

# **HP OpenView Performance Insight**

## **Report Pack for Executive Summaries User Guide**

**Software Version: 1.0**

**Reporting and Network Solutions**



**March 2004**

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- Training information
- Support program information



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# Overview

This chapter covers the following topics

- OVPI and Executive Summaries
- Folders and reports

## OVPI and Executive Summaries

The Executive Summaries Report Pack provides a series of reports designed to summarize utilization of and traffic patterns on network interfaces. This view of performance is produced by HP OpenView Performance Insight (OVPI), the core platform responsible for collecting data, summarizing data by hour and day, and performing numerous calculations.

Executive Summaries displays statistics for the following metrics:

- CPU
- Memory
- Buffer
- Interface traffic

## Folders and Reports

The Executive Summaries Report Pack includes five reports. If you are logging into the Application Server, you see two folders: Device and Location.

The Device folder contains the following reports:

- Device Single View Summary
- Device Single View Top Ten

The Location folder contains the following reports:

- Executive Summary
- Executive Summary Availability & Traffic
- Executive Summary Top Ten





# Upgrade, Installation, and Removal

This chapter covers the following topics:

- Prerequisites
- Package Installation
- Package Removal

## Prerequisites

To successfully install the Executive Summaries Report Pack, do the following:

- 1 Review the software requirements.
- 2 Review the guidelines for distributed systems.
- 3 Complete the prerequisite tasks.

## Software Requirements

The following software must be installed before installing the Executive Summaries Report Pack.

Software	Version
OVPI <sup>a</sup>	5.0 and all available service packs
Common Property Tables	3.0
Device Resources Report Pack including: <ul style="list-style-type: none"> <li>• Dev Res Cisco Switch Datapipe<sup>b</sup></li> <li>• Dev Res Cisco Router Datapipe<sup>b</sup></li> <li>• Any other vendor-specific datapipe</li> </ul>	3.0
Interface Reporting Report Pack including: <ul style="list-style-type: none"> <li>• Interface Reporting ifEntry Datapipe</li> </ul>	4.0 (report pack) 2.0 (datapipe)

a. Although OVPI 5.0 supports both Oracle and Sybase Adapter Server database management systems, the Executive Summaries Report Pack only supports the Oracle database management system.

b. The Dev Res Cisco Switch Datapipe and Dev Res Cisco Router Datapipe must be installed even if you do not have a Cisco device installed.

If you need help installing OVPI 5.0, refer to the following manuals:

- *OVPI Installation Guide*
- *OVPI Release Notes*

If you have already installed OVPI 5.0 but have not installed the Common Property Tables, Device Resources Report Pack, nor the Interface Reporting Report Pack, you may install these packages by themselves, or you may install these packages at the same time you install the Executive Summaries Report Pack.

If you are upgrading the Common Property Tables, you must install the UPGRADE Common Property Tables package separately, before installing anything else. For information about installing and using this upgrade package, refer to the following manual:

- *Common Property Tables 3.0 User Guide.*

If you are upgrading the Device Resources Report Pack and/or the Interface Reporting Report Pack, upgrade these packages before installing the Executive Summaries Report Pack. Refer to the following manuals:

- *Report Pack for Device Resources*
- *Report Pack for Interface Reporting*

## Guidelines for Distributed Systems

Keep these guidelines in mind when upgrading/installing Executive Summaries on a distributed system:

- 1 Make sure you have installed OVPI 5.0 on the central server and on every satellite server.
- 2 Before starting the prerequisite tasks, disable trendcopy on the central server. After you have completed the upgrade or installation, enable trendcopy on the central server.
- 3 Install the Executive Summaries Report Pack on the central server and on each satellite server.
- 4 Upgrade/Install the datapipes on every server that receives data. If the central server does not poll data, do not upgrade/install the datapipe on the central server.

## Prerequisite Tasks

Complete the following tasks before installing the Executive Summaries Report Pack:

### Task 1: Extract the Packages

To extract the Executive Summaries Report Pack and all other OVPI packages from the RNS CD to the Packages directory on your system, do the following:

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

Windows: Do the following:

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

UNIX: As root, do one of the following:

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

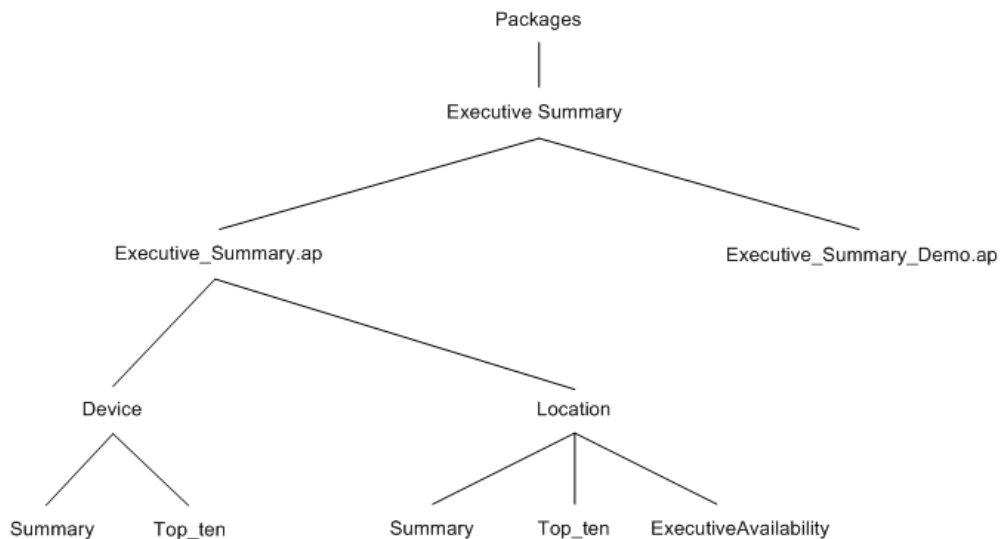
- 3 Insert the RNS CD.

Windows: The Main Menu automatically displays.

UNIX:

- a Mount the CD (if the CD does not mount automatically)
- b Navigate to the top level directory on the CD
- c Run `./setup`
- 4 Type **1** in the choice field and press **Enter**. The install script displays a percentage complete bar. When the copy is complete, the install script starts Package Manager. The Package Manager welcome window opens.

The following folder structure is created in the Packages directory:



## Task 2: Upgrade to Common Property Tables 3.0

The Executive Summaries Report Pack requires Common Property Tables 3.0. Upgrade to Common Property Tables 3.0 before upgrading any other report pack. If you need help with the upgrade, refer to the *Common Property Tables 3.0 User Guide*.

If you are not upgrading any other report pack, install Common Property Tables 3.0 with the Executive Summaries Report Pack (this task is completed in section [Package Installation on page 13](#)).

## Task 3: Upgrade the Report Packs for Device Resources and Interface Reporting

If you are upgrading the Device Resources Report Pack and/or the Interface Reporting Report Pack, upgrade these packages before installing the Executive Summaries Report Pack. Refer to the following manuals for more information about upgrading these packages:

- *Report Pack for Device Resources*
- *Report Pack for Interface Reporting*

## Package Installation

You must have completed the tasks in section [Prerequisite Tasks on page 11](#) before you can successfully install the Executive Summaries Report Pack.

Follow these steps to install the Executive Summaries Report Pack:

- 1 Log on to the system if you are not logged on. On UNIX systems, log on as root.
- 2 If OVPI Timer is running, stop OVPI Timer and wait for processes to stop running.  
Windows: Do the following:
  - a From the Control Panel, select **Administrative Tools** → **Services**
  - b Select OVPI Timer from the list of services.
  - c From the Action menu, select **Stop**.
 UNIX: As root, do one of the following:
  - HP-UX: `sh /sbin/ovpi_timer stop`
  - Sun: `sh /etc/init.d/ovpi_timer stop`
- 3 Launch Performance Insight and select **Management Console**.
- 4 Select **Tools** → **Package Manager**. The Welcome window opens
- 5 Click **Next**. The Packages Location window opens.
- 6 Click the **Install** radio button.
- 7 Approve the default installation directory or select a different directory if necessary. Use the browse feature to select a different directory.
- 8 Click **Next**. The Report Deployment window opens.
- 9 Accept the default for Deploy Reports.
- 10 Enter your user name and password for the OVPI Application Server.
- 11 Click **Next**. The Package Selection window opens.
- 12 Click the check box next to the following packages:
  - Executive\_Summary
  - Executive\_Summary\_Demo (optional)
  - ▶ Installing the Demo Package is optional. The Demo Package can be installed independently (the demo runs without the Executive Summary Package installed). The reports in the Demo Package are interactive and you can experiment with various options for viewing tables and graphs. The data in a demo report is static and does not change from day to day.
  - ▶ If you are installing Common Property Tables, Device Resources Report Pack, and the Interface Reporting Report Pack at the same time, click the check boxes next to their required packages as well.
- 13 Click **Next**. The Type Discover window opens.

- 14 To run Discover immediately after package installation, accept the default and click **Next**. The Selection Summary window opens.
- 15 Verify that the contents of this window are correct. Click **Install** to begin the installation process. The Installation Progress window opens.

When installation is complete, the following message appears: Report Package:  
Completed.

- 16 Click **Done** to return to the main window.
- 17 Restart OVPI Timer.

Windows: Do the following:

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

UNIX: As root, do one of the following:

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

## Package Removal

If you remove a report pack, the associated tables and all the data in those tables are deleted. If you want to preserve the data in those tables, archive the data before removing the report pack.

Follow these steps to uninstall the Executive Summaries Report Pack:

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

Windows: Do the following:

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

UNIX: As root, do one of the following:

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

- 3 Start Package Manager.
  - a Launch Performance Insight and select **Management Console**.
  - b Select **Tools** → **Package Manager**  
The Welcome window opens.
- 4 Click **Next**. The Packages Location window opens.
- 5 Click the **Uninstall** radio button.
- 6 Click **Next**. The Report Undeployment window opens.

- 7 If Executive Summaries reports were deployed on this server, accept the default for Undeploy Reports; also accept the defaults for application server name and port. Otherwise, continue with step 9.
- 8 Enter the *ovpi* user name and password.
- 9 Click **Next**. The Package Selection window opens.
- 10 Click the check box next to the following packages:
  - Executive Summaries
  - Executive Summaries Demo (if installed)
- 11 Click **Next**. The Selection Summary window opens.
- 12 Click **Uninstall**. The Progress window opens. When the uninstall process is complete, a removal complete message appears.
- 13 Click **Done** to return to the main window.
- 14 Restart OVPI Timer.

Windows: Do the following:

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

UNIX: As root, do one of the following:

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





## Configuration

The Device Resources Report Pack and the Interface Reporting Report Pack must be configured in order for the Executive Summaries Report Pack to function. The datapipes included with these packages are used to collect the data necessary to create the reports for the Executive Summaries Report Pack. Refer to the following manuals for more information about configuring these packages:

- *Report Pack for Device Resources*
- *Report Pack for Interface Reporting*



## Reports

The Executive Summaries Report Pack provides five reports that summarize resource utilization and network traffic volume on network interfaces. This chapter shows some examples of these reports and a brief explanation of how to customize them.


# Device Single View Summary Report

The Device Single View Summary Report provides statistics for individual devices for a selected location. Use this report to view statistics of CPU utilization, memory utilization, buffer utilization, and network traffic volume of a device.

The Device Summary table on top provides the busy hour resource utilization for each device of a selected location (select the location from the pull-down menu).

The graphs on the bottom provide hourly/daily statistics of resource utilization (average, maximum, and percentage of exceptions) and traffic volume for a selected device.






## Device Single View Summary



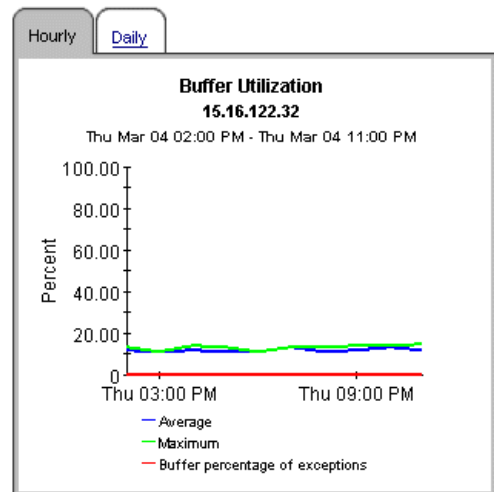
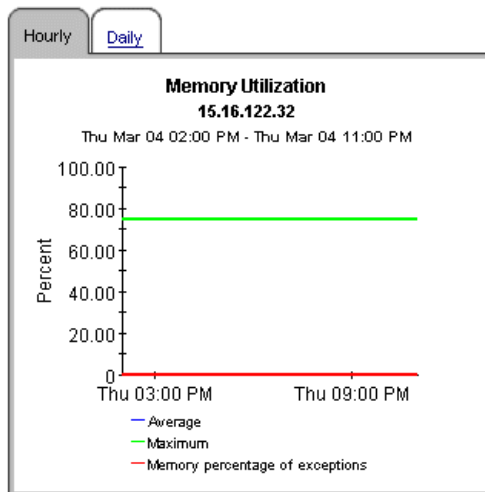
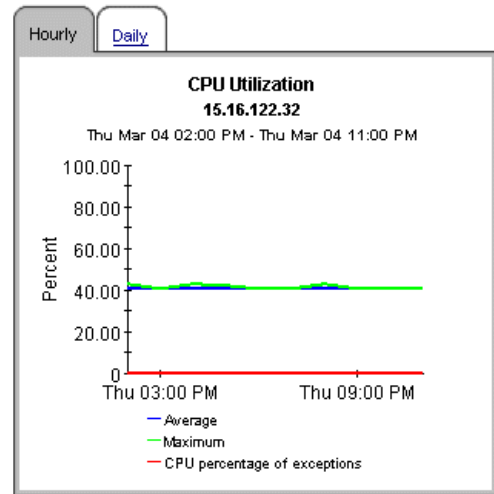
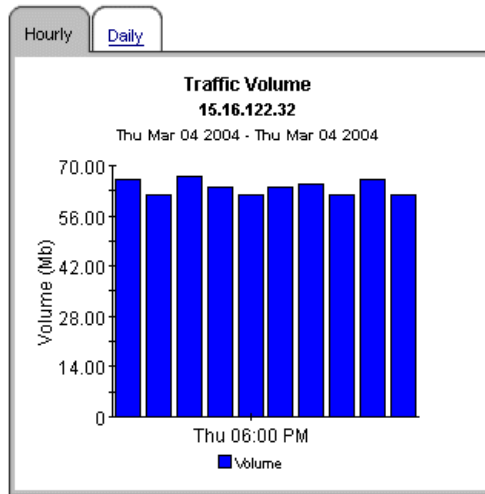
The Single View Summary Report provides the network management staff with detailed information on key metrics for individual devices with the highest CPU, Buffer, Memory Utilization, and Traffic Volume.

Location Unassigned

**Device Summary**  
Thu Mar 04 2004

Device	Busy Hour CPU Util	Busy Hour Memory Util	Busy Hour Buffer Util	
15.16.122.32	41	75	13	
15.24.115.2	1	62	0	
15.128.164.163		41	0	
15.128.9.129		30	0	
15.128.9.130		16	5	
15.6.96.1		9	0	

Device	Vendor	Model	Customer
15.16.122.32			Customer Unassigned



[↑](#) Back to Top



# Device Single View Top Ten Report

The Device Single View Top Ten Summary Report provides statistics for the individual devices that belong to each customer. Use this report to identify customer's devices that rank worst in terms of CPU utilization, memory utilization, buffer utilization, and network traffic volume.


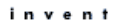
The Customer Summary table on top sorts customers by resource utilization, highest to lowest.

The highest average resource utilization tables on the left provide individual device statistics for yesterday's average resource utilization and yesterday's busy hour for a selected customer. The highest traffic volume table on the left provides individual device statistics for yesterday's highest traffic volume and yesterday's busy hour for a selected customer. Devices are sorted according to average resource utilization/traffic volume, highest to lowest.

The forecast tables on the right provide statistics for baseline (average busy hour), F30, F60, and F90 values (30/60/90 day forecasted values, the utilization level that OVPI predicts will be in effect 30/60/90 days from today). Devices are sorted by F90 value, highest to lowest.

The highest average resource utilization/highest volume tables are independent of the forecast tables. A device that appears in the highest average resource utilization/highest traffic volume table on the left may not appear in the forecast table on the right. If the same device appears in both tables, it indicates that yesterday's performance is not an isolated incident, but a longer-term trend needing corrective action.

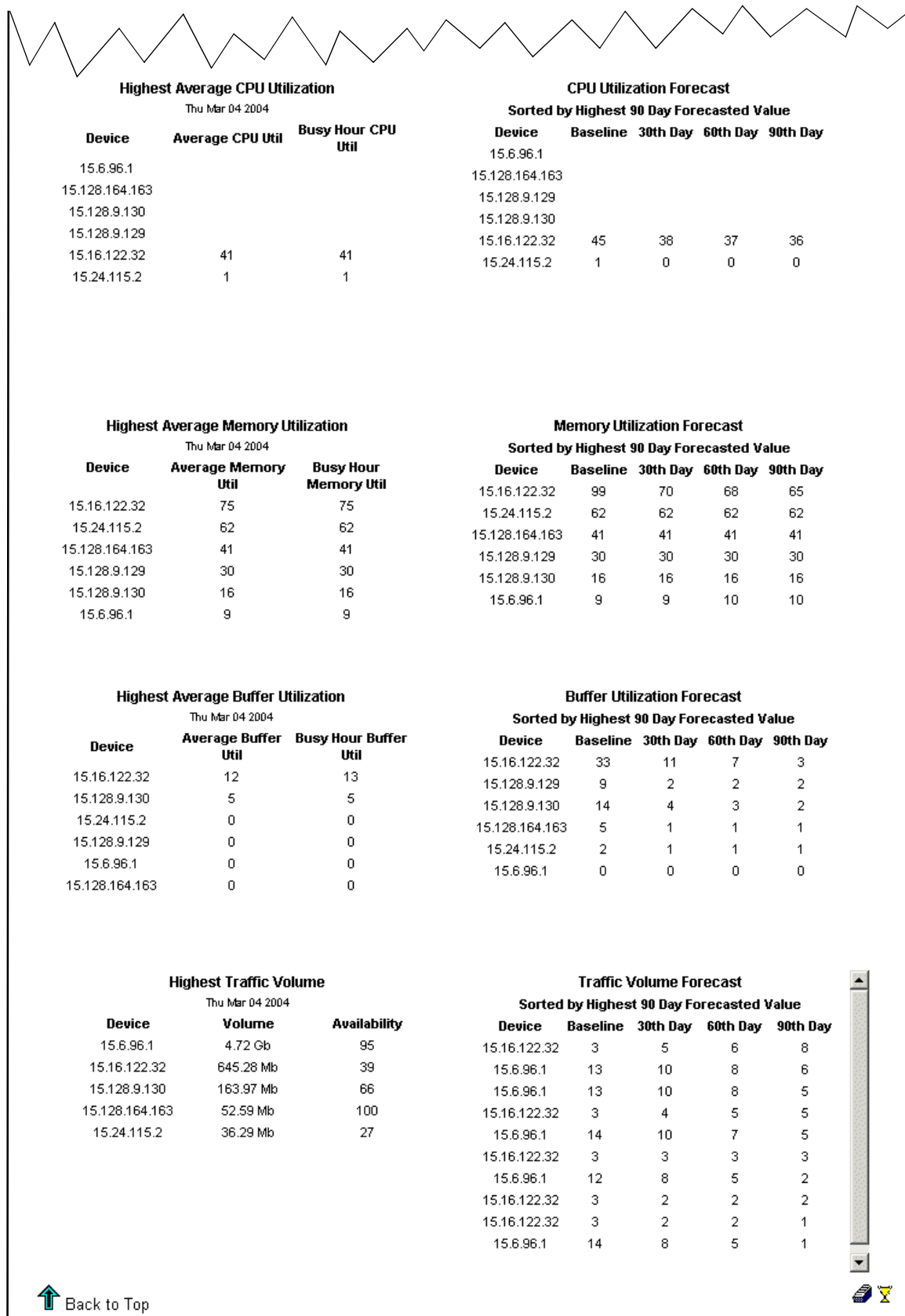
## Device Single View Top Ten

The Device Single View Top Ten Report provides the network manager and other members of the network management staff a list of the top ten devices based on various criteria.

**Customer Summary**  
Thu Mar 04 2004

Customer	Average CPU Util	Average Memory Util	Average Buffer Util
Customer Unassigned	21	39	3

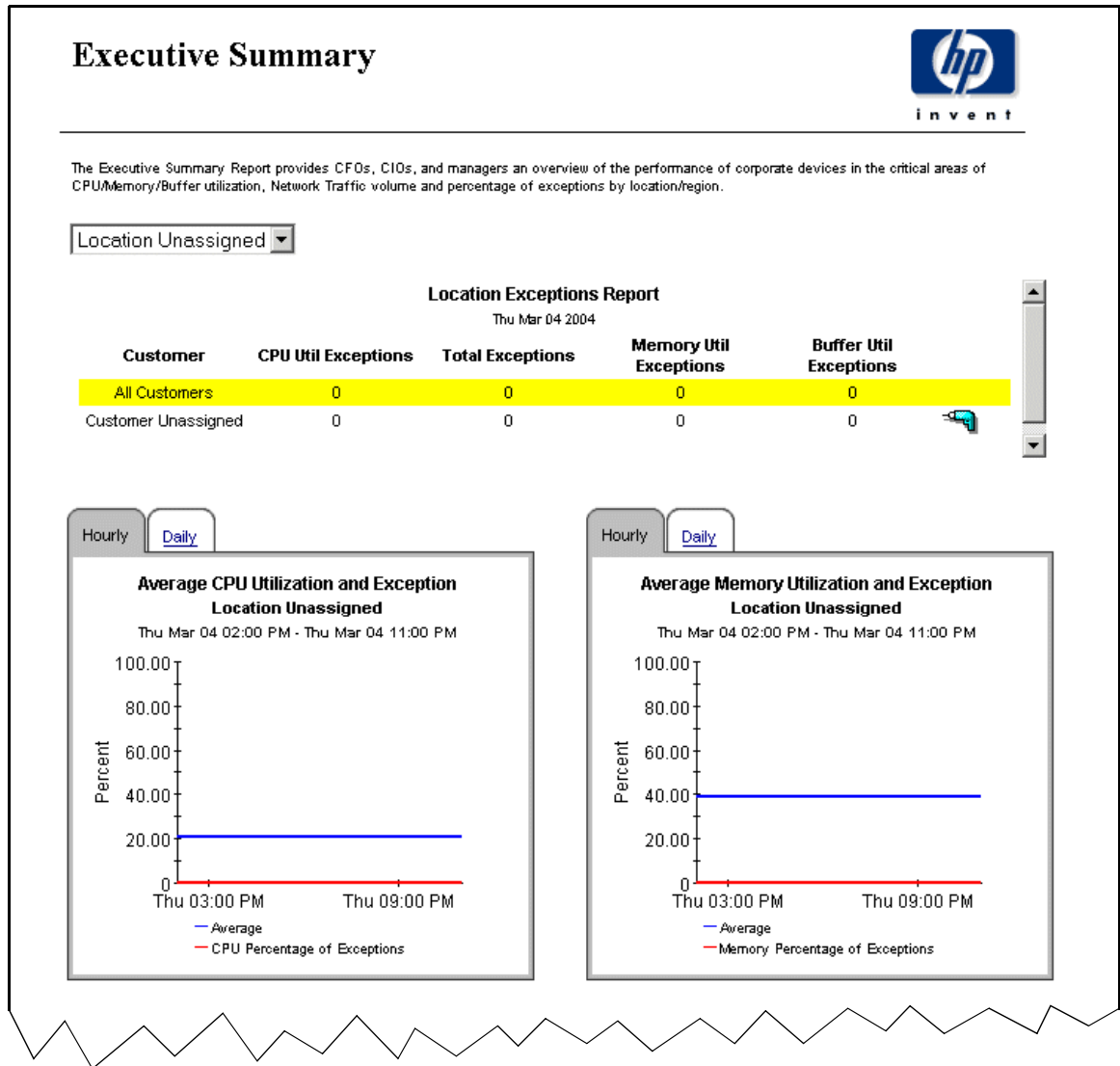


# Executive Summary Report

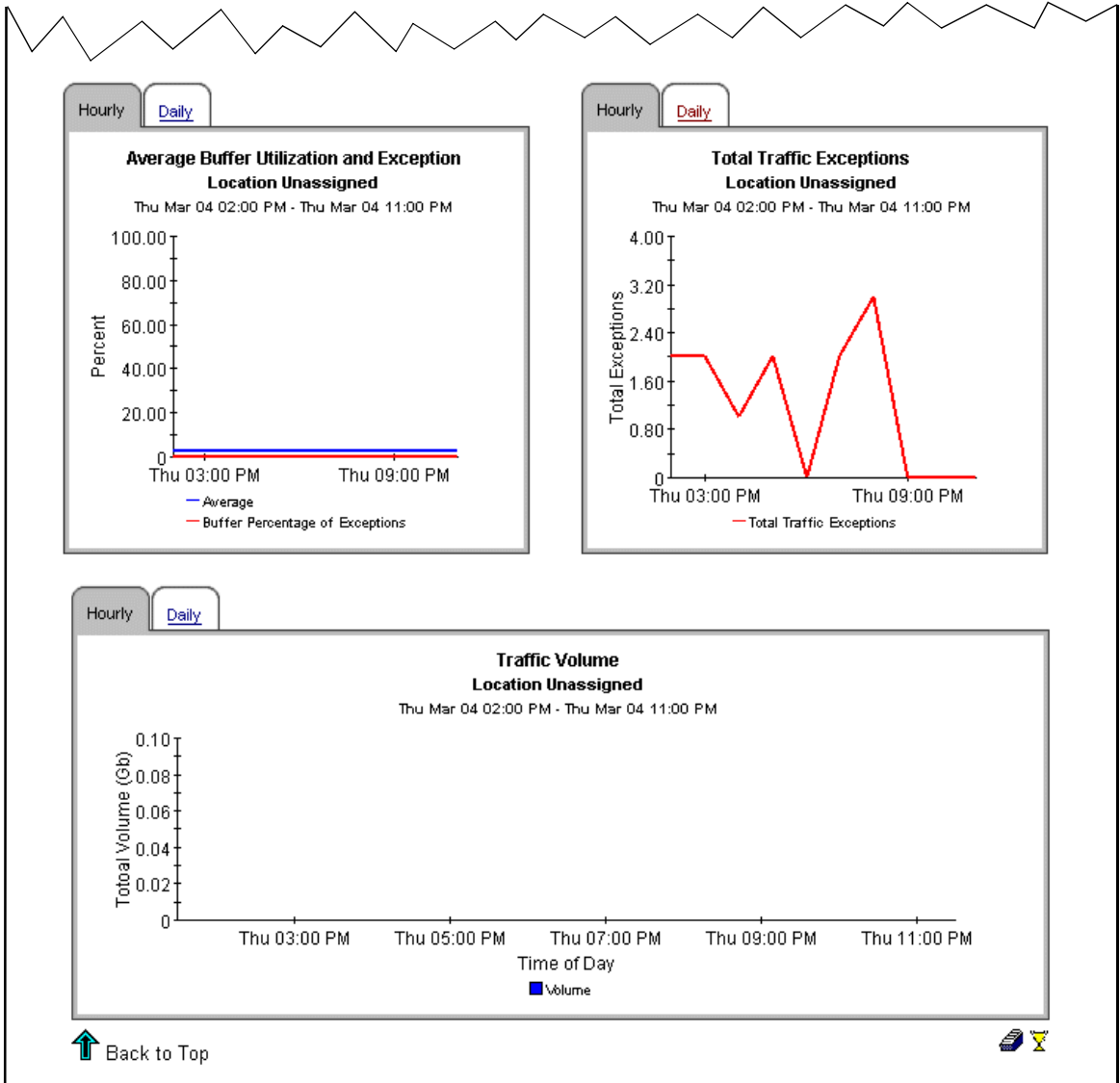
The Executive Summary Report provides percentages of exceptions, resource utilization, and network traffic volume of a selected location. Use this report to identify the percentage of exceptions in terms of CPU utilization, memory utilization, buffer utilization, and network traffic volume of a customer.

The Location Exceptions Report table on top provides the percentage of resource exceptions for each customer of a selected location (select the location from the pull-down menu).

The graphs provide a comparison of hourly/daily resource utilization/traffic volume and exceptions of the selected customer. The traffic volume statistics are graphed separately.





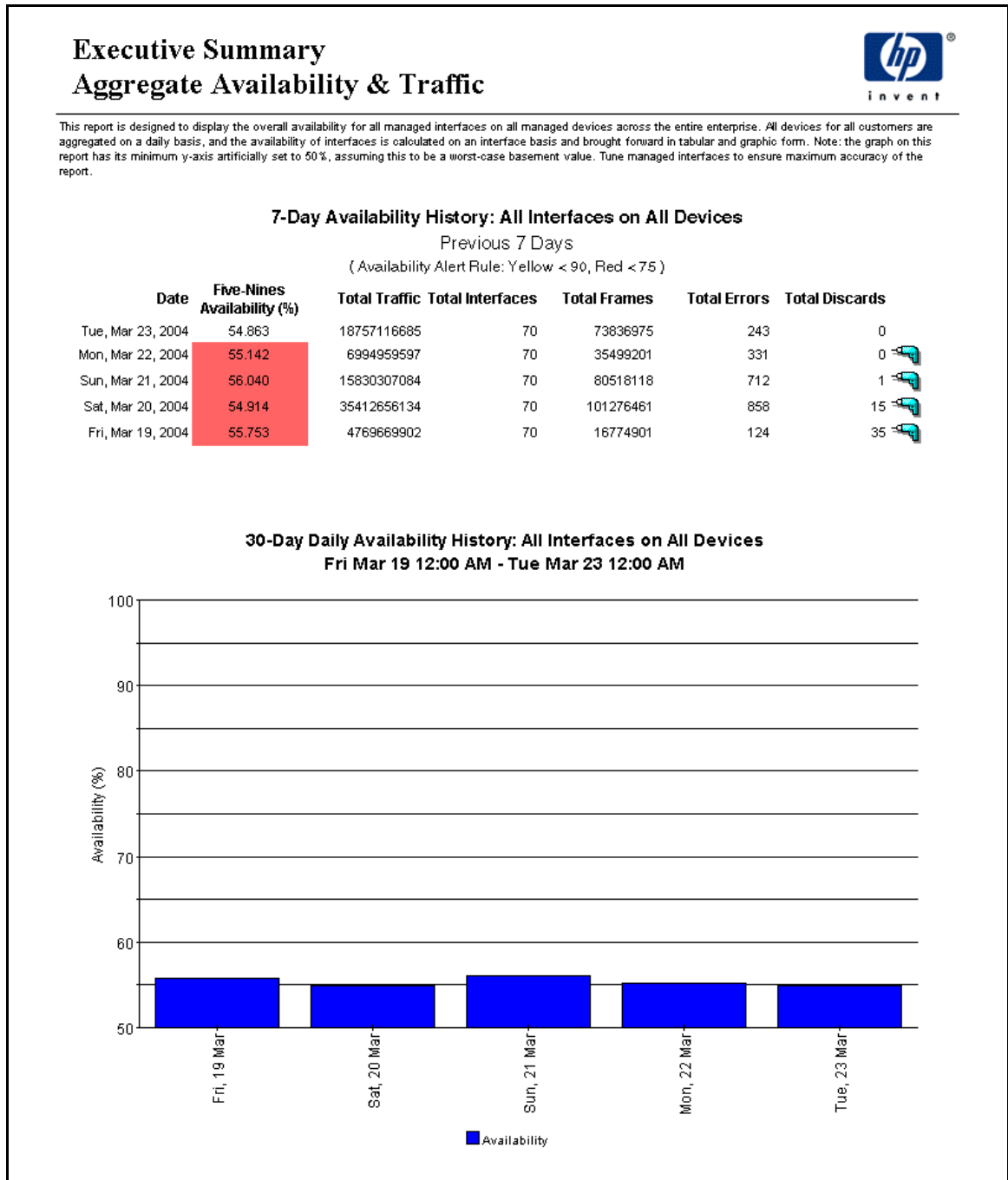


# Executive Summary Availability & Traffic Report

The Executive Summary Availability & Traffic Report provides a summary of total traffic and availability of all devices for all customers.

The 7-Day Availability History table on top provides the availability and amount of traffic of all devices for the last seven days.

The graph provides the availability of all devices for the last 30 days.



## Executive Summary Top Ten Report


The Executive Summary Top Ten Report provides percentages of exceptions of a customer and the resource utilization/network traffic volume of the customer by location. Use this report to identify the percentage of exceptions of a customer and identify the locations that rank worst in terms of CPU utilization, memory utilization, buffer utilization, and network traffic volume.

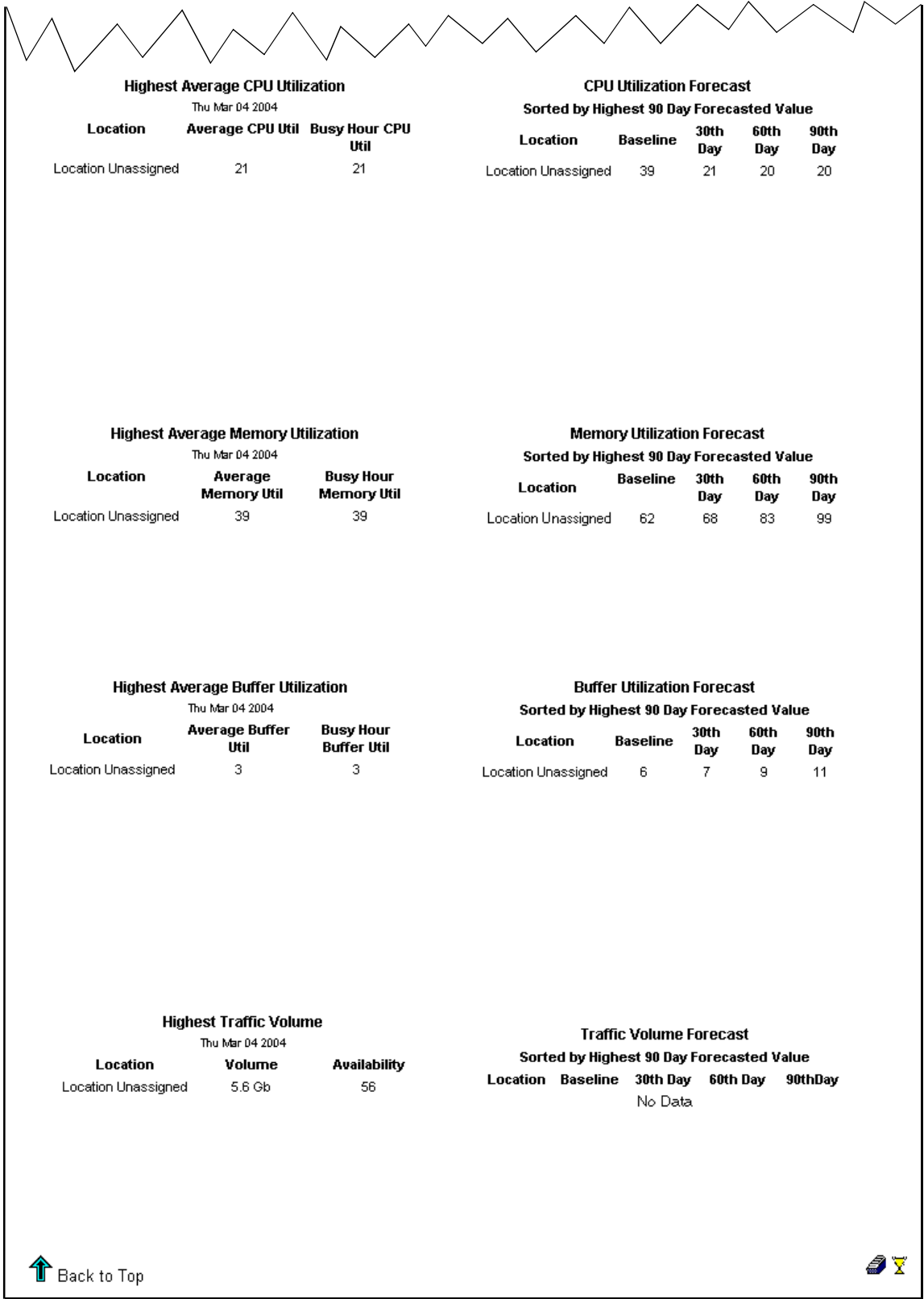
The Customer Exception Counts table on top sorts customers by yesterday's total exception count, highest to lowest.

The highest average resource utilization/highest traffic volume tables on the left provide location statistics for yesterday's average resource utilization/highest traffic volume and yesterday's busy hour for a selected customer. Locations are sorted according to average resource utilization/traffic volume, highest to lowest.

The forecast tables on the right provide statistics for baseline (average busy hour), F30, F60, and F90 values (30/60/90 day forecasted values, the utilization level that OVPI predicts will be in effect 30/60/90 days from today). Locations are sorted by F90 value, highest to lowest.

The highest average resource utilization/highest volume tables are independent of the forecast tables. A location that appears in the highest average resource utilization/highest traffic volume table on the left may not appear in the forecast table on the right. If the same location appears in both tables, it indicates that yesterday's performance is not an isolated incident, but a longer-term trend needing corrective action.

Executive Summary Top Ten		Customer Exception Counts		
				
<p>The Executive Summary Top Ten Report provides the network manager and other members of the network management staff a list of the top ten locations/regions based on various criteria.</p>				
<b>Select a Customer for the Top Ten Locations</b> Thu Mar 04 2004				
Customer	Total Exceptions	CPU Util Exceptions	Memory Util Exceptions	Buffer Util Exceptions
Customer Unassigned	0	0	0	0



# Report Customization

You can change the contents of a report by editing parameters and customize how tables and graphs in reports are viewed. This section covers some basic information. For more detailed information, refer to the *HP OpenView Performance Insight Guide to Building and Viewing Reports*.

## Options for Viewing Reports

The method of report viewing available to you depends on how OVPI was installed. If the client component is installed on your system, you have access to Report Viewer, Report Builder, and Object Manager. If the client component was not installed on your system, use the Web Access Server to view reports. In this section, examples are shown for Report Viewer and the Web Access Server.

For more information about Report Viewer and Report Builder, refer to the *Performance Insight Installation Guide*. For more information about Object Manager, refer to the *Performance Insight Administration Guide*. For more information about deploying, viewing, and undeploying reports, refer to the *Performance Insight Guide to Building and Viewing Reports*.

## Seeing Performance Data in Reports

Some reports populate with data sooner than others. Most of the reports need at least one full day's worth of data before any results are viewable.

As you would expect, until data has been collected for several days, the daily charts contain very little data, and until data has been collected for several months, the monthly charts contain very little data.

## Adding Locations to Reports

Although the Executive Summaries package operates without importing custom property information, none of the location-oriented reports would provide meaningful data. To add locations to reports, use the property import utility included with the Common Property Tables package. Here is an overview of the steps involved:

- 1 Allow the datapipes to perform at least one collection.
- 2 Export existing property data from OVPI.
- 3 Modify the property import file, adding locations to the file.
- 4 Store the property import file where OVPI expects to find it.

You can see locations in reports immediately after OVPI processes the updated import file.

For more information about import and export utilities and property import files, refer to the *Common Property Tables User Guide*.

## Editing Parameters

To change report contents, edit one or more parameters. When you edit a parameter, you apply a constraint to the report and eliminate the data that does not interest you. For example, if you edit the Customer Name parameter, only data for the customer you typed in the Customer Name field is shown in the report (data for all other probes is not included in the report).

Constraining the contents of a report by editing parameters is optional. You may apply multiple constraints at the same time. The Executive Summaries Report Pack supports the following parameters:

- Customer Name
- Customer ID
- Location Name
- Location ID
- Device Name
- Make
- Model

Most reports support a subset of these parameters.


## Report Viewer

Using the Report Viewer, to edit a parameter, do the following:

- 1 Select **Edit** → **Parameter Values** from the menu bar.
- 2 When the Modify Parameter Values dialog box window appears, click the **Current Value** field.
- 3 Enter a new value.
- 4 Click **OK**.

## Web Access Server

Using the Web Access Server, to edit a parameter, do the following:

- 1 Click  (the edit parameters icon) at the bottom right-hand corner of the report.
- 2 When the Edit Parameters window opens, type the constraint in the appropriate field.
- 3 Click **Submit**.

## Customizing Tables and Graphs

There are multiple ways to view the tables and graphs in reports. Although the default view may be the view you use most of the time, you can easily change to a different view.

## Report Viewer

Using the Report Viewer, change the view of a table or graph by doing the following:


- 1 Right-click on a table or graph.
- 2 Select one of the optional views.

You can customize the following table and graph view options (there are more options to customize using the Report Viewer):

- Set Time Period - alter the relative time or set an absolute time period
- Change Constraint Values - display more or less data
- Grid (graph only) - display or do not display grid lines
- Legend (graph only) - reposition a graph's legend
- Style (graph only) - change the type of graph displayed
- Change Max Rows - display more or less rows of data
- Display Data Table/Display Overlay Data Table (graph only) - display data for every point on a graph in a spreadsheet

## Web Access Server

Using the Web Access Server, change the view of a table or graph by doing the following:

- 1 Specify element editing as a report reference:
  - a Click **Preferences** on the links bar.
  - b Expand **Reports** in the navigation frame.
  - c Click **Viewing**.
  - d Select the **Allow element editing** box.
  - e Click **Apply**.
- 2 Click on  (the edit icon) next to the table or graph.

You can customize the following table and graph view options:

- Max Rows - display more or less rows of data
- Constraints - display more or less data
- Time Range - alter the relative time or set an absolute time period
- Graph Style - change the type of graph displayed





## **availability**

The percentage of time the device is operational. Identifies device outages indicated by the sysUpTime variable but does not account for periods of time the device could not be reached by OVPI.

## **average utilization**

In an hourly graph, this is the average of four samples taken over a one-hour period. In a daily graph, this is the average of 96 samples taken over a 24-hour period.

## **baseline**

The average busy hour over the baseline period (previous 91 days).

## **baseline period**

The previous 91 days. Forecasts for F30, F60, and F90 values are based on performance during the baseline period.

## **busy hour**

Highest hourly average for the day, not a peak nor momentary event (actual utilization could be higher or lower during the course of that hour). The highest average hour among 24 hourly averages.

## **Common Property Tables**

Locations and customer names appear in reports if you have imported this information using the Common Property Tables package. Refer to the Common Property Tables user guide for more information about importing this information. If you do not import customer names, data for all customers rolls up under the "All Customers" name. If you do not import locations, data for all locations rolls up under the "All Locations" name.

## **daily**

A view of performance that compares average utilization to busy hour utilization. The number of days that you can see in this view depends on the number of days that data has been collected. The maximum number of days is the baseline period (91 days). Daily views also include performance data from yesterday, the same data visible in the hourly view, rolled up as one average and one busy hour.

## **device**

A router or switch, not a server. In selection tables, devices are listed by IP addresses or hostname.

**exception**

An event that occurs when utilization exceeds the allowable threshold.

**F30 / F60 / F90**

The level where utilization or volume is expected to be 30, 60, or 90 days from now. Values are calculated by applying linear regression to busy hour levels over the baseline period.

**hourly**

An average derived from four collections taken once every 15 minutes. Or, a graph showing yesterday's hourly increases and decreases.

**summary**

An aggregation of multiple samples. In an hourly graph, an average based on multiple samples collected during one hour. In a daily graph, an average based on multiple samples collected over the course of each day. In customer and location reports, an aggregation of multiple averages for multiple devices across the same hour, day, or month.

**threshold**

The point at which the acceptable percentage of traffic errors/failures becomes abnormal and may impact response time. The default threshold values for buffer, CPU, and memory utilization is 85%.

**utilization**

The value of the metric in used divided by the total available resources for that metric, multiplied by 100 (measured as a percentage).

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