/time stamp is in 24-hour time.)
  - If no, continue with step 2.
- 2 Click **Run Report**. While the report is being generated, you may see the following message: **Running [report name]. Please wait**. A message appears stating that the report is completed and the number of records processed.
 

**Note:** If there is not any qualifying data for the report, only the report name, date/time stamp, and the Run Report button appear on the screen.

## Descriptions

The following table provides a description of each of the reports that collect data only from the DNCS/ISDS database. These reports are listed in the order in which you will see them when you open Report Writer.

### Notes:

- Not all of the following reports are applicable to the DNCS/ISDS. Available reports are based on the implementation of your DNCS/ISDS. If a report is not supported by the implementation, it will not appear in your options.
- Not all of the reports will contain data, depending on the unique implementation of the DNCS/ISDS.

| Report Title | Description   |
|--------------|---|
| PPV Events   | <p><b>Data listed:</b> All pending pay-per-view (PPV) events.</p> <p><b>Data sorted by:</b> Service description and then by start date and time.</p>  |
| Zero Credit  | <p><b>Data listed:</b> All In Service-Two Way DHCTs that have impulse pay-per-view (IPPV) events enabled and a credit limit of 0 (zero).</p> <p><b>Data sorted by:</b> IP address</p> <p><b>Normal condition:</b> Report should not show any data.</p> <p><b>Troubleshooting:</b> DHCTs listed may have been incorrectly staged using the BOSS API. Restage and then re-run the report.</p> |

| Report Title                                 | Description  |
|--|--|
| <b>CableCARD Report</b>                      | <p><b>Data listed:</b> All CableCARD™ modules that are bound to the system.</p> <p><b>Data sorted by:</b> CableCARD MAC Address</p>  |
| <b>Channels, Sources and Sessions Report</b> | <p><b>Data listed:</b> Each display channel in the system, including all information about “carriage” of that channel.</p>   |
| <b>DHCT Report</b>                           | <p><b>Data listed:</b> All DHCTs (set-tops) in the DNCS/ISDS database and some DHCT configuration information.</p> <p><b>Normal conditions:</b> This report can be extensive and not viewable on a workstation that has little free memory. It may take several minutes to generate/display this report.</p> <p>This report is most useful if you have a small number of DHCTs in your system. A DHCT listed in the database will not appear on this report if it is associated with a DHCT type that is not in the DNCS/ISDS database.*</p> |
| <b>DHCT Packages Report</b>                  | <p><b>Data listed:</b> All DHCTs and their associated packages with package details.</p> <p><b>Note:</b> This report can be generated using the DHCT MAC Address or Package Name filtering options.</p>  |
| <b>DNCS/ISDS Packages Report</b>             | <p><b>Data listed:</b> All packages and their associated sources on the DNCS/ISDS. Includes details of the sources which are assigned to a package. Reports can be run based on the package name or the source name.</p> <p><b>Note:</b> The data in this report can be filtered by the name of the package or the name of the source.</p>   |
| <b>QAMs Report</b>                           | <p><b>Data listed:</b> All of the Cisco and legacy SA QAMs that are in the database and information about their configuration.</p> <p><b>Normal condition:</b> A QAM listed in the database will not appear on the report if it does not have valid RF ports in the database.*</p>   |
| <b>PCG Report</b>                            | <p><b>Data listed:</b> All PowerKEY® Conditional Access Gateways in the system and their status.</p> <p><b>Note:</b> This report <i>only</i> appears if PCG is enabled on the DNCS/ISDS.</p>   |
| <b>PCG Session Report</b>                    | <p><b>Data listed:</b> Details of the sources and sessions that are built on the PCGs in an ISDS 55-1 system.</p> <p><b>Note:</b> The data can be filtered by Frequency, MPEG Program Number, PCG IP Address, PCG Name, Source ID, or Access Criteria. This report only appears if RF+IP and 55-1 features are enabled.</p>  |

| Report Title                                  | Description  |
|---|--|
| <b>Netcrypt Report</b>                        | <p><b>Data listed:</b> All Netcrypt™ servers in the DNCS/ISDS database and their status.</p> <p><b>Note:</b> This report <i>only</i> appears if Netcrypt is enabled on the DNCS/ISDS.</p>  |
| <b>SDV Servers Report</b>                     | <p><b>Data listed:</b> All switched digital broadcast servers in the DNCS/ISDS database and their settings.</p> <p><b>Note:</b> This report <i>only</i> appears if SDV is enabled on the DNCS/ISDS.</p>  |
| <b>Service Group Report</b>                   | <p><b>Data listed:</b> The service groups created on the DNCS/ISDS.</p> <p><b>Note:</b> No filtering options are provided for this report.</p>   |
| <b>QPSK Modems</b>                            | <p><b>Data listed:</b> All QPSK Modulators in the database and information about their configuration.</p> <p><b>Normal condition:</b> A QPSK Modulator listed in the database will not appear on the report if it is associated with a <i>hub</i> that is not in the DNCS/ISDS database.*</p>  |
| <b>QPSK Demods</b>                            | <p><b>Data listed:</b> All QPSK Demodulators in the database.</p> <p><b>Normal condition:</b> A QPSK Demodulator listed in the database will not appear in the report if it is associated with a <i>QPSK Modulator</i>, <i>hub</i>, or <i>node set</i> that is not in the DNCS/ISDS database.*</p>   |
| <b>In Service One-Way</b>                     | <p><b>Data listed:</b> DHCTs with an administrative status of In Service-One Way.</p> <p><b>Normal condition:</b> Report Writer queries the DNCS/ISDS database to identify DHCTs that have been configured for one-way service.</p>  |
| <b>Non-Responding DHCTs – Never Connected</b> | <p><b>Data listed:</b> DHCTs with an administrative status of In Service-Two Way or Deployment that do not have an IP address.</p> <p><b>Normal condition:</b> Queries the DNCS/ISDS database to identify DHCTs configured for two-way service that have never established a two-way connection in a DNCS or IP-only ISDS system. These DHCTs should have an IP address, but they do not. In and ISDS RF+IP 55-1 environment, these DHCTs have an Operational status of Unknown.</p> |

| Report Title                                  | Description  |
|---|--|
| <b>Non-Responding DHCTs – Lost Connection</b> | <p><b>Data listed:</b> DHCTs with an administrative status of In Service-Two Way which have an IP address, but whose operational status is “Unknown,” “MAC initialization failed,” or “DSMCC boot failed.”</p> <p><b>Normal condition:</b> Queries the DNCS/ISDS database to identify DHCTs configured for two-way service that have lost a previous two-way connection.</p> |
| <b>TSID List</b>                              | <p><b>Data listed:</b> Lists transport stream IDs (TSIDs) used by QAMs from Cisco and other vendors.</p> <p><b>Normal condition:</b> Queries the database to identify all TSIDs that have been used in the system.</p>   |
| <b>DHCT Sign-on Failed Report</b>             | <p><b>Data listed:</b> Lists DHCTs with an Operational state of IP Initialization Failed or 551 IP Initialization Failed.</p> <p><b>Normal condition:</b> Queries the database to identify DHCTs configured for two way service that failed to establish connection back to the ISDS.</p>  |

\*This situation should occur infrequently, if at all, and could indicate that some sort of DNCS/ISDS database corruption has occurred. Try to open the applicable DNCS/ISDS Administrative Console GUIs to ensure that the data is intact for a particular device.

## Generating SNMP Poll Reports

- 1 From the DNCS/ISDS Reports page, click **SNMP Poll Reports**.

**Note:** SNMP Poll Reports are not applicable to i4.2 or IP-only environments.

### SNMP Poll Reports

---

Non-Responding DHCTs – SNMP Poll

List the DHCTs that did not respond to the poll.

OS/App Version

OS/Res App Version report from SNMP polling.

Memory

DHCT Total/Free Memory report from SNMP polling.

DHCT Uptime

DHCT up-time report from SNMP polling.

---

To refresh the data on the reports, press the button below. It will regenerate all the reports on this page after querying all relevant data from the DHCTs.

**Run Report**

- 2 Click the hyperlink of one of the SNMP Poll Reports.
- 3 Does the report appear on the screen?
  - If **yes**, the data is from the last run of the SNMP Poll Report. Click **Back** to return to the SNMP Poll Reports page; then click **Run Report** to refresh the report data.
  - If **no**, go to step 4.
- 4 Does the following message appear on the screen?

**This report has not yet been generated on your system. Please press the back button on your browser to return to the SNMP page.**

  - If **yes**, click **Back** to return to the SNMP Poll Reports page.
  - If **no**, click **Run Report** to generate all of the SNMP Poll Reports.

**Important:** The SNMP Poll Reports can take a significant amount of time to complete, depending on the number of DHCTs in the system. While the SNMP Poll Reports are being generated, do not exit your web browser. Exiting the web browser while the reports are being generated can cause errors in the Report Writer software that will require some manual clean-up steps (see *Troubleshooting Guidelines and Solutions* (on page 25)). It is also recommended that you do not click anywhere in your web browser until the SNMP Poll Reports are completely generated.

**Notes:**

- While the reports are being generated, the following message appears:  
**Running [report name]. Please wait.**
  - Concurrently, a table appears on the screen, and as each SNMP Poll report is generated, its status is updated from “working” to “complete.”
- 5 When all the SNMP Poll reports are generated, click the web browser **Back** button.
  - 6 Click the hyperlink for a specific SNMP Poll Report.
  - 7 Does the report appear on the screen?
    - If **yes**, you have completed this procedure and all of the SNMP Poll Reports have been generated.
    - If **no**, repeat this procedure beginning with step 1.

## Descriptions

The SNMP Poll Reports collect data by issuing up to three SNMP poll requests to each candidate DHCT (set-top).

- For DNCS environments, the term *candidate DHCTs* refers to DHCTs in the DNCS database that have an associated MAC address, IP address, QPSK Modulator, and QPSK Demodulator, along with an administrative status of In Service-Two Way. If a DHCT listed in the DNCS/ISDS database does not meet all of these criteria, it will be excluded from the SNMP Poll Report. The SNMP poll request determines the current two-way communication ability of each DHCT.
- For ISDS environments, the term refers to DHCTs in the ISDS database that have an associated MAC address, and operational status equal to IP\_Initialized or IP\_55\_1\_Initialized, along with an administrative status of In Service-Two Way.

When the SNMP Poll Report is run, each candidate DHCT is polled (this is also called an SNMP "get" request). This SNMP poll collects all of the data necessary for generating the four SNMP Poll reports. The SNMP Poll reports are different views into the data collected.

If a DHCT does not respond to the initial SNMP poll, it is polled up to two more times (for a maximum of three attempts). If the SNMP poll is unsuccessful after three attempts, the DHCT is considered to be a non-responder and will appear only on the Non-Responding DHCTs-SNMP Poll Report. However, if at least one of the three SNMP poll attempts succeeds, then the DHCT will appear in the OS/App Version, Memory, and DHCT Uptime Reports.

**Note:** You can view the list of candidate DHCTs from the last SNMP Poll Report that was run by examining the `/dvs/RepWriter/current/bin/maclist` file.

The following table provides a description of each of the SNMP Poll Reports. These reports are listed in the order in which you will see them when you open Report Writer.

**Note:** Not all of the following reports are applicable to the DNCS/ISDS.

| Report Title                          | Description  |
|---------------------------------------|--|
| <b>Non-Responding DHCTs-SNMP Poll</b> | <b>Data listed:</b> All DHCTs that did not respond to one of three SNMP "get" requests.  |
| <b>OS/App Version*</b>                | <p><b>Data listed:</b> The PowerTV® Operating System and Resident Application versions installed in each DHCT.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>■ SARA is a Cisco resident application that is run on the DHCT that provides all basic functionality for the DHCT, including navigation, changing channels, volume control, etc.</li> <li>■ Set-tops manufactured by other vendors have a different resident application installed to handle this functionality.</li> </ul> |
| <b>Memory Report*</b>                 | <b>Data listed:</b> The total memory in each DHCT, and the amount of memory currently free.  |
| <b>DHCT Uptime*</b>                   | <b>Data listed:</b> The amount of time since each DHCT last rebooted.  |

\*The OS/ App Version, Memory, and DHCT Uptime reports display data collected from both the SNMP "get" request and from the DNCS/ISDS database.

## Generating System Reports

- 1 From the DNCS/ISDS Reports page, click **DNCS/ISDS System Reports**.
- 2 The data for all the following reports are on this page. Click the hyperlink to generate a specific report.



- ◆ [General Information](#)
- ◆ [File System Information](#)
- ◆ [Network Information](#)
- ◆ [Database Information](#)

## Descriptions

The following table provides a description of each of the reports that collect and display information to provide a quick overview of the health of the DNCS/ISDS system. These reports are listed in the order in which you will see them when you open Report Writer.

**Note:** Not all of the following reports are applicable to the DNCS/ISDS.

| Report Title                      | Description   |
|-----------------------------------|---|
| <b>General System Information</b> | <b>Data listed:</b> DNCS/ISDS system information (CPU, memory, and processes currently running).  |
| <b>File System Information</b>    | <b>Data listed:</b> Total and available disk space for the DNCS/ISDS system.  |
| <b>Network Information</b>        | <b>Data listed:</b> Network interfaces and the routing table.   |
| <b>Database Information</b>       | <b>Data listed:</b> Information about the INFORMIX database on the DNCS/ISDS.<br><br><b>Note:</b> This is the database used by the DNCS/ISDS. |



# 4

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## Troubleshooting Guidelines and Solutions

### Introduction

This chapter describes the most common situations that may cause errors with the Report Writer software and provides troubleshooting guidelines and possible solutions.

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## Report Writer Not Installed Properly

If Report Writer is not functioning as expected, verify that the Report Writer software is installed on the DNCS/ISDS server and that the installation successfully completed.

- 1 Log in to the **DNCS/ISDS** server as **dncs** and type the **password**.
- 2 Type **pkginfo -l SAirptwrt** and press **Enter**. The Report Writer installation status and version number appear on the screen:

STATUS: completely installed

VERSION: 4.3

- 3 Does the STATUS field indicate completely installed?
  - If **yes**, the Report Writer software installation was completed.
  - If **no**, you must uninstall, then, reinstall the Report Writer software. See *Rollback Procedures* (on page 5).

## Web Server Not Running

To run Report Writer, the Apache HTTP Server must be running on the DNCS/ISDS server.

- 1 Log in to the DNCS/ISDS server as **root**.
- 2 Type **ps -ef | grep httpd** and press **Enter**.
- 3 Does the information on your screen look similar to the following example:  

```
root 4249  1  0 00:53:11 ?        0:05 /usr/apache2/bin/httpd -k start
dncs 4254 4249  0 00:53:12 ?        0:00 /usr/apache2/bin/httpd -k start
dncs 4251 4249  0 00:53:12 ?        0:00 /usr/apache2/bin/httpd -k start
```

  - If **yes**, the Apache HTTP Server is running.
  - If **no**, execute the following steps:
    - Type **svcadm clear http** and press **Enter**.
    - Type **svcadm enable http** and press **Enter**.
    - Type **ps -ef | grep httpd** and press **Enter**.

## Cannot Access the Report Writer URL

If you are unable to access the Report Writer website from your browser, verify that you are typing the correct URL.

- 1 From the DNCS/ISDS Admin window select the **DNCS/ISDS** tab.
- 2 From the **Utilities** tab, click **Reports**.
- 3 Select **Report Manager**. A prompt for the user ID and password appears on the screen.
- 4 Does the Prompt window open?
  - If **yes**, your browser successfully accessed Report Writer.
  - If **no**, type **http://[ip\_address]:8045** and press **Enter**. In this command, [ip\_address] represents the DNCS/ISDS server IP address.
- 5 Did you successfully access the website?
  - If **yes**, click **Report Manager**.
  - If **no**, repeat this procedure.
- 6 Does the Prompt window open?
  - If **yes**, your browser successfully accessed Report Writer.
  - If **no**, see *Report Writer Not Installed Properly* (on page 26) to verify that the correct version of the Report Writer software is installed on your DNCS/ISDS.

## No Data or Old Data in the Report

### No Data in Report

Occasionally, after you run a report, the resulting web page displays only the name of the report, a timestamp, and the Run Report button. If you believe that the report should contain data, use the following procedure to determine if DNCS/ISDS is connecting to the DNCS/ISDS database.

- 1 Log in to the DNCS/ISDS server and enter the password.
- 2 Open an xterm window on the DNCS/ISDS.
- 3 Type **cd /tmp** and press **Enter**.
- 4 Type **ls \*.err** and press **Enter**.
 

**Note:** The "l" in **ls** is a lowercase letter L.
- 5 Type **cat [report\_name].err** and press **Enter**. Replace [report\_name] with the name of the report you are requesting. Do not type the brackets [ ] in the command.
- 6 Locate the **[report\_name] / open Db() error: + an error msg.Exiting** line in the list. The [report\_name] represents the name of the requested report.
- 7 Does the **ERROR: failed to connect!** message appear on your screen?
  - If **yes**, Report Writer could not connect to the DNCS/ISDS database; this is the reason that the reports do not contain data.
  - If **no**, Report Writer is connected to the DNCS/ISDS database, and there is no data to report or some other error has occurred.

### Old Data in Report

If a report contains old data, click **Run Report** to refresh the report with current data.

### Regenerating SNMP Poll Report Data

If the SNMP Poll Reports do not appear to be regenerating data, complete the following steps to correct the situation.

- 1 Exit your web browser.
- 2 From an xterm window on the DNCS/ISDS, type **su root** and press **Enter**.
- 3 Enter the root password and press **Enter**.
- 4 Type **cd /dvs/RepWriter/current/webospace/gen** and press **Enter**.
- 5 Type **ls** and press **Enter**.
 

**Note:** The "l" in **ls** is a lowercase letter L.

- 6 Does the file **snmprunning** appear on the screen?
  - If **yes**, type **rm snmprunning** and press **Enter** to delete the file.
  - If **no**, then the failure of SNMP Poll Reports to regenerate is not the problem. Review other sections in this chapter and try another resolution.
- 7 Type **cp snmp.html.refresh snmp.html** and press **Enter**.
- 8 Type **exit** and press **Enter**.



**CAUTION:**

Before running Report Writer, exit all instances of your web browser associated with your UNIX user ID. When you try to run Report Writer with more than one instance of your web browser associated with your UNIX user ID, a message appears on the screen stating that your browser has detected a lock file. Do not continue. If you attempt to continue, Report Writer may exhibit unpredictable behavior.

- 9 Launch your web browser, and run the SNMP Poll Reports.

**Important:** Do not attempt to use the web browser until the SNMP Poll Reports are complete.

## Runtime Errors

Runtime errors generated by Report Writer are displayed in the browser. The display includes the name of the file that contains the errors, along with the error messages.

To exit the error display, click the browser **Back** button.

**Important:** We recommend that you get assistance from your system administrator to resolve runtime errors.

## Web Browser Unable to Display Data

Some reports generate a large amount of data. Due to its limitations, your browser may not be able to display very large reports.

To view the data files of reports that have large amounts of data, use a text editor. You can find the data files for each report generated by Report Writer in the `/dvs/RepWriter/current/webpace/reports` directory.

### Data Files

The following tables list the data files generated for each type of report.

| <b>Database Reports</b>                | <b>File Generated</b>     |
|--|---------------------------|
| PPV Events                             | PPVEvents.html.dat        |
| Zero Credit                            | ZeroCredit.html.dat       |
| CableCARD Report                       | CableCard.html.dat        |
| Channels, Sources and Sessions Report  | CSSReport.html.dat        |
| DHCT Report                            | Converters.html.dat       |
| DHCT Packages Report                   | DhctPkg.html.dat          |
| DNCS/ISDS Packages Report              | DNCSPkg.html.dat          |
| Service Group Report                   | SvcGroup.html.dat         |
| QAMS Report                            | Qams.html.dat             |
| PCG Report                             | Pcg.html.dat              |
| NetCrypt Report                        | NetCrypt.html.dat         |
| SDV Servers Report                     | SDV Servers.html.dat      |
| QPSK Modems                            | QPSKMods.html.dat         |
| QPSK Demods                            | QPSKDemods.html.dat       |
| In Service One-Way                     | InServOneWay.html.dat     |
| Non-Responding DHCTs – Never Connected | NRNeverConn.html.dat      |
| Non-Responding DHCTs – Lost Connection | NRLostConn.html.dat       |
| DHCT Sign-on Failed Report             | DhctSignOnFailed.html.dat |
| PCG Sessions Report                    | PcgSession.html.dat       |

| <b>SNMP Poll Reports</b>         | <b>File Generated</b>  |
|----------------------------------|------------------------|
| Non Responding DHCTs – SNMP Poll | NRSNMPPoll.html.dat    |
| OS/App Version                   | ResAppVersion.html.dat |
| Memory                           | FreeMem.html.dat       |
| DHCT Uptime                      | Uptime.html.dat        |
| <hr/>                            |                        |
| <b>System Reports</b>            | <b>File Generated</b>  |
| No file generated                |                        |

## SNMP Poll Reports Do Not Regenerate Data

Occasionally, the Report Writer software assumes that the SNMP Poll Reports are in the process of running, when in fact they are not. This situation can occur if you exit your browser while the SNMP Poll Reports are running.

**Important:** The SNMP Poll Reports can take a significant amount of time to complete, depending on the number of set-tops in the system. While the SNMP Poll Reports are being generated, do not exit your browser. Exiting the web browser while the reports are being generated can cause errors in the Report Writer software that will require some manual clean-up steps. We also recommend that you do not click any buttons on your browser until the SNMP Poll Reports are completely generated.

**Notes:**

- While the reports are being generated, the following message appears on the screen: **Running [report name]. Please wait.** In this message, [report name] represents the name of the SNMP Poll report being generated.
- Concurrently, a table appears on the screen, and as each SNMP Poll report is generated its status is updated from working to complete.

## General Troubleshooting

If errors occur while Report Writer is generating a report, those errors are logged into one or more files, depending on the report type. By examining the contents of these files, it may be possible to determine why Report Writer is not providing the results you expect.

The Report Writer creates one or more of the following files if errors occur while Report Writer is generating a report. Examine the contents of these files to determine why Report Writer is not providing the results you expect.

| Report                    | File                   |
|---------------------------|------------------------|
| All Reports               | /tmp/PPVEvents.err     |
|                           | /tmp/ZeroCredit.err    |
|                           | /tmp/CableCard.err     |
|                           | /tmp/CSSReport.err     |
|                           | /tmp/Converters.err    |
|                           | /tmp/DhctPkg.err       |
|                           | /tmp/DNCSPkg.err       |
|                           | /tmp/Qams.err          |
|                           | /tmp/NetCrypt.err      |
|                           | /tmp/Pcg.err           |
|                           | /tmp/SDVServers.err    |
|                           | /tmp/QPSKMods.err      |
|                           | /tmp/QPSKDemods.err    |
|                           | /tmp/InServOneWay.err  |
|                           | /tmp/NRNeverConn.err   |
|                           | /tmp/NRLostConn.err    |
|                           | /tmp/SvcGroup.err      |
| /tmp/DhctsignOnFailed.err |                        |
|                           | tmp/PcgSession.err     |
| SNMP Poll Reports         | /tmp/NRSNMPPoll.err    |
|                           | /tmp/ResAppVersion.err |
|                           | /tmp/FreeMem.err       |
|                           | /tmp/Uptime.err        |
|                           | /tmp/asnmp.err         |
|                           | /tmp/getdhcts.err      |

## Determining if Error Files Exist

When you successfully generate a report, the files listed in the Error Files table are either non-existent or exist but have been cleared (zero content).

- 1 To determine if an error file exists, log in to the DNCS/ISDS server and enter the password.
- 2 Type **cd /tmp** and press **Enter**.
- 3 Type **ls -l \*.err** and press **Enter**.

**Note:** The "l" in **-l** is a lowercase letter L.

- 4 Type **cat [filename].err** and press **Enter**. The [filename] represents one of the error file names listed in *Error Files* (on page 35). If the file contains errors, its contents will appear on the screen.

## Displaying the Web Browser Toolbar

If the web browser Navigation Toolbar is not displayed (Back, Forward, etc.), click **View > Toolbars > Navigation Toolbar**. The Navigation Toolbar appears.

# 5

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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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