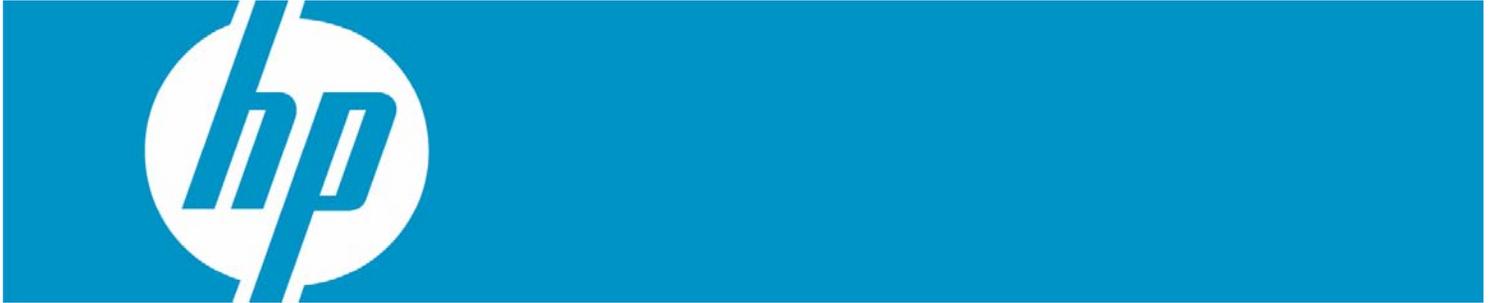


# HP Service Health Reporter 9.30

## Handbook of Reports



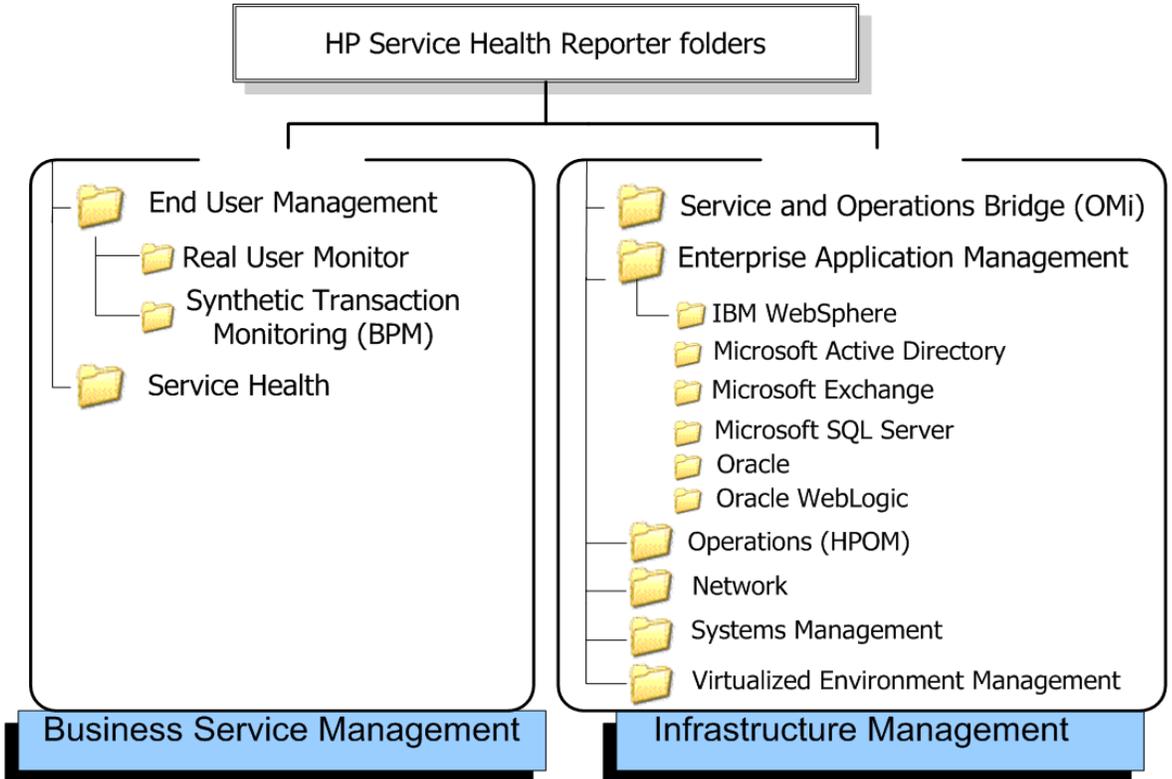
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# Introduction

This document provides an overview of all the reports available in HP Service Health Reporter (SHR), which are divided into two broad categories:

- Business Service Management
- Infrastructure Management

The following image shows you the supported list of reports folders under both these categories:



## Business Service Management

The Business Service Management category contains reports on end-user monitoring, both real time and simulated.

### Real User Monitor (RUM)

The RUM reports use the historical data collected from the Profile database and provide both end-user and system-initiated network traffic data between client machines and servers. The reports also display data about the end-user groups and server sessions, the performance of the business applications accessed by the end-user groups, and the errors encountered over a period of time.

Table 1. RUM Reports

<b>Report Group</b>	<b>Report Name</b>	<b>Description</b>
<i>Executive Summary</i>	RUM Application Infrastructure Forecast	Displays the application summary information such as response time, server time, network time, and session counts for the selected business application and the infrastructure usage of the node hosting the business application over a period of 30 days. This report also forecasts the CPU, memory, and file system usage by the business application for the next 30, 60, and 90 days.
	RUM Application Infrastructure Summary	Provides statistical and graphical information about resource utilization (CPU, memory) of the node on which the business application is running, and the availability and response times of the selected business applications. This is a cross-domain report that displays System Management data for the RUM monitored systems that are hosting the business applications.
	RUM Application Session Summary	Displays a list of the top five and bottom five business applications with the highest and lowest session events based on the historical data collected from RUM.
	RUM Network Usage	Provides a graphical representation of the network usage of the business application, the number of requests and latency of the node, the traffic throughput for the applications on the node, the response time for all requests from the nodes, and the number of connections that were reset and timed out over a given period of time.

Table 1. RUM Reports

<b>Report Group</b>	<b>Report Name</b>	<b>Description</b>
<i>Performance Analysis</i>	RUM Application Performance Detail	Provides a graphical view of a selected business application's performance such as response time and session count, and the resource utilization of the node over a specific period of time for the selected business applications. This is a cross-domain report that displays System Management metric data for the nodes that are hosting the application.
	RUM Application Top N Infrastructure Usage	Displays a list of the top and bottom N (5, 10, 20) business applications with the best and worst response times respectively, based on the historical data collected from RUM. This is a cross-domain report that displays System Management CPU and memory usage data for the nodes that are hosting the business applications.
	RUM End User Group and Location Experience	Displays a list of the top five and bottom five end-user groups and locations based on the historical synthetic and actual data collected from BPM and RUM, respectively.
	RUM Top 5 Actions	Displays the top and bottom five actions based on availability, the top and bottom five software elements based on the number of hits, and the top five and bottom five nodes based on the CPU usage. This is a cross-domain report that displays System Management metric data for the nodes that are hosting the business application.
	RUM Top 5 Broken Links	Displays the top five business applications with the highest number of broken link events generated.
	RUM Top N Nodes	Displays a list of the top and bottom N (5, 10, 15) nodes based on the number of bytes handled by the node over a specific period of time. The report also displays the total number of requests received for a business application, the average latency, and the total number of connections made during the specified period of time.

## Synthetic Transaction Monitoring (BPM)

The BPM reports show you summarized as well as detailed information about the performance, availability, and status of BPM transactions.

Table 2. BPM Reports

<b>Report Group</b>	<b>Report Name</b>	<b>Description</b>
<i>Executive Summary</i>	BPM Application Summary	Provides the complete overview of the performance and availability of the selected business applications along with the performance of the transactions for these application during the specified period of time.
	BPM Error Summary	Provides a consolidated view of all the errors that occurred for the selected business applications during the specified period of time. This report also displays the error count details for each application, business transaction flow, business transaction, location, and end-user group.
	BPM Executive Summary	Displays the response time (in milliseconds) and availability (in percentage) of all the business applications, business transaction flows, locations, and end-user groups during the specified period of time.
	BPM Top 5 Instances	Displays the top five and bottom five business applications, business transaction flows, locations, and end-user groups based on either availability percentage or response time for the specified period of time.
<i>Performance</i>	BPM Network Analysis	Displays the network analysis for the transactions of the selected business applications during the specified period of time based on the data gathered by WebTrace.
	BPM Performance Summary	Displays the average response time and fail count (in percentage) of the selected business applications, business transaction flows, end-user groups, and locations for the selected time period.
	BPM Transaction Analysis	Displays consolidated and in-depth information about the performance and availability of the business transactions (in a particular business application) run over the selected time period.

## Infrastructure Management

The Infrastructure Management Category contains information about the IT infrastructure underlying your business services.

### Operations (HPOM)

The HPOM reports provides you with detailed information about the messages sent to the management console of a particular management server. They help you in analyzing the message trends in based on their severity and resolution time so that you can proactively resolve the underlying bottlenecks before they impact the performance of your business service.

Table 3. HPOM Reports

Report Group	Report Name	Description
NA	HPOM Message Details	Displays the details about the messages, such as the active and acknowledged message counts, the age of the messages, and the resolution time, that are sent to the console of each HP Operations Manager (HPOM) management server that is configured during the specified period of time.
	HPOM Message Trend and Responsiveness	Displays the total number of messages that are sent to the console of each HPOM management server and the amount of time taken to acknowledge them during the specified period of time. If the time taken is consistently too long, you can look into the cause and resolve the problem before they impact the customers.
	HPOM Operator Details	Displays operator-wise details about the messages, such as the message counts and message resolution times, sent to the console across all HPOM management servers that are configured during the specified period of time.
	HPOM Service log	Displays the amount of time for which the selected service was in different states (of severity).
	HPOM Top 10 Active Message	Displays a list of applications, services, nodes, and node groups that have the highest number of active messages across all management servers that are configured during the specified period of time. More number of active messages means that the application, service, node, or node group has problems and requires attention.

## System Management

The System Management reports help you anticipate resource problems in your IT environment before they become serious. The reports display historical information about the performance and availability of key system resources. From higher level executive reports, you can navigate to detailed reports to analyze the root cause of problems in the long-term.

Table 4. System Management Reports

<b>Report Group</b>	<b>Report Name</b>	<b>Description</b>
<i>Execution Summary</i>	SM Executive Summary	Displays the summary of present and forecasted capacity and usage data of system resources, along with the availability, resource utilization, and exceptions in your nodes.
	SM Heat Chart	Enables you to identify nodes in your Business Service and Business View or Node Group that have crossed the threshold values that you have defined for CPU utilization, memory utilization, physical disk I/O rate, and network I/O rate.
	SM System Availability Summary	Displays the availability details of the nodes in your IT environment for the selected period of time. The table lists the values of average uptime and downtime percentages and also the total uptime and downtime in hours. This report also displays the availability heat chart for all the nodes with which you can identify those nodes that cross the availability thresholds. You can use this report to compare different nodes based on duration of their availability.
	SM System Exception by Group	Displays a list of nodes in your Business Service and Business View or Node Group and marks the nodes that exceed the predefined threshold values.
	SM System Forecast Summary	Provides a summary of the current CPU and memory utilization (average and 90th percentile) of all the monitored physical systems and virtual hosts in your environment. It also displays the projected CPU and memory utilization of the physical systems and the virtual hosts for next 30, 60, and 90 days. The report displays the forecasted information in both graphical and tabular formats.
	SM System Grade of Service by Group	Displays the grade of service (GoS) for a group of nodes based on the resource utilization of that group. You can compare the GoS across different groups and also drill down to node-level GoS for each group.
	SM System Inventory	Displays an inventory of all the nodes in your Business Service and Business View or Node Group and the values of key resources such as number of CPUs, disks, and network interface cards (NICs) for those nodes.
	SM System Resource Outage Forecast Summary	Displays the current and forecasted resource utilization (CPU and memory) of all the nodes in your Business Service and Business View or Node Group for the next 30, 60, and 90 days. It also displays the resource utilization of the impacted VMs for the next 30, 60, and 90 days.
	SM Top and Bottom 5 Systems	Displays the top five systems based on the average availability, and the average and 90th percentile of the CPU utilization or memory utilization over the selected period of time.

Table 4. System Management Reports

<b>Report Group</b>	<b>Report Name</b>	<b>Description</b>
<i>Performance</i>	SM System Availability Detail	Displays the uptime, downtime, and availability percentages for the selected nodes over the specified period of time. This is a section-based report where the information for each node is displayed on one page.
	SM System Exception Detail	Displays the threshold values and the threshold breaches in the resource utilization, such as CPU, memory, run queue, swap, and memory page out rates, for each of the selected nodes for the specified period of time.
	SM System Grade of Service Detail	Displays the GoS for the selected nodes based on its resource utilization, such as CPU, memory, run queue, and swap utilization, for the specified period of time.
	SM System Usage Detail	Provides a graphical representation of the CPU, memory, network I/O rate, and disk I/O rate utilization for each of the selected nodes over the specified period of time.

## Network

The Network reports provide an overview of the performance trend of systems and network devices from the context of a business service, and help you analyze the health of the monitored network devices.

Table 5. Network Reports

<b>Report Group</b>	<b>Report Name</b>	<b>Description</b>
<i>Executive Summary</i>	Network and System Node Inventory	Provides an inventory of all the network and system nodes in your environment organized according to location and performance over the specified period of time. This is a cross-domain report that displays network data collected from the NNM iSPI for Performance and Network Performance Server (NPS) and resource utilization information of the nodes available in the System Management reports.
	Network Device Performance Summary	Provides a summarized view of the performance trend of systems and network devices for the selected time period. Using this report, you can analyze the nodes that exceed the performance baseline value for selected measures.
	Network Forecast Summary	Displays the current CPU and memory utilization (average and maximum) for the network nodes and the forecasted utilization for the next 30, 60, and 90 days. It also displays the current and the forecasted utilization in and out, error rates, and discard rates for the network interfaces for the next 30, 60, 90 days.
	Network Node Baseline Quick View	Displays the baseline trends including the upper and lower limits of different network-specific measures, such as CPU, memory, backplane, buffer, and so on, for the different groups of network nodes in your IT environment over a specific period of time.
	Network Node Exception Summary	Displays a trend of the baseline exception counts and the exception rates for the different network-specific measures for a group of network nodes during the specified period of time. This report also displays exception details at the node level.
	Network Node Health by Group	Provides a graphical representation of the network device distribution based on resource utilization, exception rate, error and discard rates, and availability for all network node groups that support the selected business service, business view, or node group. This report also displays the resource utilization details of each network node in the selected group.
	Top 10 Network Nodes and Systems by Performance	Displays the top 10 network and system nodes based on their performance over the specified period of time. This is a cross-domain report that displays network data collected from the Network Performance Server (NPS) and resource utilization information of the nodes available in the System Management reports.
	Top N Network Nodes and Interfaces	Displays the top five and top 10 network nodes and interfaces based on specific network baseline metrics for the selected time period.

## Virtualized Environment Management

The Virtualized Environment Management reports display the performance data about the virtual machines (VMs) based on various virtualization technologies such as IBM Lpar, Solaris Zones, VMware, and Microsoft Hyper-V that are installed in your IT environment.

Table 6. Virtualized Environment Management Reports

Report Group	Report Name	Description
<i>Executive Summary</i>	SM Virtualization Host Inventory	Displays the key measures of the physical nodes such as operating system, model, processor architecture, CPU speed, and the number of CPUs, disks, and network interface cards used, and the number of logical systems running on them.
	SM Virtualization Logical System Inventory	Displays the inventory details of the logical systems hosted on each physical node in your environment. The report display a summary of the physical node which includes the node operating system, the node model, the CPU speed, the number of CPUs, the physical memory, and the virtualization technology used. For each node, the report display all the logical systems hosted on that node along with the VM operating system, state of the VM, the number of disks and LAN that is allocated, and the maximum and minimum entitled CPU and memory.
	SM Virtualization Logical Systems Performance Summary	Provides a graphical representation of the performance details such as CPU and memory utilization of all the selected logical systems over the specified period of time. This report helps you compare the CPU utilization of the physical node to that of the logical system. It also displays the availability trend of the logical system during the specified period of time.
	SM Virtualization Top and Bottom 10 Logical Systems	Displays the top and bottom 10 logical systems based on the selected measure such as unavailability percentage, average CPU utilization, or average memory utilization for the specified period of time.
	SM Virtualization Top and Bottom 10 Nodes	Displays the top and bottom 10 nodes based on the selected measure such as average grade of service, CPU, or memory utilization for the specified period of time.
	SM Virtualization Virtual Infrastructure Inventory	Provides a graphical representation of the inventory details, such as the number of hosts and VMs, the number of logical system based on the operating system type, and resources allocation for the various virtualization technologies in your environment. This report also displays the total number of hosts, count and density of the VMs, total number of CPU, and the percentage of unreserved CPU for each virtualization technology.
<i>Performance</i>	SM Virtualization Logical System Performance Details	Displays the availability, the CPU utilization, and the entitled memory utilization of the selected VM for the specified period of time.

Table 6. Virtualized Environment Management Reports

<b>Report Group</b>	<b>Report Name</b>	<b>Description</b>
VMware	SM Virtualization VMWare Cluster Detail Inventory	Displays the inventory details such as CPU and memory capacity, CPU and memory limits, CPU and memory reservation, number of disks, number of network interfaces, and so on, of the ESX nodes, the resource pools, and the logical systems in a selected cluster.
	SM Virtualization VMWare ESX Server Detail Inventory	Displays the inventory details such as CPU and memory limits, CPU and memory reservation, number of disks, number of network interfaces, number of virtual CPUs, CPU shares, and so on, of the logical systems and the resource pools for the selected nodes.
	SM Virtualization VMWare Inventory	Displays the summarized inventory details of the VMware cluster and non-clustered ESX nodes. The inventory details include CPU speed, CPU and memory capacity, number of nodes and logical systems, VM density, number of CPU cores, number of disks, number of network interfaces, and so on.
	SM Virtualization VMWare Logical System CPU Bottleneck Details	Displays the CPU utilization and CPU cycles used by the selected logical systems over the specified period of time. Using this information, you can identify the CPU bottlenecks in the logical systems.
	SM Virtualization VMWare Logical System Memory Bottleneck Details	Displays the average utilization for the entitled memory and physical memory of the selected logical systems. The report shows the comparison of the average memory swap in, swap out, and overhead. It also shows the comparison of the utilization percentage of the average entitled memory and average physical memory.
	SM Virtualization VMWare ESX Logical System Top and Bottom 10	Displays the top and bottom 10 ESXi logical systems based on the selected measure such as active memory, CPU and memory utilization, CPU ready time, and unavailability.
	SM Virtualization VMWare Top and Bottom 10 ESX Servers	Displays the top and bottom 10 ESX nodes based on the selected metrics such as CPU utilization, memory utilization, net I/O rate, and swap utilization for the selected period of time.

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