

# **HP OpenView Performance Insight**

## **Frame Relay CPE Datapipe User Guide**

**Version: 4.0**

**Reporting and Network Solutions**



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## Overview

This chapter covers the following topics:

- [Supported MIBs](#)
- [Features and Enhancements](#)
- [Sources for Additional Information](#)

## Supported MIBs

The Frame Relay CPE Datapipe collects data for the Frame Relay Report Pack. The Frame Relay CPE Datapipe can function as the only source of data for the Frame Relay Report Pack, or it can function as one of several sources of data for the report pack.

This datapipe polls the following MIBs:

- RFC 1315
- Cisco Frame Relay MIB
- Nortel/Bay FRSW MIB
- Nortel/Bay WAN780 MIB

The default polling cycle is 15 minutes. A device that supports one of the MIBs listed above will be polled every 15 minutes.

## Features and Enhancements

The Frame Relay CPE Datapipe supports the following features:

- Interface re-indexing
- Directed-instance polling (DIP)
- Five pre-packaged polling rules, based on common DIP configurations
- High capacity counters for MIB-II values that exceed 32 bits
- Automatic sourcing of Committed Information Rate (CIR) values
- Automatic sourcing of Discard Eligible frame counts

- SNMP collection details regarding specific OIDs polled by this datapipe
- A graphical form for easier datapipe configuration

Interface re-indexing is the ability to track interfaces using attributes other than `ifIndex`. A datapipe that supports re-indexing will not lose sight of an interface, even if the device has renumbered its interfaces. For more information about interface re-indexing and the use of a persistent attribute to identify interfaces, refer to the *Interface Discovery Datapipe User Guide*.

The DIP feature allows data to be collected from a subset of interfaces. The subset is identified either by rules or by specific provisioning. This feature is discussed in [Chapter 3, Datapipe Configuration](#).

Frame Relay CPE Datapipe version 4.0 provides support for Oracle as well as Sybase database software.

## Sources for Additional Information

The following documents are related to this manual:

- *Frame Relay Report Pack 4.0 User Guide*
- *Interface Discovery Datapipe 2.0 User Guide*
- *Thresholds Module 5.0 User Guide*
- *Performance Insight / NNM Integration Module 2.0 User Guide*
- *Frame Relay Newbridge Datapipe 4.0 Release Statement*
- *Frame Relay Stratacom Datapipe 4.0 Release Statement*
- *Frame Relay Ascend Datapipe 4.0 Release Statement*

The following manuals are good sources for information about Performance Insight (OVPI), the platform for reporting solutions developed by HP OpenView:

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

Manuals for OVPI and the reporting solutions that run on OVPI can be downloaded from the following web site:

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

Select **Technical Support > Product Manuals** to reach the **Product Manuals Search** page. The user guides for OVPI are listed under **Performance Insight**. The user guides for reporting solutions are listed under **Reporting and Network Solutions**.

Each title under **Reporting and Network Solutions** indicates a date of publication. Because we post updated user guides to the **Product Manuals Search** page on a regular basis, always check for updates on the web before using on older PDF that may no longer be current.



# Datapipe Installation

This chapter includes the following topics:

- [Guidelines for a Smooth Installation](#)
- [Prerequisite Tasks for Upgrade or Installation](#)
- [Installing the Datapipe](#)
- [Post-Installation Steps](#)
- [Uninstalling the Datapipe](#)



You may have already installed the Frame Relay CPE Datapipe if you have completed the installation procedure described in the *Frame Relay Report Pack User Guide*. If you have done so, simply review the “[Post-Installation Steps](#)” on page 14, then proceed to [Chapter 3, Datapipe Configuration](#).

## Guidelines for a Smooth Installation

When you select OVPI components for installation from the Reporting and Network Solutions (RNS) 5.0 CD, the install script will copy every OVPI package to the Packages directory on your system. When this process is complete, the install script will prompt you to run Package Manager, which enables you to select the packages you want to install. Before beginning to install packages, become familiar with the following guidelines.

### Installing and Upgrading Datapipes

There is no upgrade package for the Frame Relay CPE Datapipe. If you are currently running this datapipe and you want to install the latest version, you must first uninstall the datapipe. See “[Prerequisite Tasks for Upgrade or Installation](#)” on page 11 for instructions on uninstalling the datapipe.

If you are installing the datapipe for the first time, the installation process is somewhat simpler, but the section called “[Prerequisite Tasks for Upgrade or Installation](#)” on page 11 contains important instructions that you must follow before proceeding with installation.

## Software Prerequisites

Version 4.0 of the Frame Relay CPE Datapipe runs on OVPI 5.0. Version 4.0 requires the following packages:

- Common Property Tables, version 3.0
- Interface Reporting Report Pack, version 4.0
- Frame Relay Report Pack, version 4.0
- Interface Discovery Datapipe, version 2.0

The following packages are optional for version 4.0:

- Interface Reporting ifEntry Datapipe, version 2.0
- Interface Reporting Devices, a sub-package within Interface Reporting
- Thresholds Module, version 5.0
- NNM/OVPI Integration Component

## Common Property Tables

Version 4.0 of the Frame Relay CPE Datapipe requires version 3.0 of Common Property Tables.

If you are not currently running any version of Common Property Tables, simply let Package Manager install the correct version for you. If you are running an older version of Common Property Tables, upgrade to the appropriate version by installing the appropriate upgrade package. Do this *before* installing the Frame Relay CPE Datapipe.

Installing the upgrade package(s) for Common Property Tables is easy, but if you need assistance with the installation or if you want to know more about how this package operates, refer to the *Common Property Tables 3.0 User Guide*.

## Distributed Environments

Keep these guidelines in mind when upgrading/installing the Frame Relay CPE Datapipe on a distributed system:

- Make sure you have installed OVPI 5.0 on the central server and on each satellite server.
- Upgrade/install the datapipe on each server that polls for data. If the central server does not poll, do not upgrade/install the datapipe on the central server.
- Do not install the datapipe on a server that functions as a Remote Poller.

## Prerequisite Tasks for Upgrade or Installation

Complete the following tasks before upgrading or installing the Frame Relay CPE Datapipe:

- [Task 1: Extract the Packages](#)
- [Task 2: Upgrade to Common Property Tables 3.0](#)
- [Task 3: Uninstall the Old Datapipe](#)

### Task 1: Extract the Packages

To extract the Frame Relay Service packages from the RNS CD to the Packages directory on your system, do the following:

- 1 Log in to the system. On UNIX<sup>®</sup> systems, log in as root.
- 2 Stop OVPI Timer and wait for processes to terminate.

Windows: Do the following:

- a Select **Control Panel > Administrative Tools > Services** .
- b Select OVPI Timer from the list of services.
- c From the Action menu, select **Stop**.

UNIX: As root, do one of the following:

- HP-UX: `sh /sbin/ovpi_timer stop`
- Sun: `sh /etc/init.d/ovpi_timer stop`

- 3 Insert the RNS CD.

Windows: The Main Menu automatically displays.

UNIX:

- a Mount the CD (if the CD does not mount automatically).
- b Navigate to the top level directory on the CD.
- c Run `./setup` .

- 4 Type **1** in the choice field and press **Enter**.

The install script displays a percentage complete bar. When the copy is complete, the install script starts Package Manager. The Package Manager Welcome window opens.

### Task 2: Upgrade to Common Property Tables 3.0

The Frame Relay Service CPE Datapipe requires Common Property Tables 3.0. Upgrade to Common Property Tables 3.0 *before* installing version 4.0 of the Frame Relay Service CPE Datapipe. If you need help with the upgrade, refer to the *Common Property Tables 3.0 User Guide*.

If this is a new installation of the Frame Relay Service CPE Datapipe, install Common Property Tables 3.0 with the datapipe. (This task is described in “[Installing the Datapipe](#)” on page 12.)

### Task 3: Uninstall the Old Datapipe

If you already have an older version of the Frame Relay CPE Datapipe that you want to upgrade, you must first uninstall the old version. The following procedure explains how to remove an old version of a datapipe.

To remove the old version of a datapipe, do the following:

- 1 Log in to the system. On UNIX systems, log in as root.
- 2 Stop OVPI Timer and wait for processes to stop running.

On Windows, do the following:

- a Select **Control Panel > Administrative Tools > Services**.
- b Select OVPI Timer from the list of services.
- c From the Action menu, select **Stop**.

On UNIX, as root, do one of the following:

- HP-UX: `sh /sbin/ovpi_timer stop`
- Sun: `sh /etc/init.d/opvi_timer stop`

- 3 Start Package Manager.
  - a Launch OVPI and select **Management Console**.
  - b Select **Tools > Package Manager**.  
The Package Manager Welcome window opens.
- 4 Click **Next**.  
The Packages Location window opens.
- 5 Click the **Uninstall** button and click **Next**.  
The Report Undeployment window opens.
- 6 Click **Next**.  
The Package Selection window opens.
- 7 Click the check box next to FRSCPE\_Datapipe.
- 8 Click **Next**.  
The Selection Summary window opens.
- 9 Click **Uninstall**.  
The Progress window opens. When removal is complete, a message appears.
- 10 Click **Done** to return to the Management Console.

## Installing the Datapipe

You must complete the tasks in “[Prerequisite Tasks for Upgrade or Installation](#)” on page 11 before beginning the following procedure. If Package Manager is already running, begin this procedure at step 5.

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

- 2 If your system is distributed, disable trendcopy.
  - 3 Launch OVPI and select **Management Console**.
  - 4 From the Tools menu, select **Package Manager**.  
The Package Manager Welcome window opens.
  - 5 Click **Next**.  
The Packages Location window opens.
  - 6 Click the **Install** button.
  - 7 Approve the default installation directory or select a different directory if necessary.
  - 8 Click **Next**.  
The Report Deployment window opens.
  - 9 Type your username and password for the OVPI Application Server.
  - 10 Click **Next**.  
The Package Selection window opens.
  - 11 Click the check box for the following packages:
    - FrameRelay\_Service
    - At least one of the following datapipes:
      - Ascend\_FR\_Datapipe
      - FRSCPE\_Datapipe
      - Newbridge\_FR\_Datapipe
      - Stratacom\_FR\_Datapipe
    - If you are implementing thresholding, select the FrameRelay\_Service\_Thresholds sub-package.
  - 12 Click **Next**.  
The Type Discover window opens.
  - 13 To run Discover immediately after package installation, accept the default and click **Next**.  
The Selection Summary window opens.
  - 14 Verify that the contents of this window are correct, then click **Install** to begin the installation process.  
The Installation Progress window opens. When installation is complete, a message appears.
  - 15 Click **Done** to return to the Management Console.
  - 16 Restart OVPI Timer.  
On Windows, do the following:
    - a Select **Control Panel > Administrative Tools > Services** .
    - b Select OVPI Timer from the list of services.
    - c From the Action menu, select **Start**.
-

On UNIX, as root, do one of the following:

- HP-UX: `sh /sbin/ovpi_timer start`
- Sun: `sh /etc/init.d/ovpi_timer start`

## Post-Installation Steps

During package installation, discovery files were placed in the scripts directory under `OVPI` on your system. If you activated the discovery option during installation, data collection will begin immediately after installation. If you did not activate the discovery option, data collection begins in the evening of the day of installation, when discovery is launched automatically.

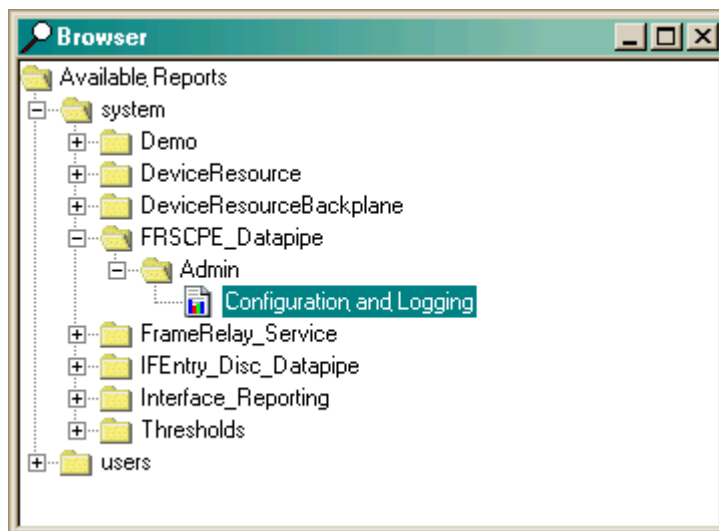
If you activated discovery during installation, you can now do the following:

- Verify that data is being collected
- Import property data
- Configure polling groups and polling policies

You can verify whether data is being collected from the network by viewing the Configuration and Logging report, located in the `Admin` folder under the directory for the Frame Relay CPE Datapipe. This report, shown on the next page, describes the initial configuration of new rows in the property tables and the subsequent mapping of rows of data into the Frame Relay Report Pack.

By importing property information, you add customers, locations, and various interface attributes to your reports. The Frame Relay CPE Datapipe provides a convenient script for performing this task. See [Chapter 3, Datapipe Configuration](#), for details.

If your installation is like most installations, you do not need to take additional actions regarding polling groups and polling policies. However, you may want to know how groups and policies are involved in directed-instance polling and interface re-indexing. This topic is covered in [Chapter 3](#).



# Report Pack Administration



## Configuration and Logging

This report displays configuration information relating to Frame Relay Reporting collections, and lists the most recent log table entries for report rack internal procedures. Use the 'Component' parameter to filter the displayed data.

### FRSCPE Mapping Procedure Configuration

Configuration Parameter	Current Value	Meaning
logging level	1	High Level and Errors Only
data filtering	0	Report on all interfaces
provisioning	0	Use provisioned data only

### Log Entries

Time	Component	Message
Wed Apr 23 11:31 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 11:30 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 0 seconds.
Wed Apr 23 11:15 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 11:15 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 1 seconds.
Wed Apr 23 11:01 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 11:01 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 0 seconds.
Wed Apr 23 10:45 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 10:45 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 0 seconds.
Wed Apr 23 10:30 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 10:30 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 0 seconds.
Wed Apr 23 10:15 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 0 seconds.
Wed Apr 23 10:15 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 10:01 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 0 seconds.
Wed Apr 23 10:01 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 09:45 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 09:45 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 1 seconds.
Wed Apr 23 09:30 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 09:30 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 0 seconds.
Wed Apr 23 09:15 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.
Wed Apr 23 09:15 AM	FRSCPE_ifEntry_map_p	Info: 61 polled rows were mapped to Rfrswitch_port in 0 seconds.
Wed Apr 23 09:01 AM	FRSCPE_RFC1315_map_p	Inserted 40 new rows into Rfrswitch_pvc.

## Uninstalling the Datapipe

Follow these steps to uninstall the Frame Relay CPE Datapipe:

- 1 Log in to the system. On UNIX systems, log in as root.
- 2 Stop OVPI Timer and wait for processes to terminate.

On Windows, do the following:

- a Select **Control Panel > Administrative Tools > Services** .
- b Select OVPI Timer from the list of services.
- c From the Action menu, select **Stop**.

On UNIX, as root, do one of the following:

- HP-UX: `sh /sbin/ovpi_timer stop`
- Sun: `sh /etc/init.d/ovpi_timer stop`

- 3 Open the Management Console.
- 4 From the Tools menu, select **Package Manager**.  
The Package Manager Welcome window opens.
- 5 Click **Next**.  
The Packages Location window opens.
- 6 Select the **Uninstall** button and click **Next**.  
The Report Undeployment window opens.
- 7 Keep the defaults and click **Next**.  
The Package Selection window opens.
- 8 Click the check box next to the FrameRelay\_Service.  
Any dependent packages will be selected automatically.
- 9 Click **Next**.  
The Selection Summary window opens.
- 10 Click **Uninstall**.  
The Progress window opens. When removal is complete, a message appears.
- 11 Click **Done** to return to the Management Console.
- 12 Restart OVPI Timer.

On Windows, do the following:

- a Select **Control Panel > Administrative Tools > Services** .
- b Select OVPI Timer from the list of services.
- c From the Action menu, select **Start**.

On UNIX, as root, do one of the following:

- HP-UX: `sh /sbin/ovpi_timer start`
- Sun: `sh /etc/init.d/ovpi_timer start`



# Datapipe Configuration

This chapter covers the following topics:

- Tools for Configuring the Frame Relay CPE Datapipe
- Property Import and Export
- Logging Options
- Data Filtering Options
- Property Provisioning Options
- Polling Policy Options
- Archiving Options

## Tools for Configuring the Frame Relay CPE Datapipe

There are two ways to configure the Frame Relay CPE Datapipe:

- Command-line utility
- Forms, which make certain aspects of datapipe configuration easier and faster

### Launching the Command Line Utility

Follow these steps to launch the utility:

- 1 Log in to the system as the OVPI administrator (root on UNIX).
- 2 Run one of the following commands:

*UNIX:* `$DPIPE_HOME/bin/perl $DPIPE_HOME/scripts/FRS_Config.pl`

*Windows:* `%DPIPE_HOME%\bin\perl %DPIPE_HOME%\scripts\FRS_Config.pl`

## Using Forms

A simple form, shown below, enables you to modify the following options:

- Logging level
- Data filtering
- Provisioning

You can open the Administer Frame Relay Collections form by clicking the General Tasks option under the Object Manager menu. When you open this form, you will see the settings that are currently in effect, and you will see some text describing each option and the changes you can make.

**FrameRelay Service**  
**Update Configuration**

Use this form to update the Provisioning, Data Filtering and Logging settings for the FrameRelay ReportPack. Select the Configuration setting you want to change and enter the new value in the Change setting box below. Click the Apply button to save any changes. Click the Cancel button to cancel any changes. Click the OK button to save changes and close the form.

**Logging Level :** The number and detail of messages sent to the Configuration and Logging Report.  
 0 = high level only  
 1 = informational  
 2 = all / debug

**Data Filtering :** Create new ports in the ReportPack property tables as they are discovered during polling.  
 0 = Yes.  
 1 = No

**Provisioning :** Property values for ifSpeed, ifType and ifDescr will not be overwritten by polled values unless the current value is NULL.

Description	Setting
Logging Level	1
Data Filtering	0
Provisioning	0

**Change setting**

OK Apply Cancel

## Property Import and Export

You can use forms to add customer names, locations, or various interface attributes. Sometimes, however, bulk changes are required. When that is the case, it may be easier to perform the import using a tab-separated file and a spreadsheet tool.

The `FRS_Config.pl` script can help with this task:

- If you choose the **export** option when you run the script, the script generates a new, date-stamped file in the `PropertyData` directory.
- If you choose the **import** option when you run the script, the script loads files with names starting with the letters “FrameRelay\_Switch\_PVC\_Property” into the `PropertyData` directory.

The most common way to provision PVC endpoints is to poll your network for a short while, export the collected data, and then see if changes are required. If changes are needed, you can make the changes, then reload the revised file into the system in bulk form. For more information about the format of property files and the directories where these files are stored, refer to the *Frame Relay Report Pack User Guide*.

## Logging Options

The Frame Relay CPE Datapipe contains the Configuration and Logging Report. This report reads the `RFRSCPE_Procedure Log` table. The Configuration and Logging Report contains logging messages produced by datapipe collection activity. The logging depth options are:

- Level 0 — Error messages only.
- Level 1 — Informational and error messages. Default.
- Level 2 — Full debug level output. Not recommended unless you are experiencing collection problems.

To change the depth of logging, use the form or the command line utility.

## Data Filtering Options

The Frame Relay CPE Datapipe can be configured to operate in *promiscuous* mode or *data filtering* mode with regard to interface data. In promiscuous mode the datapipe creates a related property row in the report pack property tables and maps all data into the report pack’s base table. In data filtering mode, only pre-provisioned devices are allowed to update related property information, and only pre-provisioned (or pre-existing) device interfaces are allowed to have data mapped from the rate table to the base table. The default is promiscuous mode. When this mode is enabled:

- Every device is mapped from the rate table to the base table.
- New property records are created for any device that does not already have property information.

If you are managing a large network by uploading provisioning data from another in-house inventory management system, and you want to specify exactly which devices are monitored, consider using data filtering mode. This mode has the following advantages:

- Only devices that have pre-provisioned property information will be mapped from the rate table to the base table.
- Your property tables will not contain new rows for transient interfaces that are not of interest to you

The only disadvantage to using data filtering mode is that you will not automatically monitor new interfaces when they are created on the network.

The data filtering mode settings are:

- 0 [Promiscuous Mode]
- 1 [Data Filtering Mode]

To disable the default mode and enable data filtering, use the form shown above or run the command line utility.

## Property Provisioning Options

This option determines the precedence of property record updates. In the default mode, mode 0, only NULL or invalid property information will be updated by newly collected interface information. In mode 1, all existing property information will be updated by newly collected interface information. The columns that can be updated include ifType and ifSpeed, the interface type and the interface speed.

The default is mode 0; the option is mode 1. To reconfigure property provisioning by changing the default mode, use the form shown above or use the provided script.

## Polling Policy Options

Unless you have identified advanced configurations that are not met by the default polling policy, modifying the default polling policy or the datapipe groups should not be necessary. This section describes each polling policy option and describes simple changes you can make to the default configuration. In addition, this section provides information about complex polling routines and tells you when such routines might be needed.

The Frame Relay CPE Datapipe supports 6 polling options, described below.

### (1) ACTIVE\_ALL

Poll all Frame Relay interfaces that have an ifAdminStatus of Active (1). Do not poll any other interfaces.

## (2) ACTIVE\_MONITORED

Poll every interface with an ifAdminStatus of Active and an ifType marked as Monitored in the Protocol Defaults form of the Interface Reporting Report Pack. ACTIVE\_MONITORED is the default polling policy for the Frame Relay CPE Datapipe.

## (3) ALL\_INTERFACES

Poll any discovered frame relay interface whether or not the protocol is monitored, whether or not the ifAdminStatus is up, and whether or not the interface is flagged for polling.

## (4) ALL\_MONITORED

Poll all Frame Relay interfaces with an ifType marked Monitored in the Protocol Defaults form of the Interface Reporting Report Pack. This option is similar to ACTIVE\_MONITORED, but is less restrictive, since it polls regardless of ifAdminStatus. Although it allows you to disable polling of certain protocols, its use in the Frame Relay CPE Datapipe is limited since polling is already restricted to four ifType values.

## (5) FLAGGED\_FR

This is the directed-instance polling option for the Frame Relay CPE Datapipe. This option forces the poller to monitor only interfaces that were explicitly flagged for monitoring when the poll\_flag\_FRsifEntry value was set to 1. This option should be used only when the volume of frame relay specific interfaces would overwhelm the OVPI system. It is not recommended for typical installations.

## (6) FLAGGED\_IR

This is the second directed-instance polling option for the Frame Relay CPE Datapipe. It is relevant only when the Interface Reporting Report Pack is installed and polling is taking place using the IRifEntry\_Datapipe package. This option forces the poller to monitor only interfaces that were explicitly flagged for monitoring when the poll\_flag\_ifEntry value was set to 1. The advantage of this option is that you can synchronize monitored interfaces with NNM using the IRifEntry\_Datapipe and have that synchronization reflected in the Frame Relay package. Sharing the directed-instance configuration used within the Interface Reporting Report Pack removes any duplication of effort. This option is considered suitable when the volume of frame relay specific interfaces would overwhelm the OVPI system and when many of the interfaces being polled are not of interest to you.

- ▶ Polling options 1 through 6 control the polling of MIB-II type data for the Frame Relay CPE Datapipe. Polling at the PVC endpoint level cannot be altered, and there is no directed-instance polling support at this level. Re-indexing support at the PVC endpoint level is not necessary, because re-indexing is inherited from higher-level MIB-II-type re-indexing.

## Multiple Poller Configuration

The Frame Relay CPE Datapipe requires additional configuring when you intend to use it with multiple pollers. The standard installation configures eight groups and polling policies for a single poller. For use with multiple pollers, additional sets of groups and policies are required.

The package includes installation scripts that make it easy to create two additional poller configurations. If you need to configure more than two pollers against a single database, you must generate additional sets of group files and policies.

- 1 Log in to the system. On UNIX systems, log in as root.
- 2 Navigate to the FRSCPE\_Datapipe.ap package directory:
  - *UNIX*: \$DPIPE\_HOME/packages/FRSCPE\_Datapipe/FRSCPE\_Datapipe.ap
  - *Windows*: %DPIPE\_HOME%\packages\FRSCPE\_Datapipe\FRSCPE\_Datapipe.ap
- 3 Run the command that follows. This will remove your current Frame Relay polling policies and configure two sets of new policies, one for a system referred to as ‘poller1’ and another for a system known as ‘poller2’. You can re-create the default polling policies using an additional command listed below.
  - Change to multipoller: `trend_proc -f create_multipollers.pro`
  - Reset to default poller: `trend_proc -f remove_multipollers.pro`
- 4 Start Polling Policy Manager and select **Edit > Datapipe Installations...**
- 5 Click **Create...** to create new pollers. Add the hostname and (optionally) the IP address of each poller and click **OK**.
- 6 When all pollers have been added, click **Close** to exit.
- 7 Click **All** in the left panel to display all polling policies.
- 8 Modify each of the new poller1 polling policies (starting with the letters FR) by double-clicking on the policy.
  - Change the **Polling Assigned to** setting to be the hostname of poller1.
- 9 Modify each of the new poller2 polling policies (starting with the letters FR) by double-clicking on the policy.
  - Change the **Polling Assigned to** setting to be the hostname of poller2.
- 10 Select **Edit > Polling Groups... > All Nodes in Same View** in the upper pane, then select poller1 in the lower pane. Assign nodes to be collected by poller1 to the poller1 View.
- 11 Select **Edit > Polling Groups... > All Nodes in Same View** in the upper pane, then select poller2 in the lower pane. Assign nodes to be collected by poller2 to the poller2 View.

Make sure you do not overlap devices by placing them in more than one poller view. If devices are overlapped, you will have duplicate insertion errors when the system attempts to collect the same data twice. In addition, make sure the system clocks are set correctly on both poller1 and poller2. For more information about polling policies, see [Chapter 4, Polling Groups and Policies](#).

## Archiving Options

By default, raw data records are not archived after delta values have been calculated. Not archiving raw data records significantly improves system performance and minimizes database storage requirements. In addition, once the system reaches steady state, data maintenance routines such as `db_delete_data` have less work to perform.

To change the default behavior and start archiving raw data records, add the `-A` option to the 15-minute collection time in the `/OVPI/lib/trendtimer.sched` file, as follows:

*Before*

```
15 - - {DPIPE_HOME}/bin/mw_collect.exe -n -i 15
```

*After*

```
15 - - {DPIPE_HOME}/bin/mw_collect.exe -n -i 15 -A
```





# Polling Groups and Policies

This chapter covers the following topics:

- MIB-II Specific Polling Groups
- Rules-Based Polling Groups
- Frame Relay Polling Groups
- Polling Policies

## MIB-II Specific Polling Groups

Without re-indexing support, the Frame Relay CPE Datapipe might lose track of interfaces whenever the device decides to renumber entries in the ifTable. Fortunately, the Frame Relay CPE Datapipe uses the same basic polling Type groups as the Interface Discovery Datapipe. These groups, which can be viewed and modified using Polling Policy Manager, are created when the Interface Discovery Datapipe is installed.

The polling Type groups are listed below. The Frame Relay CPE Datapipe uses these groups to determine how to reference the interfaces on each polled device. Of course, not all of the interfaces on a device will be polled by the datapipe. The rule it follows is to poll MIB-II data from interfaces with the following ifTypes only: 32, 44, 58, or 92.

### GENMIB2IF\_Datapipe

Top-level group for all nodes that support MIB-II.

### index-by-ifAlias

Subset of the GENMIB2IF\_Datapipe group; contains all nodes that should use ifAlias as the interface identifier.

### index-by-ifDescr

Subset of the GENMIB2IF\_Datapipe group; contains all nodes that should use ifDescr as the interface identifier.

## index-by-ifName

Subset of the GENMIB2IF\_Datapipe group; contains all nodes that should use ifName as the interface identifier.

## index-by-ifindex

Subset of the GENMIB2IF\_Datapipe group. This group is the default. It automatically contains all devices that belong to GENMIB2IF\_Datapipe but are not in the index-by-ifAlias, index-by-ifDescr, or index-by-ifName groups. Unless a device is assigned to one of the other index-by groups (automatically by a type discovery, through the user interface, or by script), the device will default to using the ifIndex as the interface identifier.

You should not edit this group manually, because it is a logical combination of the other groups.

This group is NOT actually used to control polling; rather, it is intended to show the user which devices will use ifIndex as the interface identifier. This group is automatically repopulated by the system once each hour. If a device is re-allocated to a different indexing group from index-by-ifIndex, it may not disappear immediately. However, the device will be polled only from its new index-by group, because the data collection for index-by-ifIndex is a real-time view of devices that are in the GENMIB2IF\_Datapipe group but not in the other three.



For most installations, an automated type discovery, which is performed by the Interface Discovery Datapipe, is sufficient to identify the re-indexing properties of your network and assign the correct group or groups.

## Rules-Based Polling Groups

In addition to the five basic groups described above, the Frame Relay CPE Datapipe adds four groups derived from the basic groups. Each group applies polling rules. You cannot alter these groups using the Polling Policy Manager, but you can view their contents using SQL.

Group Name	Database View	Description
ifAlias-FR	KV_FRSifEntry_by_ifAlias	Derived from the index-by-ifAlias group with polling rules applied.
ifDescr-FR	KV_FRSifEntry_by_ifDescr	Derived from the index-by-ifDescr group with polling rules applied.
ifIndex-FR	KV_FRSifEntry_by_ifIndex	Derived from the devices in the GENMIB2IF_Datapipe group which are not in the index-by-ifAlias, index-by-ifDescr or index-by-ifName groups, with polling rules applied.
ifName-FR	KV_FRSifEntry_by_ifName	Derived from the index-by-ifName group with polling rules applied.

## Frame Relay Polling Groups

In addition to the four separate MIB-II related polling groups, provided by the Interface Discovery Datapipe, the Frame Relay CPE Datapipe creates and uses four additional node groups, described below, to help it poll for data specific to Frame Relay.

### FRSCPE\_Interfaces Node Group

All devices that support the standard RFC1315 MIB for frame relay data.

### FRSCPE\_Interfaces\_Cisco\_DE Node Group

All devices that support the standard RFC1315 MIB for frame relay *and* the Cisco specific Frame Relay MIB. The additional Cisco tables provide Discard Eligible counters and CIR values.

### FRSCPE\_WAN780 Node Group

All devices that support the Bay WAN 780 MIB.

### FRSCPE\_FRSW Node Group

All devices that support the Bay Frame Relay Switch MIB.

## Polling Policies

A standard installation of the Frame Relay CPE Datapipe enables a total of eight new polling policies on a fifteen-minute interval. (Do not change these policies unless you need to enable support for multiple pollers.) As shown in the following table, each policy combines a MIB-II specific group and a Frame Relay specific group.

Policy Name	Table Alias Name for Data to be Collected	Group Name to Collect From
FR_ifAlias_Collection	rV_FRsifEntry_ifAlias	ifAlias-FR
FR_ifDescr_Collection	rV_FRsifEntry_ifDescr	ifDescr-FR
FR_ifIndex_Collection	rV_FRsifEntry_ifIndex	ifIndex-FR
FR_ifName_Collection	rV_FRsifEntry_ifName	ifName-FR
FR_RFC1315_Collection	xFRSCPE_RFC1315_pvc	FRSCPE_Interfaces
FR_Cisco_frCircuit_Collection	xcfrCircuit	FRSCPE_Interfaces_Cisco_DE
FR_Bay_SW_Collection	xFRSCPE_FRSW_pvc	FRSCPE_FRSW
FR_Bay_WAN780_Collection	xFRSCPE_WAN780_pvc	FRSCPE_WAN780

The Frame Relay CPE Datapipe adds a flag column called `poll_flag_FRsifEntry` to the Interface Discovery Datapipe property table `K_IFEntry_Disc`. This flag can be provisioned to control directed-instance polling. See [Chapter 3, Datapipe Configuration](#), for more information.

# SNMP Collection Details

This chapter covers the following topics:

- Types of data collected by each SNMP collection
- The OIDs in each TEEL file

## SNMP Collections

The Frame Relay CPE Datapipe performs five SNMP collections. See below for information about the type of data collected and the path to the TEEL file.

### (1) FRSifEntry

#### Type of Data

MIB-II collection for any interface where ifType = 32, 44, 58, or 92

#### Path to the TEEL File

`/TREND/packages/FRSCPE_Datapipe/FRSCPE_Datapipe.ap/r_FRSifEntry.teel`

### (2) FRSCPE\_RFC1315\_pvc

#### Type of Data

Generic Frame Relay PVC endpoint data, such as sent and received frames, from any device supporting RFC1315.

#### Path to the TEEL File

`/TREND/packages/FRSCPE_Datapipe/FRSCPE_Datapipe.ap/xFRSCPE_RFC1315_pvc.teel`

### **(3) FRSCPE\_FRSW\_pvc**

#### **Type of Data**

Generic Frame Relay PVC endpoint data, such as sent and received frames, from a Bay device.

#### **Path to the TEEL File**

`/TREND/packages/FRSCPE_Datapipe/FRSCPE_Datapipe.ap/xFRSCPE_FRSW_pvc.teel`

### **(4) FRSCPE\_WAN780\_pvc**

#### **Type of Data**

Generic Frame Relay PVC endpoint data, such as sent and received frames, from a Bay device.

#### **Path to the TEEL File**

`/TREND/packages/FRSCPE_Datapipe/FRSCPE_Datapipe.ap/xFRSCPE_WAN780_pvc.teel`

### **(5) xcfrCircuit**

#### **Type of Data**

Additional PVC endpoint data for CIR, Discard Eligible In, and Out counts from any device supporting the Cisco Frame Relay MIB.

#### **Path to the TEEL File**

`/TREND/packages/FRSCPE_Datapipe/FRSCPE_Datapipe.ap/xcfrCircuit.teel`

## Object Identifiers in Each TEEL File

The following table provides a list of object identifiers (OIDs) in each TEEL file.

Collection Name	OID List
FRSifEntry	1.3.6.1.2.1.2.2.1.1.1
	1.3.6.1.2.1.2.2.1.1.2
	1.3.6.1.2.1.2.2.1.1.3
	1.3.6.1.2.1.2.2.1.1.4
	1.3.6.1.2.1.2.2.1.1.5
	1.3.6.1.2.1.2.2.1.1.6
	1.3.6.1.2.1.2.2.1.1.7
	1.3.6.1.2.1.2.2.1.1.8
	1.3.6.1.2.1.2.2.1.1.9
	1.3.6.1.2.1.2.2.1.1.10
	1.3.6.1.2.1.2.2.1.1.11
	1.3.6.1.2.1.2.2.1.1.12
	1.3.6.1.2.1.2.2.1.1.13
	1.3.6.1.2.1.2.2.1.1.14
	1.3.6.1.2.1.2.2.1.1.15
	1.3.6.1.2.1.2.2.1.1.16
	1.3.6.1.2.1.2.2.1.1.17
	1.3.6.1.2.1.2.2.1.1.18
	1.3.6.1.2.1.2.2.1.1.19
	1.3.6.1.2.1.2.2.1.1.20
	1.3.6.1.2.1.2.2.1.1.21
	1.3.6.1.2.1.2.2.1.1.22
	1.3.6.1.2.1.31.1.1.1.1
	1.3.6.1.2.1.31.1.1.1.6
	1.3.6.1.2.1.31.1.1.1.7
	1.3.6.1.2.1.31.1.1.1.8
	1.3.6.1.2.1.31.1.1.1.9
	1.3.6.1.2.1.31.1.1.1.10
	1.3.6.1.2.1.31.1.1.1.11
	1.3.6.1.2.1.31.1.1.1.12
	1.3.6.1.2.1.31.1.1.1.18

Collection Name	OID List
FRSCPE_RFC1315_pvc	1.3.6.1.2.1.10.32.2.1.1 1.3.6.1.2.1.10.32.2.1.2 1.3.6.1.2.1.10.32.2.1.3 1.3.6.1.2.1.10.32.2.1.4 1.3.6.1.2.1.10.32.2.1.5 1.3.6.1.2.1.10.32.2.1.6 1.3.6.1.2.1.10.32.2.1.7 1.3.6.1.2.1.10.32.2.1.8 1.3.6.1.2.1.10.32.2.1.9 1.3.6.1.2.1.10.32.2.1.10 1.3.6.1.2.1.10.32.2.1.11 1.3.6.1.2.1.10.32.2.1.12 1.3.6.1.2.1.10.32.2.1.13 1.3.6.1.2.1.10.32.2.1.14
FRSCPE_FRSW_pvc	1.3.6.1.4.1.18.3.5.9.6.7.1.2 1.3.6.1.4.1.18.3.5.9.6.7.1.3 1.3.6.1.4.1.18.3.5.9.6.7.1.4 1.3.6.1.4.1.18.3.5.9.6.7.1.24 1.3.6.1.4.1.18.3.5.9.6.7.1.25 1.3.6.1.4.1.18.3.5.9.6.7.1.26 1.3.6.1.4.1.18.3.5.9.6.7.1.27 1.3.6.1.4.1.18.3.5.9.6.7.1.28 1.3.6.1.4.1.18.3.5.9.6.7.1.29 1.3.6.1.4.1.18.3.5.9.6.7.1.30 1.3.6.1.4.1.18.3.5.9.6.7.1.31 1.3.6.1.4.1.18.3.5.9.6.7.1.32 1.3.6.1.4.1.18.3.5.9.6.7.1.33 1.3.6.1.4.1.18.3.5.9.6.7.1.34 1.3.6.1.4.1.18.3.5.9.6.7.1.35 1.3.6.1.4.1.18.3.5.9.6.7.1.36 1.3.6.1.4.1.18.3.5.9.6.7.1.37 1.3.6.1.4.1.18.3.5.9.6.7.1.38 1.3.6.1.4.1.18.3.5.9.6.7.1.41 1.3.6.1.4.1.18.3.5.9.6.7.1.42 1.3.6.1.4.1.18.3.5.9.6.7.1.43 1.3.6.1.4.1.18.3.5.9.6.7.1.44 1.3.6.1.4.1.18.3.5.9.6.7.1.45 1.3.6.1.4.1.18.3.5.9.6.7.1.46 1.3.6.1.4.1.18.3.5.9.6.7.1.47 1.3.6.1.4.1.18.3.5.9.6.7.1.48



Collection Name	OID List
FRSCPE_WAN780_pvc	1.3.6.1.4.1.18.3.5.9.9.2.1.1 1.3.6.1.4.1.18.3.5.9.9.2.1.2 1.3.6.1.4.1.18.3.5.9.9.2.1.3 1.3.6.1.4.1.18.3.5.9.9.2.1.4 1.3.6.1.4.1.18.3.5.9.9.2.1.5 1.3.6.1.4.1.18.3.5.9.9.2.1.6 1.3.6.1.4.1.18.3.5.9.9.2.1.7 1.3.6.1.4.1.18.3.5.9.9.2.1.8 1.3.6.1.4.1.18.3.5.9.9.2.1.9 1.3.6.1.4.1.18.3.5.9.9.2.1.10 1.3.6.1.4.1.18.3.5.9.9.2.1.11 1.3.6.1.4.1.18.3.5.9.9.2.1.12 1.3.6.1.4.1.18.3.5.9.9.2.1.13 1.3.6.1.4.1.18.3.5.9.9.2.1.14 1.3.6.1.4.1.18.3.5.9.9.2.1.15 1.3.6.1.4.1.18.3.5.9.9.2.1.16 1.3.6.1.4.1.18.3.5.9.9.2.1.17 1.3.6.1.4.1.18.3.5.9.9.2.1.18 1.3.6.1.4.1.18.3.5.9.9.2.1.19 1.3.6.1.4.1.18.3.5.9.9.2.1.20 1.3.6.1.4.1.18.3.5.9.9.2.1.21 1.3.6.1.4.1.18.3.5.9.9.2.1.22 1.3.6.1.4.1.18.3.5.9.9.2.1.23 1.3.6.1.4.1.18.3.5.9.9.2.1.24 1.3.6.1.4.1.18.3.5.9.9.2.1.25 1.3.6.1.4.1.18.3.5.9.9.2.1.26 1.3.6.1.4.1.18.3.5.9.9.2.1.27 1.3.6.1.4.1.18.3.5.9.9.2.1.28
xcfrCircuit	1.3.6.1.4.1.9.9.49.1.2.1.1.1 1.3.6.1.4.1.9.9.49.1.2.1.1.2 1.3.6.1.4.1.9.9.49.1.2.1.1.3 1.3.6.1.4.1.9.9.49.1.2.2.1.17



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