# HP OpenView Performance Insight

## Executive Summaries Report Pack User Guide

**Software Version: 1.0**

*Reporting and Network Solutions 7.0*

**November 2004**

# Legal Notices

### Warranty

*Hewlett-Packard makes no warranty of any kind with regard to this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be held liable for errors contained herein or direct, indirect, special, incidental or consequential damages in connection with the furnishing, performance, or use of this material.*

A copy of the specific warranty terms applicable to your Hewlett-Packard product can be obtained from your local Sales and Service Office.

### Restricted Rights Legend

Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause in DFARS 252.227-7013.

Hewlett-Packard Company
United States of America

Rights for non-DOD U.S. Government Departments and Agencies are as set forth in FAR 52.227-19(c)(1,2).

### Copyright Notices

### Trademark Notices

OpenView is a U.S. registered trademark of Hewlett-Packard Development Company, L.P.

Java™ is a U.S. trademark of Sun Microsystems, Inc.

Oracle® is a registered U.S. trademark of Oracle Corporation, Redwood City, California.

UNIX® is a registered trademark of The Open Group.

Windows® and Windows NT® are U.S. registered trademarks of Microsoft® Corp.

# Support

Please visit the HP OpenView web site at:

> **http://www.managementsoftware.hp.com/**

This site provides contact information and details about the products, services, and support that HP OpenView offers. To reach the Support site, click **Support**. The Support site provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valuable support customer, you can benefit by using the support site to:

- Search for documents of interest

- Submit and track progress on support cases

- Manage a support contract

- Look up HP support contacts

- Review information about available services

- Join online discussions with other software customers

- Research and register for software training

Most of the support areas require you to register as an HP Passport user and log in. You may also require a support contract.

To find more information about access levels, go to the following URL:

> **http://support.openview.hp.com/access_level.jsp**

To register for an HP Passport ID, go to:

> **https://passport.hp.com/hpp2/newuser.do**

# contents

Contents

# Overview

This chapter covers the following topics:

- Device performance in a "single view"
- Folders, reports, and statistics
- Sources for additional information

## Device Performance in "Single View"

The Executive Summaries Report Pack 1.0 provides performance information for devices. Two kinds of statistics are provided:

- Statistics for device resources (CPU, buffer, and memory utilization)
- Statistics for the volume of traffic on device interfaces

Previously, you had to consult reports in two places, the Interface Reporting Report Pack and the Device Resources Report Pack, to get this information. Executive Summaries 1.0 puts this information in one place, hence the term "single view."

Executive Summaries 1.0 contains device-oriented summary reports and location-oriented summary reports. The device-oriented summary reports roll-up (aggregate) traffic volume from the interface level to the device level. The location-oriented summary reports aggregate resource utilization and traffic volume for all the devices owned by one customer at one location.

The following table outlines recent enhancements to Executive Summaries 1.0.

| Version | RNS Version and Release Date | Features/Enhancements |
|---------|------------------------------|------------------------|
| 1.0 | RNS 5.0 - April 2004 | 5 reports<br>No datapipe [NA]<br>Supports Oracle only; does not support Sybase |
| 1.0 | RNS 6.0 - August 2004 | No changes |
| 1.0 | RNS 7.0 - November 2004 | No changes |

# Folders, Reports, and Statistics

Executive Summaries 1.0 contains five reports. If you are logging into the Application Server, you will see two folders:

- Device

- Location

The Device folder contains two reports:

- Device Single View Summary

- Device Single View Top Ten

The Location folder contains three reports:

- Executive Summary

- Executive Summary Aggregate Availability & Traffic

- Executive Summary Top Ten

See Chapter 3, Sample Reports from the Demo Package, for a description of each report. Executive Summaries 1.0 tracks the following statistics:

### CPU Statistics

- Average utilization

- Maximum utilization

- Busy hour

- Baseline busy hour

- F30/F60/F90 busy hour

- CPU percentage of exceptions

> "percentage of exceptions" is calculated by dividing the number of exceptions by 96 (4 x 24 samples = 96 total samples) and multiplying the result by 100.

### Memory Statistics

- Average utilization

- Maximum utilization

- Busy hour

- Baseline busy hour

- F30/F60/F90 busy hour

- Memory percentage of exceptions

### Buffer Statistics

- Average utilization

- Maximum utilization

- Busy hour utilization

- Baseline busy hour
- F30/F60/F90 busy hour
- Buffer percentage of exceptions

**Traffic Statistics**

- Traffic volume per device
- Interface availability
- Frames (total for the day, across all devices)
- Errors (total for the day, across all devices)
- Discards (total for the day, across all devices)

## Applying Constraints

Editing a parameter, or applying a constraint, eliminates data you are not interested in seeing. For example, if you edit the Customer Name parameter, only data for the customer you typed in the Customer Name field will appear in the report. Executive Summaries 1.0 supports the following constraints:

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

If you are using Report Viewer, follow these steps to apply a constraint:

1    Select **Edit > Parameter Values** from the menu bar.

2    When the Modify Parameter Values window appears, click the **Current Value** field.

3    Enter a new value.

4    Click **OK**.

If you are using the Web Access Server, follow these steps:

1    Click ▱ (the Edit 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**.

## Adding Locations to Reports

If you are already using Interface Reporting 4.0 and Device Resources 3.0, and if you used Common Property Tables to import locations into those reports, you will not have to add your locations in order to see your locations in Executive Summaries 1.0. The reports in Executive Summaries 1.0 will inherit locations from Common Property Tables.

# Sources for Additional Information

For information regarding the latest enhancements to this package and any known issues, refer to the *Executive Summaries Report Pack 1.0 Release Statement*. You may also be interested in these documents:

- *Device Resources Report Pack 3.0 User Guide*

- *Common Property Tables 3.5 User Guide*

- *Interface Reporting Report Pack 4.6 User Guide*

- *RMON Ethernet Statistics Report Pack 3.0 User Guide*

- *RNS 7.0 Release Notes, November 2004*

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

**http://www.managementsoftware.hp.com**

Select **Support** > **Product Manuals** to reach the **Product Manuals Search** page. The user guides for OVPI are listed under **Performance Insight**. The user guides for OVPI report packs, NNM SPIs, and NNM correlators are listed under **Reporting and Network Solutions**.

The manuals listed under **Reporting and Network Solutions** indicate the month and year of publication. If a manual is revised and reposted, the date of publication will change even if the software version number does not change. Since we post revised user guides on a regular basis, search this site for updates before using a manual that may be out of date.

# Package Installation

This chapter covers the following topics:

- Guidelines for a smooth install
- Installing Executive Summaries 1.0
- Package removal

## Guidelines for a Smooth Install

Reporting solutions created for OVPI consist of two packages, a report pack and a datapipe, or sometimes a report pack and multiple datapipes. When you install a datapipe, you configure OVPI to collect a specific type of performance data at a specific polling interval. When you install a report pack, you configure OVPI to summarize and aggregate performance data in a specific way. There are no datapipes for Executive Summaries. The data collected for Interface Reporting and Device Resources is available to Executive Summaries.

The RNS 7.0 CD contains components for NNM as well as report packs for OVPI. When you insert the RNS CD, launch the package extraction interface, and select OVPI packages for installation, the install script extracts every OVPI package from the CD and copies the results to the Packages directory on your system. After the extraction process finishes, the install script prompts you to launch Performance Insight and start Package Manager.

If the OVPI packages on the RNS 7.0 CD are already in the Packages directory awaiting installation, Executive Summaries 1.0 is ready to install. Before starting Package Manager and following the on-screen instructions, review the following guidelines.

### Prerequisites for Executive Summaries 1.0

Following is a list of prerequisites for Executive Summaries 1.0:

- OVPI 5.0
- All available service packs for OVPI 5.0
- Common Property Tables 3.0 or higher
- Device Resources Report Pack 3.0
- Dev Res Cisco Switch Datapipe

- Dev Res Cisco Router Datapipe
- Interface Reporting Report Pack 4.0 or higher
- Interface Discovery Datapipe 2.0 or higher
- Interface Reporting ifEntry Datapipe 2.0 or higher

### Common Property Tables

If you are currently running Common Property Tables 2.2, upgrade to Common Property Tables 3.0. If you are currently running Common Property Tables 3.0, upgrading to version 2.5 is optional. For details about installing and using Common Property Tables, refer to the *Common Property Tables 3.5 User Guide*.

### Interface Reporting and Device Resources

If you are running earlier versions of Interface Reporting or Device Resources, upgrade those packages before installing Executive Summaries 1.0. If you need help upgrading those packages, refer to the following manuals:

- *Device Resources Report Pack 3.0 User Guide*
- *Interface Reporting Report Pack 4.6 User Guide*

## Distributed Systems

If you are installing Executive Summaries in a distributed environment, package installation is more complicated. Here is an outline of the procedure you will follow:

1 Verify that every server is running OVPI 5.0 and all available service packs for OVPI 5.0.

2 Disable trendcopy on the central server.

3 If necessary, upgrade the following packages:

- Common Property Tables
- Interface Reporting
- Device Resources

4 Install Executive Summaries 1.0 on the central server and on every satellite server; accept the option to deploy reports each time you install the report pack.

5 Re-enable trendcopy on the central server.

# Installing Executive Summaries 1.0

Perform these tasks:

- Stop OVPI Timer and extract packages from the RNS 7.0 CD
- If necessary, upgrade Common Property Tables
- If necessary, upgrade Device Resources and Interface Reporting
- Install Executive Summaries 1.0 and restart OVPI Timer

**Task 1:  Stop OVPI Timer and extract packages from the RNS CD**

**1**  Log in to the system. On UNIX® 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.

**Task 2:  Upgrade to Common Property Tables 3.0 or higher**

The Executive Summaries Report Pack requires Common Property Tables 3.0 or higher. If you are running an earlier version of Common Property Tables, upgrade to 3.0 or higher before doing anything else. When you install the upgrade package for Common Property Tables, do not install other packages. Install the upgrade package and only the upgrade package. If you need help with the upgrade, refer to the *Common Property Tables 3.5 User Guide*.

**Task 3:  Upgrade 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:

• *Device Resources Report Pack 3.0 User Guide*

• *Interface Reporting Report Pack 4.6 User Guide*

**Task 4:  Install Executive Summaries 1.0 and restart OVPI Timer**

**1**  Start Package Manager. The Package Manager welcome window opens.

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

**3**  Click **Install**.

**4**  Approve the default installation directory or select a different directory if necessary. Use the browse feature to select a different directory.

**5**   Click **Next**. The Report Deployment window opens. Accept the default for Deploy Reports; enter your user name and password for the OVPI Application Server.

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

**7**   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 alone, or you can install it along with everything else.

> ▶   If you are installing Common Property Tables, Device Resources, and Interface Reporting, click the check boxes next to these packages as well.

**8**   Click **Next**. The Type Discover window opens.

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

**10**  Click **Install**. The Installation Progress window opens. When installation is complete, a package installation complete message appears.

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

**12**  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

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 **Uninstall.**

**6** Click **Next**. The Report Undeployment window opens. Accept the default for Undeploy Reports; accept the defaults for application server name and port; enter your user name and password for the OVPI Application Server.

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

**8** Click the check box next to the following packages:

- *Executive Summaries*
- *Executive Summaries Demo* (if installed)

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

**10** Click **Uninstall**. The Progress window opens. When the uninstall process is complete, a removal complete message appears.

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

**12** 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**

# Sample Reports

Executive Summaries 1.0 contains five reports:

**1** Device Single View Summary

**2** Device Single View Top Ten Summary

**3** Executive Summary

**4** Executive Summary Aggregate Availability and Traffic

**5** Executive Summary Top Ten

### Report 1: Device Single View Summary [see sample below]

This report creates a single view of device performance by combining traffic volume statistics with resource utilization statistics. The traffic data comes from Interface Reporting, while the resource data comes from Device Resources. The term *summary* in the title refers to the fact that traffic volume for each interface on the device is being rolled up to the device level.

Use the table at the top of the report to spot high busy hours. The graphs below provide hourly and daily views of resource utilization and traffic volume. Use the graphs to:

• View hourly data for yesterday (showing the busy hour in context)

• Compare yesterday's performance to performance throughout the preceding week

• Track average utilization, maximum utilization, and the percentage of exceptions

Is there a correlation between traffic volume and resource utilization? Usually not. If traffic volume is up, resource utilization could be up or it could be down. If traffic volume is down, resource utilization should be down also. If traffic volume is low, but resource utilization is high, this could indicate that a resource is not functioning properly.

### Report 2: Device Single View Top Ten Summary [see sample below]

Like the preceding report, this report combines traffic volume statistics with resource utilization statistics. This report looks at yesterday's performance and estimates for future performance. Use it to see which devices ranked worst yesterday and which devices are likely to see poor performance in the near future.

The tables on the left provide statistics for average utilization and yesterday's busy hour. Table entries sort by average utilization, highest to lowest. The tables on the right provide statistics for baseline busy hour, F30, F60, and F90. Table entries sort by F90 value, highest

to lowest. Most of the time you will not see the same device listed in both tables, left and right. If the same device appears in both tables, yesterday's performance is probably not an isolated incident; it is instead part of a longer-term trend that may require your attention.

### Report 3: Executive Summary [see sample below]

This is a location-oriented, single view report. After you select a location, the table at the top profiles each customer in terms of yesterday's percentage of exceptions. Use this report to get a sense of how customers compare to each other at each location. The graphs below the table allow you to look at hourly details on a customer-by-customer basis, and you can also compare yesterday's performance to performance during the preceding week.

### Report 4: Executive Summary Aggregate Availability and Traffic [see sample below]

This report provides aggregated information for the day, as opposed to aggregated information for a particular location or customer. The top table gives you daily figures for availability and traffic, and covers the preceding week. The bottom chart provides the same information for each of the previous 30 days. Use the top table to find out if availability and traffic volume are stable, improving, or worsening. Use the bottom table to see whether this week's figures deviate from or align with historic performance.

### Report 5: Executive Summary Top Ten Report [see sample below]

This report highlights exceptions on a customer-by-customer basis and ranks the locations that belong to the selected customer. Use this report to find out:

• Which customers are seeing the most exceptions

• Which locations had the worst performance yesterday

• Which locations are expected to have poor performance in the future

The selection table at the top sorts customers by total exceptions, highest to lowest. The tables along the left sort locations by yesterday's average resource utilization, worst to best, while the tables along the right sort locations by F90 value, worst to best.

Most of the time you will not see the same location listed in both tables, left and right. If the same location appears in both tables, yesterday's performance is probably not an isolated incident; it is instead part of a longer-term trend that may require your attention.

# 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.
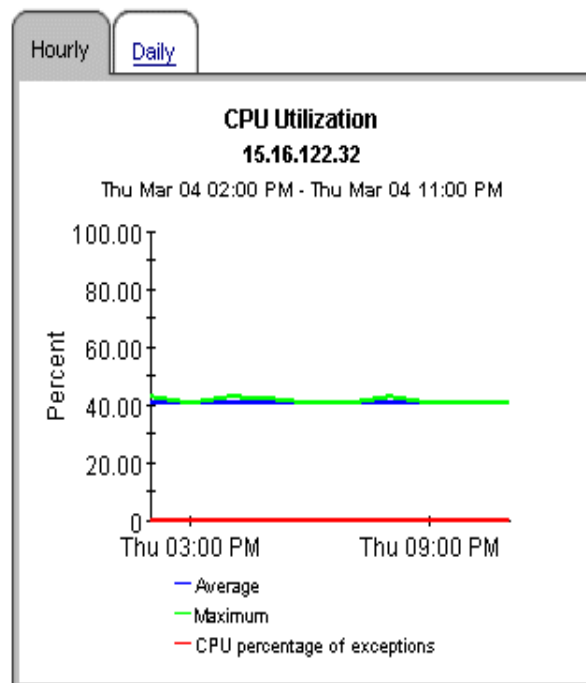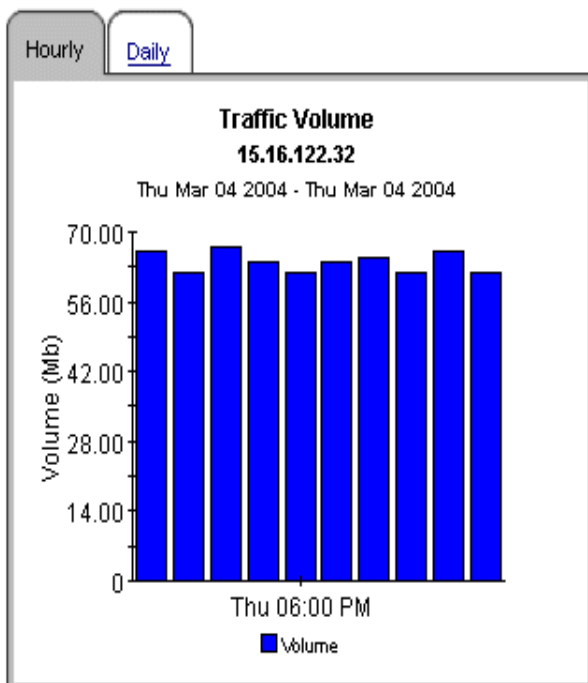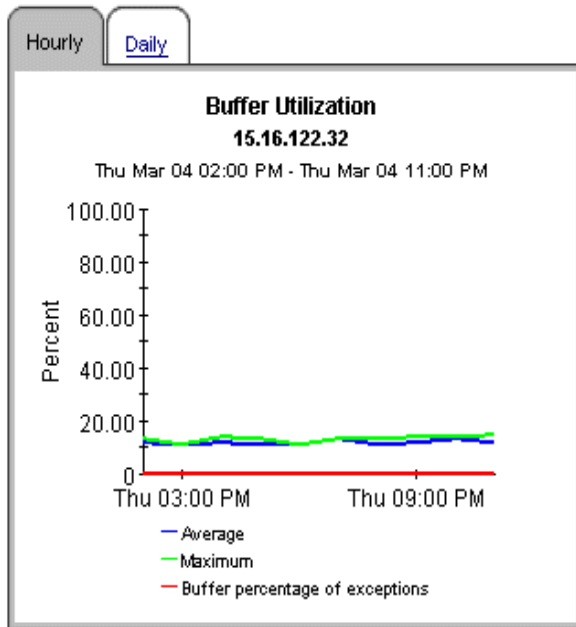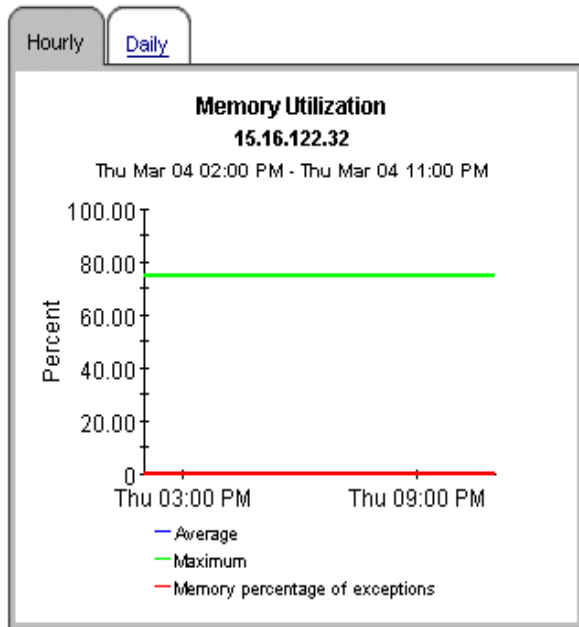
Location Unassigned ▼

## 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 | |

Hourly | Daily

### Traffic Volume
**15.16.122.32**
Thu Mar 04 2004 - Thu Mar 04 2004

Hourly | Daily

### CPU Utilization
**15.16.122.32**
Thu Mar 04 02:00 PM - Thu Mar 04 11:00 PM

— Average
— Maximum
— CPU percentage of exceptions

**Memory Utilization**

**15.16.122.32**

Thu Mar 04 02:00 PM - Thu Mar 04 11:00 PM

Percent

100.00
80.00
60.00
40.00
20.00
0
Thu 03:00 PM          Thu 09:00 PM

— Average
— Maximum
— Memory percentage of exceptions

**Buffer Utilization**

**15.16.122.32**

Thu Mar 04 02:00 PM - Thu Mar 04 11:00 PM

Percent

100.00
80.00
60.00
40.00
20.00
0
Thu 03:00 PM          Thu 09:00 PM

— Average
— Maximum
— Buffer percentage of exceptions

Back to Top

# 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 |

## Highest Average CPU Utilization

Thu Mar 04 2004

| Device | Average CPU Util | Busy Hour CPU Util |
|---|---|---|
| 15.6.96.1 | | |
| 15.128.164.163 | | |
| 15.128.9.130 | | |
| 15.128.9.129 | | |
| 15.16.122.32 | 41 | 41 |
| 15.24.115.2 | 1 | 1 |

## CPU Utilization Forecast

### Sorted by Highest 90 Day Forecasted Value

| Device | Baseline | 30th Day | 60th Day | 90th Day |
|---|---|---|---|---|
| 15.6.96.1 | | | | |
| 15.128.164.163 | | | | |
| 15.128.9.129 | | | | |
| 15.128.9.130 | | | | |
| 15.16.122.32 | 45 | 38 | 37 | 36 |
| 15.24.115.2 | 1 | 0 | 0 | 0 |

## Highest Average Memory Utilization

Thu Mar 04 2004

| Device | Average Memory Util | Busy Hour Memory Util |
|---|---|---|
| 15.16.122.32 | 75 | 75 |
| 15.24.115.2 | 62 | 62 |
| 15.128.164.163 | 41 | 41 |
| 15.128.9.129 | 30 | 30 |
| 15.128.9.130 | 16 | 16 |
| 15.6.96.1 | 9 | 9 |

## Memory Utilization Forecast

### Sorted by Highest 90 Day Forecasted Value

| Device | Baseline | 30th Day | 60th Day | 90th Day |
|---|---|---|---|---|
| 15.16.122.32 | 99 | 70 | 68 | 65 |
| 15.24.115.2 | 62 | 62 | 62 | 62 |
| 15.128.164.163 | 41 | 41 | 41 | 41 |
| 15.128.9.129 | 30 | 30 | 30 | 30 |
| 15.128.9.130 | 16 | 16 | 16 | 16 |
| 15.6.96.1 | 9 | 9 | 10 | 10 |

## Highest Average Buffer Utilization

Thu Mar 04 2004

| Device | Average Buffer Util | Busy Hour Buffer Util |
|---|---|---|
| 15.16.122.32 | 12 | 13 |
| 15.128.9.130 | 5 | 5 |
| 15.24.115.2 | 0 | 0 |
| 15.128.9.129 | 0 | 0 |
| 15.6.96.1 | 0 | 0 |
| 15.128.164.163 | 0 | 0 |

## Buffer Utilization Forecast

### Sorted by Highest 90 Day Forecasted Value

| Device | Baseline | 30th Day | 60th Day | 90th Day |
|---|---|---|---|---|
| 15.16.122.32 | 33 | 11 | 7 | 3 |
| 15.128.9.129 | 9 | 2 | 2 | 2 |
| 15.128.9.130 | 14 | 4 | 3 | 2 |
| 15.128.164.163 | 5 | 1 | 1 | 1 |
| 15.24.115.2 | 2 | 1 | 1 | 1 |
| 15.6.96.1 | 0 | 0 | 0 | 0 |

## Highest Traffic Volume

Thu Mar 04 2004

| Device | Volume | Availability |
|---|---|---|
| 15.6.96.1 | 4.72 Gb | 95 |
| 15.16.122.32 | 645.28 Mb | 39 |
| 15.128.9.130 | 163.97 Mb | 66 |
| 15.128.164.163 | 52.59 Mb | 100 |
| 15.24.115.2 | 36.29 Mb | 27 |

## Traffic Volume Forecast

### Sorted by Highest 90 Day Forecasted Value

| Device | Baseline | 30th Day | 60th Day | 90th Day |
|---|---|---|---|---|
| 15.16.122.32 | 3 | 5 | 6 | 8 |
| 15.6.96.1 | 13 | 10 | 8 | 6 |
| 15.6.96.1 | 13 | 10 | 8 | 5 |
| 15.16.122.32 | 3 | 4 | 5 | 5 |
| 15.6.96.1 | 14 | 10 | 7 | 5 |
| 15.16.122.32 | 3 | 3 | 3 | 3 |
| 15.6.96.1 | 12 | 8 | 5 | 2 |
| 15.16.122.32 | 3 | 2 | 2 | 2 |
| 15.16.122.32 | 3 | 2 | 2 | 1 |
| 15.6.96.1 | 14 | 8 | 5 | 1 |

⬆ Back to Top

# Executive Summary

The Executive Summary Report provides CFOs, CIOs, and managers an overview of the performance of corporate devices in the critical areas of CPU/Memory/Buffer utilization, Network Traffic volume and percentage of exceptions by location/region.
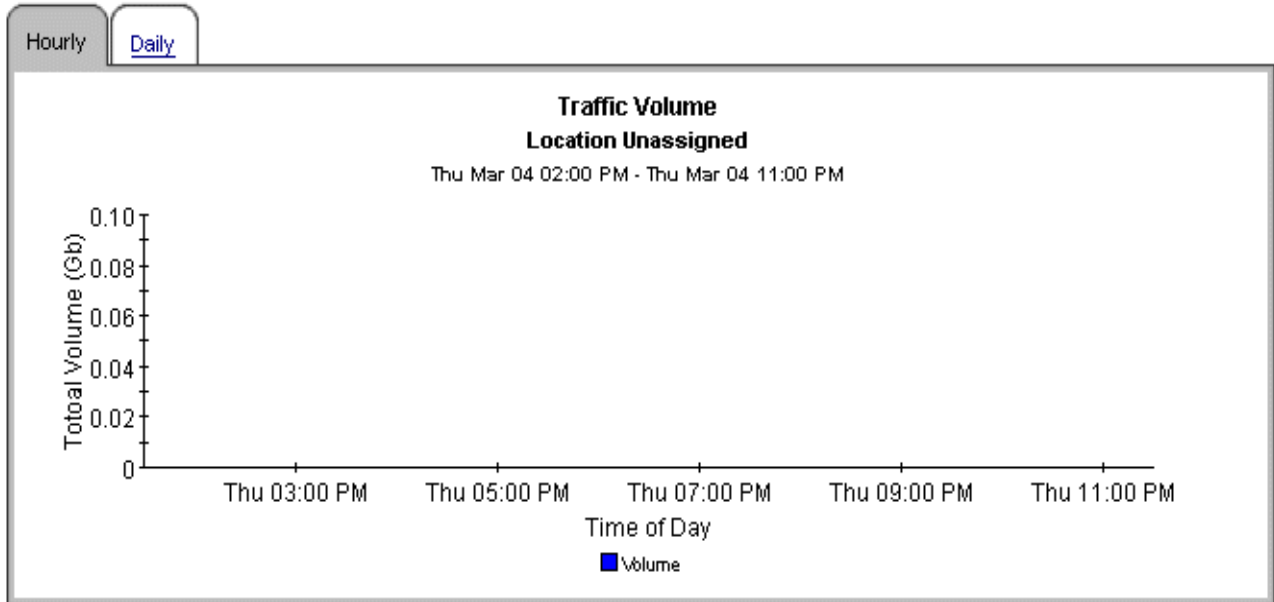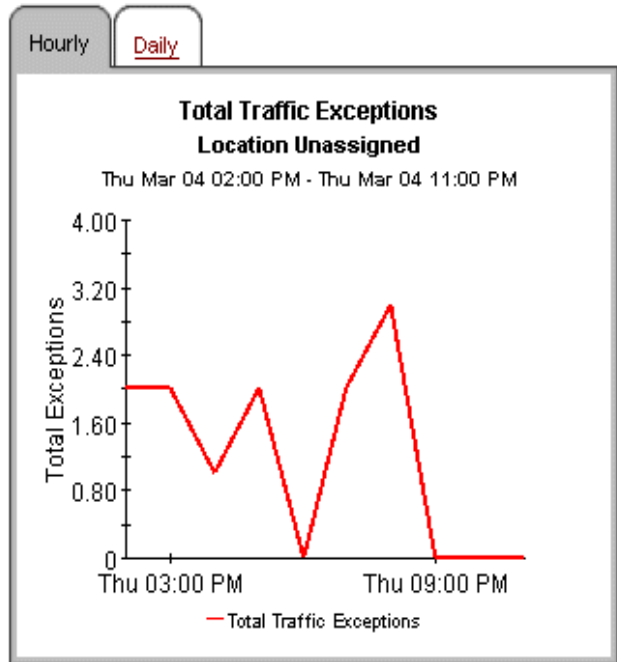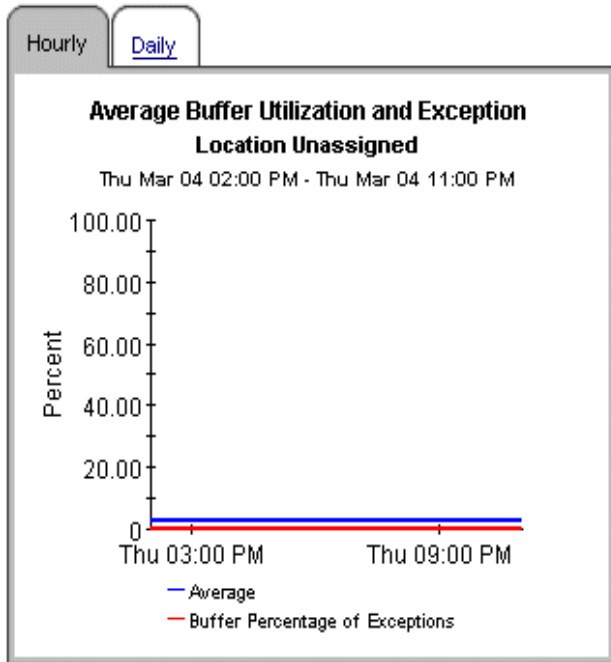
Location Unassigned ▼

## Location Exceptions Report

Thu Mar 04 2004

| Customer | CPU Util Exceptions | Total Exceptions | Memory Util Exceptions | Buffer Util Exceptions |
|---|---|---|---|---|
| All Customers | 0 | 0 | 0 | 0 |
| Customer Unassigned | 0 | 0 | 0 | 0 |

Hourly | Daily

**Average CPU Utilization and Exception**
**Location Unassigned**
Thu Mar 04 02:00 PM - Thu Mar 04 11:00 PM



— Average
— CPU Percentage of Exceptions

Hourly | Daily

**Average Memory Utilization and Exception**
**Location Unassigned**
Thu Mar 04 02:00 PM - Thu Mar 04 11:00 PM



— Average
— Memory Percentage of Exceptions

Daily

**Average Buffer Utilization and Exception**
**Location Unassigned**
Thu Mar 04 02:00 PM - Thu Mar 04 11:00 PM

Percent

100.00
80.00
60.00
40.00
20.00
0

Thu 03:00 PM          Thu 09:00 PM

— Average
— Buffer Percentage of Exceptions

Hourly  Daily

**Total Traffic Exceptions**
**Location Unassigned**
Thu Mar 04 02:00 PM - Thu Mar 04 11:00 PM

Total Exceptions

4.00
3.20
2.40
1.60
0.80
0

Thu 03:00 PM          Thu 09:00 PM

— Total Traffic Exceptions

Hourly  Daily

**Traffic Volume**
**Location Unassigned**
Thu Mar 04 02:00 PM - Thu Mar 04 11:00 PM

Totoal Volume (Gb)

0.10
0.08
0.06
0.04
0.02
0

Thu 03:00 PM     Thu 05:00 PM     Thu 07:00 PM     Thu 09:00 PM     Thu 11:00 PM
Time of Day

■ Volume

⬆ Back to Top

# Executive Summary
# Aggregate Availability & Traffic

*hp invent*

This report is designed to display the overall availability for all managed interfaces on all managed devices across the entire enterprise. All devices for all customers are aggregated on a daily basis, and the availability of interfaces is calculated on an interface basis and brought forward in tabular and graphic form. Note: the graph on this report has its minimum y-axis artificially set to 50%, assuming this to be a worst-case basement value. Tune managed interfaces to ensure maximum accuracy of the report.

## 7-Day Availability History: All Interfaces on All Devices
### Previous 7 Days
( Availability Alert Rule: Yellow < 90, Red < 75 )

| Date | Five-Nines Availability (%) | Total Traffic | Total Interfaces | Total Frames | Total Errors | Total Discards | |
|---|---|---|---|---|---|---|---|
| Tue, Mar 23, 2004 | 54.863 | 18757116685 | 70 | 73836975 | 243 | 0 | |
| Mon, Mar 22, 2004 | 55.142 | 6994959597 | 70 | 35499201 | 331 | 0 | |
| Sun, Mar 21, 2004 | 56.040 | 15830307084 | 70 | 80518118 | 712 | 1 | |
| Sat, Mar 20, 2004 | 54.914 | 35412656134 | 70 | 101276461 | 858 | 15 | |
| Fri, Mar 19, 2004 | 55.753 | 4769669902 | 70 | 16774901 | 124 | 35 | |

## 30-Day Daily Availability History: All Interfaces on All Devices
### Fri Mar 19 12:00 AM - Tue Mar 23 12:00 AM
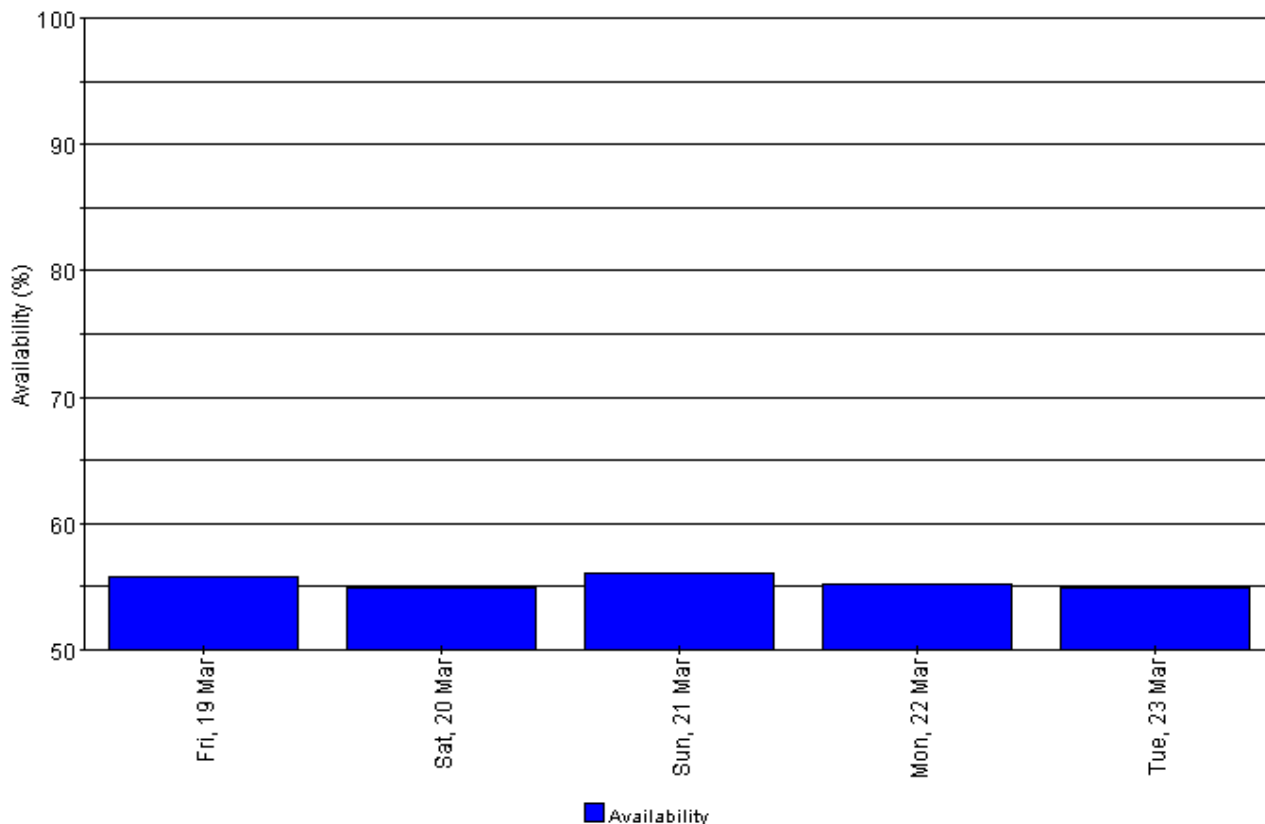
# Executive Summary
# Top Ten

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.

## Customer Exception Counts
### Select a Customer for the Top Ten Locations
Thu Mar 04 2004

| Customer | Total Exceptions | CPU Util Exceptions | Memory Util Exceptions | Buffer Util Exceptions |
|---|---|---|---|---|
| Customer Unassigned | 0 | 0 | 0 | 0 |

## Highest Average CPU Utilization
Thu Mar 04 2004

| Location | Average CPU Util | Busy Hour CPU Util |
|---|---|---|
| Location Unassigned | 21 | 21 |

## CPU Utilization Forecast
### Sorted by Highest 90 Day Forecasted Value

| Location | Baseline | 30th Day | 60th Day | 90th Day |
|---|---|---|---|---|
| Location Unassigned | 39 | 21 | 20 | 20 |

## Highest Average Memory Utilization
Thu Mar 04 2004

| Location | Average Memory Util | Busy Hour Memory Util |
|---|---|---|
| Location Unassigned | 39 | 39 |

## Memory Utilization Forecast
### Sorted by Highest 90 Day Forecasted Value

| Location | Baseline | 30th Day | 60th Day | 90th Day |
|---|---|---|---|---|
| Location Unassigned | 62 | 68 | 83 | 99 |

### Highest Average Buffer Utilization

Thu Mar 04 2004

| Location | Average Buffer Util | Busy Hour Buffer Util |
|---|---|---|
| Location Unassigned | 3 | 3 |

### Buffer Utilization Forecast

**Sorted by Highest 90 Day Forecasted Value**

| Location | Baseline | 30th Day | 60th Day | 90th Day |
|---|---|---|---|---|
| Location Unassigned | 6 | 7 | 9 | 11 |

### Highest Traffic Volume

Thu Mar 04 2004

| Location | Volume | Availability |
|---|---|---|
| Location Unassigned | 5.6 Gb | 56 |

### Traffic Volume Forecast

**Sorted by Highest 90 Day Forecasted Value**

| Location | Baseline | 30th Day | 60th Day | 90thDay |
|---|---|---|---|---|
| | | No Data | | |

⬆ Back to Top

### 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 of 91 busy hour readings over the baseline period.

### 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).

# index