# ATM Report Pack

Software Version 3.40

HP Performance Insight 5.40

## User Guide



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## 1 Overview

This chapter covers the following topics:

- Introduction to Performance Insight
- The ATM Report Pack (and enhancements in version 3.40)
- Data collection
- Folders and reports
- Options for customizing reports
- Sources for additional information

## Introduction to Performance Insight

Performance Insight is a performance management application that collects data from many sources, performs in-depth trend analysis, maintains performance baselines, and provides users with convenient, web-based reporting. Following is a partial list of product features:

- Distributed architecture
- Easy to scale (supports data collection from thousands of agents)
- CODA/PA agent support
- Multi-company security model
- Data warehousing
- Near Real Time reporting
- Forecasting
- Extensive aggregation (by day, week, month; by location, by customer)
- Thresholding and alerting
- Easy identification of bottlenecks
- Easy assessment of capacity trends
- Accurate and timely documentation for management
- Integration with NNM
- Integration with OM

The reporting solutions created for Performance Insight cover many areas of business technology optimization. For a list of reporting solutions organized by technology, see Appendix B, PI Report Packs.

## ATM Report Pack

The ATM Report Pack installs on PI. Once installed, this package directs PI to process collected data, perform various calculations, and display results in report templates. The reports will help you spot problems, rank the performance of PVCs, ports, and SVCs, and estimate what performance will be like 30, 60, and 90 days from now. Following are some of the questions the ATM Report Pack will help you answer:

- Is the network providing an acceptable level of service?
- Which PVCs and ports are utilized the most?
- Could my underutilized PVCs and ports handle more traffic?
- Are errored and dropped cells taking place during excessive utilization?
- Is there a substantial difference between ingress and egress utilization?
- Which PVCs and ports are likely to degrade network performance?
- Are SVC switches handling requests for connections?
- How does performance compare customer-by-customer, or region-by-region?

Version 3.40 includes a copy policy enhancement that makes it easier to set up a distributed system. The enhancement involves changes to Datapipe Manager and the addition of a copy policy import file. Datapipe Manager parses the copy policy import file when you install the report pack on the central server. Parsing the file creates copy policies. You are no longer required to create copy policies yourself using the Management Console. Instead, your only task related to copy policies is to verify that the copy policies you need already exist.

Version 3.40 includes the following upgrade package:

• ATM Upgrade 31 to 34

For details about defect fixes, see Appendix A, Product History.

### **Data Collection**

The datapipes created for the ATM Report Pack are designed for two kinds of users:

- Service providers
- Organizations that lease services from a service provider

A service provider will use vendor-specific datapipes to collect data from ATM switches. An organization that is leasing services will collect data from edge devices and also from ATM switches if such devices exist within the customer's private network. To collect data from these devices, install the ATM ifEntry Datapipe.

The following table provides a list of switch vendors, vendor-specific datapipes, and vendor-specific preprocessors.

Vendor	Datapipe	Preprocessor
Cisco	Cisco ATM Datapipe	None
Marconi/Fore	Fore ATM Datapipe Fore ATM Channel Datapipe	None

Vendor	Datapipe	Preprocessor
Lucent/Ascend	Ascend ATM Datapipe	None
Alcatel/Newbridge	Newbridge ATM Datapipe	Newbridge Preprocessor
Cisco/Stratacom	Stratacom ATM Datapipe	Stratacom Preprocessor

Following is a partial list of the statistics gathered by the vendor-specific datapipes:

- Differentiated cell counts per-PVC
- ATM-specific errors
- Differentiated discard statistics
- Statistics for sustained cell rate (SCR)
- Statistics for peak cell rate (PCR)

## ATM if Entry Datapipe 1.40

The ATM ifEntry Datapipe collects MIB-II ifEntry and ifxEntry data from SNMP manageable devices. The ATMifEntry Datapipe performs a raw2delta on rate data and maps the results to ATM Report Back base tables. The ATM ifEntry Datapipe has these features:

- Re-indexing support (derived from the Interface Discovery Datapipe)
- Directed-instance polling, also known as per-instance polling
- High capacity counters whenever values exceed 32 bits
- Synchronized polling with Network Node Manager

The ATM ifEntry Datapipe is a prerequisite for the Cisco ATM Datapipe. If you select the Cisco ATM Datapipe for installation, Package Manager will install the ATM ifEntry Datapipe for you, automatically. The ATM ifEntry Datapipe polls MIB-2 ifEntry statistics and populates the ATM Report Pack base tables. The Cisco ATM Datapipe polls the Cisco-specific table and populates the same base tables with statistics for virtual circuits and virtual path identifiers in the ATM sub-layers.

The ATM if Entry Datapipe requires no configuration. For details about optional configuration steps, refer to the *ATM if Entry Datapipe User Guide*.

### Preprocessors for Stratacom and Newbridge Devices

The ATM devices produced by the vendors in the preceding table store performance data in proprietary MIBs. Although PI can use vendor-specific datapipes to import the flat files produced by Cisco, Fore, and Ascend devices, PI cannot import a flat file made by a Stratacom or Newbridge device without processing the file. If you intend to collect data from Stratacom or Newbridge devices, installing a preprocessor is mandatory. Both preprocessors ship with the report pack CD-ROM. The user guides for the preprocessors, listed below, cover installation and configuration:

- Stratacom Preprocessor User Guide
- Newbridge Preprocessor User Guide

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## Folders and Reports

The ATM Report Pack contains three folders and 49 reports. The folders are:

- PVC (22 reports)
  - Peak cell rate (PCR)
  - Sustained cell rate (SCR)
  - Percentage of dropped cells
- Port (16 reports)
  - Number of cell bits transmitted
  - Utilization
  - Discards
  - Errors
- SVC (11 reports)
  - Success rate of call attempts
  - Number of calls per second

For a list of the reports in each folder, see the report chapters (7, 8, and 9). A brief description of each generic report follows.

**Capacity Planning**. Allows you to assess growth, balance traffic, and plan for increases or decreases in utilization. Shows PVC endpoints and ports that are projected to be overutilized or underutilized in the near future.

**Configuration.** Indicates which PVCs and ports have property columns that are undefined. If required fields are not defined appropriately, utilization values may be incorrect.

**Daily Availability.** Provides service level agreement statistics on a daily and monthly basis. These statistics show the percentage of time that managed elements were functional. Statistics include average hourly, daily, and monthly port and PVC endpoint availability.

**Executive Summary.** Presents summary views of PVC endpoints, SVCs, or ports by customer or by region. Graphs show total in and out traffic, errors, discards, and percentage of volume based on Quality of Service types.

**Forecast.** Enables you to anticipate network growth. Points out possible hot spots that are likely to occur within the next 30 days. Delivers a view into the future so that staff can take whatever steps are necessary to prevent problems from arising.

**Hot Spots.** Identifies specific elements that consistently exceeded a threshold parameter during the previous day. Helps pinpoint problems. Grade of Service charts correlate exceptions and overutilization, allowing network managers to anticipate the impact on Quality of Service commitments.

**Near Real Time.** Not a report type, strictly speaking. Provides utilization, error, and discard data for active interfaces, trunks, and EtherChannels; the time period begins with the most recent poll and goes back six hours; drill-down to daily and monthly data.

**QuickView.** Offers a detailed look at PVC endpoints, ports, or SVCs over three time periods: the previous day, the past month, and the past six hours. Shows the ten elements with the highest daily average utilization and the highest number of call attempts.

**Snapshot.** A subset of the QuickView. When you launch a QuickView, you see tables showing the ten most utilized PVCs, ports, or SVCs. When you launch a Snapshot, a dialog box lets you select specific PVCs, ports, or SVCs for analysis. Launch a QuickView to see the bigger picture. Launch a Snapshot when you know in advance which elements you want to analyze.

**Top Ten.** Shows PVC endpoints, or ports, based on highest utilized direction; the worst performers with the severest problems. The port report shows the utilization for each PVC endpoint on that port; the SVC report looks at call attempts and calls per second.

## **Options for Customizing Reports**

You can customize reports by importing customers and locations, applying group filters, editing parameters, editing tables and graphs, and adding details about PVC parameters, QoS parameters, and ports. Service providers, or any organization that wants to share reports with customers, use group filters to produce customer-specific reports. Edits to parameters, tables, and graphs are temporary changes that anyone can make. For details about editing tables and graphs (selecting view options) see Appendix C, Editing Tables and Graphs.

### **Group Filters**

If you want to share reports with customers, you have to configure PI to produce customer-specific reports. Here is an overview of the steps involved:

- Use Common Property Tables to import customer names and device locations
- Create a group account for all the users affiliated with each customer
- Create a group filter for each group account

For more information about group filters, refer to the PI Administration Guide.

### **Editing Parameters**

When you edit a parameter, you apply a constraint to the report. The constraint eliminates the data you are not interested in. For example, if you edit the Customer Name parameter, data for every customer except the customer you typed in the Customer Name field will drop from the report, and if you edit the Location parameter, data for all locations except the location you typed in the Location field will drop from the report.

The ATM Report Pack supports the following parameters:

- Device
- Port Name
- VPI
- VCI
- Customer
- Location

If you are using the Web Access Server to view reports remotely, edit parameters by clicking the edit parameters icon at the bottom right-hand corner of the report. When the Edit Parameters window opens, enter the constraint in the field and click **Submit**.

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If you are using Report Viewer, select **Edit > Parameter Values** from the menu bar. When the Modify Parameter Values window opens, click the **Current Value** field. Type a new value and click **OK**.

### **Importing Properties**

Provisioning for the ATM Report Pack is handled by a built-in property import utility. Use this utility to populate reports with the following information:

- Customer names and customer IDs
- Regions and region IDs
- Ingress and egress Quality of Service values
- Peak cell rate and sustained cell rate values
- Port speed

If the datapipe you are using supplies these values, you do not need to use the property import utility to import them. However, if the datapipe you are using does not supply them—or if the data supplied is incorrect—then you must use the property import utility to import correct values. If you want to update existing information, you have the option of editing a file (a file you exported from PI), or using the PVC, QoS, and port change forms.

## Sources for Additional Information

This user guide contains samples of some of the reports in the package. The demo package that comes with the report pack contains samples of every report in the package. If you have access to the demo package and you want to know what fully-populated reports look like, install the demo package. Like real reports, demo reports are interactive. Unlike real reports, demo reports are static.

For information regarding the latest enhancements and any known issues affecting this package, refer to *ATM Report Pack Release Notes*. You may be interested in the following documents as well:

- ATM ifEntry Datapipe User Guide
- Cisco ATM Datapipe Release Notes
- Common Property Tables User Guide
- Interface Reporting Report Pack User Guide
- Interface Discovery Datatpipe User Guide
- Thresholds Module User Guide
- NNM/PI Integration User Guide

Manuals for PI, and manuals for the reporting solutions and shared packages that run on PI, can be downloaded from this site:

http://h20230.www2.hp.com/selfsolve/manuals

The user guides for PI are listed under **Performance Insight**. The user guides for report packs and datapipes are listed under **Performance Insight Report Packs**. Each user guide entry indicates the date. If the guide is revised and reposted, the date will change. Since we post revised manuals on a regular basis, be sure to compare the date on your PDF to the date of the PDF on this web site and download the web edition if it is newer.

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# 2 Upgrading ATM Report Pack

This chapter covers the following topics:

- Guidelines for a Smooth Upgrade
- Upgrading to Version 3.40
- Package Removal

If you are installing the ATM Report Pack for the first time, this chapter does not apply to you. See Chapter 3, Installing ATM Report Pack.

## Guidelines for a Smooth Upgrade

When you insert the report pack CD in the CD-ROM drive and launch the package extraction program, the install script extracts every 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 Performance Insight and start Package Manager. Before running Package Manager, review the following guidelines:

- Prerequisites for the ATM Report Pack
- Upgrading Common Property Tables
- Datapipes and Remote Pollers
- Custom Table Views
- Upgrading ATM in a Distributed Environment

### Prerequisites for the ATM Report Pack

Make sure the following software is already installed before upgrading to ATM 3.40:

- PI 5.40
- All service packs available for PI 5.40
- Interface Reporting Report Pack 5.50
- Common Property Tables 3.90
- ATM Report Pack 3.30

## **Upgrading Common Property Tables**

If you are running version 3.70 or earlier of Common Property Tables, upgrade to version 3.90 by installing the upgrade package. When you install the upgrade package, do not install other packages. Install the upgrade package for Common Property Tables and

 $egin{array}{l} o \\ nl \\ y ext{ the upgrade package for Common Property Tables.} \end{array}$ 

### Datapipes and Remote Pollers

If you uninstall an existing datapipe, the following information is lost:

- Single polling policy for a remote poller
- Cloned polling policies for multiple remote pollers
- Customized polling groups

To prevent this information from being lost, you can use the following commands to export existing polling policy configurations and customized polling groups:

- collection\_manager
- group\_manager

### **Exporting Polling Policy Configurations**

If your environment contains polling policies for remote pollers, use the collection\_manager command to export existing policy configurations to a file.

UNIX: As user trendadm, run the following command:

#### cd \$DPIPE HOME

#### ./bin/collection manager -export -file /tmp/savePollingPolicy.lst

*Windows:* As Administrator, launch a command window. Navigate to the PI install directory and run the following command:

bin\collection\_manager -export -file \temp\savePollingPolicy.lst

#### Exporting Polling Group Configurations

If your environment contains customized polling groups, use the group\_manager command to export groups to individual .xml files.

*UNIX:* As user trendadm, run the following command:

#### cd \$DPIPE HOME

#### ./bin/group\_manager -export\_all -outfile /tmp/savePollingGroups

*Windows:* As Administrator, launch a command window, then navigate to the PI install directory and run the following command:

bin\group\_manager -export\_all -outfile \temp\savePollingGroups

#### Custom Table Views

If you are using table views you created yourself, the views you created may interfere with the report pack upgrade, causing the upgrade to fail. Whether or not your views interfere with the upgrade process depends on how you created them. If you used SQL to create them, the upgrade will succeed, however, your custom views will not be available once the upgrade is

complete. If you used Datapipe Manager to create them, the upgrade is likely to fail. To prevent the upgrade from failing, delete custom table views before you upgrade the report pack, then recreate those views after the report pack is upgraded.

### Upgrading ATM in a Distributed Environment

Following is an overview of the installation procedure for a distributed environment:

- 1 Disable trendcopy on the central server.
- 2 For the central server:
  - Upgrade to Common Property Tables 3.90; deploy reports.
  - Upgrade to the latest release of Interface Reporting; deploy reports
  - Upgrade to ATM 3.40; deploy reports.
- 3 For each satellite server:
  - Upgrade to Common Property Tables 3.90 or higher
  - Upgrade to the latest release of Interface Reporting.
  - Upgrade to ATM 3.40.
  - Remove the following datapipes:
    - ATM IfEntry Datapipe 1.20
    - Cisco ATM Datapipe 3.10 (if installed)
    - Fore ATM Datapipe 3.00 (if installed).
  - Install the following datapipes:
    - ATM IfEntry Datapipe 2.50
    - Cisco ATM Datapipe 3.20
    - Fore ATM Datapipe 3.10
    - Fore ATM Channel Datapipe 3.00.
- 4 Re-enable trendcopy on the central server.
- 5 Reconfigure your central and satellite servers.

When the previous version of ATM was installed, the person who installed it had to set up connections with satellite server databases, configure trendcopy commands, and switch off aggregations above the hourly level at each satellite server. If you just upgraded to PI 5.40 and installed ATM 3.40, the server configuration changes that were made must be redone. For details about reconfiguring your central and satellite servers, see Chapter 4, Setting Up a Distributed System.

## Upgrading to Version 3.40

Perform the following tasks to upgrade from any earlier version to version 3.40:

- Task 1: Stop OVPI Timer and extract packages from the report pack CD
- Task 2: Upgrade to Common Property Tables 3.90

- Task 3: Upgrade to Interface Reporting 5.50
- Task 4: Install UPGRADE\_ATM\_Checker
- Task 5: Install the ATM\_Upgrade\_31\_to\_34 upgrade package
- Task 6: Remove ATM IfEntry Datapipe 1.20, Cisco ATM Datapipe 3.10 (if installed), and Fore ATM Datapipe 3.00 (if installed)
- Task 7: Install Cisco ATM Datapipe 3.20, Fore ATM Datapipe 3.10, and Fore ATM Channel Datapipe 3.00
- Task 8: Restart OVPI Timer

#### Task 1: Stop OVPI Timer and extract packages from the report pack CD

- 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:

- 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/init.d/ovpi timer stop

Sun: sh /etc/init.d/ovpi timer stop

- Insert the report pack CD in the CD-ROM drive. On Windows, a Main Menu opens automatically; on UNIX, mount the CD if the CD does not mount automatically, navigate to the top level directory on the CD, and run the ./setup command.
- 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.

If you navigate to the Packages directory on your system, you will see the following folders under the ATM folder:

- ATM.ap
- ATM\_Demo.ap
- UPGRADE\_ATM\_31\_to\_34.ap
- UPGRADE\_ATM\_Checker.ap

#### Task 2: Upgrade to Common Property Tables 3.90

Follow these rules:

- Do not install any other package with the Common Property Tables upgrade package; install the Common Property Tables upgrade package and *only* the Common Property Tables upgrade package.
- When prompted to accept or disable the option to Deploy Reports, accept the default. If you do not deploy reports, you will not deploy the change forms that come with Common Property Tables.
- When the install finishes, click **Done** to return to the Management Console.

If you need more help with this task, refer to the Common Property Tables User Guide.

#### Task 3: Upgrade to Interface Reporting 5.50

- 1 If you have not already upgraded to Interface Reporting 5.50, install the Interface\_Reporting\_Upgrade\_to\_55 package.
- 2 Upgrade the Interface Reporting datapipes.
  - a If you have one of the following datapipes installed, remove your existing version and install the latest version (version 2.50) if it is not already installed:
    - Interface Discovery Datapipe 1.10 / 2.00 / 2.10 / 2.20
    - Interface Reporting if Entry Datapipe 1.10 / 2.00 / 2.10 / 2.20
  - b If you have the following datapipes installed, you must upgrade to version 2.50 if you have not already upgraded to version 2.50:
    - Interface Discovery Datapipe 2.30
    - Interface Reporting if Entry Datapipe 2.30

Refer to the *Interface Reporting Report Pack User Guide* for more information about the upgrade procedure.

When the new datapipes are installed, click **Done** to return to the Management Console.

#### Task 4: Install UPGRADE ATM Checker

- From the Management Console, select **Tools > Package Manager**. The Package Manager welcome window opens.
- 2 Click **Next**. The Package Location window opens.
- 3 Click Install.
- 4 Click Next. The Report Deployment window opens. Accept the defaults for Deploy Reports, Application Server, and Port. Type your user name and password for the PI Application Server.
- 5 Click **Next**. The Package Selection window opens.
- 6 Click the check box next to the following package:

UPGRADE ATM Checker

- 7 Click **Next**. The Type Discovery window opens. Disable the default.
- 8 Click Next. The Selection Summary window opens
- 9 Click **Install**. The Installation Progress window opens and the install begins. When the install finishes, a package install complete message appears.

- 10 Click Done.
- 11 Navigate to DPIPE\_HOME/temp. Review the contents of the output file: check\_ATM\_Property\_consistency.out
- 12 Fix any errors.

#### Task 5: Install the ATM Upgrade 31 to 34 upgrade package

- 1 Start Package Manager. The Package Manager welcome window opens.
- 2 Click **Next**. The Package Location window opens.
- 3 Click Install.
- 4 Click Next. The Report Deployment window opens. Accept the defaults for Deploy Reports, Application Server, and Port. Type your user name and password for the PI Application Server.
- 5 Click **Next**. The Package Selection window opens.
- 6 Click the check box next to the following package: ATM\_Upgrade\_31\_to\_34
- 7 Click **Next**. The Type Discovery window opens. Disable the default.
- 8 Click Next. The Selection Summary window opens
- 9 Click **Install**. The Installation Progress window opens and the install begins. When the install finishes, a package install complete message appears.
- 10 Click Done.



Do not be surprised if the UPGRADE package you just installed has disappeard from view. Package Manager will display what you just installed as *ATM Report Pack 3.40*. This is not an error.

## Task 6: Remove ATM IfEntry Datapipe 1.20, Cisco ATM Datapipe 3.10 (if installed), and Fore ATM Datapipe 3.00 (if installed)

The ATM IfEntry, Cisco ATM, and Fore ATM Datapipes cannot be upgraded. You must remove the existing datapipes and then install ATM IfEntry Datapipe 1.40, Cisco ATM Datapipe 3.20, and Fore ATM Datapipe 3.10. Start Package Manager and follow the on-screen instructions for package removal. When Package Manager tells you that removal is complete, click **Done** to return to the Management Console.

#### Task 7: Install Cisco ATM Datapipe 3.20, Fore ATM Datapipe 3.10, and Fore ATM Channel Datapipe 3.00

- 1 Start Package Manager. The Package Manager welcome window opens.
- 2 Click Next. The Package Location window opens.
- 3 Click Install.
- 4 Click Next. The Report Deployment window opens; disable the default for Deploy Reports.
- 5 Click **Next.** The Package Selection window opens.
- 6 Click the check box next to the following package:

Cisco ATM Datapipe 3.2



The Cisco ATM Datapipe requires the ATM if Entry Datapipe; Package Manager will install the ATM if Entry Datapipe for you.

Fore ATM Datapipe 3.1

Fore ATM Channel Datapipe 3.0

- 7 Click **Next.** The Type Discovery window opens.
- 8 Click Next. The Selection Summary window opens.
- 9 Click **Install**. The Installation Progress window opens and the install begins. When the install finishes, the package installation complete message appears.
- 10 Click Done.

#### Task 8: Restart OVPI Timer

On Windows, do the following:

- 1 Select Control Panel > Administrative Tools > Services.
- 2 Select OVPI Timer from the list of services.
- 3 From the Action menu, select **Start**.

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

 $HP\text{-}UX\text{:}\;\textbf{sh}\;\;\textbf{/sbin/init.d/ovpi\_timer}\;\;\textbf{start}$ 

Sun: sh /etc/init.d/ovpi\_timer start

## Post-Upgrade Steps

Reconfigure any polling policies and customized group definitions that need to be restored. Do not re-import the configurations you exported. Since the old datapipe may be incompatible with the new datapipe you just installed, re-importing the configurations you exported could lead to data corruption. In addition, if you removed any custom table views before upgrading the report pack, you can recreate those custom table views now.

## Package Removal

Follow these steps to uninstall ATM 3.40. Removing ATM 3.40 will automatically remove any datapipe used by ATM 3.40.

- 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 Management Console > Package Manager. A welcome window opens.
- 4 Click **Next.** The Package Location window opens.
- 5 Click Uninstall.
- 6 Click **Next.** The Report Undeployment window opens.
- 7 If ATM reports were deployed from this server, accept the defaults for Undeploy Reports, Application Server Name, and Port. If ATM reports were **not** deployed from this server, clear the check box and skip to step 9.
- 8 Type your username and password for the PI Application Server.

- 9 Click **Next.** The Package Selection window opens.
- 10 Click the check box next to the following packages:

ATM 3.4

ATM\_Demo 3.3

- 11 Click OK.
- 12 Click Next. The Selection Summary window opens.
- 13 Click **Uninstall.** The Progress window opens and the removal process begins. When the uninstall process is complete, a package removal complete message appears.
- 14 Click Done.
- 5 Restart OVPI Timer.

On Windows, do the following:

- 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/init.d/ovpi\_timer start

Sun: sh /etc/init.d/ovpi\_timer start

# 3 Installing ATM Report Pack

This chapter covers the following topics:

- Guidelines for a smooth installation
- Installing ATM 3.40
- Accessing deployed reports; seeing performance data in reports
- Package removal

### Guidelines for a Smooth Install

A PI reporting solution has at least two ingredients, a report pack and a datapipe. Some reporting solutions offer multiple datapipes. By installing a datapipe, you configure PI to poll individual devices or read flat files created by a preprocessor. By installing a report pack, you configure PI to summarize and aggregate data collected by the datapipe.

The report pack CD contains report packs, datapipes, shared packages, and documentation. When you insert the report pack CD in the CD-ROM drive and launch the package extraction program, the install script extracts every 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 Performance Insight and start Package Manager. Before running Package Manager, review the following guidelines.

### **Prerequisites**

Make sure the following software is already installed before installing the ATM Report Pack:

- PI 5.40
- Any and all service packs available for PI 5.40
- Interface Reporting Report Pack 5.50
- Common Property Tables 3.90

## **Upgrading Common Property Tables**

If you are running an older version of Common Property Tables, upgrade your version to version 3.90. If you are not running any version of Common Property Tables, let Package Manager install Common Property Tables for you.

Do not install an upgrade package for Common Property Tables *and* other packages at the same time. Install the upgrade package for Common Property Tables and *only* the upgrade package for Common Property Tables. For more information about installing and using Common Property Tables, refer to the *Common Property Tables User Guide*.

#### Distributed Environments

If you intend to run the ATM Report Pack in a distributed environment, every server must be running PI 5.40 and all available Service Packs for PI 5.40. Here is an outline of the procedure for installing ATM 3.40 in a distributed environment:

- 1 Disable trendcopy on the central server.
- 2 For the central server:
  - Install Common Property Tables 3.90
  - Install Interface Reporting 5.50
  - Install the ATM Report Pack; deploy reports.
- 3 For each satellite server:
  - Install Common Property Tables 3.90
  - Install Interface Reporting 5.50
  - Install ATM Report Pack 3.40; if you want local reporting, deploy reports, otherwise, do not deploy reports
  - Install at least one datapipe.
- 4 Re-enable trendcopy on the central server.
- 5 Reconfigure your central and satellite servers. For details, see Chapter 4, Setting Up a Distributed System.

## Installing ATM 3.40

This section covers the following tasks:

- Task 1: Stop OVPI Timer and extract packages from the report pack CD
- Task 2: Upgrade Common Property Tables
- Task 3: Install these packages:
  - ATM 3.40
  - At least one ATM datapipe
  - Interface Reporting 5.50
- Task 4: Restart OVPI Timer

#### Task 1: Stop OVPI Timer and extract packages from the report pack CD

- 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/init.d/ovpi_timer stop
Sun: sh /etc/init.d/ovpi timer stop
```

- 3 Insert the report pack CD in the CD-ROM drive. On Windows, a Main Menu displays automatically; on UNIX, mount the CD, navigate to the top-level directory for the CD drive, and type the setup command.
- 4 Select PI report packs by typing 1 in the choice field and pressing Enter. The install script displays a percentage complete bar. When extraction finishes, the install script starts Package Manager. The Package Manager welcome window opens.

If you navigate to the Packages directory on your system, you will see the following folders under the ATM folder:

- ATM.ap
- ATM\_Demo.ap
- UPGRADE\_ATM\_31\_to\_34.ap
- UPGRADE\_ATM\_Checker.ap

Ignore the upgrade packages. Installing the demo package is optional. You may install just the demo package, by itself, or you may install the demo package along with everything else.

#### Task 2: Upgrade Common Property Tables

If you are running an older version of Common Property Tables, upgrade to Common Property Tables 3.90. Observe these rules:

- Do not install any other package with the upgrade package; install the Common Property Tables upgrade package and *only* the Common Property Tables upgrade package.
- Accept the default for Deploy Reports. If you do not deploy reports, you will not get the forms that come with Common Property Tables.
- When Package Manager indicates the upgrade installation is complete, click **Done** to return to the Management Console.

If you need help with the upgrade, refer to the Common Property Tables User Guide.

#### Task 3: Install ATM and at least one datapipe

- From the Management Console, select **Tools > Package Manager**. The Package Manager welcome window opens.
- 2 Click **Next.** The Package Location window opens.
- 3 Click Install.
- 4 Click **Next.** The Report Deployment window opens. Accept the default for Deploy Reports; accept the default for application server name and port. Type your username and password for the PI Application Server.
- 5 Click **Next**. The Package Selection window opens.
- 6 Click the check box next to the following packages:

```
ATM 3.4
Interface Reporting 5.5
ATM_Demo 3.3 [optional]
```

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7 Click the check box next to at least one of the following packages:

Cisco ATM Datapipe 3.2



The Cisco ATM Datapipe requires the ATM ifEntry Datapipe; Package Manager will install the ATM ifEntry Datapipe for you. The ATM ifEntry Datapipe supports directed-instance polling.

Ascend ATM Datapipe 3.0

Fore ATM Datapipe 3.1

Fore ATM Channel Datapipe 3.0

Stratacom ATM Datapipe 3.0

Newbridge ATM Datapipe 3.0

- 8 Click **Next**. The Type Discovery window opens.
- 9 To run Type Discovery immediately after package installation, accept the default and click **Next**. The Selection Summary window opens.
- 10 Click **Install**. The Installation Progress window opens and the install process begins. When the install finishes, a package install complete message appears.
- 11 Click **Done** to return to the Management Console.

#### Task 4: Restart OVPI Timer

On Windows, do the following:

- **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/init.d/ovpi\_timer start
Sun: sh /etc/init.d/ovpi timer start

### Accessing Deployed Reports

When you installed the ATM Report Pack, you enabled the Deploy Reports option. As a result, the reports in this package (as well as any forms that come with the package) were deployed to the PI Application Server. Once reports and forms are deployed to the PI Application Server, you have two ways to view them:

- PI clients
- Web browser

If the client applications are installed on your system, you have access to Report Viewer, Report Builder, and the Management Console. If the client components are not installed on your system, using a web browser to view reports is the only way you can view reports.

For more information about the client applications, see the *PI Installation Guide*. For more information about the Management Console, including how to use the Object/Property Management view to open reports for a selected object, see the *PI Administration Guide*.

### Seeing Performance Data in Reports

Some reports populate with data sooner than others. The first report to populate with data is the Near Real Time report. You will see data in this report within a few hours of installation. Other reports, including any report that begins with an analysis of yesterday's performance, will need at least one full day's worth of data before results are available. Although capacity planning and forecast reports will begin to populate with data right away, reliable forecasting depends on a complete baseline, which takes about six weeks to produce.

## Package Removal

Follow these steps to uninstall ATM. Removing ATM will automatically remove any datapipe that is collecting data for ATM.

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

To stop 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 **Stop**.

To stop OVPI Timer on UNIX, do one of the following:

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

- 3 Start Package Manager. The Package Manager welcome window opens.
- 4 Click **Next.** The Package Location window opens.
- 5 Click Uninstall.
- 6 Click Next. The Report Undeployment window opens.
- 7 If ATM reports were deployed from this server, accept the defaults for Undeploy Reports, Application Server Name, and Port. If ATM reports were **not** deployed from this server, clear the check box and skip to step 9.
- 8 Type the username and password for the PI Application Server.
- 9 Click **Next.** The Package Selection window opens.
- 10 Click the check box next to ATM 3.4.
- 11 Click OK.
- 12 Click **Next.** The Selection Summary window opens.
- 13 Click **Uninstall**. The Progress window opens and the removal process begins. When the uninstall process is complete, a package removal complete message appears.
- 14 Click **Done** to return to the Management Console.

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#### 15 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/init.d/ovpi\_timer start

Sun: sh /etc/init.d/ovpi\_timer start

# 4 Setting Up a Distributed System

These are the steps to follow when setting up a distributed system:

- Decide whether or not you want local reporting
- Install the right set of packages on each server (a central server that is not polling will not need datapipes; the satellite servers will need datapipes)
- Register each satellite server
- Verify that the system clocks in your environment are synchronized
- If you are not copying rate data to the central server, enable LIR on the central server
- If you enable LIR, add LIR mapping with the time type set to rate
- Verify that you have all the copy policies you need
- Configure the central server (manual edits to trendtimer.sched and .pro files)
- Configure each satellite server (manual edits to trendtimer.sched and .pro files)

If you want to set up a distributed system, you can implement local reporting or you can implement centralized reporting. If you want local reporting, you need to deploy reports when you install the report pack on each satellite server, and you need to allow summarizations to run on each satellite server. If you do not want local reporting, then you do not need to deploy reports when you install a report pack on a satellite server and you can disable the scripts that run summarizations on each satellite server.

Before Location Independent Reporting (LIR) was available, our recommendation to anyone setting up a distributed system was to deploy reports on satellite servers, keep rate data on satellite servers, copy hourly data to the central server, and disable summarizations above the hourly level on satellite servers. The advantage to this approach was that it kept a large volume of rate data off the network and it decreased the processing load on the central server. The disadvantage is that the central server could not display a Near Real Time (NRT) report. The only NRT report was a local NRT report, on a satellite server. LIR overcomes this disadvantage. If you enable LIR, you can open an NRT report on the central server and drill-down on table selections. The selections you make cause the central server to query a satellite server for locally aggregated data. Of course, if you would rather copy rate data to the central server, you can. If you do that, then enabling LIR is not necessary.

Several report packs in the October 2007 release include a copy policy enhancement based on a copy policy import file. This file contains a list of data tables. When you install a report pack that has this file, the core product will generate copy policies automatically. As a result, you do not need to use the Managment Console to create copy policies. Instead, your only task related to copy policies is to verify that the copy policies you need already exist.

Because you are likely to have multiple satellite servers, we designed the hourly process files to be satellite-server friendly. This means that most of the time, most of the defaults are correct. But some defaults will be incorrect, or less than optimal, and to improve performance, you should change them. These manual edits, as well as the other steps listed above, are spelled out in detail below.

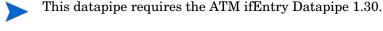
## Verifying Package Installation

Before configuring servers, verify that you have installed packages correctly. The central server requires the following packages:

- ATM 3.40, with reports deployed
- Interface Reporting 5.50, with reports deployed
- Common Property Tables 3.90, with reports (forms) deployed

Satellite servers require the following packages:

- ATM 3.40
- Interface Reporting 5.50
- Common Property Tables 3.90
- At least one of the following datapipes:
  - Ascend ATM Datapipe 3.00
  - Fore ATM Datapipe 3.10
  - Fore ATM Channel Datapipe 3.00
  - Cisco ATM Datapipe 3.20



- Stratacom ATM Datapipe 3.00
- Newbridge ATM Datapipe 3.00

Typically, the central server does not poll. If you want the central server in your system to poll, install datapipes on the central server. You may deploy reports from satellite servers, but only if you want to view reports from satellite servers. If you do not want local reporting, then deploying reports is not necessary.

## Configuring the Central Server

To configure the central server, perform the following tasks:

- Task 1: Register the satellite server by setting the database role
- Task 2: If you are not copying rate data to the central, enable LIR
- Task 3: If you enable LIR, add LIR mappings
- Task 4: Verify that you have all the copy policies you need
- Task 5: Modify the trendtimer.sched file

#### Task 1: Register the satellite server by setting the database role

- 1 Start the Management Console (log on with Administrator privileges).
- 2 Click the **Systems** icon in the navigation pane.
- 3 Navigate to the OVPI Databases folder and select the database system.

- 4 Click Database Properties.
- 5 From the Database Role list, select the Satellite Server role.
- Enter any information necessary to configure the Satellite Server role.



To add a new database reference, you can use the Add Database Reference Wizard in the System and Network Administration application.

#### Task 2: If you do not want to copy rate data from satellites to the central, enable LIR

- 1 Start the Management Console (log on with Administrator privileges).
- 2 Click the **Systems** icon in the navigation pane.
- 3 Navigate to the OVPI Databases folder and select the central server.
- 4 Click LIR Configuration.
- 5 Select the LIR enabled check box.

#### Task 3: If you enable LIR, add LIR mappings

- 1 Start the Management Console (log on with Administrator privileges).
- 2 Click the **Systems** icon in the navigation pane.
- 3 Navigate to the OVPI Databases folder and select the central server.
- 4 Click LIR Configuration.
- 5 Click Add Mapping.
- 6 From the Select Satellite Server list, select a satellite server to which to add a mapping.
- 7 Select the **Category** data table option.
- 8 Select **ATM** from the drop down list.
- 9 Select the rate data type.
- 10 Click Add to List.
- If you want to add additional LIR mappings, click

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and repeat step 6 through step 10.

- 12 Click **OK**.
- 13 Click Apply.

A copy policy is automatically generated for the hourly data and for each LIR mapping that you add. The data type selected when adding an LIR mapping (in step 9 above) determines the type of data copied (defined in the generated copy policy). The type of data copied (defined

in the generated copy policy) is one summarization level greater than the data type selected in the LIR mapping. For example, if you select an hourly data type, you will generate a daily data copy policy.

#### Task 4: Verify that you have all the copy policies you need

Verify that a copy policy has been generated for the following tables and that the copy type is set correctly (to Property and Data):

- Start the Management Console (log on with Administrator privileges).
- 2 Click the

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icon in the navigation pane to start the Copy Policy Manager.

- 3 Find the following tables and verify the copy type is set to Property and Data for each table:
  - SHatm\_pvc
  - SHatm\_port
  - SHatm\_svc

If a copy policy has not been generated for a table, do the following:

1 Click the

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   y from the Copy Policy
   Manager. The Copy Policy Wizard displays.
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   Click
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   xt. The Satellite
   Server and Copy Policy Selection Page displays.
   Select a satellite server from the pull down list. This is the satellite server from which
   data is copied to the central server.
   Select
   S
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   b
   e and select the table from the
   pull down list.
   Click
   Ne
   xt. The Copy Type
   Selection Page displays.
   Select
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7
   Click
   xt. The Summary
   page displays.
   Verify the information in the summary window. If the information is not correct, you can
   modify it by clicking Back.
   Click
   F
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10 Repeat step 4 - step 9 for all missing tables.

If the copy type is not set to Property and Data, do the following:

- 1 Double-click the copy policy.
- 2 Select the

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a copy type.

3 Click

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#### Task 5: Modify the trendtimer.sched file

The trendtimer.sched file is found here:

```
{DPIPE HOME}/lib/directory
```

where {DPIPE HOME} is the directory in which PI is installed.

Make the following change to this file:

• Find and commen-out the following line:

```
1:00+40 - - {DPIPE HOME}/bin/trend proc -f {DPIPE HOME}/scripts/ATM Hourly.pro
```

## Configuring Satellite Servers

Follow these steps to configure each satellite server.

- 1 Modify the {DPIPE\_HOME}/lib/trendtimer.sched file (where {DPIPE\_HOME} is the directory in which PI is installed) by switching off interface aggregations above the hourly level.
  - Find and comment out the following line:

```
24:00+3:00 - - {DPIPE_HOME}/bin/trend_proc -f {DPIPE_HOME}/scripts/ATM_Daily.pro
```



If you want the server to perform a local reporting function, do not switch off the higher aggregations. Switching off the higher aggregations disables everything except the NRT reports.

- Modify the hourly trendtimer entry. The default is 40 minutes after the hour. Change
  the start time to 25 minutes after the hour. Changing the start time will prevent the
  central server from trying to copy data from satellite servers just when the satellite
  servers are beginning their summarizations.
- 2 Modify the {DPIPE\_HOME}/scripts/ATM\_trendsum\_hourly.pro file (where {DPIPE\_HOME} is the directory in which PI is installed) by enabling the trendcopy commands to push data to the central server. Uncomment all trendcopy commands.
- 3 Using Table Manager, reduce the retention period of all ATM tables to a maximum of 2 days.
- 4 Configure polling policies for each datapipe, taking care that each node is being polled by one datapipe on one server.
  - If remote pollers are being used, avoid duplicate polling across the pollers or between the satellite and the pollers.
  - If a satellite server has two or more remote pollers, create separate polling policies for each poller and use view groups to separate the devices.

### System Clocks

Make sure that the system clock on each satellite server is synchronized with the system clock on the central server.

# 5 Adding Properties to Reports

There are three property import files that must be produced in accordance with the naming and file-layout formats defined by the ATM Report Pack. The files are:

- ATM\_Port\_Property.dat
- ATM\_PVC\_Property.dat
- ATM\_SVC\_Property.dat

There are three ways to produce property import files:

- Export the data you need from a network provisioning system
- Export existing property data from PI
- Create the files yourself

This chapter covers the following topics:

- The property import utility
- Creating your own property import files
- · Changing the default run time

### **Property Import Utility**

Provisioning for the ATM Report Pack is handled by a property import utility packaged with the report pack. Use this utility to populate reports with the following information:

- Customer names and customer IDs
- Regions and region IDs
- Ingress and egress Quality of Service values
- Peak cell rate and sustained cell rate values
- Port speed

If you want to produce reports tailored to one customer or region, you must use the property import utility to import customer and region information. If you are operating an enterprise network, you have the option of importing information about each division of the company, treating each division as though it were a customer.

Whether or not you need to import Quality of Service, cell rate, and Port speed values depends on the datapipe you are using. If the datapipe provides these values, you will not need to use the property import utility to import these values. However, if the datapipe you installed does not provide this information—or if the data that it provides is incorrect—you must use the property import utility to import correct values.

To calculate utilization, PI requires values for the following attributes:

- PCR
- SCR
- Port Speed

PCR and SCR values are used by PI to determine peak and sustained cell utilization. Port speed is used by PI to determine port utilization.

### Exporting Data from a Network Provisioning System

Exporting data from a network provisioning system is the easiest of the three options for creating the property import files. If this method is available, most of your work is already done.



When exporting customer data from a provisioning system, the dsi\_target\_name and dsi\_table\_key must match what the collector (ee\_collect or mw\_collect) has as the dsi\_target\_name and dsi\_table\_key.

Follow these steps to export data from a network provisioning system:

- 1 Create three property import files and name each file correctly.
- 2 Write a script to output the necessary fields.
- 3 Place your property import files in the directory where PI expects to find them.

When the daily import process runs, the property import utility will import the information from the property data files into the property tables.

### **Exporting Files from PI**

Exporting property data from PI is an option only if property information already exists in property tables. Initially, there will be no property data to export.

The export process does not run automatically. You initiate it manually any time that you want to update a property table or create an entry in the trendtimer\_sched file. The export process generates tab-delimited, time-stamped property data files and puts the files in the default PropertyData directory. You can then edit each file in WordPad or a spreadsheet application such as Microsoft Excel.



If you bring the data into a spreadsheet program, be sure to save the file in the proper tab-delimited format.

Can you simply leave the original property import files in the PropertyData directory, edit them as needed, and then run the import process to load the updates? No. Since your datapipes may be discovering new elements and updating certain fields in the property tables, your original property import files will be outdated.

### **Export Procedure**

Follow these steps to export property information from PI:

- 1 Go to a command prompt line at the system level.
- 2 In the {DPIPE HOME}/scripts directory, type:

trend\_proc -f ATM\_exportdata.pro

The export program does the following:

- Reads a definition file to determine which columns to export from the property tables
- Exports data from K\_atm\_pvc, K\_atm\_port, and K\_atm\_svc into the directory that
  has been designated to hold the export files

The files contain one row for each object. If no objects have been discovered—that is, if no polling cycle has been completed yet and the property tables are empty—the files do not contain any rows.

- Generates the following tab-delimited property data files and places them in the default directory:
  - ATM\_PVC\_Property.dat.timestamp
  - ATM\_Port\_Property.dat.timestamp
  - ATM\_SVC\_Property.dat.timestamp
- Edit these files according to the guidelines in Editing a Property Data File below.
- 4 Place the property data files in the directory where PI expects to find them:

```
DPIPE_HOME/data/PropertyData
```

You may run the import process manually, ahead of schedule, or wait for the same process to run automatically. If you want to run the process manually, enter the following command in the in the {DPIPE\_HOME}/scripts directory:

### trend\_proc -f ATM\_importdata.pro

### Editing a Property Data File

When editing a property data file, observe these guidelines:

- Use every column that the format dictates.
- Do not modify the sequence of columns.
- Do not use quotes.
- Do not use NULL values.
- Make sure that the property data columns of dsi\_target\_name and dsi\_table\_key match
  the values of dsi\_target\_name and dsi\_table\_key in the property table.



If you have a dsi\_target\_name of atmSwitch2 with a dsi\_table\_key value of 145 in your property file, there must be a matching dsi\_target\_name of atmSwitch2 with a dsi\_table\_key value of 145 in the property table. Otherwise, a new row and keyid value will be inserted into the property table.

- The prop\_PortName must be the same value that the datapipe inserts for dsi\_table\_key into the property table when collecting data for the Port statistics.
- Set the values of the \*\_id values to -2 (the default), if you are not using some or all of them. If you are not using region\_id, set the value for region\_id in your file to -2.
- Use the following file naming convention: ATM\_element\_Property.dat

Place your file in this directory:

```
{DPIPE_HOME}/data/PropertyData
```

### Creating Your Own Property Import File

If export from a network provisioning database is not an option for you, and there is no property data to export from PI, you must create the files manually and save them to the proper directory. It does not matter which spreadsheet application you use to create these files. However, you must save the results as ASCII tab-delimited files.

The ATM Report Pack includes sample property data files in the PropertyData directory. Use these files for guidance in creating your own property import files. From left to right, the columns in the sample files are as follows:

- 1 dsi\_target\_name
- 2 dsi\_table\_key
- 3 prop\_description
- 4 prop\_PortSpeed
- 5 prop\_PortType
- 6 prop\_cust\_id
- 7 prop\_region\_id
- 8 prop\_region\_name
- 9 prop\_customer\_name

If the sample file shows data in the region and customer columns, the user wants to see performance data by region as well as by customer.

### Required Utilization Values

PI is unable to calculate utilization unless various utilization values are available. If the datapipe does not provide these values, or if the values provided by the datapipe are incorrect, you must add these values to your property import files and then import them.

PVC utilization cannot be calculated unless the following values are available:

- prop\_SCR
- prop\_RevSCR
- prop\_PCR
- prop\_RevPCR

Port utilization cannot be calculated unless the prop\_PortSpeed value is available.

Although you can modify the properties of an existing PVC, port, or SVC, you should not modify dsi\_target\_name or dsi\_table\_key, because these values are used by PI to identify the PVC, port, or SVC. If you change them, they will no longer match existing values in the property tables, causing the SQL update script to add a new row to the property table instead of modifying an existing row.

### File Formats and Reserved Values

This section describes the format of the following files:

- ATM\_PVC\_Property.dat
- ATM\_Port\_Property.dat
- ATM\_SVC\_Property.dat

### ATM\_PVC\_Property.dat

The following table shows the sequence of columns in the PVC property import file and provides a definition for each column value.

Column	Definition					
dsi_target_name	Device name or IP address.					
dsi_table_key	Device index: a unique value based on how the device is indexed or summarized.					
prop_description	Customer definable field that is used in des_descr.					
prop_ATMQoSNumber	Database value: integer Required by the ReportPack. Enumerated Value for Class Name of Ingress QoS2 = Unassigned QoS (default) 1 = CBR 2 = VBR-RT 3 = VBR-NRT 4 = ABR 5 = UBR					
prop_RevATMQoSNumber	Database value: integer Required by the ReportPack. If not set uses the value from ATMQoSNumber. Enumerated Value for Class of Egress QoS -2 = Unassigned QoS (default) 1 = CBR 2 = VBR-RT 3 = VBR-NRT 4 = ABR 5 = UBR					
prop_SCR	Database value: float Required by the ReportPack if applicable. Sustained cell rate on the egress direction.					

Column	Definition
prop_RevSCR	Database value: float Required by the ReportPack if applicable. If not set uses the value from SCR. Sustained cell rate on the ingress direction.
prop_PCR	Database value: float Required by the ReportPack if applicable. Peak cell rate on the egress direction.
prop_RevPCR	Database value: float Required by the ReportPack if applicable. If not set uses the value from PCR. Peak cell rate on the ingress direction.
prop_VPI	Database value: float Virtual Path Identifier.
prop_VCI	Database value: float Virtual Channel Identifier.
prop_ATMPVCNumber	Database value: integer 1 - ATM Channel 2 = ATM Path -2 = Unknown (default)
prop_PortSpeed	Not required for PVC endpoints.  Database value: float  Port speed in bits per second for the ingress direction.
prop_PortType	Database value: varchar (128) Port type (UNI, NNI, ICI, etc.) for the ingress direction.
prop_PortName	Database value: varchar (128) Required by the ReportPack. Should be supplied by the DataPipe. The port on which the PVC endpoint resides. This value should match the prop_PortName value in the K_atm_port table associated with the same device and port that the PVC endpoint is located on.
prop_PortDescription	Database value: varchar (128) User definable.
prop_cust_id	Database value: integer Required by the ReportPack. Unique integer value for each customer. Assigned a default value of -2 when first populated.

Column	Definition
prop_region_id	Database value: integer Required by the ReportPack. Unique integer value for each region. Assigned a default value of -2 when first populated.
prop_region_name	Database value: varchar (128) Required by the ReportPack. Region name associated with region_id value.
customer_name	Database value: varchar (128) Required by the ReportPack. Customer name associated with cust_id.

### $ATM\_Port\_Property.dat$

The following table shows the sequence of columns in the port property data file and provides a definition for each column value.

Column	Definition
dsi_target_name	Device name or IP address.
dsi_table_key	Device index: a unique value based on how the device is indexed or summarized.
prop_description	Customer definable field that is used in des_descr.
prop_PortSpeed	Database value: float Required by the ReportPack. Port speed in bits per second for the ingress direction.
prop_PortType	Database value: varchar (128) Port type (UNI, NNI, ICI, etc.) for the ingress direction.
prop_PortName	Database value: varchar (128) Required by the ReportPack. Should be supplied by the DataPipe. The port value. This value should match the dsi_table_key listed above.
prop_PortDescription	Database value: varchar (128) User definable.
prop_cust_id	Database value: integer Required by the ReportPack. Unique integer value for each customer. Assigned default value of -2 when first populated.

Column	Definition
prop_region_id	Database value: integer
	Required by the ReportPack.
	Unique integer value for each region. Assigned default value of -2 when first populated.
prop_region_name	Database value: varchar (128)
	Required by the ReportPack.
	Region name associated with region_id value.
prop_customer_name	Database value: varchar (128)
	Required by the ReportPack.
	Customer name associated with cust_id.

### ATM\_SVC\_Property.dat File

The following table shows the sequence of columns in the SVC property data file and provides a definition for each column value.

Column	Definition
dsi_target_name	Device name or IP address.
dsi_table_key	Device index: a unique value based on how the device is indexed or summarized.
prop_description	Customer definable field that is used in des_descr.
prop_PortType	Database value: varchar (128) Port type (UNI, NNI, ICI, etc.) for the ingress direction.
prop_PortName	Database value: varchar (128) Required by the ReportPack. Should be supplied by the DataPipe. The port value. This value should match the dsi_table_key listed above.
prop_PortDescription	Database value: varchar (128) User definable.
prop_cust_id	Database value: integer Required by the ReportPack. Unique integer value for each customer. Assigned default value of -2 when first populated.
prop_region_id	Database value: integer Required by the ReportPack. Unique integer value for each region. Assigned default value of -2 when first populated.

Column	Definition							
prop_region_name	Database value: varchar (128)							
	Required by the ReportPack.							
	Region name associated with region_id value.							
prop_customer_name	Database value: varchar (128)							
	Required by the ReportPack.							
	Customer name associated with cust_id.							

### Reserved Values

Certain values for region\_id and cust\_id are reserved. The following table indicates which values are reserved

Column Name	Reserved Value
region_id	-2, -1, and 0
cust_id	-2, -1, and 0

### Import Procedure

To import information from the property data files to the property tables in PI, run the import process manually or let the import process run automatically. To run the import process manually:

- 1 Navigate to the {DPIPE\_HOME} / scripts directory.
- 2 Type trend\_proc -f ATM\_importdata.pro to run import.

The import process runs automatically at 4:00 a.m. If you do not want to use the default time, you can change it. See Changing the Default Run Time on page 48.

When the import process runs, ee\_collect accesses the PropertyData directory and looks for property data files. If there are no files in the directory, the import process stops. If there are files to read, PI populates a set of temporary *property data tables*. These tables are truncated (replaced) daily. Once the temporary property data tables are populated, an SQL update script uses values in the temporary property tables to update the permanent property tables.

Updating a property table can mean overwriting existing information or adding new information. When a row in a temporary property data table has an exact match with a row in a permanent property table, the update script overwrites the row in the property table. When a row in the temporary table has no corresponding match in a property table, two things happen:

- The datapipe (specifically, ee\_collect) adds a new row to the property table.
- The update script adds values to the row.

Old property data files move to the Archive directory, leaving the PropertyData directory empty. It remains empty until you export files from PI.

### Property Data Tables and Property Tables

The following table indicates which property data table and which property tables are updated by each import file.

Property Data File	Property Data Table	Property Table
ATM_PVC_Property.dat	Ratm_pvc_property	K_atm_pvc K_atm_pvc_exec K_atm_pvc_exec_region
ATM_Port_Property.dat	Ratm_port_property	K_atm_port K_atm_port_exec K_atm_port_exec_region
ATM_SVC_Property.dat	Ratm_port_svc	K_atm_svc K_atm_svc_exec K_atm_svc_exec_region

### Changing the Default Run Time

The default run time for the automatic import process is 4:00 a.m. To change the default setting, do this:

- Open the trendtimer\_sched file in the OVPI/lib directory.
- 2 In the line that defines the interval and offset for the trend\_proc that executes the ATM\_importdata.pro command, change the offset indicator, that is, the number after the plus (+) sign. For example, if you change 04:00 to 18:00, the import utility will run every day at 6:00 p.m.

## 6 Change Forms

ATM 3.40 includes the following change forms:

- Update ATM PVC Cell Parameters
- Update ATM QoS Parameters
- Update Port Information

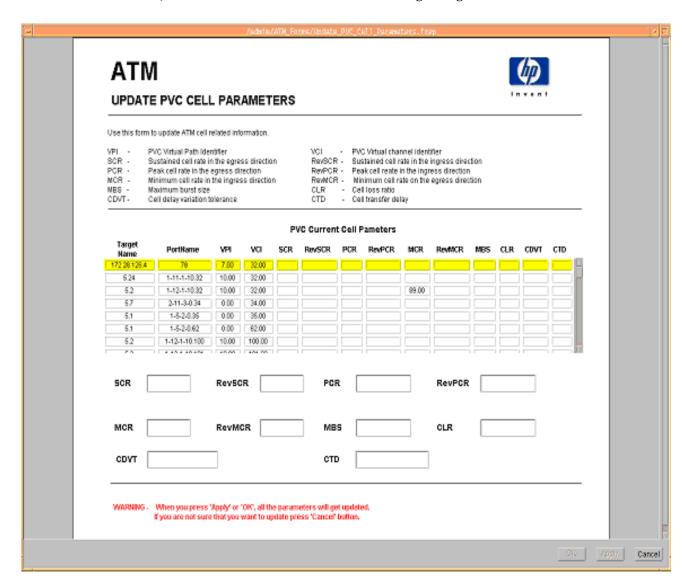
You cannot assign PVCs or ports to customers or locations that Common Property Tables does not already recognize. Add customers and locations to Common Property Tables using the **Create New Customer** form and the **Create New Location** form, or by using the batch-mode property import that comes with Common Property Tables. For details, refer to the *Common Property Tables 3.9 User Guide*.

### **Update ATM PVC Cell Parameters**

Follow these steps to update PVC cell parameters:

- 1 Select Start > HP Software > Performance Insight > Management Console.
- 2 Click **Objects**, navigate to the interface you want to update, and select it. (Or, select a device in order to update all interfaces on that device.) The Update ATM PVC Cell Parameters form is listed under **Object Specific Tasks**.
- 3 Double-click **Update ATM PVC Cell Parameters**. The form opens.

4 Modify cell parameters. Click **Apply** to save changes, **OK** to save changes and close the form, or **Cancel** to close the form without saving changes.

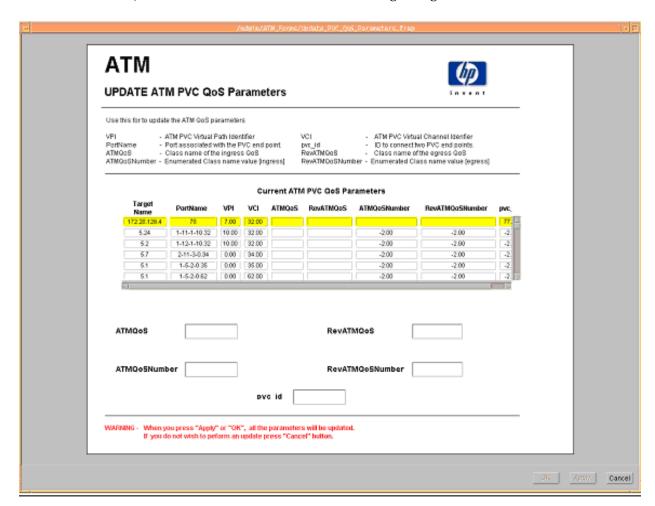


### **Update ATM QoS Parameters**

Follow these steps to update QoS parameters:

- 1 Select Start > HP Software > Performance Insight > Management Console.
- 2 Click **Objects**, navigate to the interface you want to update, and select it. You may also select a device, if you want to update all the interfaces on that device. The forms appear under **Object Specific Tasks**.
- 3 Double-click **Update ATM QoS Parameters.** The form opens.

4 Modify QoS parameters. Click **Apply** to save changes, **OK** to save changes and close the form, or **Cancel** to close the form without saving changes.



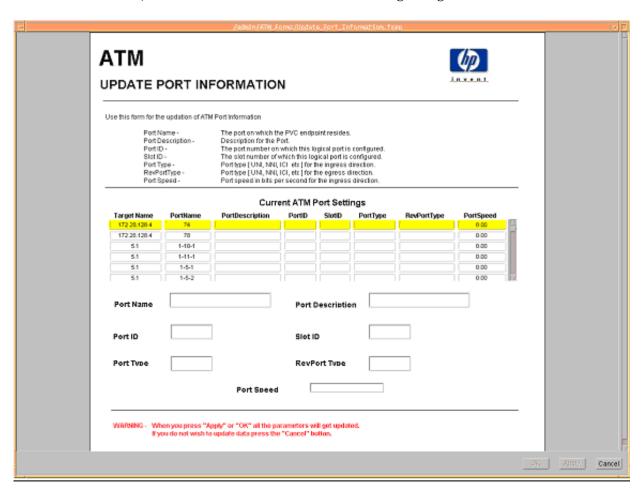
### **Update Port Information**

Follow these steps to update port information:

- 1 Select Start > HP Software > Performance Insight > Management Console.
- 2 Click **Objects**, then navigate to and select the interface you want to update or the device for which you want to update one or more interfaces. The Update Port Information form is listed under **Object Specific Tasks**.
- 3 Double-click **Update Port Information**. The form opens.

Change Forms 51

4 Modify port information. Click **Apply** to save changes, **OK** to save changes and close the form, or **Cancel** to close the form without saving changes.



# 7 PVC Folder: Sample Reports

### The PVC folder contains the following reports:

- Availability
- Capacity Planning: PCR Utilization (2 reports: daily and monthly)
- Capacity Planning: SCR Utilization (2 reports: daily and monthly)
- Executive Summary by Customer (2 reports: daily and monthly)
- Executive Summary by Region (2 reports: daily and monthly)
- Endpoint Configuration (2 reports: daily and monthly)
- Forecast: PCR Utilization
- Forecast: SCR Utilization
- Hot Spots (2 reports: daily and monthly)
- QuickView (3 reports: daily, monthly, and Near Real Time)
- Snapshot (3 reports: daily, monthly, and Near Real Time)
- Top Ten

### See below for samples of the following reports:

- Capacity Planning: PCR Utilization Daily
- Hot Spots Daily
- Availability
- Executive Summary by Customer: Daily
- Top Ten
- QuickView Near Real Time
- Forecast: PCR Utilization

# ATM PVC Endpoint PCR Utilization Capacity Planning

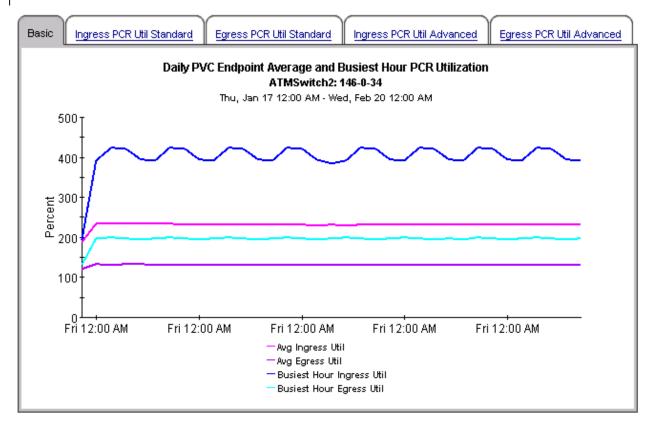


Designed for CTOs, network planners, and network managers, the Capacity Planning report details the most over-and under-utilized PVC Endpoints based on a 30 day forecast. Baseline and forecasted values are based on the busiest hour of the day. These reports can indicate opportunities for load balancing to improve service levels without additional investment.

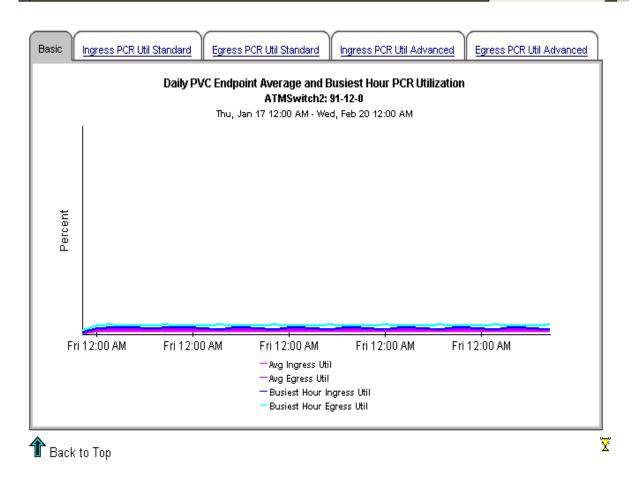
### Overutilized PVC Endpoints with a 30 Day Forecasted Value for Utilization > 60%

Utilization is Based on the Peak Cell Rate (PCR)

Device	PVC	PVC Description	QoS	РУС Туре	Day of Week	Ingress Baseline Util		30/60/90 Day Ingress Forecast	Egress Baseline Util	DT <sup>*</sup> Egre Uti
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	Thu	370.45	-64.00	639.55 / 823.02 / 1006.5	184.63	-78.
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	Mon	403.93	-922.00	420.58 / 431.93 / 443.28	197.80	-2116
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	Sun	414.92	-6656.00	417.27 / 418.87 / 420.48	198.04	
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	Tue	398.75	-7472.00	400.75 / 402.11 / 403.47	196.45	
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	Fri	398.00	-7455.00	400.00 / 401.36 / 402.72	197.29	
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	Wed	410.09		389.09 / 374.78 / 360.46	197.92	



### Underutilized PVC Endpoints with a 30 Day Forecasted Value for Utilization < 10% Utilization is based on the Peak Cell Rate (PCR) Day Ingress DTT 30/60/90 Day Egress Device **PVC PVC Description PVC Type Baseline Ingress** Ingress Baseline QoS of Week Util Util **Forecast** Util ATMSwitch2 91-12-0 New York to Los Angeles UBR 0.00 1000.00 0.00 / 0.00 / 0.00 0.00 ATM Path Mon ATMSwitch2 91-12-0 New York to Los Angeles UBR ATM Path 0.00 1000.00 0.00 / 0.00 / 0.00 0.00 Sun ATMSwitch2 91-12-0 New York to Los Angeles UBR ATM Path Sat 0.00 0.00 / 0.00 / 0.00 0.00 ATMSwitch2 91-12-0 New York to Los Angeles ATM Path 0.00 / 0.00 / 0.00 0.00 UBR Wed 0.00 ATMSwitch2 91-12-0 New York to Los Angeles UBR ATM Path Fri 0.00 0.00 / 0.00 / 0.00 0.00 ATMSwitch2 91-12-0 New York to Los Angeles UBR ATM Path 0.00 0.00 / 0.00 / 0.00 0.00 Tue ATMSwitch2 91-12-0 New York to Los Angeles UBR ATM Path Thu 0.00 1000.00 0.01 / 0.01 / 0.01 0.00 ATMSwitch2 65-0-63 New York to San Francisco ABR ATM Channel Sat 0.01 0.01 / 0.01 / 0.01 0.01 ATMSwitch2 65-0-63 New York to San Francisco ABR ATM Channel Wed 0.01 0.01 / 0.01 / 0.01 0.01 ATMSwitch2 65-0-63 New York to San Francisco ABR ATM Channel Sun 0.01 0.01 / 0.01 / 0.01 0.01



PVC Folder: Sample Reports 55

# ATM PVC Endpoint Hot Spots

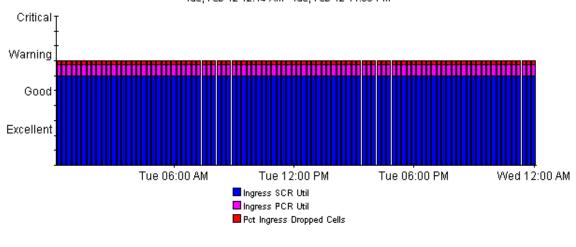


The Hot Spots report gives network managers and members of the NOC team a listing of ATM PVC Endpoints that have exceeded threshold conditions during the previous day. Offending PVC Endpoints are ranked by total number of exceptions. Drilldown reports show as polled data to help identify possible trouble spots. Exception Thresholds: Ingress SCR Utilization > 100 % Egress SCR Utilization > 100 % Ingress PCR Utilization > 60 % Percentage of Ingress Dropped Cells > 1 %

PVC Endpoint Hot Spots for the Previous Day  Number of Exceptions for the Day are Shown for Each Statistic - Sorted by Total Exceptions  Tue, Feb 12, 2002										
Device	PVC	PVC Description	QoS	РУС Туре	Total Exceptions	ingress	Egress SCR Util	Ingress PCR Util	PIR	Pct Ingress Dropped Cells
ATMSwitch2	64-0-33	New York to Houston	ABR	ATM Channel	192	96	96	0	0	0
ATMSwitch1	50-0-34	Torrance to the U.K.	VBR-RT	ATM Channel	191	95	96	0	0	0
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	153	81	72	0	0	0
ATMSwitch2	145-0-34	New York to Boston	CBR	ATM Channel	81	81	0	0	0	0
ATMSwitch2	121-0-33	New York to D.C.	VBR-NRT	ATM Channel	74	37	37	0	0	0
ATMSwitch1	126-0-37	Torrance to Atlanta	UBR	ATM Channel	36	18	18	0	0	0
4								_		

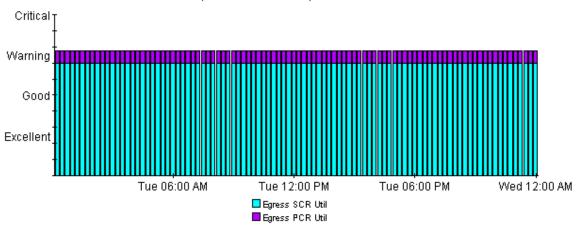
### PVC Ingress Grade of Service ATMSwitch2: 64-0-33

Tue, Feb 12 12:14 AM - Tue, Feb 12 11:59 PM



### PVC Egress Grade of Service ATMSwitch2: 64-0-33

Tue, Feb 12 12:14 AM - Tue, Feb 12 11:59 PM



### Ingress SCR and PCR Utilization ATMSwitch2: 64-0-33

Tue, Feb 12 12:14 AM - Tue, Feb 12 11:59 PM

200

160

120

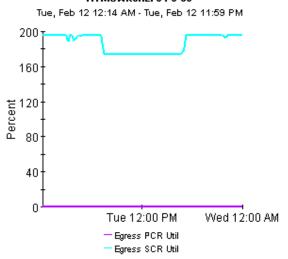
80

Tue 12:00 PM Wed 12:00 AM

Ingress PCR Util

Ingress SCR Util

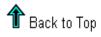
### Egress SCR and PCR Utilization ATMSwitch2: 64-0-33



### Exception Detail - Exception Values for the Statistics ATMSwitch2: 64-0-33

Tue, Feb 12 12:14 AM - Tue, Feb 12 11:59 PM

Time Period of Exception	Ingress SCR Util	Ingress PCR Util	Pct Ingress Dropped Cells	Egress SCR Util	Egress PCR Util
Tue Feb 12 12:14 AM	195.68	0.46	0.00	195.68	0.46
Tue Feb 12 12:29 AM	195.73	0.46	0.00	195.72	0.46
Tue Feb 12 12:44 AM	195.70	0.46	0.00	195.70	0.46
Tue Feb 12 12:59 AM	195.73	0.46	0.00	195.72	0.46
Tue Feb 12 01:14 AM	195.72	0.46	0.00	195.72	0.46
Tue Feb 12 01:29 AM	195.70	0.46	0.00	195.70	0.46
Tue Feb 12 01:44 AM	195.73	0.46	0.00	195.73	0.46
Tue Feb 12 01:59 AM	195.50	0.46	0.00	195.50	0.46
Tue Feb 12 02:14 AM	195.70	0.46	0.00	195.70	0.46
Tue Feb 12 02:29 AM	195.73	0.46	0.00	195.72	0.46
Tue Feb 12 02:44 AM	196.12	0.46	0.00	196.12	0.46
Tue Feb 12 02:59 AM	195.72	0.46	0.00	195.72	0.46



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### ATM PVC Endpoint Availability



The ATM PVC Endpoint Availability report informs executives, network managers, end users, and customers on daily and monthly PVC endpoint availability. Select a PVC endpoint from the table to see availability over the previous day.

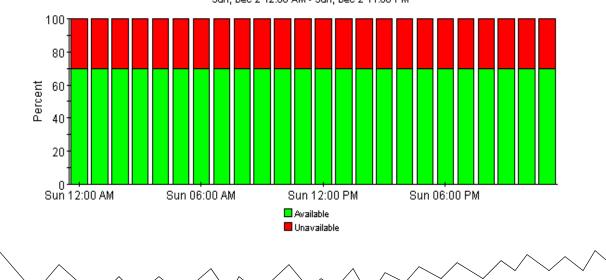
### Daily PVC Endpoint Availability

Sun, Dec 2, 2001

Device	PVC	PVC Description	QoS	PVC Type	Availability	
ATMSwitch2	65-0-63	New York to San Francisco	ABR	ATM Channel	70.00	
ATMSwitch1	124-0-34	Torrance to Dallas	ABR	ATM Channel	86.11	<del>-</del> <b>9</b>

### Hourly PVC Endpoint Availability ATMSwitch2: 65-0-63

Sun, Dec 2 12:00 AM - Sun, Dec 2 11:00 PM



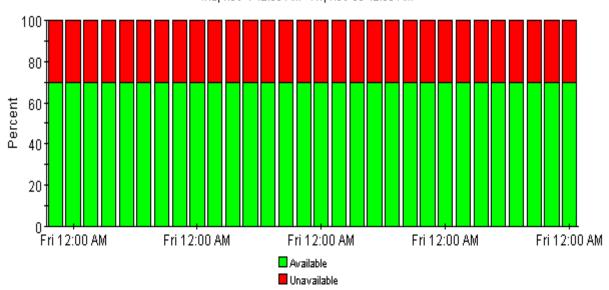
### Monthly PVC Endpoint Availability

Nov 2001

Device	PVC	PVC Description	QoS	PVC Type	Availability	
ATMSwitch2	65-0-63	New York to San Francisco	ABR	ATM Channel	70.00	
ATMSwitch1	124-0-34	Torrance to Dallas	ABR	ATM Channel	86.11	<b>-9</b>

### Daily PVC Endpoint Availability ATMSwitch2: 65-0-63

Thu, Nov 1 12:00 AM - Fri, Nov 30 12:00 AM



# ATM PVC Daily Executive Summary by Customer



This report provides CFOs, CIOs and other managers an overview of the performance of their ATM PVCs. Each chart shows key metrics aggregated for all PVCs, for each customer. Key indicators of performance are shown including total volume by QoS type, utilization, and percentage of dropped college.

### **Daily Customer Summaries**

Sun, Dec 2, 2001

### Summary for All Acme PVCs

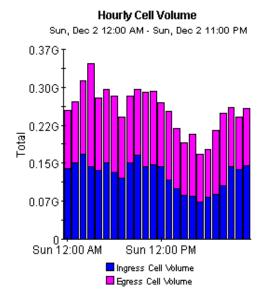
Summary for All DeskTalk PVCs

Summary for All Network PVCs

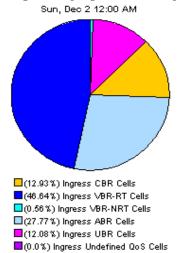
Summary for All Unassigned Customer PVCs



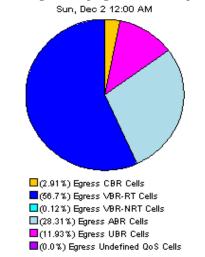
# Daily Cell Volume Mon, Nov 26 12:00 AM - Sun, Dec 2 12:00 AM 7G 4G 3G Mon 12:00 AM Fri 12:00 AM Ingress Cell Volume Eggress Cell Volume



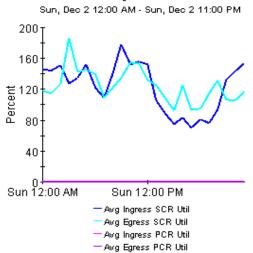
### Percentage of Daily Ingress Volume by QoS



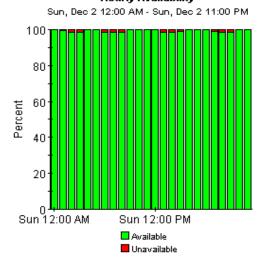
### Percentage of Daily Egress Volume by QoS



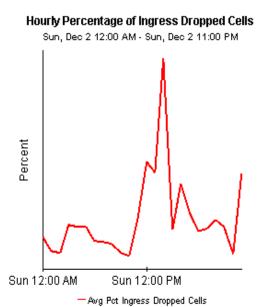
### **Hourly Utilization**



### **Hourly Availability**



# Hourly Exception Counts Sun, Dec 2 12:00 AM - Sun, Dec 2 11:00 PM 30 24 12 12 6 Sun 12:00 AM Sun 12:00 PM Ingress SCR Util Egress PCR Util Egress PCR Util Ingress Dropped Cells Back to Top



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### ATM PVC Endpoint Top Ten



The Top Ten report lists the ten top utilized PVC endpoints based on highest utilized direction. These reports show ingress and egress average and peak utilization based on SCR and PCR cell rates for yesterday and last month.

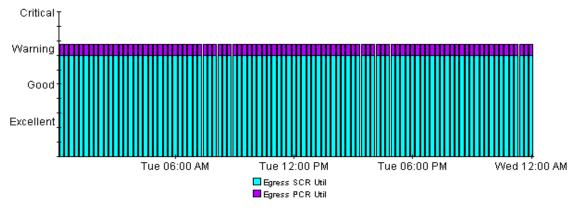
### Daily Top Ten PVC Endpoints Based on Highest Average SCR Utilization in Either Direction

Sun, Dec 2, 2001 - Sun, Dec 2, 2001

Device	PVC	PVC Description	QoS	PVC Type	SCR	Reverse SCR	_	_	Peak Ingress SCR Util	_
ATMSwitch1	50-0-34	Torrance to the U.K.	VBR-RT	ATM Channel	3642	3642	483.42	595.12	1020.86	1090.97
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	3642	3642	254.03	143.74	509.75	233.61
ATMSwitch2	64-0-33	New York to Houston	ABR	ATM Channel	3642	3642	186.64	186.64	196.17	196.16
ATMSwitch2	145-0-34	New York to Boston	CBR	ATM Channel	3642	3642	134.05	30.63	226.20	71.16
ATMSwitch2	121-0-33	New York to D.C.	VBR-NRT	ATM Channel	3642	3642	131.64	131.64	236.30	236.29
ATMSwitch2	54-0-33	New York to Toronto	VBR-NRT	ATM Channel	3642	3642	84.13	84.13	84.31	84.31
ATMSwitch1	129-0-33	Torrance to Portland	CBR	ATM Channel	3642	3642	84.13	0.00	84.31	0.00
ATMSwitch1	71-0-34	Torrance to San Jose	ABR	ATM Channel	3642	3642	84.13	84.13	84.31	84.31
ATMSwitch1	126-0-37	Torrance to Atlanta	UBR	ATM Channel	3642	3642	54.35	54.35	329.48	329.48
ATMSwitch1	143-0-34	Torrance to Cotati	VBR-RT	ATM Channel	3642	3642	7.83	38.14	20.92	99.15

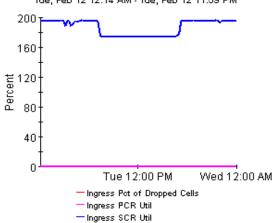
### PVC Egress Grade of Service ATMSwitch2: 64-0-33

Tue, Feb 12 12:14 AM - Tue, Feb 12 11:59 PM



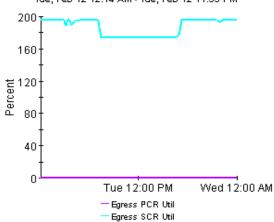
### Ingress SCR and PCR Utilization ATMSwitch2: 64-0-33

Tue, Feb 12 12:14 AM - Tue, Feb 12 11:59 PM



### **Egress SCR and PCR Utilization** ATMSwitch2: 64-0-33

Tue, Feb 12 12:14 AM - Tue, Feb 12 11:59 PM



### **Exception Detail - Exception Values for the Statistics**

ATMSwitch2: 64-0-33

Tue, Feb 12 12:14 AM - Tue, Feb 12 11:59 PM

Time Period of Exception	Ingress SCR Util	Ingress PCR Util	Pct Ingress Dropped Cells	Egress SCR Util	Egress PCR Util		
Tue Feb 12 12:14 AM	195.68	0.46	0.00	195.68	0.46		
Tue Feb 12 12:29 AM	195.73	0.46	0.00	195.72	0.46		
Tue Feb 12 12:44 AM	195.70	0.46	0.00	195.70	0.46		
Tue Feb 12 12:59 AM	195.73	0.46	0.00	195.72	0.46		
Tue Feb 12 01:14 AM	195.72	0.46	0.00	195.72	0.46		
Tue Feb 12 01:29 AM	195.70	0.46	0.00	195.70	0.46		
Tue Feb 12 01:44 AM	195.73	0.46	0.00	195.73	0.46		
Tue Feb 12 01:59 AM	195.50	0.46	0.00	195.50	0.46		
Tue Feb 12 02:14 AM	195.70	0.46	0.00	195.70	0.46		
Tue Feb 12 02:29 AM	195.73	0.46	0.00	195.72	0.46		
Tue Feb 12 02:44 AM	196.12	0.46	0.00	196.12	0.46		
Tue Feb 12 02:59 AM	195.72	0.46	0.00	195.72	0.46		

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PVC Folder: Sample Reports 65

# ATM PVC Endpoint NRT QuickView

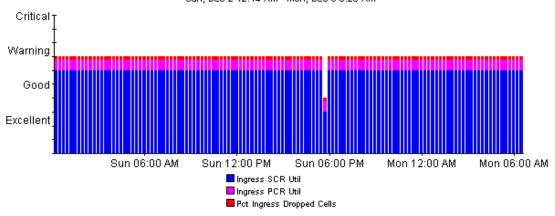


This report gives network managers and members of the NOC team ATM PVC endpoints statistics in near real time. Statistics in the "PVC Selection List" chart are averages over the last 6 hours of polling. Drilldowns show utilization, percentage of dropped cells, cell volume, and GOS for the previous 24 hours of polled data.

		PVC Endpoint Select	PVC Endpoint Selection List - Sorted by Highest Average Cells per Second (CPS)  Mon, Dec 3 6:28 AM - Mon, Dec 3 6:29 AM									
Device	PVC	PVC Description	QoS	PVC Type	SCR	Ingress SCR Util	Egress SCR Util	_	Peak Ingress CPS	Avg Egres: CPS		
ATMSwitch1	50-0-34	Torrance to the U.K.	VBR-RT	ATM Channel	3642	555.63	736.09	20236.19	31693.49	26808.5		
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	3642	379.63	193.29	13826.15	18565.20	7039.7		
ATMSwitch1	126-0-37	Torrance to Atlanta	UBR	ATM Channel	3642	269.10	269.10	9800.65	11999.53	9800.5		
ATMSwitch2	64-0-33	New York to Houston	ABR	ATM Channel	3642	195.08	195.08	7104.96	7143.54	7104.9		
ATMSwitch2	121-0-33	New York to D.C.	VBR-NRT	ATM Channel	3642	183.37	183.37	6678.27	8605.92	6678.2		
ATMSwitch2	65-0-65	New York to Raleigh	UBR	ATM Channel	96000	6.62	6.62	6355.95	6369.05	6355.9:		
ATMSwitch2	145-0-34	New York to Boston	CBR	ATM Channel	3642	160.84	28.67	5857.79	7171.58	1044.2		
ATMSswitch2	91_12_0	New York to Los Angeles	LIAR	ATM Path	353208	0.73	1 54	2591.36	6162.63	5451 2		

### PVC Ingress Grade of Service ATMSwitch1: 50-0-34

Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM

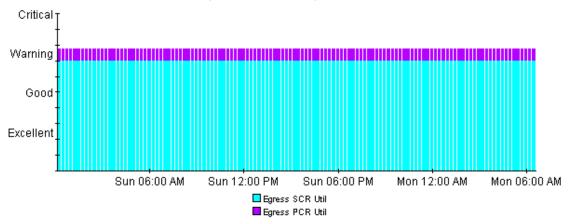






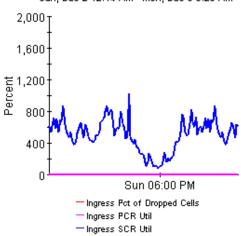
### PVC Egress Grade of Service ATMSwitch1: 50-0-34

Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM



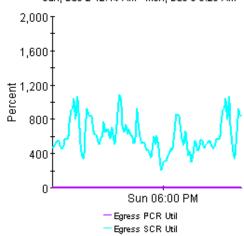
### Ingress SCR and PCR Utilization ATMSwitch1: 50-0-34

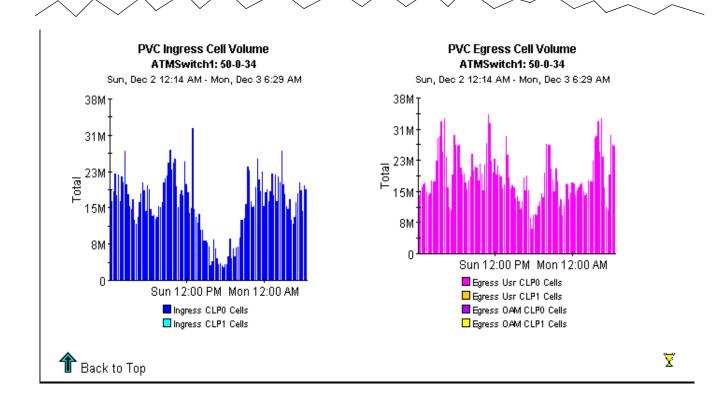
Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM



### Egress SCR and PCR Utilization ATMSwitch1: 50-0-34

Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM





# ATM PVC Endpoint PCR Utilization Forecast

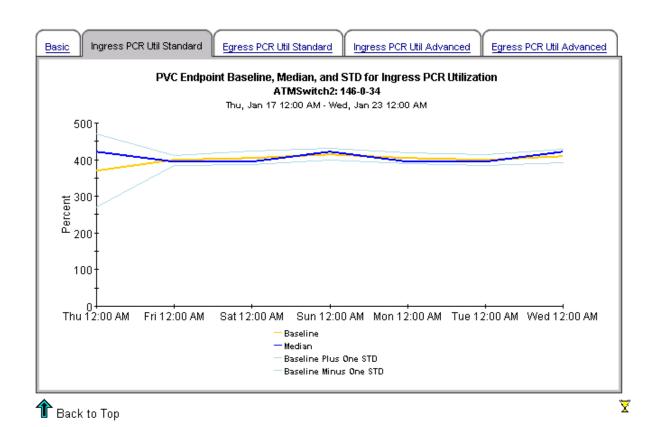


Designed for C10s, network planners, and network managers, the Forecast report details the ports with the greatest ratio of change between the baseline utilization and the 30 day forecast. Baseline and forecast values are based on the busiest hour of the day. Drilldown reports show baseline, median, STD; and 30, 60, and 90 day forecasts of utilization.

### PVC Endpoints with a 90 Day Forecasted Utilization Value > 60% Sorted by Greatest Growth Ratio

Utilization is based on the Peak Cell Rate (PCR)

Device	PVC	PVC Description	QoS	РУС Туре	Day of Week	Ingress Baseline Util		30/60	/90 Da Fore	y Ingres: cast	s Ingres: Ratio	Egre: 8 Basel Util
ATMSwitch	2 146-0-34	New York to Paris	VBR-RT	ATM Channel	Thu	370.45	-64.00	639.5	5 / 823	.02 / 1006	.5 1.73	184.6
ATMSwitch	2 146-0-34	New York to Paris	VBR-RT	ATM Channel	Mon	403.93	-922.00	420.5	3 / 431	.93 / 443.2	8 1.04	197.8
ATMSwitch	2 146-0-34	New York to Paris	VBR-RT	ATM Channel	Sun	414.92	-6656.00	417.2	7 / 418	.87 / 420.4	8 1.01	198.0
ATMSwitch	2 146-0-34	New York to Paris	VBR-RT	ATM Channel	Fri	398.00	-7455.00	400.00	0 / 401	.36 / 402.7	2 1.01	197.1
ATMSwitch	2 146-0-34	New York to Paris	VBR-RT	ATM Channel	Tue	398.75	-7472.00	400.7	5 / 402	.11 / 403.4	7 1.01	196.4



# 8 Port Folder: Sample Reports

The Port folder contains the following reports:

- Availability
- Configuration
- Capacity Planning
- Executive Summary by Customer (2 reports: daily and monthly)
- Executing Summary by Region (2 reports: daily and monthly)
- Forecast
- Hot Spots
- QuickView (3 reports: daily, monthly, and Near Real Time)
- Snapshot (3 reports: daily, monthly, and Near Real Time)
- Top Ten: Daily

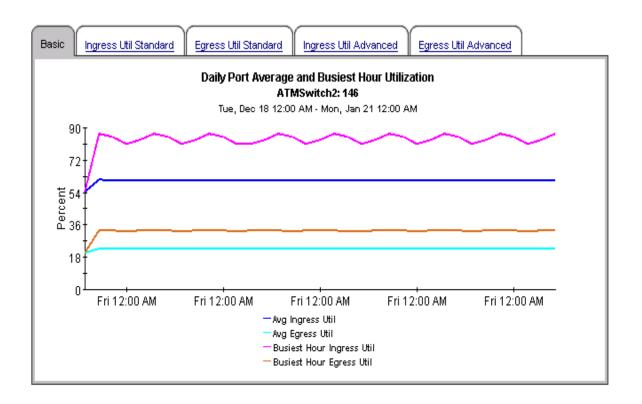
See below for samples of the following reports:

- Capacity Planning
- Availability
- Forecast
- Hot Spots
- QuickView Near Real Time
- QuickView Daily
- Executive Summary by Customer Daily
- Top Ten

### ATM Port Capacity Planning

Designed for CIOs, network planners, and network managers, the Capacity Planning report details the most over- and under-utilized ports based on a 30 day forecast. Baseline and forecasted values are based on the busiest hour of the day. These reports can indicate opportunities for load balancing to improve service levels without additional investment.

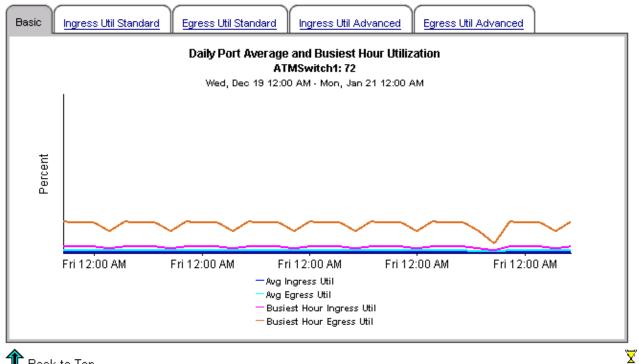
Overutilized Ports with a 30 Day Forecasted Value for Utilization > 80%										
Device	Port	Description	Day of Week	Ingress Baseline	DTT	01 - Mon, Dec 24, 2001 30/60/90 Day Ingress Forecast	Egress Baseline Util	DTT Egress Util	30/60/90/Day Egi Forecast	
ATMSwitch2	146	New York to Paris	Tue	77.26	-10	112.47 / 136.47 / 160.47	30.11	133	45.14 / 55.38 / 6	
ATMSwitch2	64	New York to Houston	Tue	70.79	32	79.63 / 85.65 / 91.68	65.49	4	101.01 / 125.22 / 1	
ATMSwitch2	121	New York to D.C.	Tue	59.18	16	90.08 / 111.14 / 132.21	68.52	69	74.66 / 78.85 / 8	
ATMSwitch2	90	New York to Tokyo	Tue	14.42	319	23.10 / 29.02 / 34.93	57.36	17	89.71 / 111.77 / 1	
ATMSwitch2	146	New York to Paris	Mon	84.14	-73	87.20 / 89.28 / 91.37	32.79	1000	32.96 / 33.08 / 3_	
ATMSwitch2	146	New York to Paris	Thu	84.77	-209	85.85 / 86.58 / 87.31	32.90	1000	33.07 / 33.19 / 3	
ATMSwitch2	146	New York to Paris	Fri	83.04	-70	85.42 / 87.03 / 88.65	32.68	1000	33.01 / 33.25 / 3	
ATMSwitch2	146	New York to Paris	Sun	84 47		84 00 / 83 68 / 83 36	32 75		32 45 / 32 24 / 3	



### Underutilized Ports with a 30 Day Forecasted Value for Utilization < 10%

Tue, Dec 18, 2001 - Mon, Dec 24, 2001

Device	Port	Description	Day of Week	Ingress Baseline Util	DTT Ingress Util	30/60/90 Day Ingress Forecast	Egress Baseline Util	DTT Egress Util	30/60/90/Da Egress Fore
ATMSwitch1	72	Torrance to Reston	Wed	0.00		0.00 / 0.00 / 0.00	0.02		0.00 / 0.00 /
ATMSwitch1	72	Torrance to Reston	Sun	0.00		0.00 / 0.00 / 0.00	0.02		0.01 / 0.01 /
ATMSwitch1	72	Torrance to Reston	Fri	0.00		0.00 / 0.00 / 0.00	0.02		0.02 / 0.01 /
ATMSwitch1	72	Torrance to Reston	Thu	0.00	1000	0.00 / 0.00 / 0.00	0.02	1000	0.02 / 0.02 /
ATMSwitch1	72	Torrance to Reston	Mon	0.00	1000	0.00 / 0.00 / 0.00	0.02	1000	0.02 / 0.02 /
ATMSwitch1	72	Torrance to Reston	Sat	0.00	1000	0.01 / 0.01 / 0.01	0.02	1000	0.03 / 0.03 /
ATMSwitch2	91	New York to Los Angeles	Wed	0.75		0.75 / 0.75 / 0.75	0.77		0.76 / 0.75 /
ATMSwitch2	91	New York to Los Angeles	Sun	0.75		0.75 / 0.75 / 0.75	N 77		0.76 / 0.75 /



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73 Port Folder: Sample Reports

## ATM Port Availability



The ATM Port Availability report informs executives, network managers, end users, and customers on daily and monthly port availability. Select a port from the table to see availability over the previous day or month.

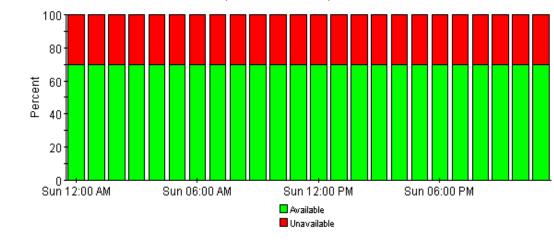
#### **Daily Port Availability**

Sun, Dec 2, 2001

Device	Port	Description	Availability	
ATMSwitch2	65	New York to San Francisco	70.00	
ATMSwitch1	124	Torrance to Dallas	86.11	

#### Hourly Port Availability ATMSwitch2: 65

Sun, Dec 2 12:00 AM - Sun, Dec 2 11:00 PM



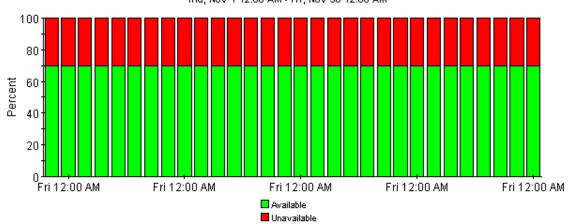
#### **Monthly Port Availability**

Nov 2001

Device	Port	Description	Availability	
ATMSwitch2	65	New York to San Francisco	70.00	
ATMSwitch1	124	Torrance to Dallas	86.11	<del>-4-</del>

#### Daily Port Availability ATMSwitch2: 65

Thu, Nov 1 12:00 AM - Fri, Nov 30 12:00 AM



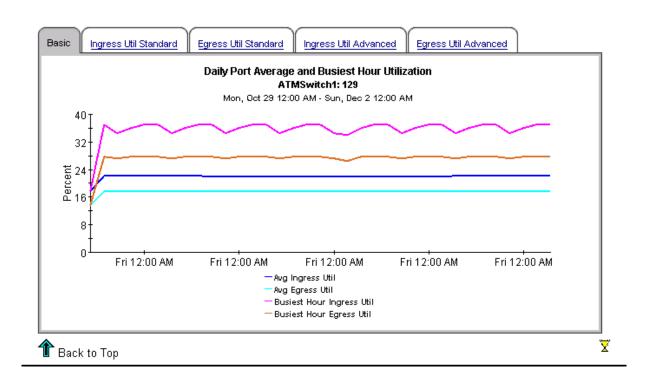
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## ATM Port Forecast



				Ports wi	Sorte	ay Forecasted Utilizat d by Greatest Growth Oct 29, 2001 - Sun, Nov 4, 2	Ratio	e > 80%		
Device	Port	Description	Day of Week	Ingress Baseline Util	DTT Ingress Util	30/60/90 Day Ingress Forecast	Ingress Ratio	Egress Baseline Util	DTT Egress Util	30/60/9i Fo
ATMSwitch1	129	Torrance to Portland	Mon	32.22	74	56.11 / 72.40 / 88.69	1.74	24.72	124.00	42.37 /
ATMSwitch2	146	New York to Paris	Mon	79.59	-13	106.54 / 124.92 / 143.29	1.34	30.11	126.00	45.90 /
ATMSwitch2	145	New York to Boston	Mon	48.35	48	70.95 / 86.36 / 101.77	1.47	21.87	212.00	33.19 /_
ATMSwitch2	90	New York to Tokyo	Mon	15.10	544	20.23 / 23.72 / 27.22	1.34	57.59	21.00	86.18 / 1
ATMSwitch2	64	New York to Houston	Mon	69.16	4	96.15 / 114.55 / 132.95	1.39	67.22	5.00	97.56 / 1
ATMSwitch2	121	New York to D.C.	Mon	59.28	16	90.19 / 111.26 / 132.33	1.52	66.39	11.00	90.61 / 1
ATMSwitch1	50	Torrance to the U.K.	Mon	41.36	86	58.43 / 70.07 / 81.71	1.41	24.72	397.00	30.65 /



## ATM Port Hot Spots

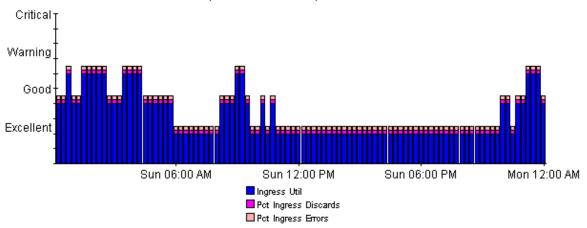


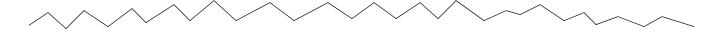
The Hot Spots report gives network managers and members of the NOC team a listing of ATM ports that have exceeded threshold conditions during the previous day. Offending ports are ranked by total number of exceptions. Drilldown reports show as polled data to help identify possible trouble spots. Exception Thresholds: Ingress Utilization > 80 % Egress Utilization > 80 % Pot Ingress Errors > 5 % Pot Egress Errors > 5 % Pot Ingress Discards > 5 % Pot Egress D

		Number of Exceptions			Statistic	-	by Total	Excepti	ons		
Device	Port	Description	Port Speed	Sun, Dec 2, Total Exceptions	Ingress	Egress Util	_	_	Pct Ingress Discards	Pct Egress Discards	
ATMSwitch2	146	New York to Paris	20352000	15	15	0	0	0	0	0	
ATMSwitch1	72	Torrance to Reston	40704000	7	0	0	7	0	0	0	Ξ
ATMSwitch2	64	New York to Houston	20352000	5	3	2	0	0	0	0	=
ATMSwitch2	121	New York to D.C.	20352000	3	1	2	0	0	0	0	=
ATMSwitch2	65	New York to San Francisco	20352000	3	0	0	3	0	0	0	=
ATMSwitch2	90	New York to Tokyo	20352000	2	0	2	0	0	0	0	į

#### Ingress Grade of Service ATMSwitch2: 146

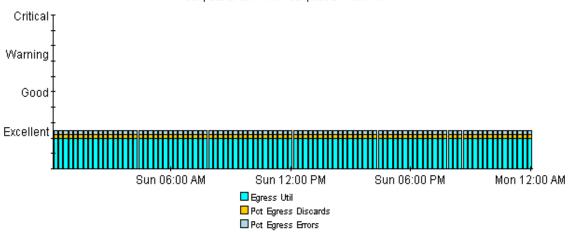
Sun, Dec 2 12:14 AM - Sun, Dec 2 11:59 PM





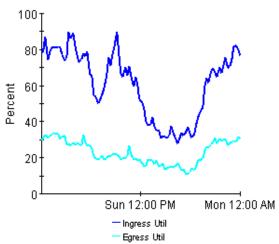
#### Egress Grade of Service ATMSwitch2: 146

Sun, Dec 2 12:14 AM - Sun, Dec 2 11:59 PM



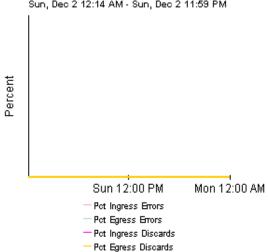
#### Ingress and Egress Utilization ATMSwitch2: 146

Sun, Dec 2 12:14 AM - Sun, Dec 2 11:59 PM



#### Pct Ingress and Egress Errors and Discards ATMSwitch2: 146

Sun, Dec 2 12:14 AM - Sun, Dec 2 11:59 PM



#### Exception Detail - Exception Values for the Statistics ATMSwitch2: 146

Sun, Dec 2 12:44 AM - Sun, Dec 2 11:44 PM

Time Period of Exception	Ingress Util	Egress Util	Pct Ingress Errors	Pct Egress Errors	Pct Ingress Discards	Pct Egress Discards	
Sun Dec 02 12:44 AM	86.82	32.74	0.00	0.00	0.00	0.00	
Sun Dec 02 01:29 AM	81.02	32.52	0.00	0.00	0.00	0.00	
Sun Dec 02 01:44 AM	80.96	33.92	0.00	0.00	0.00	0.00	
Sun Dec 02 01:59 AM	80.97	32.98	0.00	0.00	0.00	0.00	
Sun Dec 02 02:14 AM	81.28	33.02	0.00	0.00	0.00	0.00	
Sun Dec 02 02:29 AM	80.76	30.59	0.00	0.00	0.00	0.00	
Sun Dec 02 03:29 AM	89.70	27.74	0.00	0.00	0.00	0.00	
Sun Dec 02 03:44 AM	85.60	26.71	0.00	0.00	0.00	0.00	
Sun Dec 02 03:59 AM	89.10	28.13	0.00	0.00	0.00	0.00	





## ATM Port NRT QuickView

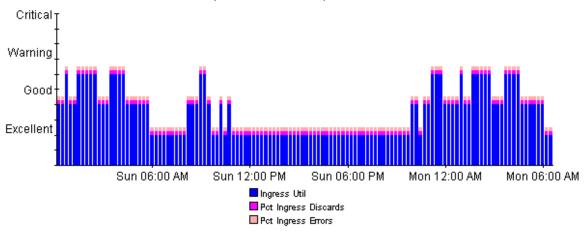


This report gives network managers and members of the NOC team ATM Port statistics in near real time. Statistics in the "Port Selection List" chart are averages over the last 6 hours of polling. Drilldowns show utilization, percentage of errors, percentage of discards, and GOS for the previous 24 hours of polled data.

Port Selection List - Sorted by Highest Average Cells per Second (CPS)  Mon. Dec 3 6:28 AM - Mon. Dec 3 6:29 AM								
Device	Port	Description	Port Speed	Ingress Util	Egress Util	Ingress CPS	Egress CPS	
ATMSwitch2	146	New York to Paris	20352000	77.38	28.19	37141.59	13530.02	
ATMSwitch1	50	Torrance to the U.K.	40704000	36.20	23.86	34750.52	22907.82	<b>-4</b>
ATMSwitch1	129	Torrance to Portland	40704000	32.56	26.44	31261.47	25379.11	-9
ATMSwitch2	64	New York to Houston	20352000	62.02	51.52	29767.75	24727.71	-9
ATMSwitch2	121	New York to D.C.	20352000	46.15	56.71	22149.79	27219.64	-4-9
ATMSwitch2	90	New York to Tokyo	20352000	12.85	49.83	6170.36	23919.36	×
ATMSwitch1	71	Torrance to San Jose	40704000	21.30	21.60	20448.86	20734.82	×
ATMSwitch2	145	New York to Boston	20352000	36.82	19.28	17673.06	9252.35	×
ATMSwitch1	64	Torrance to New York	40704000	4.34	10.50	4165.01	10079.40	*

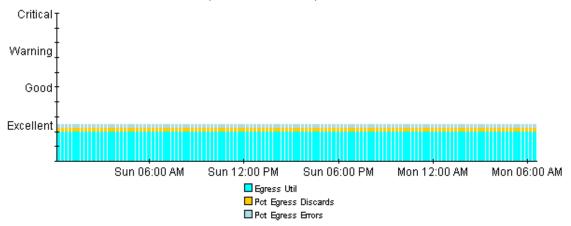
#### Ingress Grade of Service ATMSwitch2: 146

Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM



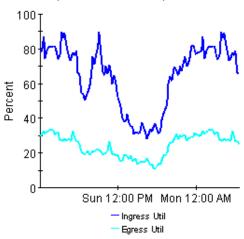
#### Egress Grade of Service ATMSwitch2: 146

Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM

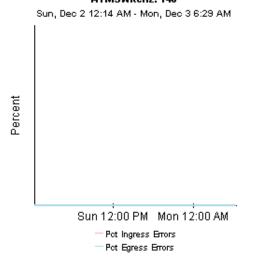


#### Ingress and Egress Utilization ATMSwitch2: 146

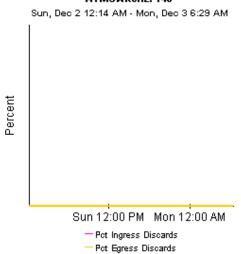
Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM



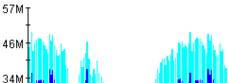
#### Percentage of Ingress and Egress Errors ATMSwitch2: 146

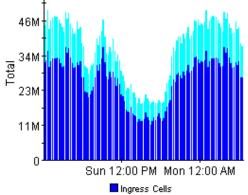


#### Percentage of Ingress and Egress Discards ATMSwitch2: 146



#### Ingress and Egress Cell Counts ATMSwitch2: 146 Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM





■ Egress Cells





## ATM Port Daily QuickView

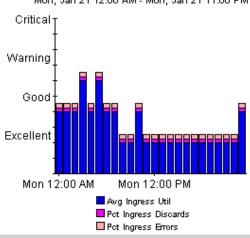


The ATM Daily Port Quick'New gives the network management staff a detailed look at the performance of a single port when just the facts are needed. Drilldowns show utilization, GOS, percentge of errors, and percentage of discarded cells.

Daily Top Ten Ports Based on Highest Avg Utilization in Either Direction  Mon, Jan 21, 2002											
Device	Port	Description	Port Speed	Ingress Util	Egress Util	Pct Ingress Discards	Pct Egress Discards	Pct Ingress Errors	Pct Egress Errors		
ATMSwitch2	146	New York to Paris	20352000	60.75	22.83	0.00	0.00	0.00	0.00		
ATMSwitch2	64	New York to Houston	20352000	49.33	45.09	0.00	0.00	0.00	0.00	4	
ATMSwitch2	121	New York to D.C.	20352000	39.86	45.35	0.00	0.00	0.00	0.00	<del>-<b>4</b></del>	
ATMSwitch2	90	New York to Tokyo	20352000	9.30	40.42	0.00	0.00	0.00	0.00	-9	
ATMSwitch2	145	New York to Boston	20352000	38.60	17.79	0.00	0.00	0.00	0.00		
ATMSwitch1	50	Torrance to the U.K.	40704000	31.78	20.21	0.00	0.00	0.00	0.00	*	
ATMSwitch1	129	Torrance to Portland	40704000	22.03	17.66	0.00	0.00	0.00	0.00	×	
ATMSwitch1	71	Torrance to San Jose	40704000	11.22	12.88	0.00	0.00	0.00	0.00	×	

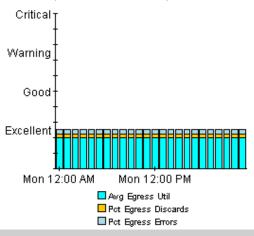
#### Hourly Ingress Grade of Service ATMSwitch2: 146

Mon, Jan 21 12:00 AM - Mon, Jan 21 11:00 PM



#### Hourly Egress Grade of Service ATMSwitch2: 146

Mon, Jan 21 12:00 AM - Mon, Jan 21 11:00 PM

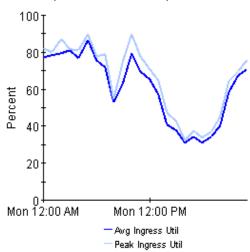


Port Folder: Sample Reports 83



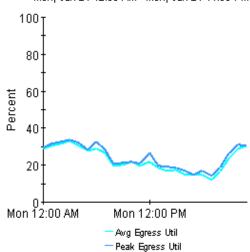
#### Hourly Ingress Utilization ATMSwitch2: 146

Mon, Jan 21 12:00 AM - Mon, Jan 21 11:00 PM



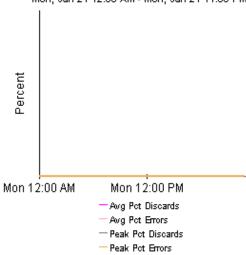
#### Hourly Egress Utilization ATMSwitch2: 146

Mon, Jan 21 12:00 AM - Mon, Jan 21 11:00 PM



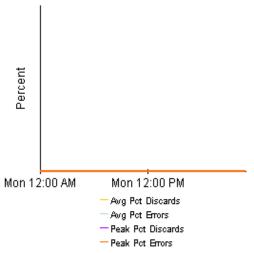
#### Hourly Ingress Pct Errors and Errors ATMSwitch2: 146

Mon, Jan 21 12:00 AM - Mon, Jan 21 11:00 PM



#### Hourly Egress Pct Errors and Discards ATMSwitch2: 146

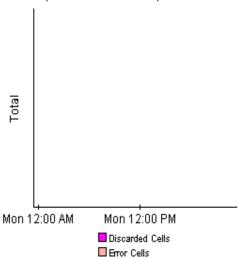
Mon, Jan 21 12:00 AM - Mon, Jan 21 11:00 PM





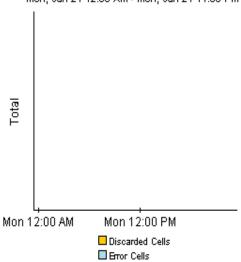
#### Hourly Ingress Total Errors and Discards ATMSwitch2: 146

Mon, Jan 21 12:00 AM - Mon, Jan 21 11:00 PM



#### Hourly Egress Total Errors and Discards ATMSwitch2: 146

Mon, Jan 21 12:00 AM - Mon, Jan 21 11:00 PM





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## ATM Port Daily Executive Summary by Customer



This report provides CFOs, CIOs and other managers an overview of the performance of their ATM ports. Each chart shows key metrics aggregated for all ports for each customer. Key indicators of performance are shown including total volume, utilization, and percentage of errors and discards.

#### **Daily Customer Summaries**

Mon, Dec 10, 2001

#### Summary for All Acme Ports

Summary for All DeskTalk Ports

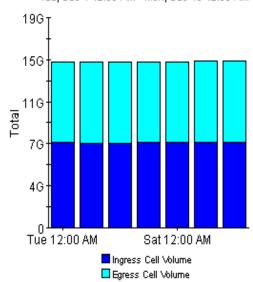
Summary for All Network Ports

Summary for All Unassigned Customer Ports



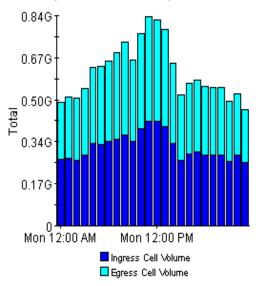
#### **Daily Cell Volume**

Tue, Dec 4 12:00 AM - Mon, Dec 10 12:00 AM



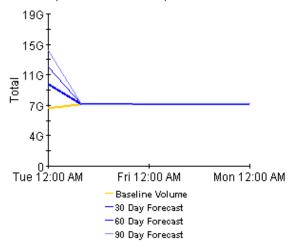
#### **Hourly Cell Volume**

Mon, Dec 10 12:00 AM - Mon, Dec 10 11:00 PM



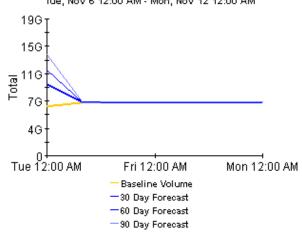
#### Day of Week Baseline and Forecast Ingress Volume

Tue, Nov 6 12:00 AM - Mon, Nov 12 12:00 AM



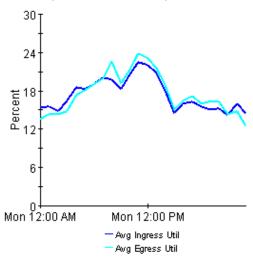
#### Day of Week Baseline and Forecast Egress Volume

Tue, Nov 6 12:00 AM - Mon, Nov 12 12:00 AM



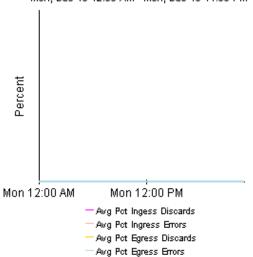
#### **Hourly Utilization**

Mon, Dec 10 12:00 AM - Mon, Dec 10 11:00 PM



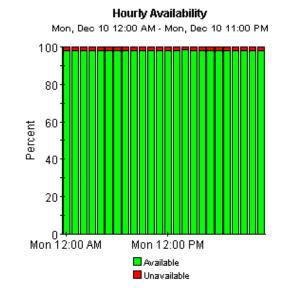
#### **Hourly Percentage of Errors and Discards**

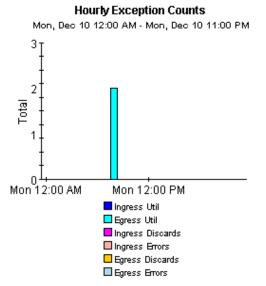
Mon, Dec 10 12:00 AM - Mon, Dec 10 11:00 PM



Port Folder: Sample Reports 87







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## ATM Port Top Ten



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The Top Ten report lists the ten top utilized ports based on highest utilized direction. These reports show ingress and egress average and peak utilization for yesterday and last month. Drilldowns show PVC endpoint utilization for each PVC endpoint connected to the port.

#### Daily Top Ten Ports Based on Highest Avg Utilization in Either Direction

Mon, Jan 21, 2002

Device	Port	Description	Port Speed	Ingress Util	Egress Util	Pct Ingress Discards	Pct Egress Discards	Pct Ingress Errors	Pct Egress Errors	
ATMSwitch2	146	New York to Paris	20352000	60.75	22.83	0.00	0.00	0.00	0.00	
ATMSwitch2	64	New York to Houston	20352000	49.33	45.09	0.00	0.00	0.00	0.00	<b>⊸</b>
ATMSwitch2	121	New York to D.C.	20352000	39.86	45.35	0.00	0.00	0.00	0.00	<b>-4</b>
ATMSwitch2	90	New York to Tokyo	20352000	9.30	40.42	0.00	0.00	0.00	0.00	<del>-4</del>
ATMSwitch2	145	New York to Boston	20352000	38.60	17.79	0.00	0.00	0.00	0.00	4
ATMSwitch1	50	Torrance to the U.K.	40704000	31.78	20.21	0.00	0.00	0.00	0.00	×
ATMSwitch1	129	Torrance to Portland	40704000	22.03	17.66	0.00	0.00	0.00	0.00	×
ATMSwitch1	71	Torrance to San Jose	40704000	11.22	12.88	0.00	0.00	0.00	0.00	×

#### PVC Endpoints Associated with the Selected Port Sorted by Highest SCR Utilization in Either Direction

Mon, Jan 21 12:00 AM

Device	PVC	PVC Description	QoS	РVС Туре	SCR	Reverse SCR	Avg Ingress SCR Util	Avg Egress SCR Util
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	3642	3642	254.33	144.35

Port Folder: Sample Reports

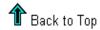
#### Monthly Top Ten Ports Based on Highest Avg Utilization in Either Direction Dec 2001 Pct Pct Pct Pct Port Ingress Egress Device Port Description Ingress Egress Ingress Egress Speed Util Util Discards Discards Errors Errors 60.22 ATMSwitch2 146 New York to Paris 20352000 22.66 0.00 0.00 0.00 0.00 ATMSwitch2 64 New York to Houston 20352000 50.14 44.68 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 ATMSwitch2 121 New York to D.C. 20352000 39.73 46.36 ATMSwitch2 90 20352000 9.21 39.97 0.00 0.00 0.00 0.00 New York to Tokyo ATMSwitch2 New York to Boston 20352000 38.15 0.00 0.00 0.00 0.00 145 17.59 0.00 ATMSwitch1 50 0.00 0.00 Torrance to the U.K. 40704000 31.52 20.11 0.00 ATMSwitch1 129 Torrance to Portland 40704000 21.62 17.26 0.00 0.00 0.00 0.00 ATMSwitch1 71 Torrance to San Jose 40704000 10.92 12.61 0.00 0.00 0.00 0.00

#### PVC Endpoints Associated with the Selected Port

#### Sorted by Highest Monthly SCR Utilization in Either Direction

Sat, Dec 1 12:00 AM

Device	PVC	PVC Description	QoS	PVC Type	SCR	Reverse SCR	Avg Ingress SCR Util	Egress SCR Util
ATMSwitch2	146-0-34	New York to Paris	VBR-RT	ATM Channel	3642	3642	252.25	144.49





## 9 SVC Folder: Sample Reports

The SVC folder contains the following reports:

- Executive Summary by Customer (2 reports: daily and monthly)
- Executive Summary by Region (2 reports: daily and monthly)
- QuickView (3 reports: daily, monthly, and Near Real Time)
- Snapshot (3 reports: daily, monthly, and Near Real Time)
- Top Ten

See below for samples of the following reports:

- QuickView Daily
- Executive Summary by Customer Daily
- QuickView Near Real Time
- Top Ten

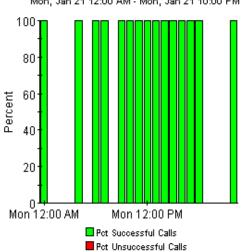
## ATM SVC Daily QuickView



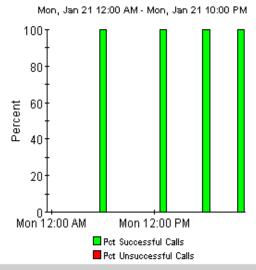
The ATM Daily SVC Endpoint Quick/New gives the network management staff a detailed look at the performance of a single SVC port when just the facts are needed. Drilldowns show percentage of successful calls, number of call attempts, number of rejections, and calls per second.

	Dail	y Top Ten SVC Po	•	empts		
Device	Description	Mon, Jan 2  Avg # of Active	21, 2002 <b>Attempts</b>	011000001110110	Success Ratio -	
ATMSwitch2	New York to Boston	SVC 25.73	177702.00	Originating 100.00	Terminating 100.00	
ATMSwitch2	New York to San Jose	41.57	54023.00	100.00	100.00	4
ATMSwitch1	Torrance to Atlanta	28.47	32848.00	100.00	100.00	<b>-</b> 4
ATMSwitch1	Torrance to Nashua	1.07	31837.00	100.00	99.47	4
ATMSwitch1	Torrance to London	68.79	7542.00	100.00	99.91	<del>-⊈</del>
ATMSwitch1	Torrance to Los Angeles	40.44	7137.00	100.00	99.24	<b>7</b>
ATMSwitch1	Torrance to New York	34.73	6992.00	100.00	100.00	×
ATMSwitch2	New York to Paris	17.68	2342.00	100.00	100.00	×
ATMSwitch2	New York to Toronto	16.72	2340.00	100.00	100.00	<b>×</b>

#### Hourly Success Ratio - Originating Port ATMSwitch2: 68 Mon, Jan 21 12:00 AM - Mon, Jan 21 10:00 PM

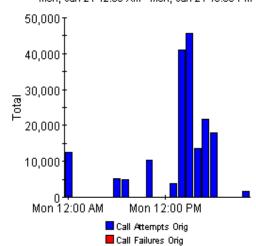


#### Hourly Success Ratio - Terminating Port ATMSwitch2: 68



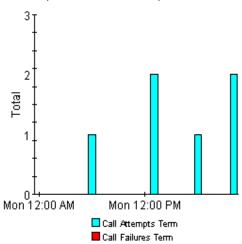
#### Originating Hourly Call Attempts and Failures ATMSwitch2: 68

Mon, Jan 21 12:00 AM - Mon, Jan 21 10:00 PM



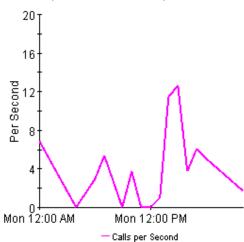
#### Terminating Hourly Call Attempts and Failures ATMSwitch2: 68

Mon, Jan 21 12:00 AM - Mon, Jan 21 10:00 PM



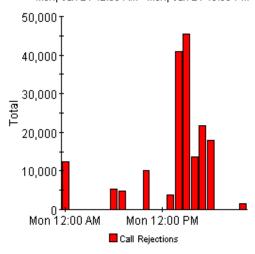
#### Hourly Calls per Second ATMSwitch2: 68

Mon, Jan 21 12:00 AM - Mon, Jan 21 10:00 PM



#### Hourly Call Rejections ATMSwitch2: 68

Mon, Jan 21 12:00 AM - Mon, Jan 21 10:00 PM







SVC Folder: Sample Reports 93

## ATM SVC Daily Executive Summary by Customer



This report provides CFOs, CIOs, and other managers an overview of the performance of their ATM SVCs. Each chart shows key metrics aggregated for all SVCs for each customer by. Key indicators of performance are shown including percentage of successful calls, calls per second, and number of failed calls.

#### **Daily Customer Summaries**

Sun, Dec 2, 2001

#### Summary for All Acme SVC Ports

Summary for All DeskTalk SVC Ports

Summary for All Network SVC Ports

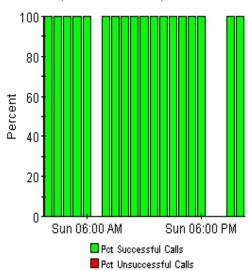
Summary for All Unassigned Customer SVC Ports





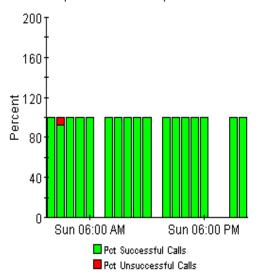
## Hourly Success Ratio Call Attempts Originating from These Ports

Sun, Dec 2 2:00 AM - Sun, Dec 2 10:00 PM



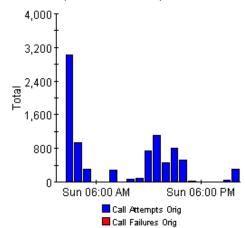
## Hourly Success Ratio Call Attempts Terminating on These Ports

Sun, Dec 2 2:00 AM - Sun, Dec 2 10:00 PM



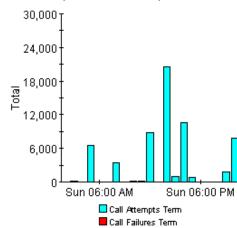
#### **Hourly Call Attempts and Failures Originating from These Ports**

Sun, Dec 2 2:00 AM - Sun, Dec 2 10:00 PM

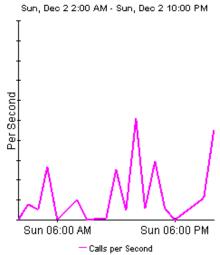


#### **Hourly Call Attempts and Failures** Terminating on These Ports

Sun, Dec 2 2:00 AM - Sun, Dec 2 10:00 PM

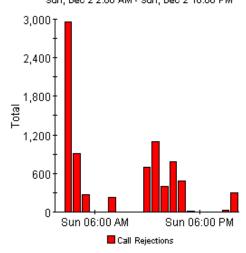


#### Hourly Calls per Second



#### **Hourly Call Rejections**

Sun, Dec 2 2:00 AM - Sun, Dec 2 10:00 PM



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# ATM SVC NRT QuickView

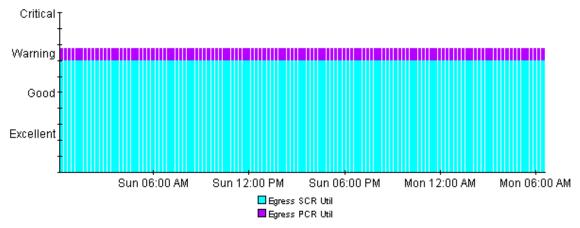


This report gives network managers and members of the NOC team ATM SVC port statistics in near real time. Statistics in the "SVC Selection List" chart are averages over the last 6 hours of polling. Drilldowns show "as polled" data including percentage of successful calls, calls per second, and call rejections.

	SVC Port Sele	ction List - Sorted I Mon, Dec 3 4:43 AM	ny Call Attempts		
Device	Description	Call Attempts	Success Ratio - Originating	Success Ratio - Terminating	
ATMSwitch2	New York to Boston	9989	100.00	100.00	
ATMSwitch1	Torrance to Atlanta	8964	100.00	99.99	<b>-4</b>
ATMSwitch2	New York to San Jose	5506	100.00	99.98	<del>-4</del>
ATMSwitch1	Torrance to Nashua	4804	100.00	99.13	<b>-4</b>
ATMSwitch1	Torrance to London	2971	100.00	99.38	<del>-4</del>
ATMSwitch1	Torrance to Chicago	1911	100.00	No Call Attempts	*
ATMSwitch1	Torrance to Los Angeles	472	100.00	98.53	*
ATMSwitch1	Torrance to New York	386	100.00	No Call Attempts	*
ATMSwitch1	Torrance to Boston	162	100.00	85.71	*

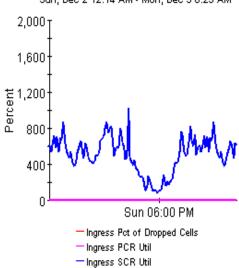
#### PVC Egress Grade of Service ATMSwitch1: 50-0-34

Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM



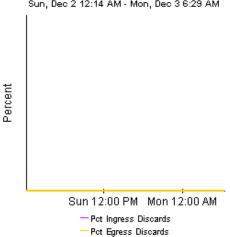
#### Ingress SCR and PCR Utilization ATMSwitch1: 50-0-34

Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM



#### Percentage of Ingress and Egress Discards ATMSwitch2: 146

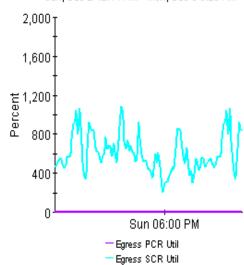
Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM





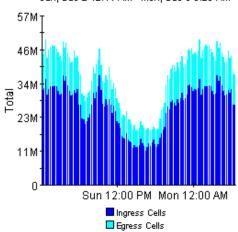
#### Egress SCR and PCR Utilization ATMSwitch1: 50-0-34

Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM



#### **Ingress and Egress Cell Counts** ATMSwitch2: 146

Sun, Dec 2 12:14 AM - Mon, Dec 3 6:29 AM



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## ATM SVC Top Ten



The Top Ten report shows the top ten SVC ports based on call attempts and calls per second on a daily and monthly basis. These reports help network managers determine which SVC ports are being used the most.

#### Daily Top Ten SVC Ports by Call Attempts

Mon, Jan 21, 2002

Device	Description	Avg # of Active SVC	Attempts	Success Ratio - Originating	Success Ratio - Terminating
ATMSwitch2	New York to Boston	25.73	177708	100.00	100.00
ATMSwitch2	New York to San Jose	41.57	54058	100.00	100.00
ATMSwitch1	Torrance to Atlanta	28.47	33324	100.00	100.00
ATMSwitch1	Torrance to Nashua	1.07	32026	100.00	99.47
ATMSwitch1	Torrance to London	68.79	9429	100.00	99.91
ATMSwitch1	Torrance to Los Angeles	40.44	7269	100.00	99.24
ATMSwitch1	Torrance to New York	34.73	7000	100.00	100.00
ATMSwitch2	New York to Toronto	16.72	2367	100.00	100.00
ATMSwitch2	New York to Paris	17.68	2348	100.00	100.00
ATMSwitch1	Torrance to Chicago	56.51	1943	100.00	0.00

#### Monthly Top Ten SVC Ports by Call Attempts

Dec 200

	Dec 2001				
Device	Description	Aug # of Active SVC	Attempts	Success Ratio - Originating	Success Ratio - Terminating
ATMSwitch2	New York to Boston	25.67	2300217	100.00	100.00
ATMSwitch2	New York to San Jose	41.51	697276	100.00	100.00
ATMSwitch1	Torrance to Atlanta	28.46	429874	100.00	100.00
ATMSwitch1	Torrance to Nashua	1.06	416620	100.00	99.49
ATMSwitch1	Torrance to London	68.50	119827	100.00	99.91
ATMSwitch1	Torrance to Los Angeles	40.44	94055	100.00	99.28
ATMSwitch1	Torrance to New York	34.72	90616	100.00	100.00
ATMSwitch2	New York to Toronto	16.69	30631	100.00	100.00
ATMSwitch2	New York to Paris	17.66	30380	100.00	100.00
ATMSwitch1	Torrance to Chicago	56.51	23577	100.00	0.00

#### Daily Top Ten SVC Ports by Calls Per Second

Mon, Jan 21, 2002

Device	Description	Avg # of Active SVC	Calls per Second	Success Ratio - Originating	Success Ratio - Terminating
ATMSwitch2	New York to Boston	25.73	4.94	100.00	100.00
ATMSwitch2	New York to San Jose	41.57	3.00	100.00	100.00
ATMSwitch1	Torrance to Atlanta	28.47	0.43	100.00	100.00
ATMSwitch1	Torrance to Nashua	1.07	0.37	100.00	99.47
ATMSwitch1	Torrance to London	68.79	0.28	100.00	99.91
ATMSwitch1	Torrance to New York	34.73	0.19	100.00	100.00
ATMSwitch1	Torrance to Los Angeles	40.44	0.10	100.00	99.24
ATMSwitch1	Torrance to Chicago	56.51	0.07	100.00	0.00
ATMSwitch2	New York to Toronto	16.72	0.07	100.00	100.00
ATMSwitch2	New York to Paris	17.68	0.07	100.00	100.00

#### Monthly Top Ten SVC Ports by Calls Per Second

Dec 2001

Device	Description	Avg # of Active SVC	Calls per Second	Success Ratio - Originating	Success Ratio - Terminating	
ATMSwitch2	New York to Boston	25.67	4.94	100.00	100.00	
ATMSwitch2	New York to San Jose	41.51	3.01	100.00	100.00	
ATMSwitch1	Torrance to Atlanta	28.46	0.43	100.00	100.00	
ATMSwitch1	Torrance to Nashua	1.06	0.37	100.00	99.49	
ATMSwitch1	Torrance to London	68.50	0.28	100.00	99.91	
ATMSwitch1	Torrance to New York	34.72	0.19	100.00	100.00	
ATMSwitch1	Torrance to Los Angeles	40.44	0.10	100.00	99.28	
ATMSwitch2	New York to Toronto	16.69	0.07	100.00	100.00	
ATMSwitch2	New York to Paris	17.66	0.07	100.00	100.00	
ATMSwitch1	Torrance to Chicago	56.51	0.06	100.00	0.00	

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SVC Folder: Sample Reports 99

# A Product History

Version	Release Date	Enhancements
1.00	January 2003	<ul> <li>49 reports; 5 datapipes:</li> <li>Cisco ATM Datapipe 1.00</li> <li>Fore ATM Datapipe 1.00</li> <li>Ascend ATM Datapipe 1.00</li> <li>Newbridge ATM Datapipe 1.00</li> <li>Stratacom ATM Datapipe 1.00</li> </ul>
2.10	October 2003	1.0_to_2.1 upgrade package
3.00	April 2004	<ul> <li>new features:</li> <li>Oracle support</li> <li>PI Object Manager support</li> <li>new upgrade package:</li> <li>UPGRADE_ATM_2.1_to_3.0</li> <li>new datapipe and new change forms:</li> <li>ATM ifEntry Datapipe 1.00</li> <li>Update ATM PVC Cell Parameters</li> <li>Update ATM QoS Parameters</li> <li>Update Port Information</li> </ul>
3.00	June 2005	UPGRADE_ATM_to_3.0
3.10	May 2006	new upgrade package: UPGRADE_ATM_3.0_to_3.1 • fixes defect QXCR1000292206 datapipe defect fixes: ATM ifEntry Datapipe 1.10 • fixes defect QXCR1000325427 Cisco ATM Datapipe 3.10 • fixes defect QXCR1000292192
3.20	April 2007	<ul> <li>new features:</li> <li>Location Independent Reporting</li> <li>Supports Management Console &gt; Copy Policy Manager</li> <li>Rate data removed from NRT reports, top table</li> <li>Object delete</li> </ul>

Version	Release Date	Enhancements
3.20	April 2007	<ul> <li>new versions of existing datapipes:</li> <li>ATM ifEntry Datapipe 1.20</li> <li>Cisco ATM Datapipe 3.20</li> <li>Fore ATM Datapipe 3.10</li> <li>Fore ATM Channel Datapipe 3.00</li> <li>new upgrade package:</li> <li>UPGRADE_ATM_21_to_32</li> <li>defect fixes:</li> <li>QXCR1000221976</li> <li>QXCR1000221980</li> <li>QXCR1000229926</li> <li>QXCR1000246298</li> <li>QXCR1000381650</li> <li>QXCR1000386612</li> <li>QXCR1000412939</li> </ul>
3.30	October 2007	<ul> <li>new feature:</li> <li>Copy Policy Enhancement</li> <li>new upgrade package:</li> <li>UPGRADE_ATM_21_to_33</li> <li>new version of datapipe:</li> <li>ATM ifEntry Datapipe 1.30</li> <li>defect fix:</li> <li>QXCM1000422485 - datapipe mapping NULL</li> </ul>
3.40	February 2009	<ul> <li>new upgrade package:</li> <li>ATM_Upgrade_31_to_34</li> <li>new version of datapipe:</li> <li>ATM ifEntry Datapipe 1.40</li> <li>defect fix:</li> <li>QXCR1000810927 - ATM_importdata.pro ATM_import_property_data.sql fails while execution</li> </ul>

102 Appendix A

# B PI Report Packs

Business Technology	Reporting Solution
Application	Application Report Pack:  • WebLogic SPI  • WebSphere SPI
Database	Database SPI Report Pack
HP Business Process Insight	BPI Report Pack
HP Internet Services	Internet Services Report Pack
HP Network Node Manager	NNM Event & Availability Report Pack
HP Operations	OVO Report Pack
HP Service Desk	Help Desk Report Pack Change Management Report Pack SLM Integration Report Pack
IP Telephony	<ul><li>Cisco IP Telephony Call Detail</li><li>Cisco IP Telephony Gateway Statistics</li></ul>
MPLS VPN	MPLS VPN Report Pack
Networking	<ul> <li>Infrastructure Usage</li> <li>Interface Reporting</li> <li>Device Resource Report Pack</li> <li>LAN/WAN Edge</li> <li>Frame Relay (SNMP only)</li> <li>ATM (SNMP only)</li> </ul>
	<ul><li>WAN Core</li><li>Frame Relay (multiple switch vendors)</li><li>ATM (multiple switch vendors)</li></ul>

Business Technology	Reporting Solution
Networking (continued)	Traffic Profiling
	RMON II
	NetFlow Interface
	NetFlow Global View
	IP QoS Report Pack
	Class-Based QoS
	Quality Assurance
	Cisco Ping Report Pack
	Service Assurance
	IP Access Rate
System Resources	System Resource Report Pack

104 Appendix B

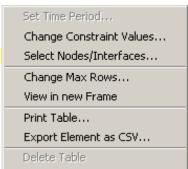
## C Editing Tables and Graphs

Any table or graph can be viewed in several ways. Although the default view is usually adequate, you can easily change to a different view. If you are using Report Viewer, right-click the object to open a list of view options. If you are using the Web Access Server, follow these steps to change the default view of a table or graph:

- 1 Click **Preferences** on the links bar.
- 2 Expand **Reports** in the navigation frame.
- 3 Click Viewing.
- 4 Select the Allow element editing box.
- 5 Click Apply.
- 6 Click the Edit icon next to the table or graph.

## View Options for Tables

Right-clicking a table, or selecting the Edit Table icon if you are using the Web Access Server, opens a list of table view options.



Select **Set Time Period** to alter the relative time period (relative to now) or set an absolute time period. The Set Time Period window opens.

You may shorten the period of time covered by the table from, for example, 42 days to 30 days or to 7 days. If you are interested in a specific period of time that starts in the past and stops *before* yesterday, click **Use Absolute Time** and select a Start Time and an End Time.

Select **Change Constraint Values** to loosen or tighten a constraint, thereby raising or lowering the number of elements that conform to the constraint. The Change Constraint Values window opens. To loosen a constraint, set the value lower; to tighten a constraint, set the value higher.

The **Select Nodes/Interfaces** allows you to change the scope of the table by limiting the table to specific nodes, specific interfaces, or a specific group of nodes or interfaces. The Select Node Selection Type window opens.

**Change Max Rows** increases or decreases the number of rows in a table. The default is 50. If you expand the default, the table may take more time to open. If you are trending a large network, using the default ensures that the table opens as quickly as possible.

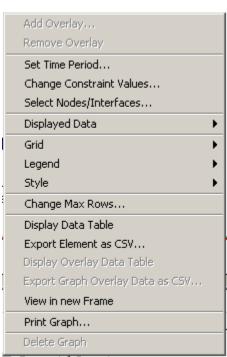
**View in new Frame** opens the table in a Table Viewer window, shown below. If necessary, make the data in the table more legible by resizing the window.

III Table Viewer							
Polled IP QoS Statistics Data - Input Over Previous 6 Hours							
Direction	lpPrecedence	Switched Bytes	Switched Pkts	Time Period			
Input	0	105,688	675	Tue Oct 29 07:00 AM			
Input	1	0	0	Tue Oct 29 07:00 AM			
Input	2	0	0	Tue Oct 29 07:00 AM			
Input	3	0	0	Tue Oct 29 07:00 AM			
Input	4	0	0	Tue Oct 29 07:00 AM			
Input	5	0	0	Tue Oct 29 07:00 AM			
Input	6	600	5	Tue Oct 29 07:00 AM			
Input	7	0	0	Tue Oct 29 07:00 AM			
Input	0	98,334	638	Tue Oct 29 06:45 AM			
Input	1	0	0	Tue Oct 29 06:45 AM			
Input	2	0	0	Tue Oct 29 06:45 AM			
Input	3	0	0	Tue Oct 29 06:45 AM			
Input	4	0	0	Tue Oct 29 06:45 AM			

## View Options for Graphs

Right-clicking a graph, or clicking the Edit Graph icon if you are using the Web Access Server, opens the following list of view options.





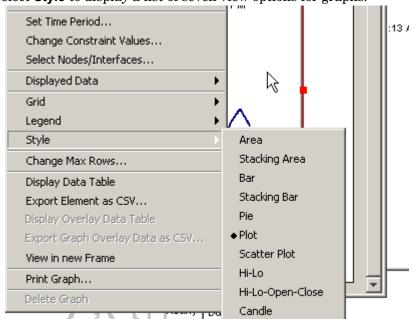
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The following table provides details about each option.

Option	Function
Set Time Period	Same as the table option shown above.
Change Constraint Values	Same as the table option shown above.
Select Nodes/Interfaces	Same as the table option shown above.
Displayed Data	For every point on a graph, display data in a spreadsheet.
Grid	Add these to the graph:
	X axis grid lines
	Y axis grid lines
	X and Y axis grid lines
Legend	Delete or reposition the legend.
Style	See the illustrations below.
Change Max Rows	Same as the table option shown above.
Display Data Table	See below.
Export Element as CSV	Same as the table option shown above.
View in New Frame	Opens graph in a Graph Viewer window.
Print Graph	Same as the table option shown above.

## **Style Options**

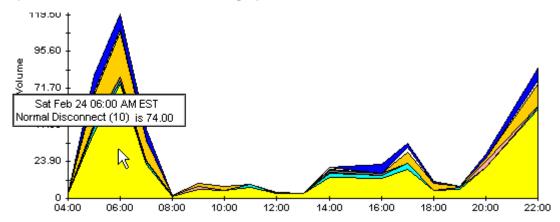
Select **Style** to display a list of seven view options for graphs.



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#### Style > Area

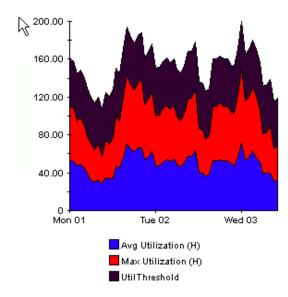
The plot or bar chart changes to an area graph. While relative values and total values are easy to view in this format, absolute values for smaller data types may be hard to see. Click anywhere within a band of color to display the exact value for that location



To shorten the time span of a graph, press SHIFT+ALT and use the left mouse button to highlight the time span you want to focus on. Release the mouse button to display the selected time span.

#### Style > Stacking Area

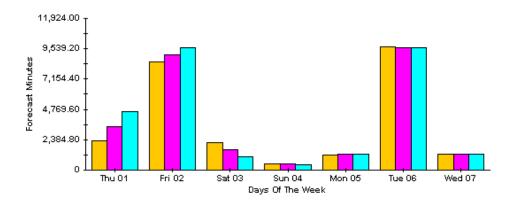
The area or plot graph changes to a stacking area graph. This view is suitable for displaying a small number of variables.



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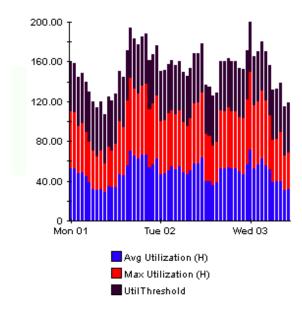
### Style > Bar

The graph changes to a bar chart. This view is suitable for displaying relatively equal values for a small number of variables. There are three variables in the graph below.



### Style > Stacking Bar

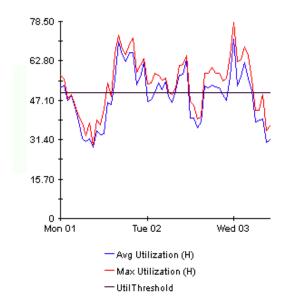
The plot or area graph changes to a stacking bar chart. If you increase the width of the frame, the time scale becomes hourly. If you increase the height of the frame, the call volume shows in units of ten.



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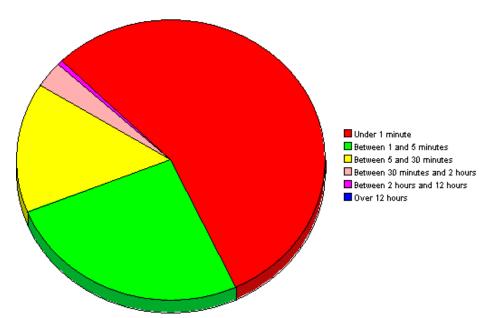
### Style > Plot

Bands of color in an area graph change to lines. If you adjust the frame width, you can make the data points align with hour; if you adjust the frame height, you can turn call volume into whole numbers.



### Style > Pie

An area graph becomes a pie chart. Bands in an area graph convert to slices of a pie and the pie constitutes a 24-hour period. This view is helpful when a small number of data values are represented and you are looking at data for one day.

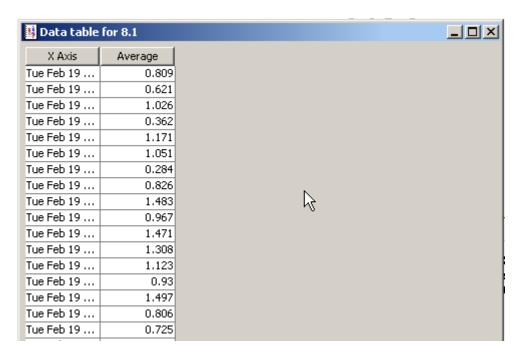


If you are looking at data for more than one day, you will see multiple pie graphs, one for each day.

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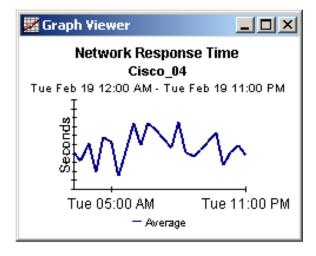
### **Display Data Table**

This option changes a graph into a spreadsheet.



#### **View in New Frame**

The graph opens in a Graph Viewer window. Improve legibility by resizing the window.



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