HP OpenView Performance Insight

Stratacom Preprocessor and Stratacom Datapipes User Guide

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Overview

If you are using the Frame Relay Report Pack or the ATM Report Pack, and you want your reports to include performance data for Stratacom devices, you need to install the Stratacom Preprocessor. The Stratacom Preprocessor performs formatting and filtering operations, using data compiled by utilities that retrieve data from Stratacom devices. One such utility is the Cisco Statistics Collection Manager.

While formatting is a mandatory step, filtering is usually optional. Formatting produces a file that OVPI can import and process. Filtering eliminates unnecessary data and reduces the processing load on the OVPI server.

This manual explains how to install and configure the Stratacom Preprocessor. It also explains how to install any Stratacom datapipe that uses the Stratacom Preprocessor. The Stratacom Preprocessor and the Stratacom datapipes are separate packages and you may install them at the same time.

Moving Data from Stratacom Devices to OVPI

The performance data you see in the Frame Relay Report Pack or the ATM Report Pack resides in base tables. The following steps describe the flow of performance data from a Stratacom device to base tables in the report pack.

1   Stratacom devices compile statistical data.

2   A utility retrieves statistical data from the devices and creates binary formatted files.

3   The Stratacom Preprocessor decodes binary formatted files retrieved from the utility.

4   The Stratacom Preprocessor reformats each file, filters out irrelevant data, and produces ASCII CSV files compatible with ee_collect.

5   ee_collect reads files created by the Preprocessor and populates datapipe feeder tables.

6   trendmapper populates the report base tables using data in the datapipe feeder tables.

Output from the Stratacom Preprocessor can be used by multiple datapipes. If multiple datapipes are running, these steps are repeated for each datapipe.

Tasks for the User

Your tasks as the user are as follows:

- Install the Stratacom Preprocessor.
- Verify that the installation was successful.
- Verify that the procedure file calls the script correctly.
- Install at least one Stratacom Datapipe.
- Copy the config files in the datapipe directory to the Stratacom Preprocessor directory.
- If necessary, edit the config files.

> Under normal circumstances, editing config files is not necessary.

Sources for Additional Information

The following documents are related to this manual:

- *Stratacom Preprocessor 3.0 Release Statement*
- *Frame Relay Stratacom Datapipe Release Statement*
- *ATM Stratacom Datapipe Release Statement*
- *Frame Relay Report Pack 4.0 User Guide*
- *Frame Relay Report Pack 4.0 Release Statement*

The following manuals are sources for information about OVPI 5.0:

- *OpenView Performance Insight 5.0 Administration Guide*
- *OpenView Performance Insight 5.0 Guide to Building and Viewing Reports*
- *OpenView Performance Insight 5.0 Installation Guide*

Manuals for the core product, OVPI, and manuals for the reporting solutions that run on OVPI, are posted to the following website:

http://support.openview.hp.com/support

Select **Technical Support** > **Product Manuals** to reach the **Product Manuals Search** page. The user guides for the core product, Performance Insight, are listed under **Performance Insight**. The user guides for report packs, datapipes, preprocessors, SPIs, and value-add components for NNM are listed under **Reporting and Network Solutions**.

The manuals listed under **Reporting and Network Solutions** indicate the month and year of publication. Since updated user guides are posted to this site on a regular basis, you should check this site for updates before using an older PDF that may no longer be current.

Installing the Preprocessor

This section covers the following topics:

- Installation prerequisites
- Installing the Stratacom Preprocessor
- Testing for proper installation
- Package removal

All references to environment variables have the following syntax: {*VARIABLE*}

Installation Prerequisites

The Stratacom Preprocessor does not require a particular version of OVPI. However, the following item is a prerequisite:

- Perl 5.x

The ATM Report Pack and the Frame Relay Report Pack are not prerequisites for the Stratacom Preprocessor. You may install one or both of those report packs now, when you install the Preprocessor, or you may install them later.

If your OVPI system is distributed, install the report packs on the central server and on each satellite server. Normally, you would install the Stratacom Preprocessor on the central server only; however, other configurations are possible.

Package Contents

The Stratacom Preprocessor package contains:

- Perl script
- Example configuration files
- A procedure file (.pro) that controls the Stratacom Preprocessor

When you install the package, the Perl script gets copied to the bin directory; the procedure file, which calls the Perl script, gets copied to the scripts directory.

Directory Structure

The Stratacom Preprocessor cannot operate unless several files and directories are identified. See the following table for details.

Directory	Function	Default
Save	Retains a copy of the input data	*{STRATACOM}*/save
Config	Contains configuration files for the Stratacom Preprocessor	*{STRATACOM}*/config
Out	Output directory for the Stratacom Preprocessor	*{STRATACOM}*/out
In	Location of statistics file retrieved from Stratacom devices	*{STRATACOM}*/in
Work	Contains output from the Stratacom Preprocessor	*{STRATACOM}*/work
trend.log	Records process start and stop times	*{STRATACOM}*/tmp/trend.log

Defining the Environment Variable

Default locations for these directories are based on an environment variable called *{STRATACOM}*. To use the default locations, this variable must be defined for the trendadm user. Follow these steps.

1 Navigate to *{DPIPE_HOME}*/lib/Cshrc

2 Add this line: `setenv STRATACOM <directory>`

3 Restart OVPI Timer.

If you do not want to use the defaults, you must edit the .pro file, entering values you want to use.

Creating the Stratacom Environment Variable on NT

Follow these steps to add or change the values of environment variables

1 Click **Settings > Control Panel**, and then double-click **System**.

2 On the Advanced tab, click **Environment Variables**, then click the name of the user variable or system variable you want to change, as follows:

- Click **New** to add a new variable name and value.
- Click **Edit** to change a current variable name and value.
- Click **Delete** to remove a variable name and value.

> If you are not logged on as administrator to the local computer, the only environment variables you can change are user variables.

> Windows 2000 saves changes in the registry; the next time you start your computer, they are available automatically. You may have to close and reopen running programs for the new settings to take effect.

> To display these steps on your PC, select **Start > Help**; do a search for *environment* and then select *adding*.

Installing the Stratacom Preprocessor

If you have not yet copied OVPI packages from the RNS 5.0 product distribution CD to the Packages directory on your system, insert the CD and follow the on-screen directions for extracting OVPI report packs. On Windows, the on-screen directions display automatically. On UNIX systems, mount the CD (if mounting a CD is necessary), navigate to the top level directory for the CD, and then run the following command:

        ./setup

After extracting every package to the Packages directory on your system, the install script starts the Package Manager install wizard. If Package Manager is already running, begin the following procedure at Step 4.

1   Log in to the system. On UNIX systems, log in as root.

2   Stop OVPI Timer and wait for processes to terminate

     Windows NT: Select **Settings > Control Panel > Administrative Tools > Services**

     HP-UX: **sh /sbin/ovpi_timer stop**

     Solaris: **sh /etc/init.d/ovpi_timer stop.**

3   Select **HP OpenView > Performance Insight > Package Manager**.

4   Click **Next.** The Package Location window opens.

5   Click the **Install** radio button.

6   Approve the default installation directory or use the browse feature to select a different directory if necessary.

7   Click **Next.** The Report Deployment window opens.

8   Disable the default for Deploy Reports; also accept the defaults for application server name and port. If you are also installing the Frame Relay Report Pack or the ATM Report Pack, keep the default for Deploy Reports.

9   Enter your username and password.

10   Click **Next.** The Package Selection window opens.

11   Click the check box next to the *Stratacom Preprocessor* package.

12   Click **Next.** The Type Discovery window opens. To run Discover immediately after package installation, accept the default and click **Next**. The Selection Summary window opens.

13   Click **Install.** The Installation Progress window opens and the install begins. When the install finishes, a package install complete message appears.

14   Click **Done** to return to the Management Console.

15   Restart OVPI Timer.

Windows NT: Select **Settings > Control Panel > Administrative Tools > Services**

HP-UX: **sh /sbin/ovpi_timer start**

Solaris: **sh /etc/init.d/ovpi_timer start**

Testing for Proper Installation

To verify that the Stratacom Preprocessor was properly installed, bring up a command prompt in the DPIPE_HOME directory and type the following command:

perl bin/stratacom_preprocessor.pl -h

If the package installed correctly, a help window will open.

Testing the .Pro File

To test that the procedure file calls the script correctly, do this:

1   Make sure that there are no files in the source directory.

2   Type the following command from a command prompt in the DPIPE_HOME directory:

trend_proc -f scripts/StratacomPreprocessor.pro

3   Navigate to the trend log and verify that entries to the log indicate that the script was started and stopped.

The Output Directory

When the Stratacom Preprocessor is installed, it creates an output directory. The output directory for the Stratacom Preprocessor serves as the SourceDirectory for Stratacom datapipes. The path to the output directory is:

{DPIPE_HOME}/data/ImportData/Stratacom

The location of the output directory is fixed. Do not change it.

Package Removal

Follow these steps to uninstall the Stratacom Preprocessor:

1   Stop OVPI Timer and let processes terminate.

2   Select **Start > HHP OpenView > Performance Insight > Package Manager**. The Package Manager welcome window opens.

3   Click **Next**. The Package Location window opens.

4   Click the **Uninstall** radio button and follow the on-screen directions. When prompted to select a package for removal, select *Stratacom Preprocessor*.

5   Click **Next**. The Selection Summary window opens.

6 Click **Uninstall**. The Progress window opens and the removal begins. When the removal finishes, a package removal complete message appears.

7 Click **Done** to return to the Management Console.

8 Restart OVPI Timer.

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Installing Stratacom Datapipes

This chapter covers the following topics:

- Guidelines for a smooth installation
- Extraction and Installation
- Package contents
- Input filenames
- TEEL files and default directives

If your OVPI system is distributed, install the datapipe(s) on any server that polls. Typically, the central server in a distributed system does not poll.

Guidelines for a Smooth Installation

The RNS 5.0 CD contains NNM components as well as OVPI packages. When you select OVPI packages for installation, the install script on the RNS 5.0 CD extracts every OVPI package from the CD and copies the results to the Packages directory on your system. When the extract finishes, the install script prompts you to launch the Package Manager install wizard.

If you have already installed any of the OVPI packages on the RNS 5.0 CD, then every package related to OVPI is already on your system and available for installation. Install the Stratacom Preprocessor by starting Package Manager and following the familiar on-screen directions. Before doing that, review the following guidelines.

Software Prerequisites

Stratacom datapipes have the following prerequisites:

- OVPI 5.0; all available Service Packs for OVPI 5.0
- Stratacom Preprocessor 3.0
- The Frame Relay Report Pack 4.0; *or*
- The ATM Report Pack3.0

The Stratacom datapipes cannot be upgraded. If you are running an older version of a Stratacom datapipe, your first step is to remove the older version.

Distributed Environments

If your OVPI system is distributed, the installation process is more involved. You will need to install your Stratacom datapipes on every server that performs polling. Typically, the central server in a distributed system does not poll.

Installing Stratacom Datapipes

Insert the RNS 5.0 CD and follow the on-screen directions for extracting OVPI solution components. On Windows, these directions appear in a Main Menu that opens automatically; on UNIX, you must log in as root, mount the CD (if the CD does not mount automatically), navigate to the top level of the CD directory, and then run the **./setup** command.

After the OVPI packages have been extracted and copied to your system, the install script launches OVPI and starts Package Manager. If you just extracted packages from the CD and the Package Manager install wizard is running, start this procedure at step 4; otherwise begin at step 1.

1 Log in to the system. On UNIX systems, log in as root.

2 Stop OVPI Timer and wait for processes to terminate.

   Windows NT: Select **Settings > Control Panel** > **Administrative Tools > Services**

   UNIX: As root, do one of the following:

   HP-UX: `sh /sbin/ovpi_timer stop`

   Sun: `sh /etc/init.d/ovpi_timer stop`

3 Select **HP OpenView > Performance Insight > Management Console**.

4 Select **Tools > Package Manager**. The Package Manager welcome window opens.

5 Click **Next.** The Package Location window opens.

6 Click the **Install** radio button. Approve the default destination directory or browse to a different directory if necessary.

7 Click **Next.** The Report Deployment window opens.

8 Type your OVPI username and password.

9 Click **Next.** The Package Selection window opens. Click the check box for one or both of these packages:

   ATM_Stratacom_Datapipe

   FrameRelay_Stratacom_Datapipe

10 Click **Next.** The Type Discovery window opens. Clear the default.

11 Click **Next.** The Selection Summary window opens.

12 Click **Install.** The Installation Progress window opens and the install begins. When the install finishes, a package installation complete message appears.

13 Click **Done** to return to the Management Console.

14 Restart OVPI Timer.

   Windows NT: Select **Settings > Control Panel** > **Administrative Tools > Services**

UNIX: As root, type one of the following:

    HP-UX: `sh /sbin/ovpi_timer start`

    Sun: `sh /etc/init.d/ovpi_timer start`

Package Removal

Follow these steps to uninstall a Stratacom datapipe.

1   Log in to the system. On UNIX systems, log in as root.

2   Stop OVPI Timer and wait for processes to terminate.

3   Select **HP OpenView > Performance Insight > Package Manager**. The Package Manager install wizard opens.

4   Follow the on-screen directions for package removal. When the uninstall is complete, a package removal complete message appears.

5   Click **Done**.

6   Restart OVPI Timer.

Package Contents

A Stratacom datapipe package contains:

•   TEEL files that define table and file formats

•   A procedure (.pro) file that controls calls to ee_collect and trendmapper

•   Rex files that format key data

•   Rotation files that step data into the report pack

•   Configuration files for the Stratacom Preprocessor

After the package is installed, the procedure file resides in the scripts directory and the rex files reside in the bin directory.

Input Filenames

The Stratacom Preprocessor creates ASCII CSV files suitable for ee_collect. The filenames use the original switch file name and the Stratacom object identifier. Here's an example of an output file name produced for use with the Stratacom ATM datapipe:

•   *filename.0.7* contains rate ATM port data

TEEL Files and Directives

TEEL files need to be modified to reflect the operating environment. Certain directives are specific to a platform, while others are specific to a customer or a site. The file itself will indicate whether the directive is platform, customer, or site-specific.

SourceDirectory

The SourceDirectory for Stratacom datapipes is the default output directory for the Stratacom Preprocessor. The default SourceDirectory for Stratacom datapipes is:

```
{DPIPE_HOME}/data/ImportData/Stratacom
```

In addition to verifying that the output directory is correct, make sure that the environment variable {STRATACOM} is set up correctly for the *trendadm* user. See "Directory Structure" in Chapter 2 for default directory information.

SourceDisposition

The TEEL files contain the following default SourceDisposition:

{STRATACOM}/eecollected

If you wish to use a different disposition or file location, you must alter the TEEL files. If you are using the {STRATACOM} environment variable in the SourceDisposition, make sure that it is set up correctly for the *trendadm* user.

Editing Config Files

You can configure the Stratacom Preprocessor to output many different kinds of statistics. The configuration files, supplied with the datapipes, determine which kinds of statistics the Preprocessor will output.

The datapipe will not operate correctly unless you copy the configuration files that come with the datapipe to the configuration directory used by the Stratacom Preprocessor. For details about this directory, see "Directory Structure" on page 10.

If you are installing a customized datapipe, you will need customized configuration files.

Configuration File Format

A configuration file is an ASCII text file. The name of the configuration file is determined by the Stratacom class in question. For example, Frame Relay Interface statistics are defined in a file called stratacom.3.

A configuration file can contain comments on any line. A hash symbol ("#") indicates the start of a comment. To indicate that a statistic is required, enter its Stratacom identification number on a line. Enter just one statistic number on each line.

CLASSNAME=<name> is supported. If this directive is found in the configuration file, then <name> instead of class number is used to identify the output files.

For more information about the statistics that are available and how they are numbered, refer to Stratacom documentation available from Cisco.

Sample Configuration File

```
################################################################
#
# Version @(#) stratacom.0.2 /main/1 teggers Thu Apr 23 22:47:53 2003 @(#)
# Solutions Engineering Group
# Copyright 2003, Hewlett-Packard Company
# Package: Stratacom FrameRelay
#
################################################################
```

This file is used to configure which Stratacom statistics the preprocessor should output.
The order of the statistics below is preserved in the output file.
The name of this file should indicate which particular object type we are configuring.
Filename is objectnum.subobjectnum, eg 0.2 is for frame relay connections.
Each stat number mentioned causes two columns to be output, one for total and one for peak.
If peaks are not enabled then nulls are produced.
If a stat mentioned below is not found in the file nulls are output.
#
#--
#number# Stratacom name   # maps to column
#   #   #
16   # seconds in service   # AvailableSeconds
21   # DE frames received   # InAmberFrames
24   # DE bytes received   # InAmberOctets
1   # Rx Frames discarded   # InDiscards
30   # IWF frames Rx with EFCI set   # InFECNFrames
0   # Frames Rx   # InFrames
9   # Bytes RX   # InOctets
22   # DE Frames   # OutAmberFrames
28   # Bytes TX in xs CIR   # OutAmberOctets
18   # Frames Tx with BECN   # OutBECNFrames
17   # Frames Tx with FECN   # OutFECNFrames
2   # Frames Tx   # OutFrames
11   # Bytes Tx   # OutOctets

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