



# DNCS Report Writer 3.5

## User's Guide

## Please Read

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### 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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# Preface

## About This Guide

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### Introduction

This guide provides the following information about the Digital Network Control System (DNCS) Report Writer software provided in System Release (SR) 2.5/3.5:

- Descriptions of the types of reports available to you through 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 guide is written for system operators of Cisco's Digital Broadband Delivery System (DBDS).

### System Requirements

Your DNCS must be operating with the following software:

- SR 2.5/3.5 or later
- Application Server 3.1.4
- Netscape version 4 (or later) or Internet Explorer version 4 (or later)
- SR 2.5/3.5 SAIttools version 3.5.0

### Document Version

This is the second release of this guide.

# Chapter 1

## Introducing Report Writer 3.5

### Overview

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#### Introduction

The DNCS Report Writer is a software program that enables you to generate reports that collect data from the DNCS database, poll DHCTs for information, and collect system information. The reports are created in a Hypertext Markup Language (HTML) format, so you can view them online or through a Web browser, and you can print them. This chapter provides an overview of Report Writer and describes the types of reports you can access using Report Writer.

#### In This Chapter

This chapter contains the following topics.

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Report Writer Security and Formats	1-2
Types of Reports Available in Report Writer	1-3
DNCS Database Reports	1-4
SNMP Poll Reports	1-7
DNCS System Reports	1-9

# Report Writer Security and Formats

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## Introduction

This section provides a brief overview of how your reports are secured and a description of the different report formats and types.

## Your Reports are Secure

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

## Report Formats

Report Writer uses HTML and pipe-delimited text (.dat) file formats to generate reports.

### 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. See **Pipe-Delimited Text (.dat) File Format**, next in this section, and the **Web Browser Unable to Display Data** section in Chapter 4 for information about DAT files.

### 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/webpace/reports** directory on the hard drive, and you can view them as text files using a text editor.

# Types of Reports Available in Report Writer

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## Types of Reports

Using Report Writer, you can access several reports that are categorized into three types:

- DNCS Database Reports – collect data only from the DNCS database
- SNMP Poll Reports – poll DHCTs for information using SNMP (Simple Network Management Protocol)
- DNCS System Reports – collect system information from the DNCS 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.

## DHCT Administrative Status

Each DHCT stored in the DNCS 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 Administrative Console. The following table lists the four DHCT administrative status states:

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

**Note:** 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.

# DNCS Database Reports

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## DNCS Database Report Descriptions

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

Report Title	Description
<b>PPV Events</b>	<b>Data listed:</b> All pending pay-per-view (PPV) events <b>Data sorted by:</b> The service description and then by start date and time.
<b>Zero Credit</b>	<b>Data listed:</b> All Non-Responding DHCTs – Never Connected that have impulse pay-per-view (IPPV) events enabled and a credit limit of 0 (zero) <b>Data sorted by:</b> IP address <b>Normal condition:</b> This report should not show any data. <b>Troubleshooting:</b> DHCTs listed may have been incorrectly staged using the BOSS API. Restage and then re-run the report.
<b>Channels, Sources and Sessions Report</b>	<b>Data listed:</b> Each display channel in the system, starting from the list with Service to the Quadrature Amplitude Modulator (QAM), including all information about “carriage” of that channel

## DNCS Database Reports, Continued

Report Title	Description
<b>DHCT Report</b>	<p><b>Data listed:</b> All DHCTs in the DNCS 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. 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 <i>type</i> that is not in the DNCS database.*</p>
<b>QAMs Report</b>	<p><b>Data listed:</b> All the QAMs that are in the DNCS database and information about their configuration</p> <p><b>Normal condition:</b> A QAM listed in the DNCS database will not appear on the report if it does not have <i>valid RF ports</i> in the DNCS database.*</p>
<b>QPSK Modems</b>	<p><b>Data listed:</b> All QPSK Modulators in the DNCS database and information about their configuration</p> <p><b>Normal condition:</b> A QPSK Modulator listed in the DNCS database will not appear on the report if it is associated with a <i>hub</i> that is not in the DNCS database.*</p>
<b>QPSK Demods</b>	<p><b>Data listed:</b> All QPSK Demodulators in the DNCS database</p> <p><b>Normal condition:</b> A QPSK Demodulator listed in the DNCS database will not appear in the report if it is associated with a <i>QPSK Modulator, hub, or node set</i> that is not in the DNCS 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 database to identify DHCTs that have been configured for one-way service.</p>

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

## DNCS Database Reports, Continued

Report Title	Description
<p><b>Non-Responding DHCTs – Never Connected</b></p>	<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 database to identify DHCTs configured for two-way service that have never established a two-way connection. These DHCTs should have an IP address, but they do not.</p>
<p><b>Non-Responding DHCTs – Lost Connection</b></p>	<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 database to identify DHCTs configured for two-way service that have lost a previous two-way connection.</p>
<p><b>TSID List</b></p>	<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 DNCS database to identify all TSIDs that have been used in the DNCS system</p> <p><b>Note:</b> The TSID List report is a new feature of Report Writer 3.5.</p>

# SNMP Poll Reports

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## Overview

The SNMP Poll Reports collect data by issuing up to three SNMP poll requests to each candidate DHCT. The SNMP poll request determines the current two-way communication ability of each DHCT.

## How SNMP Poll Reports Work

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 instead in the OS/App Version, Memory, and DHCT Uptime Reports.

“Candidate DHCTs” are the 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 database does not meet all of these criteria, it will be excluded from the SNMP Poll Report.

**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.

## SNMP Poll Reports, Continued

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### SNMP Poll Report Descriptions

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.

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>	<b>Data listed:</b> The PowerTV® Operating System and Resident Application versions installed in each DHCT <b>Notes:</b> <ul style="list-style-type: none"><li>• The Resident Application is the application that is run on the DHCT that provides all basic functionality for the DHCT, including navigation, changing channels, volume control, etc. For Cisco DHCTs, the Resident Application is the Cisco Resident Application (SARA).</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 database.*

# DNCS System Reports

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## Overview

The DNCS System Reports collect and display information to provide a quick overview of the health of the DNCS system.

## DNCS System Report Descriptions

The following table describes each of the DNCS System Reports. These reports are listed in the order in which you will see them when you open Report Writer.

Report Title	Description
<b>General System Information</b>	<b>Data listed:</b> DNCS 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 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  <b>Note:</b> This is the database used by the DNCS.

# Chapter 2

## Installing Report Writer on the DNCS

### Overview

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#### Introduction

This chapter describes the information and software you need to gather before installing Report Writer 3.5 on your system, and the procedures to complete the installation process.

#### In This Chapter

This chapter contains the following topics.

Topic	See Page
Before You Begin	2-2
Install Report Writer	2-3
Rollback Procedures	2-5

# Before You Begin

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## Overview

This section identifies the software that must be installed on your system before you install Report Writer 3.5 and provides instructions for identifying the versions of SAIapsrv and SAItools packages installed on your system.

 **CAUTION: Before installing Report Writer 3.5, Cisco recommends that you backup and remove any non-Cisco directories you may have added to previous versions of the Report Writer program.**

**If you attempt to install Report Writer 3.5, and a non-Cisco directory is found in the process, you will see a message stating that Report Writer was only partially installed.**

## System Requirements

Before installing Report Writer 3.5, you must have the following software installed on your system:

- SR 2.5/3.5
- Application Server 3.1.5 or later.
- Netscape version 4 (or later), or Internet Explorer version 4 (or later)
- SR 2.5/3.5 SAItools, version 3.5.0

## Report Writer 3.5 CD

Obtain the Report Writer 3.5 CD before you begin the installation.

## Identifying the SAIapsrv and SAItools Packages Currently Installed

In the unlikely event that you experience a problem installing Report Writer 3.5, you may need to roll back to the previous versions of SAIapsrv and SAItools packages for Report Writer.

To identify your current SAIapsrv and SAItools packages, complete the following steps.

1. In an xterm window on the Application Server, type **pkginfo -l SAIapsrv** and press **Enter**.
2. Write the current Application Server version that displays here: \_\_\_\_\_
3. In the same xterm window, type **pkginfo -l SAItools** and press **Enter**.
4. Write the current SAItools version here: \_\_\_\_\_
5. Locate the SAIapsrv and SAItools CD(s) and keep them available in case you need to roll back.

# Install Report Writer

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## Installing Report Writer 3.5

To install the DNCS Report Writer software, complete the following steps.

1. Open an xterm window on the DNCS and log in as the **root** user.
2. Insert the CD labeled **DNCS Report Writer 3.5** into the CD-ROM drive of the DNCS. Wait approximately 30 seconds for the system to mount the **CD** before continuing to step 3.

**Note:** Shortly after inserting the CD, a File Manager window will display. When it does, it may block the xterm window. If this occurs, click the xterm window to bring the xterm window to the forefront.

3. After the system mounts the CD, type **df -n** in the xterm window and then press **Enter** to confirm that the system mounted the CD successfully.

**Result:** A list of the mounted file systems appears.

**Note:** The presence of **/cdrom/dvsg** in the list confirms that the system correctly mounted the CD.

4. Type **cd /cdrom/dvsg** and press **Enter**.

**Result:** The **/cdrom/dvsg** directory becomes the working directory.

5. Type **./install\_pkg** and then press **Enter**.

**Important:** Be sure to type a period in front of **/install\_pkg**.

**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.

6. Type **y** and press **Enter** to start the installation.

**Result:** 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 about a minute.

7. Was the installation successful?
  - If **yes**, type **exit** and press **Enter** to log out as root user; then, go to step 8.
  - If **no**, contact Cisco Services.

## Install Report Writer, Continued

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8. Type **exit** and press **Enter** to close the xterm window.
9. From the File Manager window, click **File** and select **Eject**.  
**Result:** The CD ejects and the File Manager window closes.
10. Remove the CD from the CD drive and store it in a secure location.
11. Type **ps -ef | grep httpd** and press **Enter**.
12. Does information similar to **# root 458 1 0 08:36:10 ? 0:00 ./httpd** appear on the screen?
  - If **yes**, you have completed the installation of the DNCS Report Writer software. Go to Chapter 3, **Accessing Report Writer and Generating Reports**.
  - If **no**, go to step 13.
13. Type **/etc/rc2.d/S99httpd** to start the Apache HTTP Server and press **Enter**.  
**Result:** A UNIX prompt appears. You are now ready to run Report Writer.

# Rollback Procedures

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## If You Need to Roll Back

In the unlikely event that you experience a problem installing the Report Writer software, you must first delete all the files in the Report Writer directory. This section provides instructions for deleting those files.

## Deleting the Report Writer Directory Files

Delete all the files in the Report Writer directory by completing the following steps.

1. On the DNCS, 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**.

**Result:** The files in the Report Writer directory are deleted. You can now reinstall the DNCS Report Writer software, using the procedures in the **Install Report Writer** section, earlier in this chapter.

# Chapter 3

## Accessing Report Writer and Generating Reports

### Overview

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#### Introduction

Report Writer provides a Web server that enables you to access reports through a Web browser. You must have Web browser software installed on the workstation from which you can access Report Writer and generate reports. If you do not have access to Web browser software, use the copy of Netscape Navigator on the DNCS server to display and generate reports at the DNCS 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 explains how to access Report Writer and generate your reports.

#### Supported Web Browsers

The Report Writer Web server supports only Netscape Navigator version 4 (or later) and Internet Explorer version 4 (or later); however, other Web browser software may also function correctly. You can display reports from any workstation on the DNCS network using your Web browser.

#### In This Chapter

This chapter contains the following topics.

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Access Report Writer	3-3
Generate DNCS Database Reports	3-6
Generate SNMP Poll Reports	3-7
Generate DNCS System Reports	3-9
Customize Reports	3-10

# Add Report Writer Users

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## Overview

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 DNCS reports.

**Example:** normal: sareports <username> <username>

To remove a user, remove the user’s name from the groups file.

## Adding New Users or Changing Passwords

Report Writer is shipped with the user name **sareports** and the password **report**. To add additional users to the Report Writer system or to change passwords, complete the following steps.

1. Log in as **root** on the DNCS.
2. Type **cd /usr/local/apache/bin** and press **Enter**.
3. Type **./htpasswd /usr/local/apache/conf/users <username>** and press **Enter**.  
**Note:** Replace <username> with the user you are adding or the user whose password you are changing.
4. Type and confirm the **password**.
5. When adding a user to Report Writer, you must also add the user to the groups file. Use a text editor to open the **/usr/local/apache/conf/groups** file and append the user name to the line that begins with the word “normal.”
6. Go to **Accessing Report Writer**, next in this chapter.

# Access Report Writer

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## Overview

This section provides instructions for accessing Report Writer and procedures for generating the various types of reports available in Report Writer.



### CAUTION:

**Before running Report Writer, exit all instances of Netscape associated with your UNIX user ID.**

**When you try to run Report Writer with more than one instance of Netscape associated with your UNIX user ID, a message appears on the screen stating that Netscape has detected a lock file.**

**Do not continue. If you attempt to continue, Report Writer may exhibit unpredictable behavior.**

## Opening Report Writer

To open Report Writer, complete the following steps.

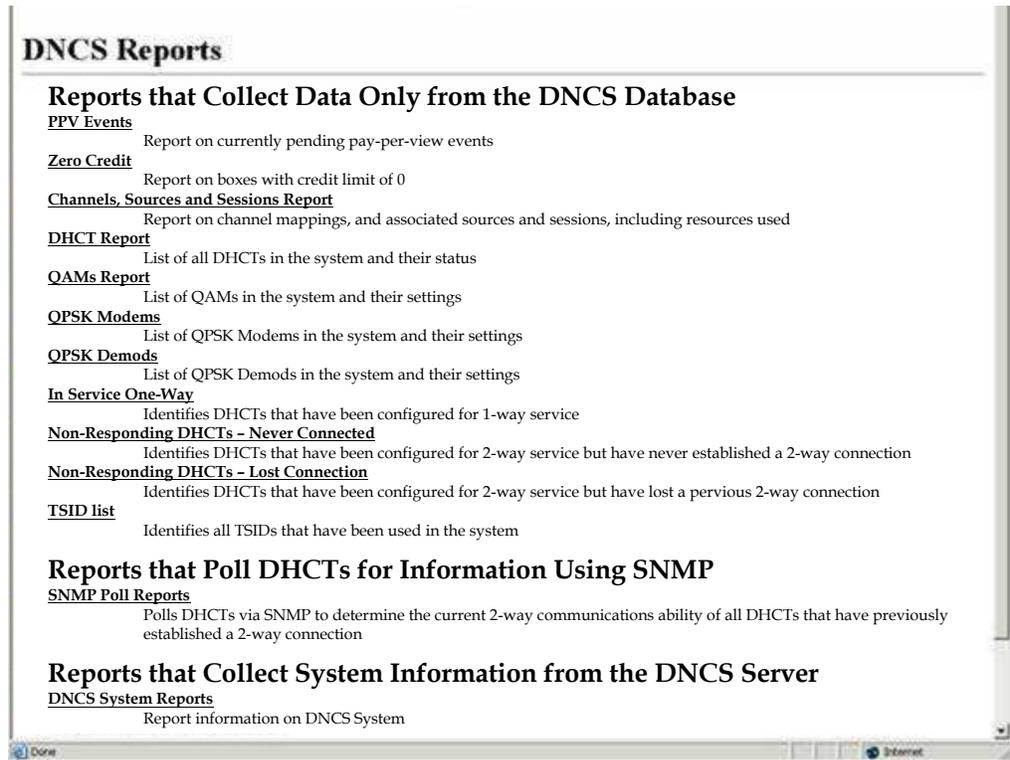
1. From the DNCS Admin window, select the **DNCS** tab.  
**Result:** A prompt for the user ID and password appears on the screen.
2. From the **Utilities** tab, click **Reports**.  
**Result:** The Welcome page opens.
3. Select **DNCS Report Manager**.  
**Result:** The Prompt window opens.

## Access Report Writer, Continued

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4. Type your **user ID** and **Password** in the Prompt window, then click **OK**. (The default user ID is **sareports** and the default password is **report**.)

**Result:** The DNCS Reports page opens.



**Note:** The TSID list report in the Reports that Collect Data Only from the DNCS Database section is new in Report Writer 3.5.

## Access Report Writer, Continued

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### Displaying Reports

The DNCS Reports page contains a list of hyperlinks to specific reports and a brief description of each report.

Click the hyperlink for the report you want to display. The report that appears on your screen is data from the last time the report was accessed. The date and time the data was refreshed is shown under the report name. You can refresh the data by clicking Run Report.

If the report was not previously accessed, a message appears on the screen indicating the report has not yet been generated. Click **Run Report** to generate the report and to see the latest data.

# Generate DNCS Database Reports

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## Overview

This section provides instructions for generating reports that collect data only from the DNCS database.

## Generating Reports that Collect Data Only from the DNCS Database

To generate and display a DNCS database report, complete the following steps.

1. From the DNCS Reports page, select one of the DNCS Database reports.  
**Note:** While the report is being generated, you may see the following message on the screen: **Running <report name>. Please wait.**
2. A message stating that the report is completed and the number of records processed appears on the screen. Click **Display Data** to display the data for the selected report.

### Notes:

- When 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 military time.)
- 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.

# Generate SNMP Poll Reports

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## Introduction

This section provides instructions for generating reports that poll DHCTs for information using SNMP.

## Generating Reports that Poll DHCTs for Information Using SNMP

To generate and display SNMP poll reports, complete the following steps.

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

**Result:** The page provides hyperlinks to each of the SNMP Poll reports.

2. Select one of the following SNMP Poll Reports:

- Non Responding DHCTs – SNMP Poll
- OS/App Version
- Memory
- DHCT Uptime

**Note:** If the report is available, you can click **Display Data** to display the report. The data that you see is from the last time the report was run. If newer data is needed, go back to the SNMP Poll Reports page and select **Run Report**.

3. Does the report appear on the screen?

- If **yes**, the data is from the last time the SNMP Poll Report was run. Go to step 4 to regenerate the report.
- If **no**, go to step 5.

4. To refresh the report data, click **Back** to return to the SNMP Poll Reports page; then, click **Run Report**.

5. 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; then, go to step 6.
- If **no**, go to step 6.

## Generate SNMP Poll Reports, Continued

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6. Click **Run Report**, which will 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 Chapter 4, **Troubleshooting Guidelines and Solutions**). It is also recommended that you *do not click any buttons* on your Web 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.**
  - Concurrently, a table appears on the screen, and as each SNMP Poll report is generated, its status is updated from “working” to “complete.”
7. When all the SNMP Poll reports are generated, click the Web browser **Back** button.
  8. Click the **hyperlink** for a specific SNMP Poll Report.
  9. 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 steps 1 through 8.

# Generate DNCS System Reports

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## Introduction

This section provides instructions for generating reports that collect information from the DNCS server.

## Reports that Collect System Information from the DNCS Server

The following reports collect data only from the DNCS server.

- General Information Report
- File System Information Report
- Network Information Report
- Database Information Report

**Note:** For detailed information about each DNCS System report see the **Types of Reports Available in Report Writer** section in Chapter 1.

## Generating Reports that Collect System Information from the DNCS Server

To generate and display reports that collect system information from the DNCS server, complete the following steps.

1. From the DNCS Reports page, click **DNCS System Reports**.
  2. The data for all the following reports are on this page. Select a specific report from the list on the top of the page or scroll to see all the data.
    - General Information Report
    - File System Information Report
    - Network Information Report
    - Database Information Report
-

# Customize Reports

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## Overview

You can customize your reports by inserting your company's logo and sorting report data.

## Inserting Your Company's Logo

The Cisco logo at the top of each page can be replaced with your company's logo in GIF format. To do this, exit your Web browser, name your logo file **top.gif**, and place it in the `/dvs/RepWriter/current/webpace/images` directory.

## Sorting the Reports

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

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

# Chapter 4

## Troubleshooting Guidelines and Solutions

### Overview

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#### Introduction

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

#### In This Chapter

This chapter contains the following topics.

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# Report Writer Not Installed Properly

---

## Overview

If Report Writer is not functioning as expected, verify that the Report Writer software is installed on the DNCS server and that the installation was complete.

## Verifying That Report Writer is Installed

To verify that the Report Writer software is installed, complete the following steps.

1. Log in to the DNCS server as **dncs** and type the **password**.
2. Type **pkginfo -l SAirptwrt** and press **Enter**.

**Result:** The Report Writer installation status and version number appear on the screen:

**STATUS: completely installed**  
**VERSION: 3.5.x.x**

3. Does the STATUS field indicate **completely installed**?
  - If **yes**, the Report Writer installation was completed.
  - If **no**, you must uninstall, then, reinstall Report Writer. See Chapter 2, **Installing Report Writer on the DNCS**.

# Web Server Not Running

---

## Overview

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

## Verifying Apache HTTP Server Is Running

To verify that the Apache HTTP Server is running, complete the following steps.

1. Log in to the DNCS server as **root**.
2. Type **ps -ef | grep httpd** and press **Enter**.
3. Does the information on your screen look similar to this:  
**root 458 1 0 08:36:10 ? 0:00 ./httpd**
  - If **yes**, the Apache HTTP Server is running.
  - If **no**, go to step 4.
4. To start the Apache HTTP Server, type **/etc/rc2.d/S99http** and press **Enter**.

# Cannot Access the Report Writer URL

---

## Introduction

If you are unable to access the Report Writer Web site from the Web Browser, verify that you are typing the correct URL.



**CAUTION:** Before running Report Writer, you must exit all instances of Netscape associated with your UNIX user ID.

When you try to run Report Writer with more than one instance of Netscape associated with your UNIX user ID, a message appears on the screen stating that Netscape has detected a lock file.

Do not continue. If you attempt to continue, Report Writer may exhibit unpredictable behavior.

## Verifying Correct URL

To verify that you are typing the correct URL, complete the following steps.

1. From the DNCS Admin window select the **DNCS** tab.  
**Result:** A prompt for the user ID and password appears on the screen.
2. From the **Utilities** tab, click **Reports**.  
**Result:** The Welcome page opens.
3. Select **DNCS Report Manager**.
4. Does the Prompt window open?
  - If **yes**, your Web browser successfully accessed Report Writer.
  - If **no**, go to step 5.
5. Type **http://<ip\_address>:80** and press **Enter**.  
**Note:** In this command, <ip\_address> represents the DNCS server IP address.
6. Did you successfully access the Web site?
  - If **yes**, click DNCS Report Manager and go to step 7.
  - If **no**, repeat steps 1 through 4.
7. Does the Prompt window open?
  - If **yes**, your Web browser successfully accessed Report Writer.
  - If **no**, see the **Report Writer Not Installed Properly** section, earlier in this chapter, to verify that the correct version of the Report Writer software is installed on your DNCS.

# No Data or Old Data in the Report

---

## Introduction

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, it is possible that the Report Writer is unable to connect to the DNCS database.

## Determining If Report Writer is Connecting to the DNCS Database

If there is not data in the report, determine if Report Writer is connecting to the DNCS database by completing the following steps.

1. Log in to the DNCS server and enter the **password**.
2. Type **cd /tmp** and press **Enter**.
3. Type **ls \*.err** and press **Enter**.

**Note:** In this command, type the lowercase letter l, not the number 1.

4. Type **cat <report\_name>.err** and press **Enter**.

**Note:** Replace <report\_name> with the name of the report you are requesting.

5. Locate the **<report\_name> / open Db( ) error: + an error msg.Exiting** line in the list.

**Note:** The <report\_name> represents the name of the requested report.

6. Does the **ERROR: failed to connect!** message appear on your screen?
  - If **yes**, Report Writer was unable to connect to the DNCS database; this is the reason that the reports do not contain data.
  - If **no**, Report Writer is connected to the DNCS database, and there is no data to report or some other error has occurred.

## Report Contains Old Data

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

# Runtime Errors

---

## Overview

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

## Exiting the Error Display

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

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

# Web Browser Unable to Display Data

---

## Introduction

Some reports generate a large amount of data. Due to its limitations, the Web 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 DNCS Report Writer in the `/dvs/RepWriter/current/webospace/reports` directory.

## Data Files

The following table lists the data files generated for each report.

<b>DNCS Database Reports</b>	<b>File Generated</b>
PPV Events	PPVEvents.html.dat
Zero Credit	ZeroCredit.html.dat
Channels, Sources and Sessions Report	CSSReport.html.dat
DHCT Report	Converters.html.dat
QAMS Report	Qams.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
<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
<b>DNCS System Reports</b>	<b>File Generated</b>
No file generated	

# SNMP Poll Reports Do Not Regenerate Data

---

## Introduction

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 the Web 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 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. It is also recommended that you *do not click any buttons* on your Web 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.**

**Note:** 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.

## Regenerating SNMP Poll Reports 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, type **su root** and enter the password.
3. Type **cd /dvs/RepWriter/current/webospace/gen** and press **Enter**.
4. Type **ls** and press **Enter**.

**Note:** Type the lowercase letter l, not the number 1.

5. Does the file **snmprunning** appear on the screen?
  - If **yes**, go to step 6 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 solution.

## SNMP Poll Reports Do Not Regenerate Data, Continued

---

6. To delete the `snmprunning` file, type `rm snmprunning` and press **Enter**.
7. Type `cp snmp.html.refresh snmp.html` and press **Enter**.
8. Type `exit` and press **Enter**.

 **CAUTION:**

**Before running Report Writer, you must exit all instances of Netscape associated with your UNIX user ID.**

**When you try to run Report Writer with more than one instance of Netscape associated with your UNIX user ID, a message appears on the screen stating that Netscape has detected a lock file.**

**Do not continue. If you attempt to continue, Report Writer may exhibit unpredictable behavior.**

9. Relaunch 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.

# General Troubleshooting

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## Introduction

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. This section identifies the files in which the errors are logged.

## Error Files

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/CSSReport.err /tmp/Converters.err /tmp/Qams.err /tmp/QPSKMods.err /tmp/QPSKDemods.err /tmp/InServOneWay.err /tmp/NRNeverConn.err /tmp/NRLostConn.err
SNMP Poll Reports	/tmp/NRSNMPPoll.err /tmp/ResAppVersion.err /tmp/FreeMem.err /tmp/Uptime.err /tmp/asnmp.err /tmp/getdhcts.err

## General Troubleshooting, Continued

---

### 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).

To determine whether the error files exist, complete the following steps.

1. Log in to the DNCS server and enter the password.
2. Type **cd /tmp** and press **Enter**.
3. Type **ls -l \*.err** and press **Enter**.

**Note:** Type the lowercase letter l, not the number 1.

4. Type **cat <filename>.err** and press **Enter**.

**Note:** The <filename> represents one of the error file names listed in **Error Files** earlier in this section.

**Result:** If the file contains errors, its contents will appear on the screen.

### Displaying Web Browser Toolbar

If the Web browser Navigation Toolbar is not displayed (Back, Forward, etc.), click **View** and select **Navigation Toolbar**.

**Result:** The Navigation Toolbar appears.

# Chapter 5

## Customer Information

### If You Have Questions

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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.

## Glossary

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<b>API</b>	Application Programming Interface.
<b>BOSS</b>	Business Operations Support System.
<b>CD</b>	Compact Disc.
<b>DHCT</b>	Digital Home Communications Terminal. Cisco's digital set-top converter that is two-way capable for interactive services.
<b>DNCS</b>	Digital Network Control System. A computer workstation and server used to monitor and control the DBDS network elements. Generally located at the DBDS headend, although it may be located elsewhere and remotely connected to the DBDS.
<b>GIF</b>	Graphics Interchange Format.
<b>GUI</b>	Graphical User Interface.
<b>HTML</b>	Hypertext Markup Language.
<b>http</b>	Hypertext Transfer Protocol.
<b>IP Address</b>	A 32-bit sequence of numbers used for routing IP data. Each IP address identifies a specific component on a specific network. The address contains a network address identifies and a host identifier.
<b>IPPV</b>	impulse pay-per-view. Service for which cable subscribers can electronically order program events using two-way (or reverse path) methods. Subscribers are charged a user fee for individual program events. <i>See also</i> pay-per-view.
<b>OS</b>	Operating System.
<b>PPV</b>	pay-per-view. Service for which cable subscribers are charged a user fee for individual program events. <i>See also</i> impulse pay-per-view.

## Glossary, Continued

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<b>QAM</b>	Quadrature Amplitude Modulation. A frequency modulation technique primarily used for program audio and video. QAM supports data rates from 27 to 36 Mbps.
<b>QAM modulator</b>	A device that uses QAM techniques to modulate a digital signal onto an HFC network to deliver voice, video, and data to a DHCT.
<b>QPSK</b>	Quadrature Phase-Shift Keying.
<b>QPSK Modulator/ Demodulator</b>	The QPSK modulator works with the QPSK demodulator and the DHCT to provide forward signaling and a reverse communications path for interactive video and data services. The QPSK modulator and demodulator convert digital bit streams to RF format and RF signals to digital bits, respectively.
<b>SARA</b>	Cisco Resident Application.
<b>SNMP</b>	Simple Network Management Protocol. Originally, a TCP/IP network management architecture.
<b>SR</b>	System Release. Cisco's release package for components of the DBDS.

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Cisco Systems, Inc.  
5030 Sugarloaf Parkway, Box 465447  
Lawrenceville, GA 30042

678 277-1120  
800 722-2009  
[www.cisco.com](http://www.cisco.com)

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