



Hewlett Packard
Enterprise

HPE Operations Bridge Reporter

Software Version: 10.00
Windows® and Linux operating systems

Handbook of Reports

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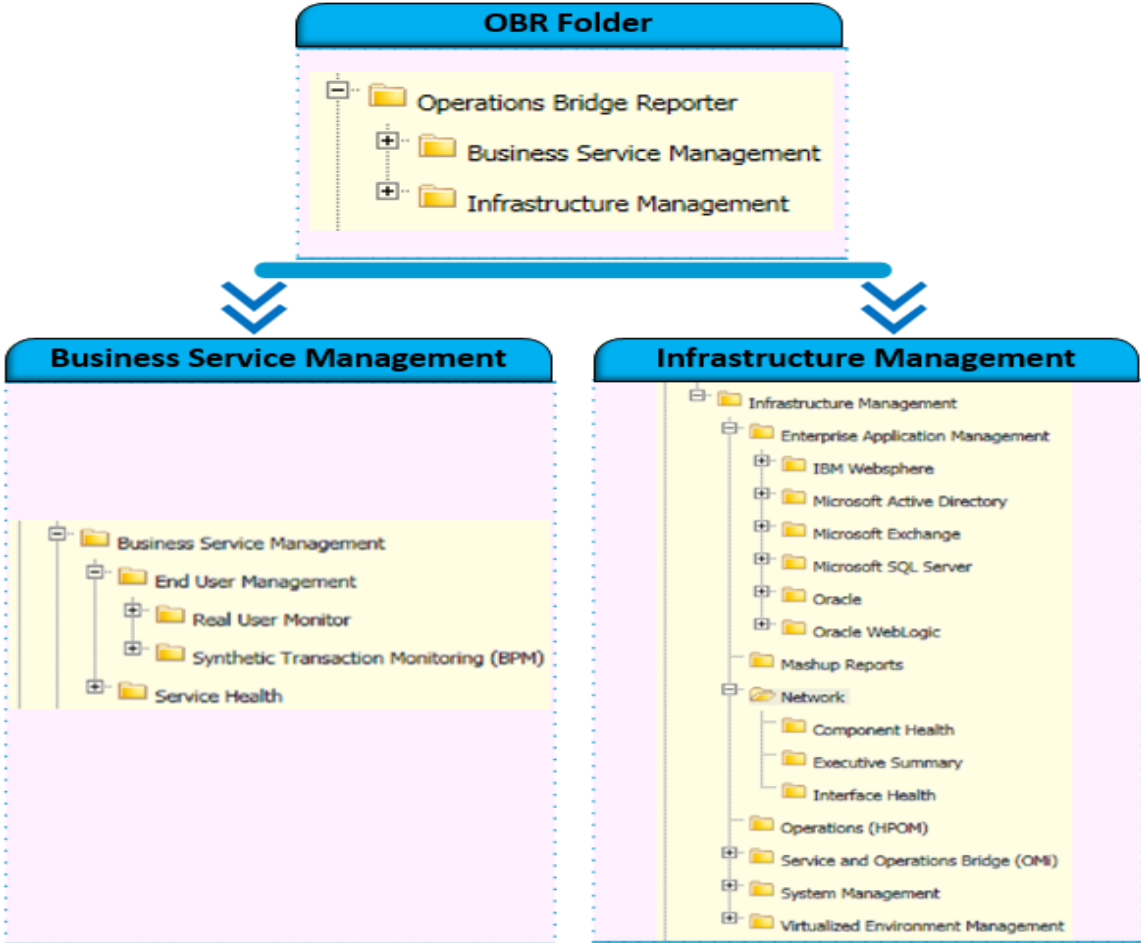
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Chapter 1: Introduction

This document provides an overview of all the reports available in HPE Operations Bridge Reporter(OBR). The reports are divided into following categories:

- Business Service Management
- Infrastructure Management

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



New Reports

The following are the new component health and interface health reports in HPE *Operations Bridge Reporter 10.00* :

Component Health Reports:

1. Network Component Health Backplane Utilization
2. Network Component Health Buffer Utilization and Misses
3. Network Component Health CPU Utilization
4. Network Component Health Heat Chart
5. Network Component Health MEMORY Utilization
6. Network Component Health Top and Bottom N Nodes
7. Network Component Overview

Interface Health Reports:

1. Network Interface Health Discard Rate
2. Network Interface Health Error Rate
3. Network Interface Health Inventory Report
4. Network Interface Health Overview
5. Network Interface Health SNMP Response Time
6. Network Interface Health Top and Bottom N Nodes
7. Network Interface Health Utilization
8. Network Interface Health Volume Rate

Chapter 2: Business Service Management

The Business Service Management category contains reports on end-user monitoring, both real time and simulated. It also has reports that indicate the health of a service based on the status of associated KPIs and HIs.

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.

Reports

This section describes the following RUM reports:

Executive Summary Reports

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.

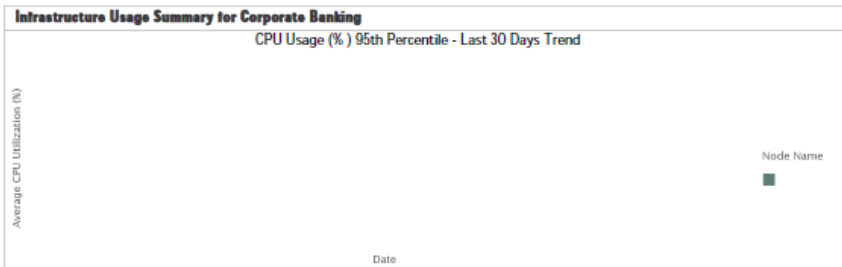
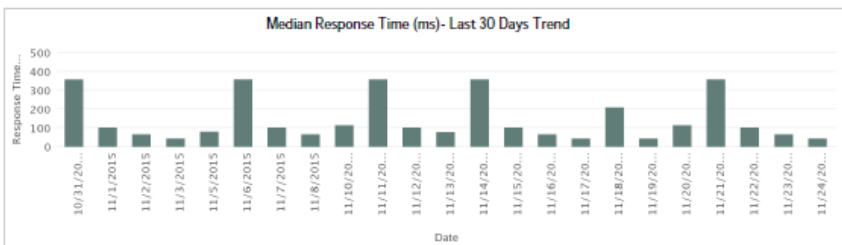
Real User Monitor

Report Period: 10/31/15-11/30/15

Application Infrastructure Forecast

Business Service(s)	All
Business View(s) / Group(s)	All
Shift	Default_Shift

Application Performance Summary for Corporate Banking			
	Average (Average of Report period)	95th Percentile (Median of Report Period)	Maximum (Maximum of Report period)
Response Time (ms)	6,427.88	96.83	67,292
Server Time (ms)	3,250.98	4	15,541
Network Time (ms)	10,933.49	95.17	54,433
Session Count	117.54	1	2



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RUM Application Infrastructure Summary

Displays 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 Performance 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.

 OPERATIONS BRIDGE REPORTER

Real User Monitor Report Period: 2/1/16 - 2/29/16

Application Session Summary

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s) All
Business View(s) / Group(s) All
Shift Default_Shift

Top 5 Applications with High Session Event Rate			
Business Application Name	Event Rate	Event Count	Session Count
Finance	5.27	8,417	1,598
Corporate Banking	0.16	42	255
YourOneStopShop	0.16	105	663

Top 5 Applications with Low Session Event Rate			
Business Application Name	Event Rate	Event Count	Session Count
YourOneStopShop	0.16	105	663
Corporate Banking	0.16	42	255
Finance	5.27	8,417	1,598

RUM Application Top N Infrastructure Usage

Displays a list of the top and bottom N business application with the best and worst response times respectively, based on the historical real data collected from RUM. The number of applications to be displayed can be provided as input to the report. This is a cross-domain report that displays System Performance data for the nodes that are hosting the Business Applications.

RUM Service 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. It also displays the status of the KPIs associated with the selected business service. This is a cross-domain report that displays Business service health for the selected business service along with System

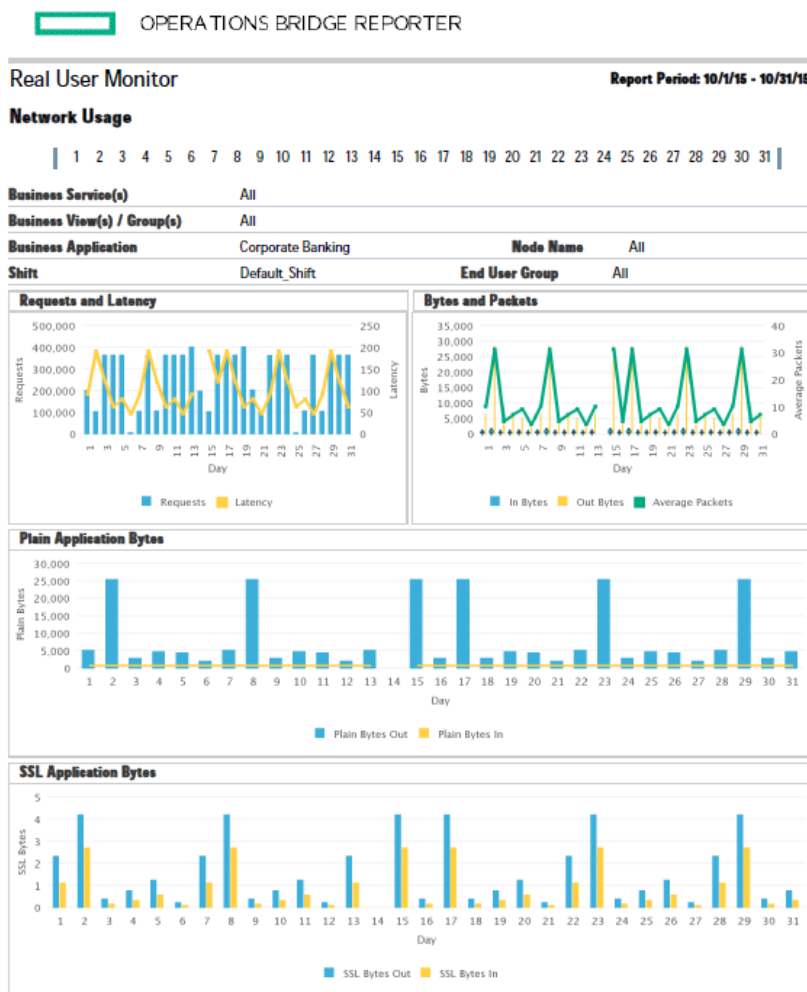
Performance data for the RUM monitored systems that are hosting the business applications.

RUM Top N Nodes

Displays a list of the top N nodes based on the number of bytes handled by the node over a specific period of time. It also provides information on total requests, connections and average latency of application(s) on the nodes. The number of nodes to be displayed can be provided as an input to the report.

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.



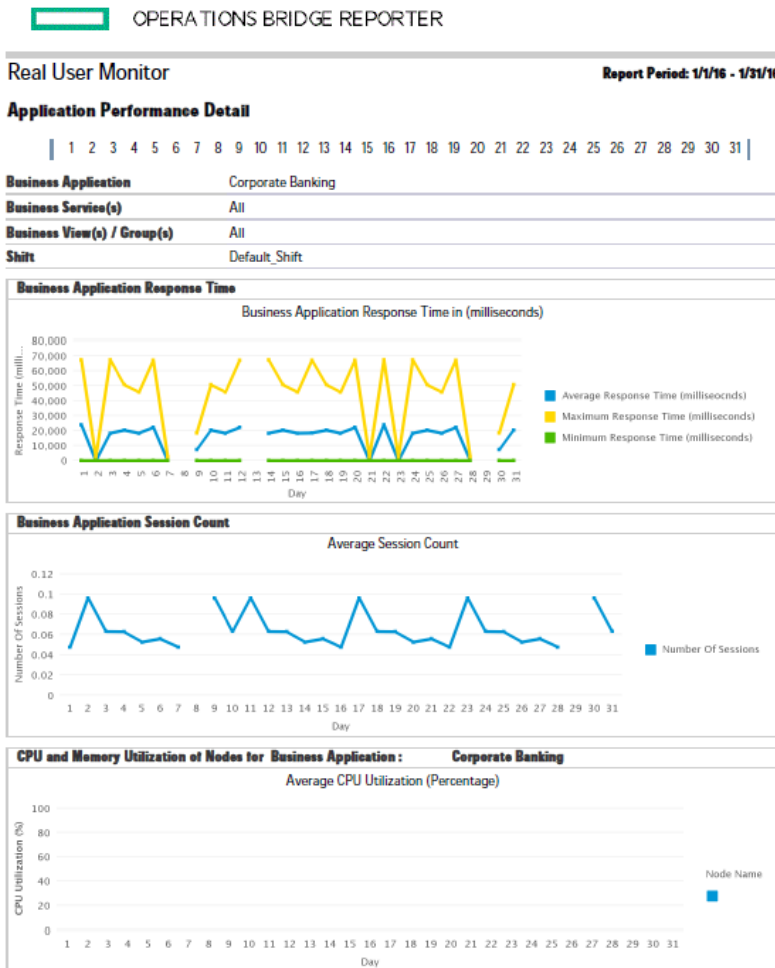
RUM Application Availability

Displays the availability details of the RUM application, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

Performance Analysis Reports

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 Performance data for the nodes that are hosting the application.



RUM End User Groups 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 performance metric data for the nodes that are hosting the business application.

RUM Top 10 Broken Links

Displays the top ten business applications with the highest number of broken link events generated.



Real User Monitor Report Period: 2/1/16 - 2/29/16

Top 10 Broken Links

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s)	All
Business View(s) / Group(s)	All
Shift	Default_Shift

Top 10 Broken Links			
Business Application Tier Name	Business Application Name	Component URL	Broken Link Count
auto-discovered-tier-General_Web	Finance	http://16.150.210.10/medrec/images/spacer.gif	2,113
HTTP-Web	Corporate Banking	http://16.150.153.238/rumsiteNaina/js/loader_homepage_0.js	1,434
HTTP-Web	Corporate Banking	http://16.150.153.238/rumsiteNaina/images/forms/texture_orange_0.gif	1,433
HTTP-Web	Corporate Banking	http://16.150.153.238/rumsiteNaina/images/forms/big_0.gif	1,433
HTTP-Web	Corporate Banking	http://16.150.153.238/rumsiteNaina/css/discount_styles_0.css	1,433
auto-discovered-tier-General_Web	Finance	http://16.150.210.10/rumsiteNaina/js/loader_homepage_0.js	1,414
auto-discovered-tier-General_Web	Finance	http://16.150.210.10/rumsiteNaina/images/forms/texture_orange_0.gif	1,414
auto-discovered-tier-General_Web	Finance	http://16.150.210.10/rumsiteNaina/images/forms/big_0.gif	1,414
auto-discovered-tier-General_Web	Finance	http://16.150.210.10/rumsiteNaina/css/discount_styles_0.css	1,414
auto-discovered-tier-General_Web	Finance	http://16.150.210.10/www.shopping.hp.com/shopping/swf/accessories_navigation.swf?hpUrl=http%3A%2F%2Fwww.shopping.hp.com/webapp/shopping&userTier=	208

Synthetic Transaction Monitoring

The Synthetic Transaction Monitoring (BPM) reports show both summarized and detailed information about the performance, availability, and status of BPM transactions.

Reports

This section describes the following BPM reports:

Executive Summary Reports

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 applications 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, location summary, and end-user groups during the specified period of time.

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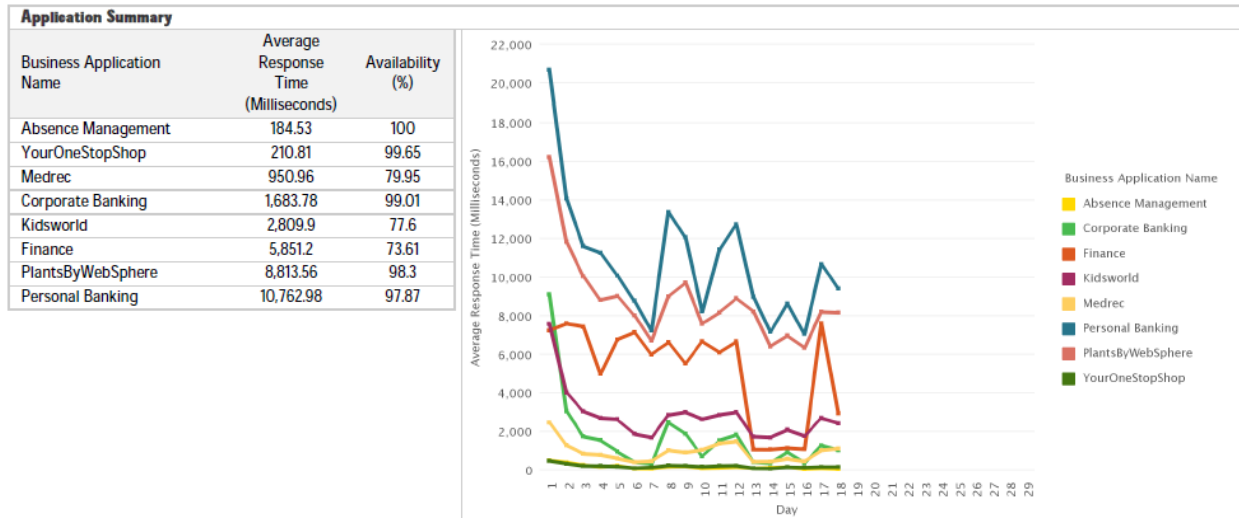
Synthetic Transaction Monitoring

Report Period: 2/1/16 - 2/29/16

Executive Summary - Business Application

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Business Service(s)	All
Business View(s) / Group(s)	All
Shift	Default_Shift



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BPM Top 5 Instances

Displays the top 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.

BPM Application Availability

Displays the availability details of the BPM application, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

OPERATIONS BRIDGE REPORTER

Synthetic Transaction Monitoring

Report Period: 10/1/15 - 10/31/15

Application Availability

Business Service(s)	All		
Business View(s) / Group(s)	All		
Shift	Default_Shift	Location Name	All
Business Application Name	PlantsByWebSphere		

Average Availability %	Average Availability > 95%				Average Availability > 90% and < 95%				Average Availability < 90%															
Date / Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
10/22/2015	100	100	100	100	100	100	100	97.92	100	100	97.92	100	89.58	100	93.75	89.58	87.5	100	100	100	100	100	100	100
10/23/2015	100	100	100	100	100	100	100	100	100	100	100	100	97.22	100	100	95.83	100	100	100	100	100	100	97.92	100
10/24/2015	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	97.92
10/25/2015	100	100	100	100	100	100	100	100	100	100	97.92	92.31	100	100	100	100	100	100	100	100	100	100	100	100
10/26/2015	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	97.92	100	100	100	100	100
10/27/2015	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10/28/2015	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10/29/2015	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10/30/2015	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	95.83	95.83	100	100	100	100	100	100	100
10/31/2015	100																							

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Performance Reports

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.

Synthetic Transaction Monitoring

Report Period: 10/1/15 - 10/31/15

Network Analysis

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31					
Business Service(s)	All				
Business View(s) / Group(s)	All				
Location	All	Shift	Default_Shift		

Application Name	Personal Banking				
Business Transaction Flow Name	PB_BTFF2		Destination	bsmr-vm22.ind.hp.com:9080	
Average Route Time (Milliseconds)	57.67	Maximum Hops	3	Maximum Errors	6
Maximum Route Time (Milliseconds)	14,984	Maximum DNS Time (Milliseconds)	0	Unreachable Count/Total	0 / 1



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.

OPERATIONS BRIDGE REPORTER

Synthetic Transaction Monitoring

Report Period: 2/1/16 - 2/29/16

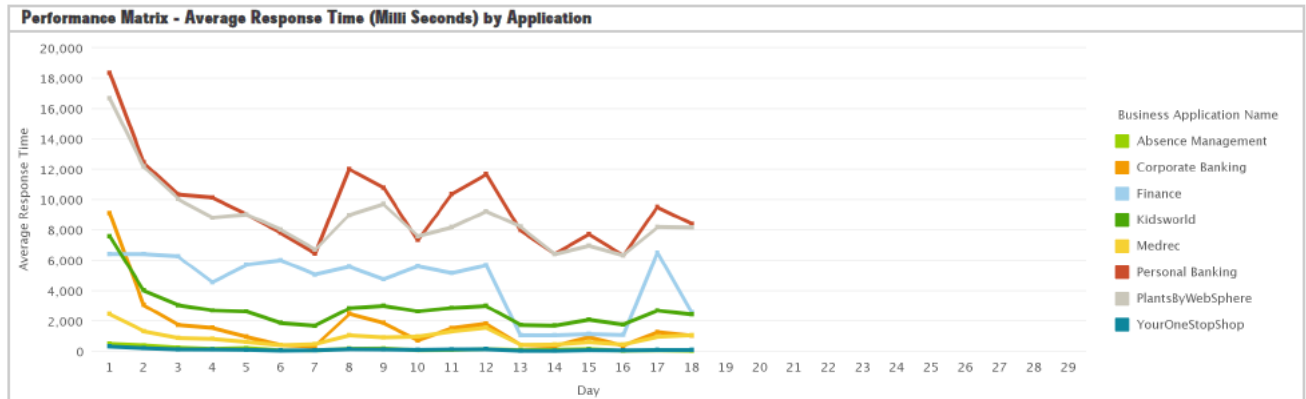
Performance Summary - Business Application

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s) All

Business View(s) / Group(s) All

Shift Default_Shift



Performance Matrix - Fail Percentage by Application

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	< 20	≥ 20 & < 60	≥ 60	
Absence Management	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Corporate Banking	8	2	1	1	0	0	0	2	1	0	1	1	0	0	0	0	0	1	1			
Finance	7	11	12	9	12	15	12	11	9	11	9	29	100	100	100	100	76	46				

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BPM Transaction Analysis

Displays consolidated and in-depth information about the performance and availability of the business transactions (of a particular business application) run over the selected time period.

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Synthetic Transaction Monitoring

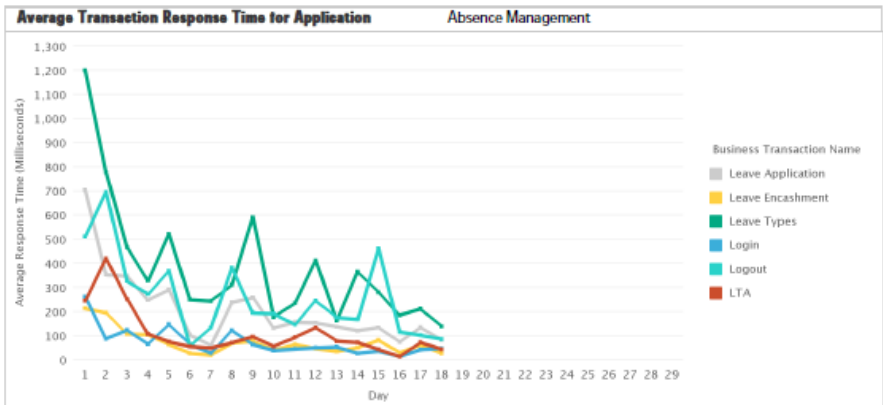
Report Period: 2/1/16 - 2/29/16

Transaction Analysis

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s)	All
Business View(s) / Group(s)	All
Shift	Default_Shift

Business Transaction Summary for Application				Absence Management	
Number of BTFs	1	Average Response Time (Milliseconds)	184.53	<p>Performance</p> <p>Status</p> <ul style="list-style-type: none"> Critical Fail Minor Ok Timeout 	
Number of Locations	1	Maximum Response Time (Milliseconds)	24,760		
Number of End User Groups	1	Availability (%)	100		
Number of Transactions	6	Average Fail Count	0		



Service Health

The Service Health Reports provide an overview of the overall health of the Business Service and the summary of the Key Performance Indicators (KPIs) for each of the Configuration Items (CIs).

Reports

This section describes the following Service Health reports:

KPI Overview

Displays the KPI status for the CIs belonging to the selected CI types for a given period of time. Additionally, it displays the KPI status of the CI as on the last day for which data is collected.

Health Indicator Overview

Displays the Health Indicator (HI) status for the selected CI type over the previous month. Additionally, it displays the HI status for the previous day.

Top N CI by KPI

Displays the top N (5,10, 15) CIs based on the highest duration, in percentage, spent in critical status for a given KPI and business view(s).

Top N Domains by KPI

Displays the Top N (3, 5, 10) domains based on the highest duration, in percentage, spent in critical status by availability and performance KPIs of the top level CIs belonging to a domain. A domain is defined as a group of out of the box views. For example, "System Management" domain will represent the views used to get SiteScope and Operations Agent monitored nodes. The duration of availability and performance KPIs in critical status for a domain is calculated based on the top CIs in the views that belong to the domain.

Service health trend Reports

Health Indicator Status Over Time

Displays the status of HI(s) over a period of time for selected list of CIs.

OPERATIONS BRIDGE REPORTER

Service Health

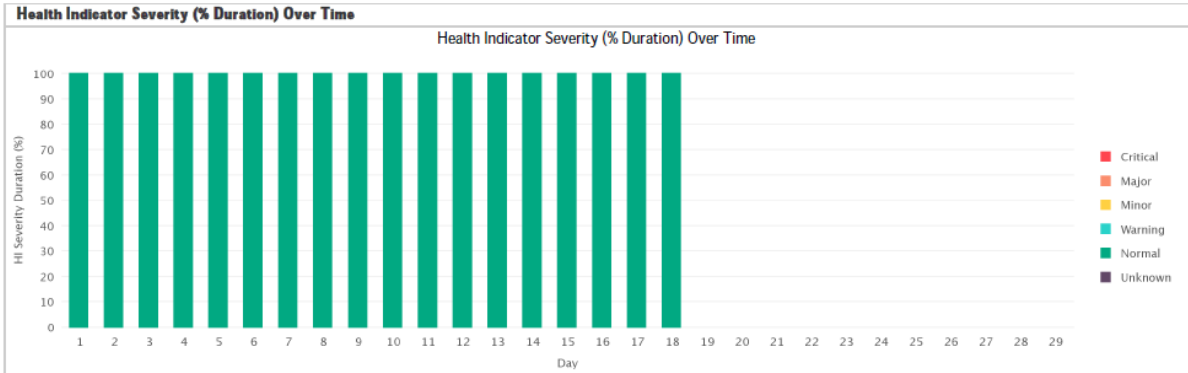
Report Period: 2/1/16 - 2/29/16

Health Indicator Status Over Time

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

CI Name 15.154.86.55 CI Type node

Health Indicator Summary	
HI Name	ResourceAvailable_Devices
Description	
Customer	Default Client
Last Known Severity at 2/15/2016 3:41:00 PM	
<div style="display: flex; justify-content: space-between; align-items: center;"> Critical Major Minor Warning ✔ Normal </div>	



Refresh Date: 2/18/16 3:16:19 PM GMT+00:00 Page 12 of 332

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KPI Status Over Time

Displays the status of KPI(s) over a period of time for selected list of CIs.

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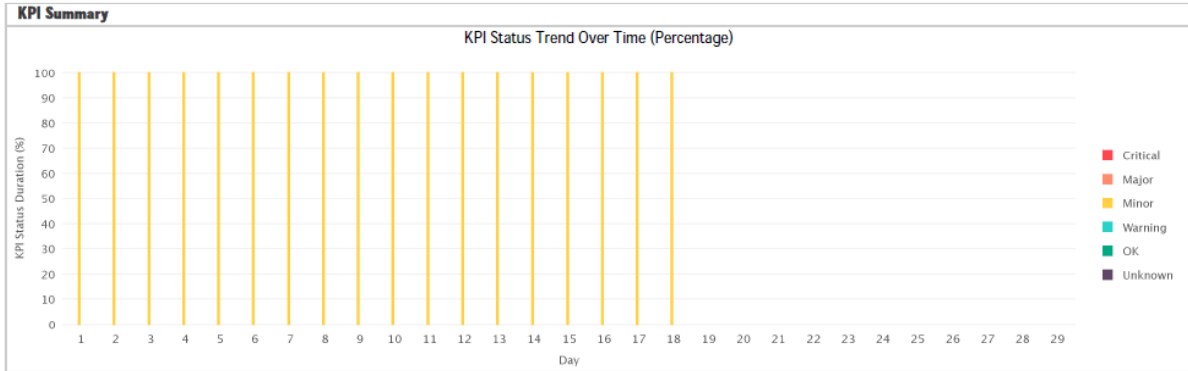
Service Health Report Period: 2/1/16 - 2/29/16

KPI Status over Time

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

CI Name 15.154.86.55 CI Type node

KPI Summary		Customer	Default Client
KPI ID	6	Last Known Status at 2/2/2016 5:25:00 PM ✔	
KPI Name	Application Performance	✘ Critical ⚠ Major ⚠ Minor ⚠ Warning ✔ OK ? Unknown	
Domain	application		



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Chapter 3: Infrastructure Management

The Infrastructure Management category contains information about the IT infrastructure underlying the Business Services.

Enterprise Application Management

Enterprise Application Management folder contains reports related to enterprise applications like Oracle WebLogic, IBM WebSphere, Microsoft Active Directory, Microsoft Exchange Server, Microsoft SQL Server and Oracle.

IBM Websphere

The IBM WebSphere reports display the availability, utilization, and performance information about the IBM WebSphere servers underlying the Business Services.

Reports

This section describes the following IBM WebSphere reports:

Executive Summary Reports

WebSphere Top N Summary

Displays the top N (5,10) JEE server instances based on the Java Virtual Machine (JVM) memory utilization percentage, thread pool utilization percentage, EJB utilization percentage, and JDBC utilization percentage over a selected period of time for selected business service.

Application Server - WebSphere Report Period: 2/1/16 - 2/29/16

WebSphere Top N Summary

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s)	All
Business View(s)/ Group(s)	All
Shift	Default_Shift
Location	All

Top 5 Servers by JVM Memory Utilization Percentage		
JeeServer Full Name	Node Name	Avg JVM Memory Utilization %
PersonalBanking	iwf0041043.ind.hp.com	
Kidsworld	iwf0041043.ind.hp.com	

Top 5 Servers by Thread Pool Size			
JeeServer Full Name	Node Name	Avg Active Thread Count	Avg Thread Pool Size
Kidsworld	iwf0041043.ind.hp.com	1.00	3.65
PersonalBanking	iwf0041043.ind.hp.com	2.00	2.04

Top 5 Servers by EJB Pool Utilization Percentage			
JeeServer Full Name	Node Name	Avg Utilization %	Avg EJB Pool Size
PersonalBanking	iwf0041043.ind.hp.com		
Kidsworld	iwf0041043.ind.hp.com		

Top 5 Servers by JDBC Pool Utilization Percentage			
JeeServer Full Name	Node Name	Avg Utilization %	Avg JDBC Pool Size
PersonalBanking	iwf0041043.ind.hp.com		
Kidsworld	iwf0041043.ind.hp.com		

WebSphere Servlet Performance Overview

Displays the number of requests per second and the execution time in milliseconds, of all the servlets, for a given system and JEE server over a selected period of time.

OPERATIONS BRIDGE REPORTER

Application Server - WebSphere

Report Period: 2/1/16 - 2/29/16

Servlet Performance Overview

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s)	All
Business View(s) / Group(s)	All
Shift	Default_Shift
Location	All
Node Name	iwf0041043.ind.hp.com
JeeServer Full Name	Kidsworld

Servlet Performance Overview				
Servlet Name	Response Time (ms)		Request Rate (Per Sec)	
	Average	Maximum	Average	Maximum
AccountServlet	2.32	23.21	0	0
/addAlbum.jsp	0.3	1.7	0.01	0.09
/admin.jsp	0.08	1.93	0	0
/AlbumCatalog.jsp	0	0	0.05	0.52
AlbumCatalogServlet	10.91	15.5	0.04	0.52
/cart.jsp	0.96	2.62	0	0
/commitAlbums.jsp	0.65	4.99	0.02	0.17
/displayAlbums.jsp	1.67	4.88	0	0
/displayBandAlbums.jsp	1.04	3.2	0	0
/displayBands.jsp	0.2	1.43	0.03	0.25
ImageServlet	5.36	6.55	0.02	0.04
/login.jsp	0.08	2.74	0	0
/product.jsp	0.11	0.62	0	0
/shopping.jsp	0.12	0.6	0	0
ShoppingServlet	13.05	15.79	0.01	0.01
TradeLoginServlet	212.63	271.93	0	0.01
/tradingSimulator.jsp	0.21	2.39	0	0.01

Operations Bridge Reporter | © 2015 Hewlett Packard Enterprise Company, L.P. Refresh Date: 2/18/16 3:44:10 PM GMT+00:00 Page 1 of 1

WebSphere Thread Pool Performance Overview

Displays the number of concurrently active threads and the total number of threads in all thread pools for a selected system and JEE instance.

WebSphere Executive Summary

A cross-domain report that contains system information about the WebSphere servers and the nodes on which they are running. It gives the inventory information about the nodes, the capacity usage, and the Grade of Service (GoS) summary of the nodes. It also displays the severity of the incoming messages from the WebSphere nodes. Additionally, it displays the forecast information for the node over the next 30 days.

WebSphere Server Availability

Displays information about the average availability of the WebSphere server that are running on selected node over a period of time. It also displays the availability details of the WebSphere server, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

Performance Reports

WebSphere Servlet Performance Details

Displays the number of requests per second and the time taken to respond to those requests for servlets hosted on the selected system and JEE server over a selected period of time.

WebSphere Server Availability Details

Displays the amount of time the selected server was up and running, the amount of time it was down, and the unknown time for the server present on the selected node. Displays the availability details of the WebSphere server, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

WebSphere Transaction Performance Details

Displays the performance of transactions for a selected system and JEE server instance with respect to commit rate, rollback rate and time out rate over a selected period of time.

WebSphere JVM Utilization Details

Displays the free heap space and memory utilized by the JVM of selected system and JEE server over a selected period of time.

WebSphere JDBC Pool Throughput and Wait Time Details

Displays the number of connections successfully allocated per second and the amount of time that a client had to wait for a connection from the selected JDBC connection pool during the selected period of time.

WebSphere JDBC Utilization Details

Displays the percentage of connections from the connection pool that are being used for a selected system and JEE server instance over a selected period of time.

WebSphere EJB Performance Details

Displays the number of EJB method calls made per minute, the time taken by the EJB pools (in milliseconds) to respond to the call, the percentage of time for a call to retrieve an EJB from the pool failed, and the average size of the EJB pool over a selected period of time.

Microsoft Active Directory

The Microsoft Active Directory reports provide information about the data consistency across all Domain Controllers (DC), Global Catalog (GC) replication time and replication status, Flexible Single Master Operation (FSMO) role transfer status for each role master, CPU, memory, Directory Information Tree (DIT) disk and log file disk, utilization details for all DCs.

Reports

This section describes the following Microsoft Active Directory reports:

Executive Summary Reports

AD Availability

Displays the availability details of the domains for the selected DCs for a given Business Service or Business View/Node group.

OPERATIONS BRIDGE REPORTER

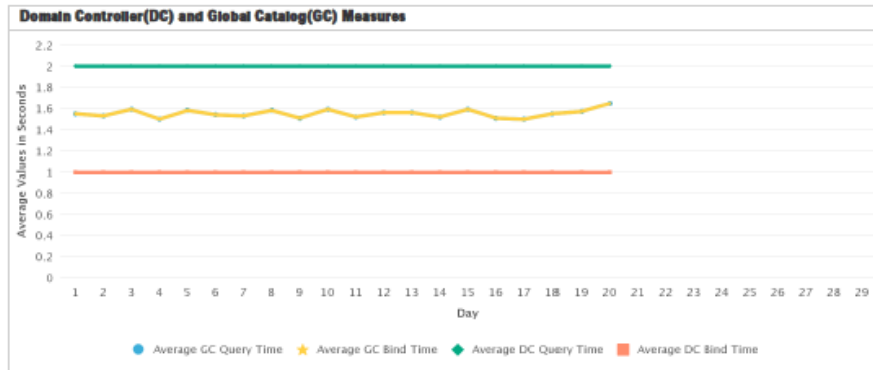
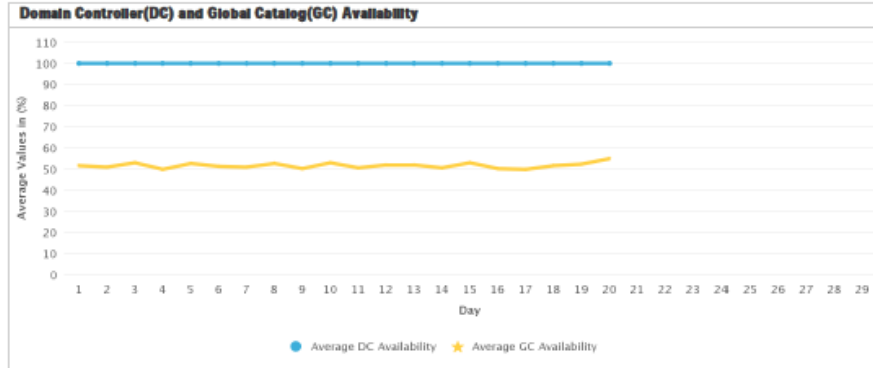
Active Directory

Report Period: 2/1/16 - 2/29/16

AD Availability

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Business Service(s)	All		
Business View(s)/ Group(s)	All		
Shift Name	Default_Shift	Location	All
Domain Controller	iwf1089074.ind.hp.com		



FSMO Role Holder

Displays information about the success or failure of the FSMO role movement between different DCs over for a specific time period for a given Business Service or Business View/Node group.

Active Directory

Report Period: 2/1/16 - 2/29/16

FSMO Role Holder

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Shift Name	Default_Shift	Location	All
FSMO Role Movement			
Domain Controller Name	FSMO Role Name	Time Stamp	Status
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 12:05:00 AM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 1:05:00 AM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 4:45:00 AM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 5:45:00 AM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 9:25:00 AM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 10:25:00 AM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 2:05:00 PM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 3:05:00 PM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 6:45:00 PM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 7:45:00 PM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/1/2016 11:25:00 PM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 12:25:00 AM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 4:05:00 AM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 5:05:00 AM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 8:45:00 AM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 9:45:00 AM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 1:25:00 PM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 2:25:00 PM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 6:05:00 PM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 7:05:00 PM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 10:45:00 PM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/2/2016 11:45:00 PM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 3:25:00 AM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 4:25:00 AM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 8:05:00 AM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 9:05:00 AM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 12:45:00 PM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 1:45:00 PM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 5:25:00 PM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 6:25:00 PM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 10:05:00 PM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/3/2016 11:05:00 PM	LOST
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/4/2016 2:45:00 AM	ACQUIRED
iwf1089074.ind.hp.com	DOMAIN NAMING MASTER	2/4/2016 3:45:00 AM	LOST

Performance Reports

DC - GC Replication Delay

Displays a summary of the delay time for the replication between DC-to-GC servers.

Domain Controller Capacity

Displays the CPU, memory, and log file memory capacity for the selected DCs running on active directory service, over selected period of time.

OPERATIONS BRIDGE REPORTER

Active Directory

Report Period: 1/1/16 - 1/31/16

Domain Controller Capacity

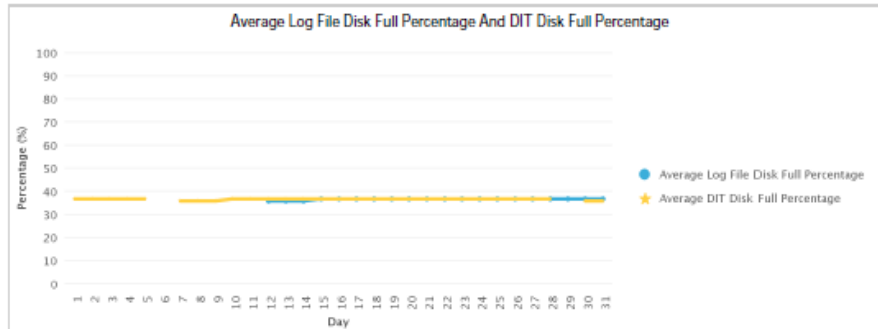
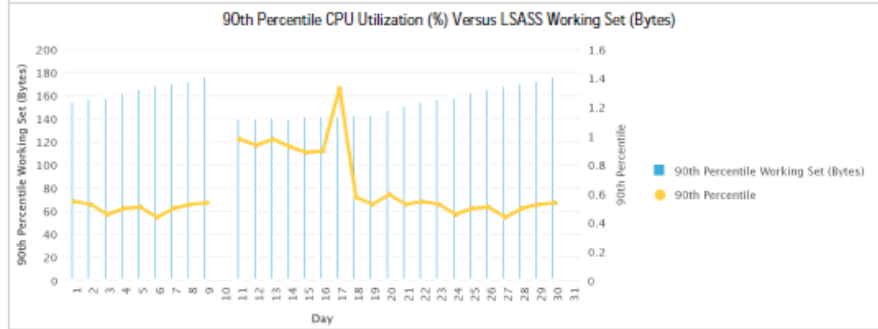
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Business Service(s)	All
Business View(s)/ Group(s)	All
Shift Name	Default_Shift
Location	All

Capacity Details of the Domain Controller

Domain Controller Name	Average LSASS CPU Utilization (%)	Average LSASS Working Set (Bytes)	Average DIT Disk Full (%)	Average Log File Disk Full (%)
iwr1089074.ind.hp.com	0.53	156.43	36.83	36.85

Capacity Details of the Domain Controller



DC Health

Enables to explore health of the DC by trending replication latency, CPU and memory usage of LSASS process over selected period of time.

OPERATIONS BRIDGE REPORTER

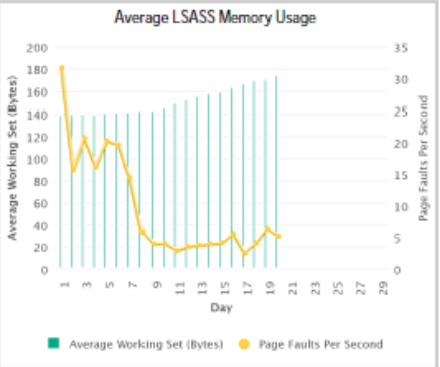
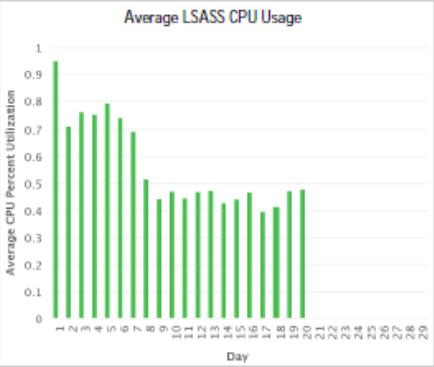
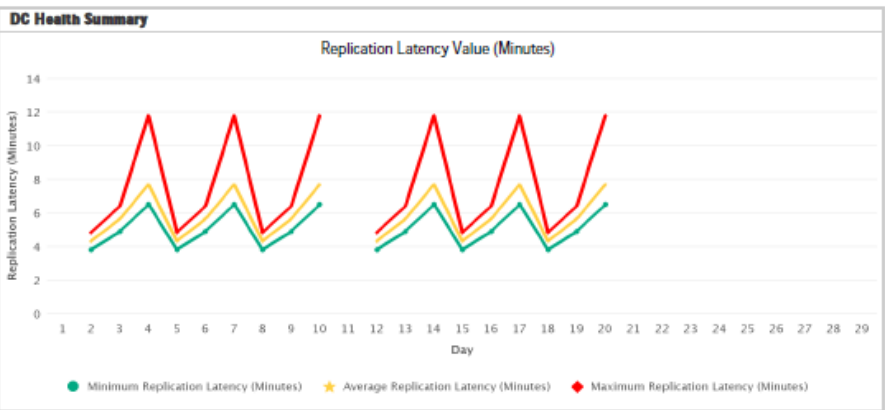
Active Directory

Report Period: 2/1/16 - 2/29/16

DC Health

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s)	All
Business View(s)/ Group(s)	All
Shift Name	Default_Shift
Location	All
Domain Controller Name	iwf1089074.ind.hp.com



DC Availability Details

Displays the availability details such as up time, down time, unknown time, planned downtime, and excused downtime for the selected DCs for a given Business Service or Business View/Node group.

Adhoc

AD Adhoc Comparison

Enables to compare selected DCs based on Disk Queue length, DIT disk space, logfile queue length, logfile disk space and replication latency over selected period of time.

OPERATIONS BRIDGE REPORTER

Active Directory

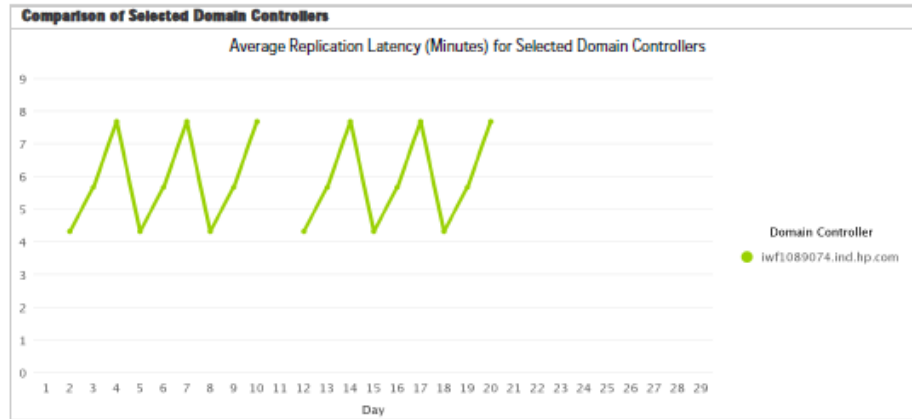
Report Period: 2/1/16 - 2/29/16

AD Adhoc Comparison

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s)	All
Business View/Group(s)	All
Shift Name	Default_Shift
Location	All
Domain Controller Name(s)	All

Average Replication Latency (Minutes)	
Domain Controller Name	Average Disk Queue Length
iwf1089074.ind.hp.com	5.9



Microsoft Exchange

The Microsoft Exchange reports provide the performance details about the Edge Transport server, Hub Transport server, the mailboxes, public folders, Active Directory sites on which the Edge Transport and Hub Transport servers are running, and Exchange Site servers.

Reports

This section describes the following Microsoft Exchange reports:

Executive Summary Reports

Exchange Site Executive Summary

Displays details about the number of users and messages, client access details, delivery notification, and SMTP utilization for a selected site.

Exchange Source and Destination Mails Comparison

Provides a comparison between the number of messages sent and received internally and the number of bytes sent and received externally for a selected list of exchange servers over selected period of time.

Exchange Top N Mail Senders and Recipients

Displays the list of top N (5, 10) message senders and receivers on specified server(s) over selected period of time.

Exchange Top N MailBox Sizes

Displays the list of the top N (5, 10) mailboxes sorted by their size, belonging to specified server(s) or site(s) for a selected period of time.

 OPERATIONS BRIDGE REPORTER

Exchange Server Report Period: 2/1/16 - 2/29/16

Top N MailBox Sizes

Business Service(s)	All
Business View(s) / Group(s)	All
Shift	Default_Shift
Location	All

Top N Mailboxes by Size (MB)					
Site Name	Server Name	MailBox Name	Average MailBox size (MB)	Average No. of Messages Sent	Average No. of Messages Received
default-first-site-name	iwf1089080	arulm	1,066.91		
default-first-site-name	iwf1089080	sabari	999.6		
default-first-site-name	iwf1089080	mazhar	989.54		
default-first-site-name	iwf1089080	naina	973.4		
default-first-site-name	iwf1089080	raghu	955.14		
default-first-site-name	iwf1089080	sujata	883.74		
default-first-site-name	iwf1089080	soumya	876.52		
default-first-site-name	iwf1089080	shika	876.52		
default-first-site-name	iwf1089080	mahesh	876.52		
default-first-site-name	iwf1089080	madhu	876.52		
default-first-site-name	iwf1089080	krtgt	0		
default-first-site-name	iwf1089080	microsoft system	0		

Exchange Top N PubFolder

Displays the list of the top N (5, 10) public folders sorted by their size, belonging to specified server(s) or site(s) for a selected period of time.

Exchange MailServer Summary

Displays the database summary, the user summary, and the message count summary for all the mailboxes and public folders belonging to specified server(s) or site(s) for a selected period of time.

Exchange Server Availability

Displays the availability details of the exchange mail server, as a heat-map based on predetermined thresholds, for every hour across the selected time period.



Exchange Server Report Period: 2/1/16 - 2/29/16

Server Availability

Business Service(s)	All		
Business View(s) / Group(s)	All		
Shift	Default_Shift	Location	All
Server Name	iwf1089078	Role Name	edge transport server role

Average Availability %	Average Availability > 95%			Average Availability > 90% and < 95%			Average Availability < 90%																	
Date / Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2/1/2016																								
2/2/2016																								
2/3/2016																								
2/4/2016								100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/5/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/6/2016																								
2/7/2016	100	100	100	100	100	100	100	100	100	100	100	100												
2/8/2016																								
2/9/2016																								
2/10/2016																								
2/11/2016																								
2/12/2016																								
2/13/2016																								
2/14/2016																								
2/15/2016																								
2/16/2016																								
2/17/2016																								
2/18/2016																								
2/19/2016																								
2/20/2016								100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/21/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

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Performance Reports

Exchange MailBox Details

Displays the mailbox size details and the sent and delivered messages details of selected mailbox(es) for a selected period of time.

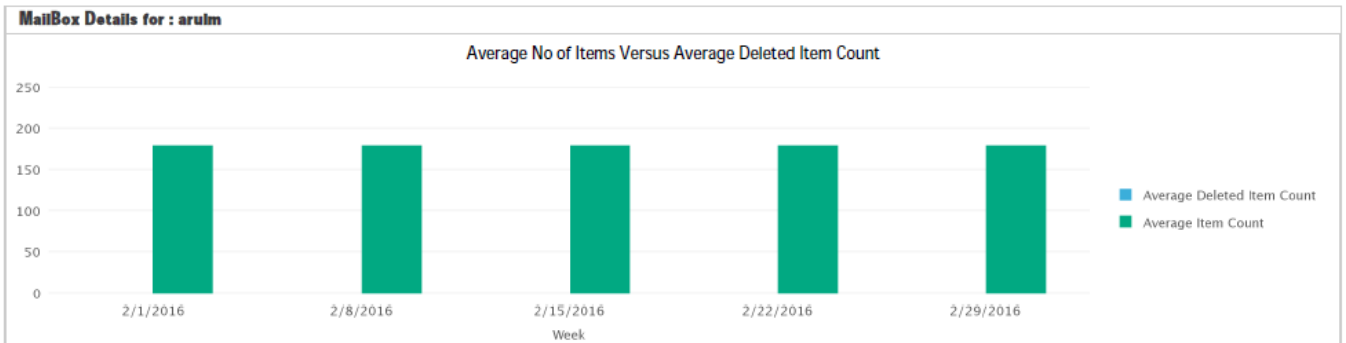
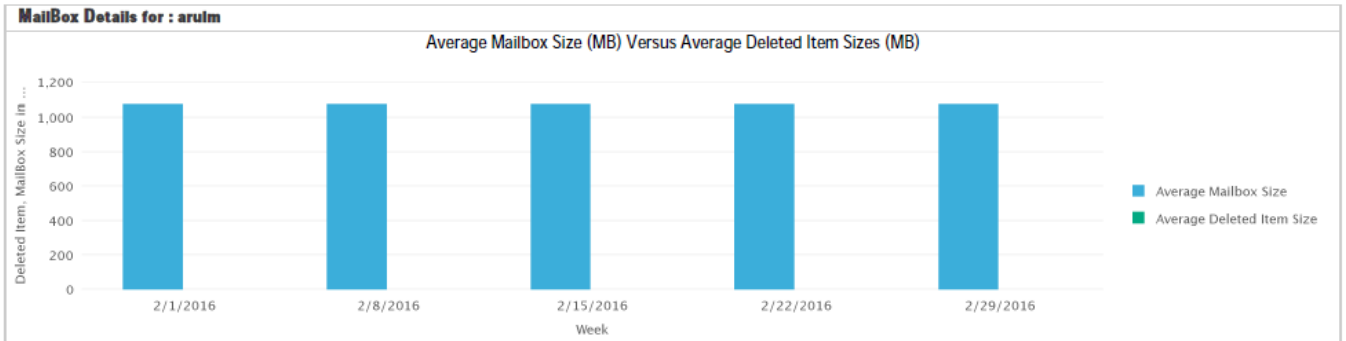
OPERATIONS BRIDGE REPORTER

Exchange Server

Report Period: 2/1/16 - 2/29/16

MailBox Details

Site Name	default-first-site-name	Server Name	iwf1089080	Mailbox Name	arulm
Node Name	iwf1089080.ind.hp.com	Shift	Default_Shift	Location	All



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Exchange MailBox Usage

Displays the space usage details of the mailbox and public folder of selected mail server (s) for a selected period of time.

Exchange Public Folder Details

Displays the public folder size, and sent and delivered messages details of selected public folders for a selected period of time.

OPERATIONS BRIDGE REPORTER

Exchange Server

Report Period: 2/1/16 - 2/29/16

Public Folder Details

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Site Name	default-first-site-name	Server Name	iwf1089080
Shift	Default_Shift	Location	All
Public Folder Name	bsmpubfolder		



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Exchange HubTransport SMTP and DSN Details

Displays the connection details of the SMTP server and the number of failed and delayed Delivery Status Notifications(DSN) sent by the server to the sender for selected exchange server(s) over a period of time.

Exchange EdgeTransport SMTP Details

Displays the number of SMTP bytes and messages sent and received and the total number of inbound and outbound SMTP connections to selected exchange server(s) over a period of time.

Exchange EdgeTransport Queue Details

Displays the number of messages in each queue of the selected Exchange Edge Transport server(s) over time.

Microsoft SQL Server

The Microsoft SQL Server reports display the performance, health, and resource requirement information for the SQL server databases and the instances that are running on these database servers.

Reports

This section describes the following Microsoft SQL Server reports:

Executive Summary Reports

MSSQL Performance Summary

Provides information about the key performance metrics of SQL server instances and the nodes hosting them for selected business service(s) over a period of time.

MSSQL Table Space Usage Top N

Provides comparative information about the top N (5, 10) tables with the lowest available space in the selected node, the SQL server instance, and the SQL server database(s).

Database - MS SQL Report Period: 2/1/16 - 2/29/16

Table Space Usage Top N

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s)	All		
Business View(s)/ Group(s)	All		
Node Name	iwfbtold16.ind.hp.com	Instance Name	iwfbtold16SQLSERVER_109
Database Name	BSM91		
Shift	Default_Shift	Location	All

Top N Database Tables with Less Free Space Availability					
Table Name	Space Allocated (MB)	Free Space (MB)	Space Used (MB)	Free Space (%)	Database Name
BSM91.sysallocunits	0.02	0	0.02	0	BSM91
BSM91.sysbinobjs	0.03	0	0.03	0	BSM91
BSM91.sysclsobjs	0.03	0	0.03	0	BSM91
BSM91.sysdbfiles	0.02	0	0.02	0	BSM91
BSM91.sysfiles1	0.02	0	0.02	0	BSM91
BSM91.syshtcolumns	0.05	0	0.05	0	BSM91
BSM91.syshtobjs	0.02	0	0.02	0	BSM91
BSM91.sysidxstats	0.03	0	0.03	0	BSM91
BSM91.sysiscols	0.02	0	0.02	0	BSM91
BSM91.sysmultiobjrefs	0.03	0	0.03	0	BSM91
BSM91.sysnsobjs	0.03	0	0.03	0	BSM91
BSM91.sysowners	0.05	0	0.05	0	BSM91
BSM91.sysprivs	0.02	0	0.02	0	BSM91
BSM91.sysqnames	0.03	0	0.03	0	BSM91
BSM91.sysrowsetcolumns	0.05	0	0.05	0	BSM91
BSM91.sysrowsets	0.02	0	0.02	0	BSM91
BSM91.sysrts	0.05	0	0.05	0	BSM91
BSM91.sysscalartypes	0.05	0	0.05	0	BSM91
BSM91.syschobjs	0.06	0	0.06	0	BSM91
BSM91.syserefs	0.02	0	0.02	0	BSM91
BSM91.syssingleobjrefs	0.03	0	0.03	0	BSM91
BSM91.sysxmlcomponent	0.03	0	0.03	0	BSM91
BSM91.sysxmlfacet	0.02	0	0.02	0	BSM91
BSM91.sysxmlplacement	0.03	0	0.03	0	BSM91
BSM91.sysobjvalues	0.2	0.05	0.15	25	BSM91
BSM91.syscolpars	0.16	0.05	0.11	31.25	BSM91

MSSQL Database and Virtual Device Space Usage Top N

Lists the top N (5, 10) SQL server databases and virtual devices based on the free space availability for selected node(s).

MSSQL Instance Availability

Provides information about the availability of the database instances that are running on selected node over a period of time. Displays the availability details of Microsoft SQL instances, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

 OPERATIONS BRIDGE REPORTER

Database - MS SQL																	Report Period: 2/1/16 - 2/29/16							
Instance Availability																								
Business Service(s)											All													
Business View(s) / Group(s)											All													
Shift											Default_Shift													
Node Name											iwfbtold16.ind.hp.com													
Location											All													
Instance Name											iwfbtold16SQLSERVER_109													
Average Availability %		Average Availability > 95%							Average Availability > 90% and < 95%							Average Availability < 90%								
Date / Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2/1/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/2/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/3/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/4/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/5/2016	100																							
2/6/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/7/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/8/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/9/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/10/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/11/2016																								
2/12/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/13/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/14/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/15/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/16/2016	100																							
2/17/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/18/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/19/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/20/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/21/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Refresh Date: 2/21/16 5:30:46 AM GMT+00:00 Page 1 of 2
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Performance Reports

MSSQL Database Input and Output Statistics

Provides information about the outstanding read and write rates of a database instance for selected node and SQL server instance over a period of time.

MSSQL Server Transaction Summary

Provides a summary of the transaction details for selected node and SQL server instance over a period of time.

MSSQL Database Space Usage Details

Displays the space utilization of a SQL server database for selected node and SQL Server instance over a period of time.

MSSQL Database Table Space Usage Details

Displays the aggregated amount of space used by a tablespace on selected node, SQL Server instance, and database over a period of time.

MSSQL Virtual Device Space Usage Details

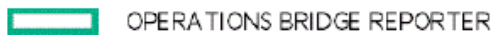
Provides information about the space utilized by virtual devices running on selected node and SQL Server instance over a period of time.

MSSQL Users Connection Summary

Provides information about the user connections to a database instance for selected node and SQL server instance over a period of time.

MSSQL Database Locks Summary

Provides a summary of the database locks usage by a SQL server database for selected node and SQL server instance over a period of time.



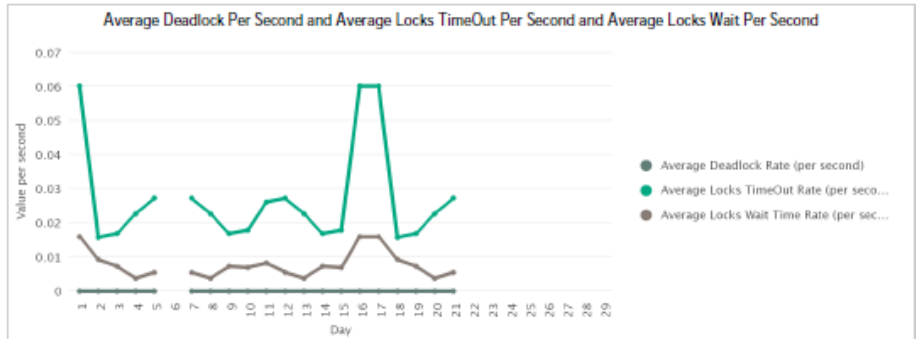
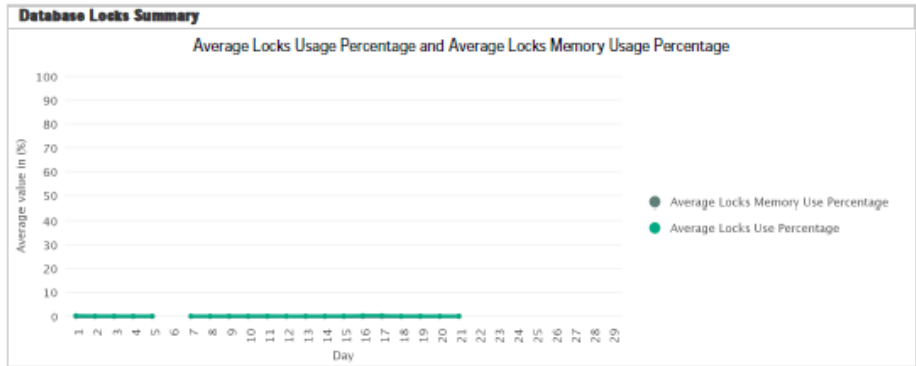
Database - MS SQL Report Period: 2/1/16 - 2/29/16

Database Locks Summary

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Node Name	iwfbtold16.ind.hp.com	Instance Name	iwfbtold16SQLSERVER_109
Shift	Default_Shift	Location	All

Database Locks Summary				
Average Deadlock Rate (per second)	Average Locks Memory Use Percentage	Average Locks TimeOut Rate (per second)	Average Locks Use Percentage	Average Locks Wait Time Rate (per second)
0	0.07	0.03	0.23	0.01



MSSQL Database Performance Summary

Provides information about the key database performance metrics for selected node and SQL server instance over period of time.

MSSQL Instance Availability Details

Provides information about the availability of the database instances that are running on selected node over a period of time. Displays the availability details of Microsoft SQL instances, as a heat-map based on predetermined thresholds, for every hour across the selected time period.



Database - MS SQL

Report Period: 2/1/16 - 2/29/16

Instance Availability Details

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Node Name	iwfbtold16.ind.hp.com	Instance Name	iwfbtold16SQLSERVER_109
Shift	Default_Shift	Location	All

Database Instance Availability Summary						
Instance Name	Instance Uptime (%)	Instance Downtime (%)	Instance Unknowntime (%)	Planned Down Time (%)	Excused Down Time (%)	Availability (%)
iwfbtold16SQLSERVER_109	100.00	0.00	0.00			100



Oracle

The Oracle reports display performance, health, and resource requirement information for the Oracle database servers that are available in an IT environment and the instances running on these database servers.

Reports

This section describes the following Oracle reports:

Executive Summary Reports

Database Oracle Executive Summary

Displays the availability and memory pressure of Oracle instances for a given business service. It also graphs the average memory and CPU utilization of nodes that host the Oracle instances.

Database Oracle Top 10 Instances and Tablespaces

Displays the top 10 Oracle tablespaces based on the available free space and the tablespace input or output. It also displays the top and bottom 10 Oracle instances based on their up time and the free space available.

Database Oracle Top 5 Instances Load and Efficiency

Displays the five busiest Oracle instances and the five Oracle instances that are facing the highest performance problems for selected business service.

OPERATIONS BRIDGE REPORTER

Database Oracle

Report Period: 2/1/16 - 2/29/16

Top 5 Instances by Load & Efficiency

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s)	All
Business View(s) / Group(s)	All
Shift	Default_Shift
Location	All

Top 5 Oracle Instances with High Number of Waits for Redo Log Buffer Space			
Instance Name	Average No of Waits for Redo Log Buffer Space		Node Name
PersonalBanking	19,127.02		iwf0041043.ind.hp.com
Payroll	19,127.02		iwf0041060.ind.hp.com
MobileBanking	256.16		iwf1089077.ind.hp.com
CorporateBanking	256.16		qald1-10.ind.hp.com
YourOneStopShop	207.55		iwfvm00602.hpswlab.adapps.hp.com

Top 5 Oracle Instances with High User Call Rate		
Instance Name	Average User Call Rate	Node Name
PersonalBanking	2,700.12	iwf0041043.ind.hp.com
Payroll	2,700.12	iwf0041060.ind.hp.com
MobileBanking	393.19	iwf1089077.ind.hp.com
CorporateBanking	393.19	qald1-10.ind.hp.com
YourOneStopShop	262.55	iwfvm00602.hpswlab.adapps.hp.com

Top 5 Oracle Instances with High Disk Sort Rate		
Instance Name	Average Disk Sort Rate	Node Name
Payroll	27.81	iwf0041060.ind.hp.com
CorporateBanking	27.8	qald1-10.ind.hp.com
YourOneStopShop	27.79	iwfvm00602.hpswlab.adapps.hp.com
Kidsworld	27.7	iwf1088160.ind.hp.com
CorporateBankingDev	27.53	iwfvm90044.hpswlab.adapps.hp.com

Top 5 Oracle Instances with High User Logon Count		
Instance Name	Maximum User Logon Count	Node Name
PersonalBanking	106	iwf0041043.ind.hp.com
Payroll	106	iwf0041060.ind.hp.com
CorporateBankingDev	34	iwfvm90044.hpswlab.adapps.hp.com
AbsenceMgmt	34	iwf1088156.ind.hp.com
MobileBanking	31	iwf1089077.ind.hp.com

Database Oracle Instance Availability

Provides information about the availability of the database instances that are running on selected node over a period of time. Displays the availability details of Oracle instances, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

OPERATIONS BRIDGE REPORTER

Database Oracle

Report Period: 2/1/16 - 2/29/16

Oracle Instance Availability

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29



Instance Availability Percentage						
Instance Name	Node Name	Up Time (%)	Down Time (%)	Planned Down Time (%)	Excused Down Time (%)	Availability (%)
PersonalBanking	iwf0041043.ind.hp.com	100	0			100

Performance Reports

Database Oracle Instance Availability Detail

Displays the availability of specified instance that is running on selected node for a given time period. Displays the availability details of Oracle instances, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

Database Oracle Instance Space Utilization Details

Displays the total amount of space used by all the Oracle instances that are running on selected Oracle node(s).

Database Oracle TableSpace Space Utilization Detail

Displays the aggregated amount of space for the selected tablespaces running on instances of specific Oracle node.

Database Oracle TableSpace Detail

Displays the average tablespace utilization for the selected instance running on specified node.

Database Oracle Disk and Memory Sort Detail

Displays the disk sort and memory sort rates for the selected instance that is running on a selected Oracle node.

OPERATIONS BRIDGE REPORTER

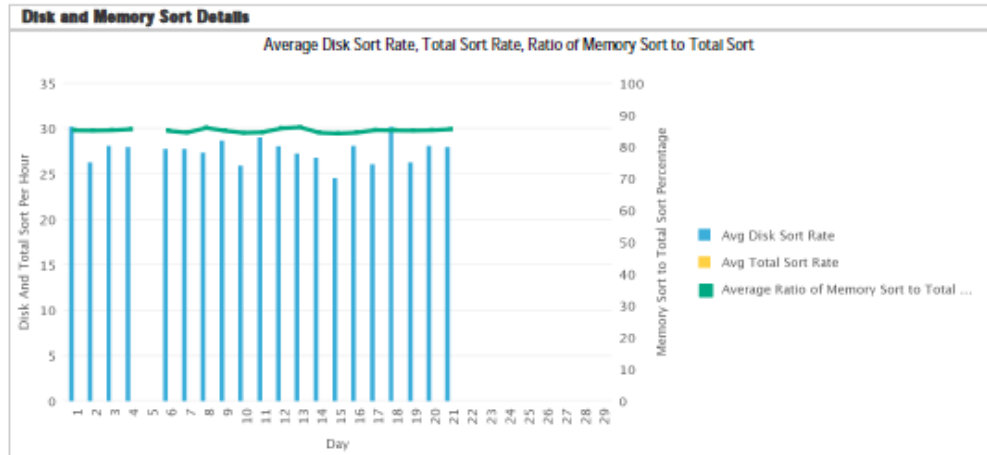
Database Oracle

Report Period: 2/1/16 - 2/29/16

Oracle Disk and Memory Sort Detail

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Node Name	iwfvm90044.hpswlab.adapps.hp.com	Instance Name	CorporateBankingDev
Shift	Default_Shift	Location	All



Disk and Memory Sort Details		
Average Total(Disk+Memory) Sort Per Hour	Average Disk Sort Per Hour	Average Ratio of Memory Sort to Total Sort
	27.53	85.19

Database Oracle Shared Pool and Cached Performance Detail

Displays the health and performance of the Oracle shared pool and cache for the selected instance running on a specific Oracle node.

Database Oracle Segment Detail

Displays the performance of the extents and segments available for the selected instance that are running on a specific Oracle node.

Database Oracle Archive Device detail

Displays the archive device utilization for the selected instance that is running on the selected node and instance.

Database Oracle SQL Performance Detail

Displays the SQL performances of the specific instances running on a selected Oracle node. One can use the report to analyze the SQL performance for each instance and preserve SQL efficiency for varying transaction loads.



Database Oracle Report Period: 1/1/16 - 1/31/16

SQL Performance Detail

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Node Name iwfl088160.ind.hp.com **Instance Name** Kidsworld
Shift Name Default_Shift **Location Name** All



Oracle WebLogic

The Oracle WebLogic reports provide information on the processes, health, and availability of the Oracle WebLogic servers underlying the Business Service.

Reports

This section describes the following Oracle WebLogic reports:

Executive Summary Reports

WebLogic Servlet Performance Summary

Displays the number of requests per second and execution time in milliseconds, of all the servlets, for a given system and JEE server over a selected period of time.

WebLogic Top N Summary

Displays the lists of the top N (5, 10) systems based on JVM memory utilization percentage, execute queue wait count, JDBC delay time, and EJB wait rate.

WebLogic JDBC Connection Pool Summary

Displays the top and bottom five JDBC connection pools based on the average delay time, leak rate, average utilization percentage, and the average throughput rate.

WebLogic Executive Summary

A cross-domain report that contains system information about the WebLogic servers and the nodes on which they are running. It gives the inventory information about the nodes, the capacity usage, and the GoS summary of the nodes. It also gives the severity of the incoming messages from the WebLogic nodes. Additionally, it displays the number of weblogic nodes that may run out of CPU, memory, filesystem space in the next 30 days.

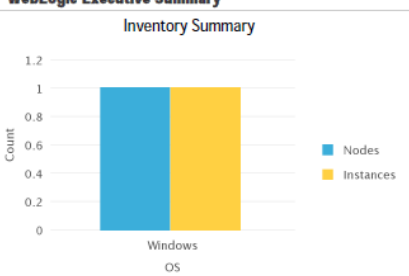
Application Server - WebLogic

Report Period: 2/1/16 - 2/29/16

WebLogic Executive Summary

Business Service(s)	All
Business View(s)/ Group(s)	All
Shift	Default_Shift
Location	All

WebLogic Executive Summary

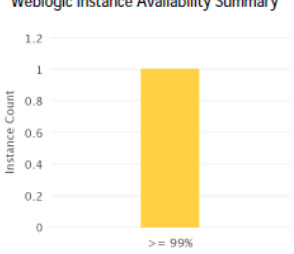


Inventory Summary

OS	Nodes	Instances
Windows	1	1

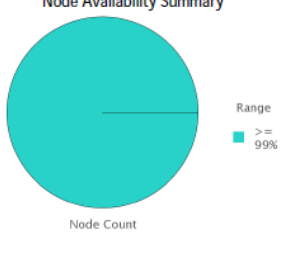
Capacity Usage by OS				
OS	Nodes (Count)	CPU Capacity (GHz)	Avg CPU Usage (%)	Max CPU Usage (%)
Windows	1		30.67	100

Capacity Forecast Summary for next 30 Days as on 2/21/16	
No. of nodes reaching capacity for CPU	0
No. of nodes reaching capacity for Memory	0
No. of nodes reaching capacity for FileSystem	0



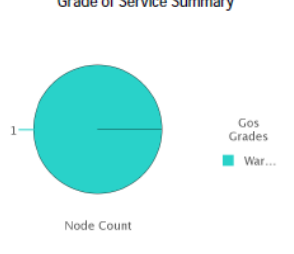
Weblogic Instance Availability Summary

Availability Range	Instance Count
>= 99%	1




Node Availability Summary

Range	Node Count
>= 99%	1



Grade of Service Summary

Gos Grades	Node Count
War...	1



Message Summary

Severity	Message Count
Critical	1
Major	2
Minor	1
Warning	1
Normal	53
Unknown	0

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WebLogic Server Availability

Displays the availability details of the WebLogic server, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

 OPERATIONS BRIDGE REPORTER

Application Server - WebLogic

Report Period: 2/1/16 - 2/29/16

Server Availability

Business Service(s)	All		
Business View(s) / Group(s)	All		
Shift	Default_Shift	Location	All
Node Name	iwf0041041.ind.hp.com	JeeServer Name	SHRRDServer

Date / Hour	Average Availability > 95%								Average Availability > 90% and < 95%								Average Availability < 90%							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2/1/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/2/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/3/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/4/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/5/2016	100																							
2/6/2016																								
2/7/2016																				100	100	100	100	
2/8/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/9/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/10/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/11/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/12/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/13/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/14/2016	100																			100	100	100	100	
2/15/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/16/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/17/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/18/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
2/19/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	

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Performance Reports

WebLogic JMS Performance Details

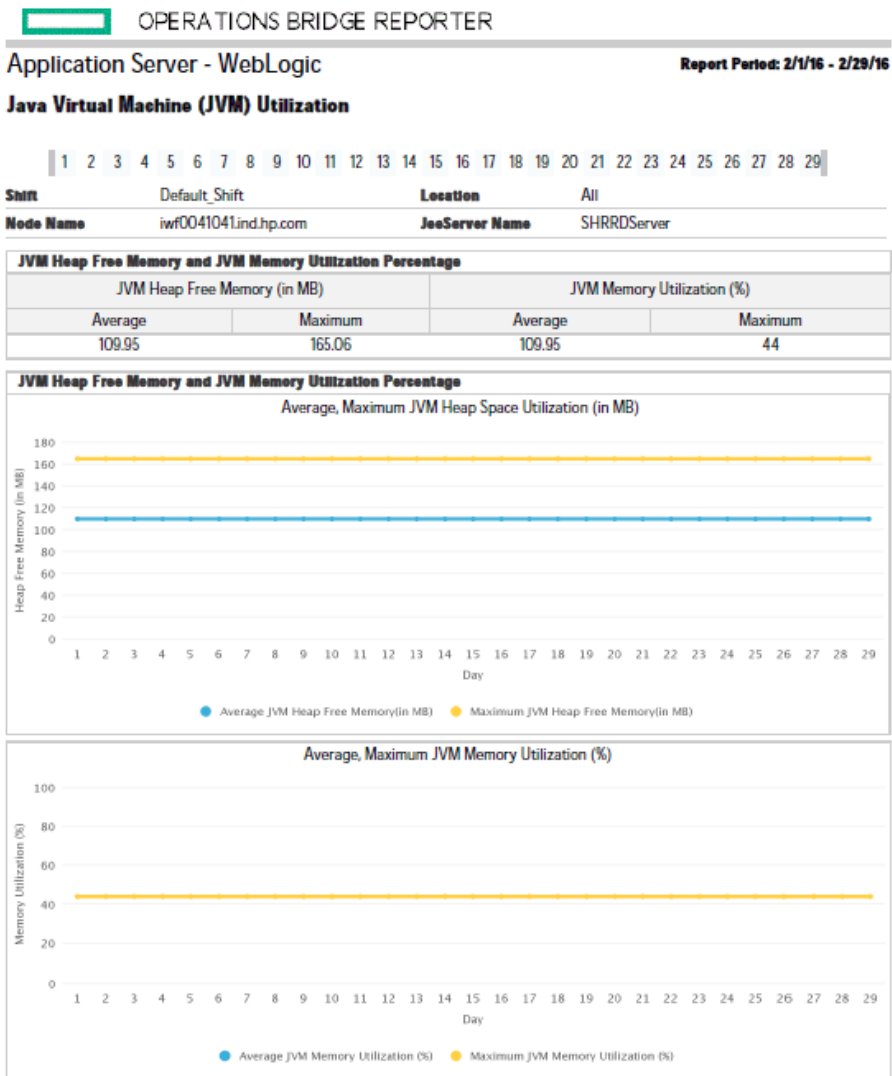
Displays the number of messages and bytes passing through the JMS server per second, and the percentage of JMS server filled by these messages and bytes for selected JMS Server(s).

WebLogic EJB Cache Hit

Displays the percentage of used EJBs in the cache. This report displays the average and the maximum values of the cache hit percentage for selected WebLogic instance(s) over a selected period of time.

WebLogic JVM Utilization

Displays the free heap space and memory utilized by the JVM of selected node and JEE server over a selected period of time.



WebLogic Server Availability Details

Displays the amount of time the selected server was up and running, the amount of time it was down, and the unknown time for the server present on selected node(s). Displays the availability details of the WebLogic server, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

OPERATIONS BRIDGE REPORTER

Application Server - WebLogic

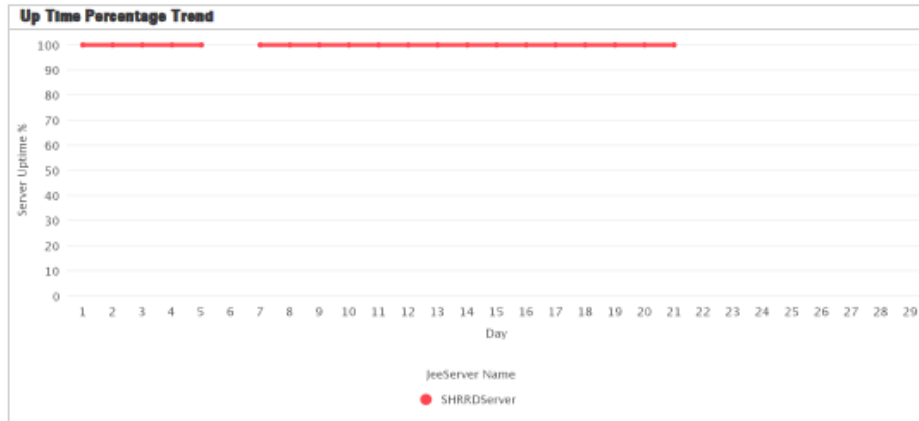
Report Period: 2/1/16 - 2/29/16

Server Availability Details

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Shift	Default_Shift	Location	All
Node Name	iwf0041041.ind.hp.com		

Server Availability Summary						
JeeServer Name	Uptime (%)	Downtime (%)	Unknowntime (%)	Planned Downtime (%)	Excused Downtime (%)	Availability (%)
SHRRServer	100	0	0			100.00



WebLogic Transaction Performance Details

Displays the number of transactions processed per second and the average commit time taken for each transaction for selected node(s).

Mashup reports

Mashup Report folder contains reports related to MyBSM integration. The reports displays prompts necessary for MyBSM/dashboard integration.

Reports

This section describes the following Mashup reports:

SM CPU Heat Chart

Displays average CPU utilization for system management that cross high and low threshold based on selected Business Service, Business View or node group.

Operations Bridge Reporter: System Management

Report Period: 11/2/15 - 2/1/16

CPU Heat Chart

This report highlights when Average CPU Utilization (%) crossed High and Low thresholds for nodes for selected Business Service and Business View.

Average CPU Utilization (%)	CPU Utilization > 65										CPU Utilization >= 25 and <= 65										CPU Utilization < 25											
Node Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
shrbat11ind.hp.com	38		38	39	38	39	38	38	38	38	39	43	38	38	38	39	38	39	38	38	38	38	38	38	38	38	41	38	38	40	38	38

SM Memory Heat Chart

Displays average memory utilization for system management that cross high and low threshold based on selected Business Service, Business View or node group.

SM Virtualization VMware Cluster Inventory

Displays cluster inventory details such as CPU capacity, memory capacity, number of ESX nodes, and number of logical systems of a VMware cluster.

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 one analyze the health of the monitored network devices.

Executive Summary Reports

Reports

This section describes the following Network reports:

Network and System Node Inventory

Provides an inventory of all the network and system nodes 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 NNMi SPI 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, one 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.

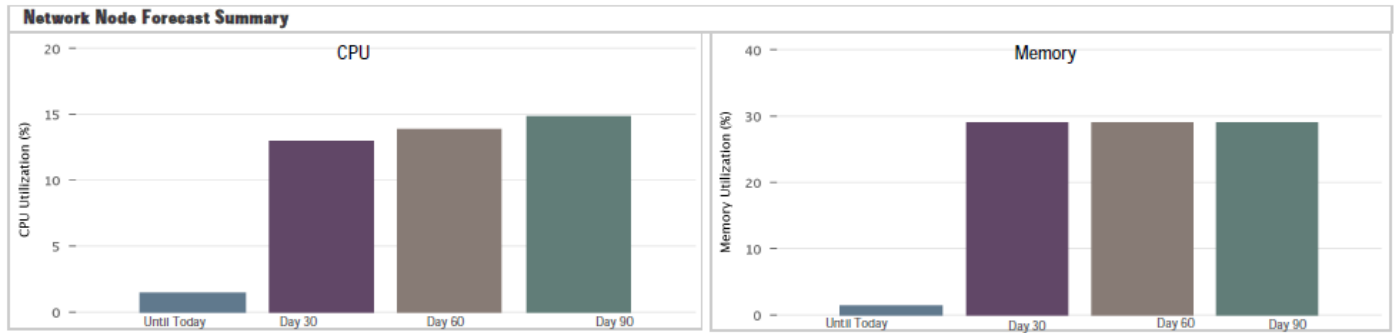
Network

Report Period: As on 2/21/16

Network Forecast Summary

Business Service(s)	All
Business View(s)/ Group(s)	All
Shift	Default_Shift
Location	All

Network Node Summary				
No of Network Nodes	CPU Utilization (%)		Memory Utilization (%)	
	Average	Maximum	Average	Maximum
	<5	80	<5	85



Network Node Forecast Details								
Network Nodes	Today		Day 30		Day 60		Day 90	
	CPU Utilization % (Avg & Max)	Memory Utilization % (Avg & Max)	CPU Utilization % (Avg & Max)	Memory Utilization % (Avg & Max)	CPU Utilization % (Avg & Max)	Memory Utilization % (Avg & Max)	CPU Utilization % (Avg & Max)	Memory Utilization % (Avg & Max)
15.154.87.190	5.65 80	5.39 85	12.92 16	29 30	13.86 17	29 30	14.84 18	29 30
15.154.96.4	<5 0	<5 0						

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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 an IT environment over a specific period of time.

Network Node Baseline 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.

Network Node Availability

Displays the availability details of the monitored network nodes, as a heat-map based on predetermined thresholds, for every hour across the selected time period.



Network

Report Period: 2/1/16 - 2/29/16

Network Node Availability

Business Service(s) All

Business View(s) / Group(s) All

Shift Default_Shift

Location All

Node Name 15.154.87.190

Date / Hour	Average Availability %																							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2/1/2016	40	40	40	40	40	40	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/2/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/3/2016	100	100	100	100	100	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	25	25	25	25
2/4/2016	25	25	25	25	25	25																		
2/5/2016																								
2/6/2016									25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
2/7/2016	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
2/8/2016	25	25	25	25	25	25																		
2/9/2016						25	25	25	25	25	25	25	25	25	25	25	25	40	40	40	40	40	40	40
2/10/2016	40	40	40	40	40	40	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/11/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/12/2016	100	100	100	100	100	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
2/13/2016	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
2/14/2016	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
2/15/2016	40	40	40	40	40	40	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/16/2016	100	100	100	100	100	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
2/17/2016	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
2/18/2016	40	40	40	40	40	40	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/19/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/20/2016	100	100	100	100	100	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	25	25	25	25
2/21/2016	25	25	25	25	25	25																		
2/22/2016																								

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Network Component Health

The Network Component Health reports provide performance data for the network components such as CPU, Memory, Buffer, SNMP response time as chart and/or table. These reports help you to monitor the backplane utilization, buffer utilization, CPU utilization, memory utilization, and also to identify the top and bottom nodes that are available and reachable. You can drill down the report from year to 5 minute data.

Reports

This section describes the following Network Component Health reports:

Network Component Health Backplane Utilization

Displays backplane utilization for a node. The backplane utilization is displayed on single page per node. It provides information on maximum and minimum backplane utilization for a node as table and as a chart. The second chart in the report displays average backplane utilization for selected component(s) of the node as a chart.

Network Component Health Buffer Utilization and Misses

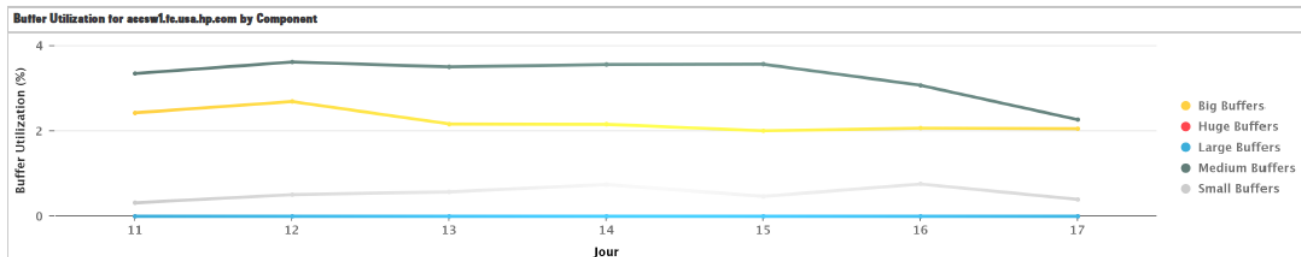
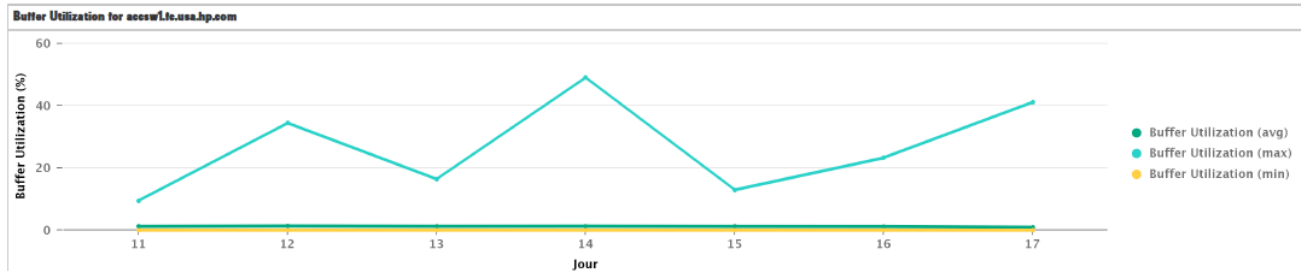
Displays buffer utilization and buffer miss rate for a node. The buffer utilization and buffer miss rate are displayed on single page per node. It provides information on average, maximum, and minimum buffer utilization and buffer miss rate for a node as table and as a chart. The second chart in the report displays average buffer utilization for selected component(s) of the node as a chart.

Component Health

Report Period :2/11/13 - 2/6/17

Network Component Health Buffer utilization and Misses

Node Name	Buffer Utilization (min)	Buffer Utilization (max)	Buffer Utilization (avg)	Buffer Miss Rate (min)	Buffer Miss Rate (Max)	Buffer Miss Rate (Avg)
accsw1.fc.usa.hp.com	0	49.14	1.21	0	0.18	0



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Network Component Health CPU Utilization

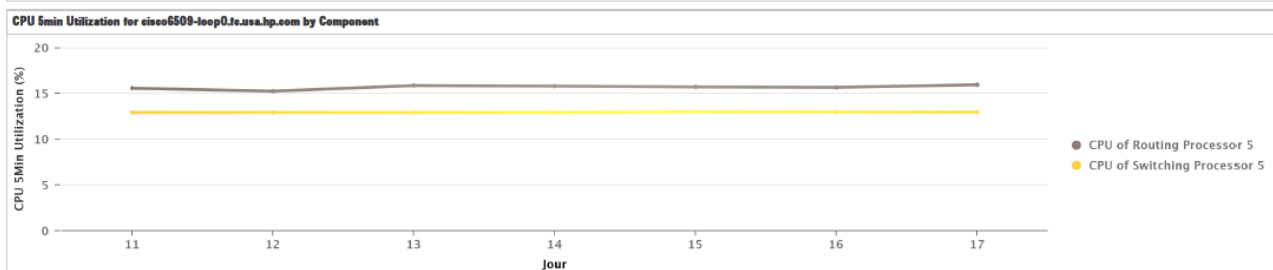
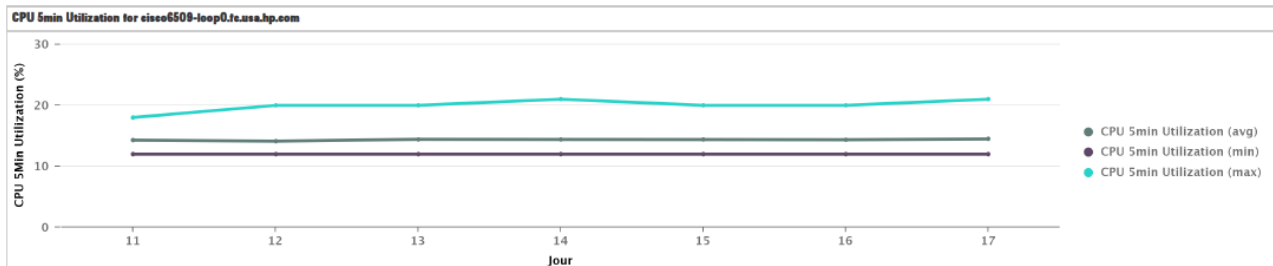
Displays CPU 5min Utilization and CPU 1min Utilization for a node. The CPU 5min Utilization and CPU 1min Utilization are displayed on single page per node. It provides information on average, maximum, and minimum CPU 5min Utilization and CPU 1min Utilization for a node as table and as a chart. The second chart in the report displays average CPU 5min Utilization for selected component(s) of the node as a chart.

Component Health

Report Period : 2/11/13 - 2/6/17

Network Component Health CPU Utilization

Node Name	CPU 5min Utilization (min)	CPU 5min Utilization (max)	CPU 5min Utilization (avg)	CPU 1min Utilization (min)	CPU 1min Utilization (avg)	CPU 1min Utilization (max)
cisco6509-loop0.fc.usa.hp.com	12	21	14.35	11	14.62	27



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Network Component Health Heat Chart

Displays availability and reachability for all the selected nodes as a chart.

Network Component Health MEMORY Utilization

Displays memory utilization for a node. The memory utilization is displayed on single page per node. It provides information on maximum and minimum memory utilization for a node as table and as a chart. The second chart in the report displays average memory utilization for selected component(s) of the node as a chart.

Network Component Health Top and Bottom N Nodes

Displays average node availability , average node reachability, average SNMP response time, and average ICMP response time for top and bottom N selected nodes based on availability and reachability.

Network Component Health Overview

Displays top N node name as a chart with low availability, CPU utilization, and memory utilization for all selected nodes.

 OPERATIONS BRIDGE REPORTER

Component Health

Report Period : 2/11/13 - :

Network Component Health Overview

| 2013 2014 2015 2016 2017 |

Nodes With Low Availability (avg) (Less than 100% but greater than 1%)

Node Name	Node Availability (avg)	Node Availability (max)	Node Availability (min)
internet-switch-3.fc.usa.hp.com	100	100	74.3
internet-switch-4.fc.usa.hp.com	100	100	66.6
dcbladesrvr.fc.usa.hp.com	100	100	45.6

Top 10 Nodes by Node Availability (avg)

Node Name	Node Availability (avg)	Node Availability (max)	Node Availability (min)
16.78.56.12	100	100	100
16.78.56.20	100	100	100
16.78.56.3	100	100	100
16.78.56.40	100	100	100
16.78.56.6	100	100	100
16.78.56.99	100	100	100
5uecon9.fc.usa.hp.com	100	100	100

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Network Interface Health

The Network Interface Health reports provide information about discard rate, error rate, inventory, SNMP response time, utilization, volume rate for network interfaces. These reports help you to determine the status of the interfaces on your network.

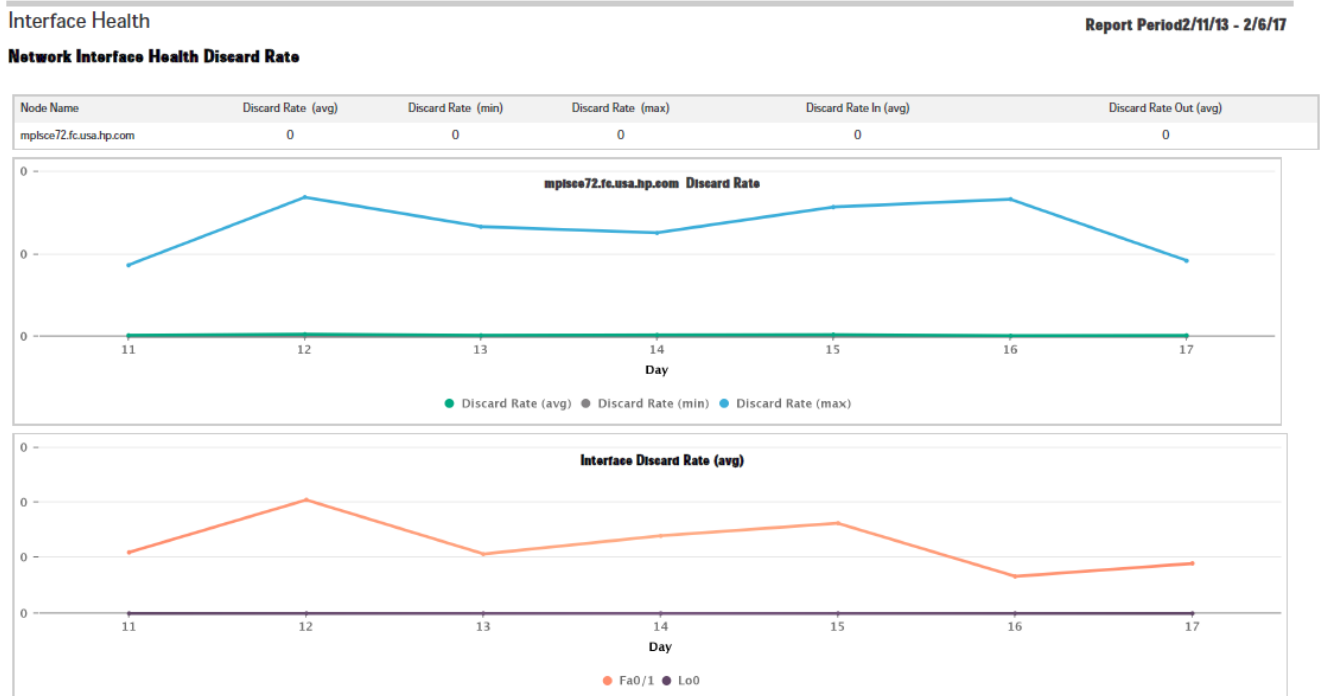
Reports

This section describes the following Network Interface Health reports:

Network Interface Health Discard Rate

Displays discard rate, discard rate in, and discard rate out for a node. The discard rate is displayed on single page per node. It provides information on average, maximum and minimum discard rate for a node as table and as a chart. The second chart in the report displays average discard rate for selected interface of the node as a chart.

 OPERATIONS BRIDGE REPORTER



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Network Interface Health Error Rate

Displays error rate, error rate in, and error rate out for a node. The error rate is displayed on single page per node. It provides information on average, maximum and minimum

error rate for a node as table and as a chart. The second chart in the report displays average error rate for selected interface of the node as a chart.

Network Interface Health Inventory Report

Provides information on network health inventory such as interface name, interface type, tenant name, and security or group name for groups. It also provides inventory summary for a particular inventory with number of nodes, tenant name, qualified interface and interface type.

Network Interface Health Overview

Provides overview of health of the network interfaces available in your environment. Displays interfaces by their volume, discard rate, and errors. It also displays interfaces with low availability of less than 100% and greater than 1%, and interfaces with lowest availability.

Network Interface Health SNMP Response Time

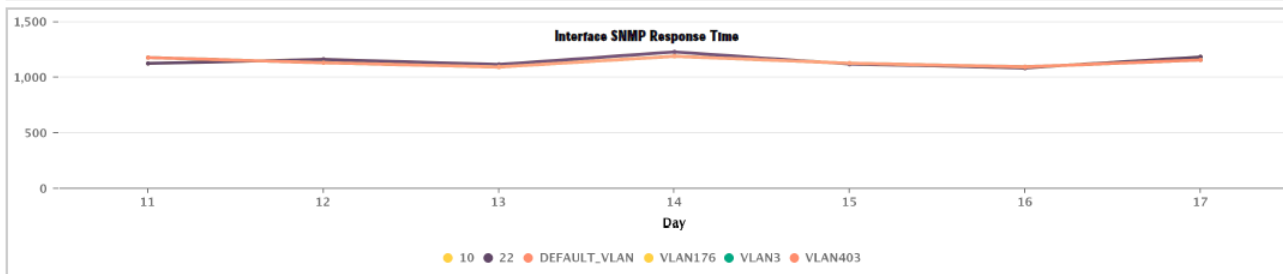
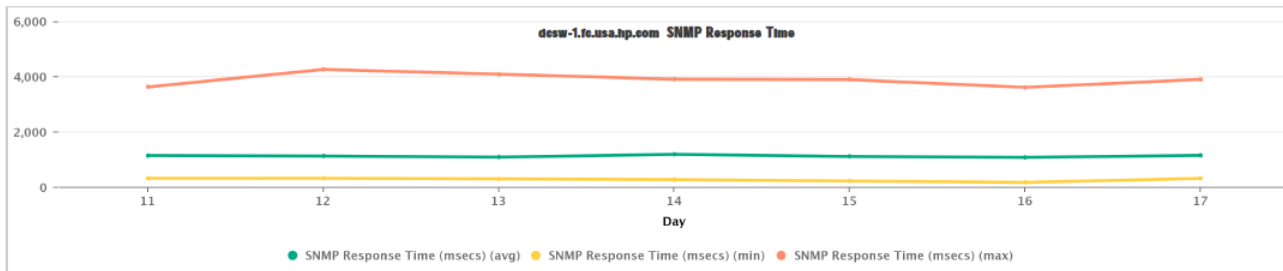
Displays SNMP Response Time for a node. The SNMP Response Time is displayed on single page per node. It provides information on average, maximum and minimum SNMP Response Time for a node as table and as a chart. The second chart in the report displays average SNMP Response Time for selected interface of the node as a chart.

 OPERATIONS BRIDGE REPORTER

Interface Health Report Period :2/11/13 - 2/6/17

Network Interface Health SNMP Response Time

Node Name	SNMP Response Time (msecs) (avg)	SNMP Response Time (msecs) (min)	SNMP Response Time (msecs) (max)
dcsw-1.fc.usa.hp.com	1,142.43	186	4,282



Network Interface Health Top and Bottom N Nodes

Displays top and bottom N nodes based on node availability and SNMP response time. The Top and Bottom N Availability and Top and Bottom N Node by SNMP Response tabs provides information such as average node availability, SNMP response time, utilization, throughput, discard rate, and error rate for top and bottom N node names based on node availability and SNMP response time.

Network Interface Health Utilization

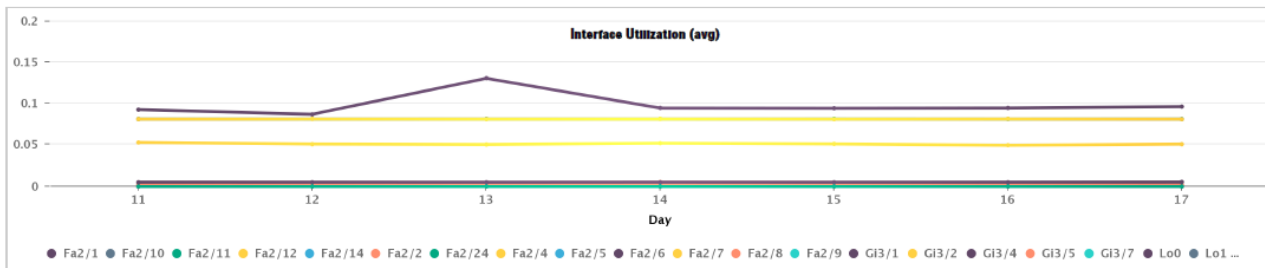
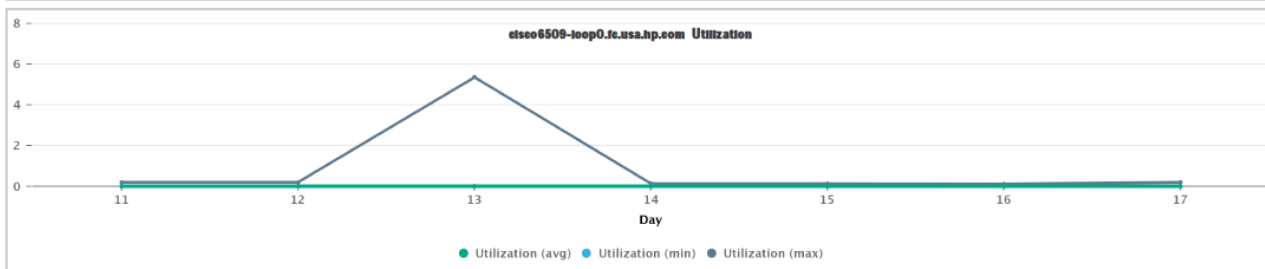
Displays utilization, utilization in, and utilization out for a node. The utilization is displayed on single page per node. It provides information on average, maximum and minimum utilization for a node as table and as a chart. The second chart in the report displays average utilization for selected interface of the node as a chart.



Interface Health Report Period 2/11/13 - 2/6/17

Network Interface Health Utilization

Node Name	Utilization (avg)	Utilization (min)	Utilization (max)	Utilization In (avg)	Utilization Out (avg)
cisco6509-loop0.fc.usa.hp.com	0.02	0	5.37	0.01	0.02



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Network Interface Health Volume Rate

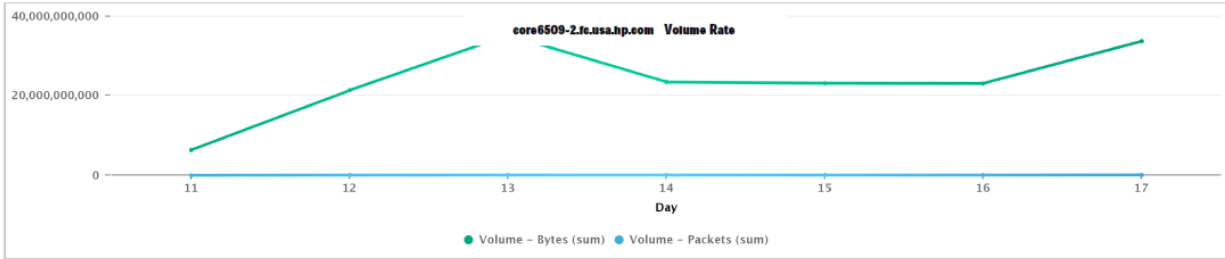
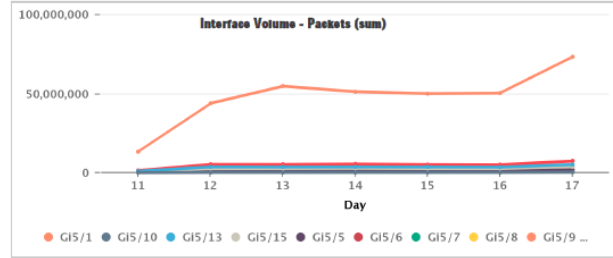
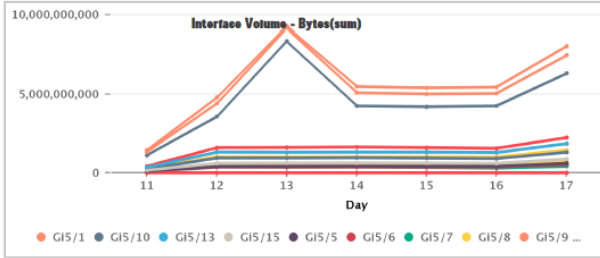
Displays graphical representation of interface health by volume rate for a specific time period. Displays the volume rate for bites and packets in terms of sum of bites in, bites out, packets in, and packets out.

Interface Health

Report Period 11/1/15 - 11/30/15

Network Interface Health Volume Rate

Node Name	Volume - Bytes (sum)	Volume - Bytes in (sum)	Volume - Bytes out (sum)	Volume - Packets (sum)	Volume - Packets In (sum)	Volume - Packets Out (sum)
core6509-2.fc.usa.hp.com	165,666,087,626	124,670,713,803	40,995,373,823	473,562,112	382,414,410	91,147,702



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Operations (HPOM)

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

Reports

This section describes the following HPOM reports:

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.

OPERATIONS BRIDGE REPORTER

HP Operations Manager

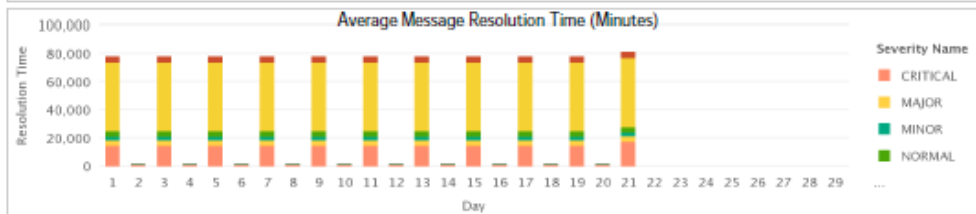
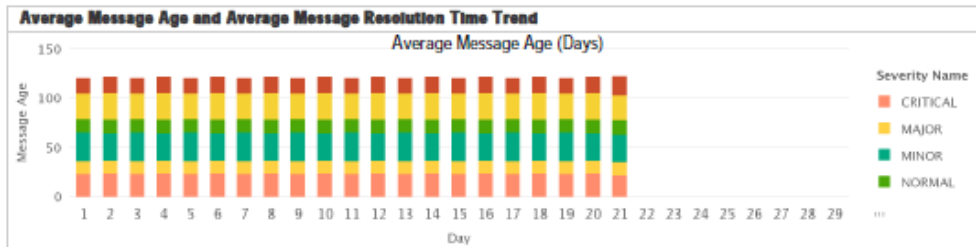
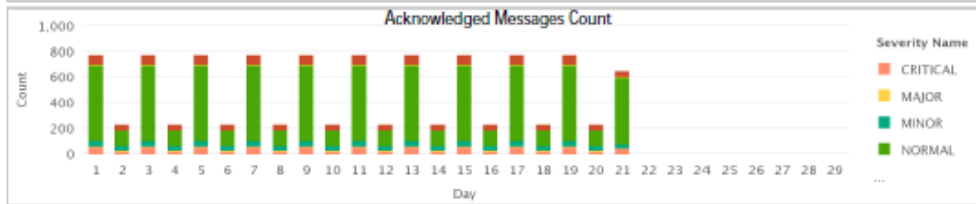
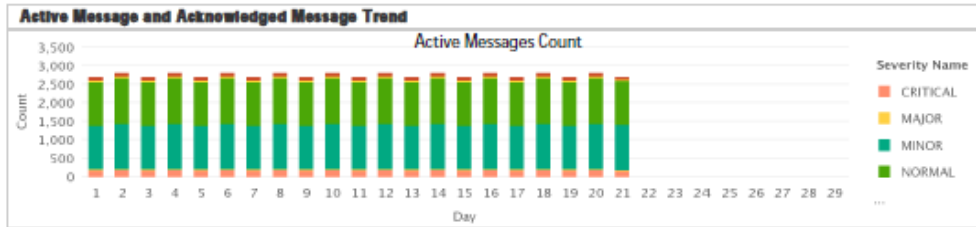
Report Period: 2/1/16 - 2/29/16

Message Details

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Management Server iwf0041043.ind.hp.com

Message Details			
Active Message Count	Acknowledge Message Count	Average Message Age (Days)	Average Message Resolution Time (Minutes)
2,659	10,468	19.98	7,499.63



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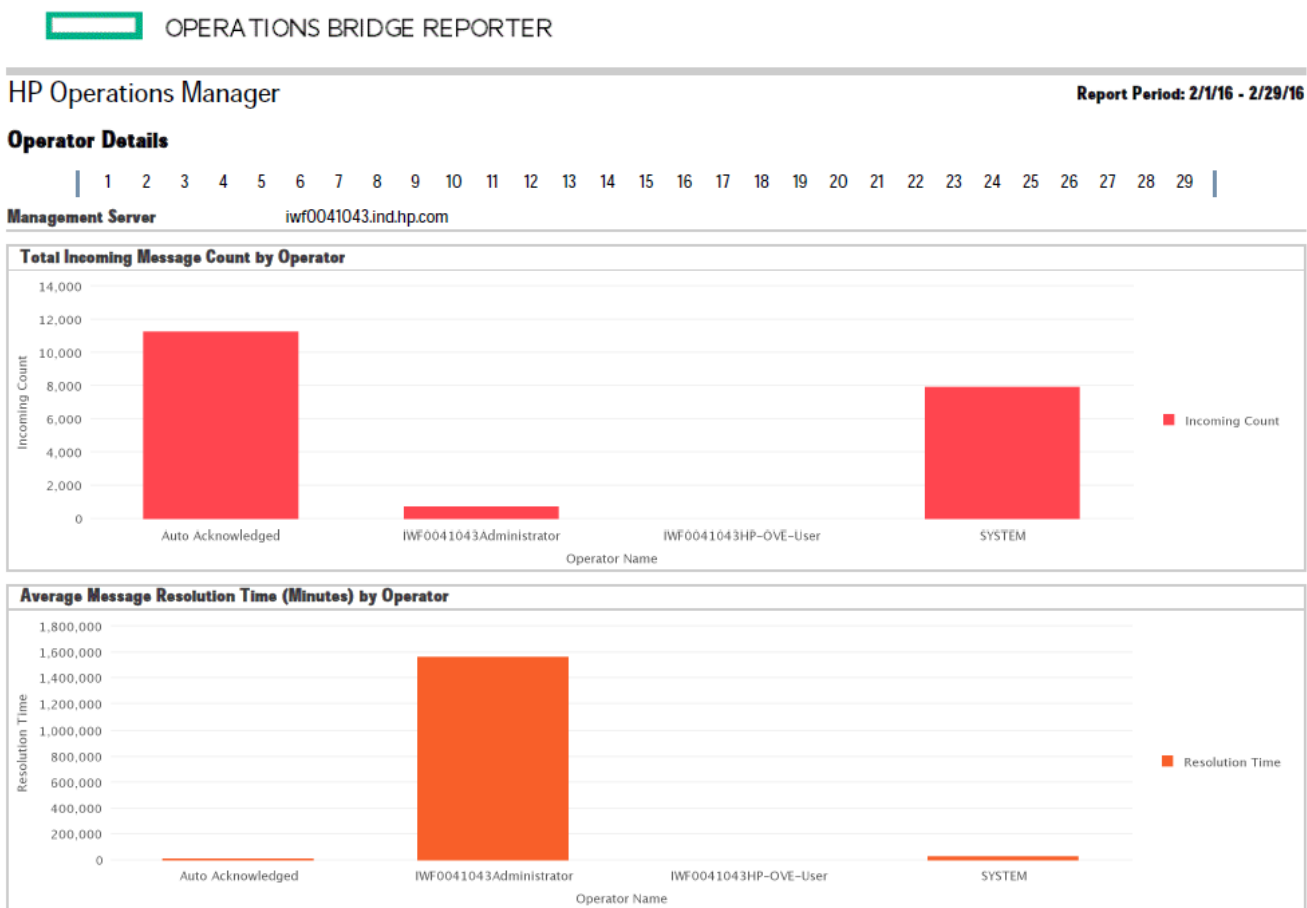
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HPOM Message Trend and Responsiveness

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.

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 for specified period of time.



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HPOM Service Log

Displays the amount of time for which the selected service was in different states (of severity).

HPOM Top 10 Active Message Report

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 for a specified period of time. The number of active messages are more this means that the application, service, node, or node group has problems and requires attention.

Service and Operations Bridge (OMi)

The Service and Operations Bridge reports provide information about the events from HP Operations Manager I (inclusive of events forwarded from SiS, OM, NNM, 3rd party products etc.).

Reports

This section describes the following Service and Operations Bridge reports:

OMi Event Summary

Displays the overall events summary and event duration summary for all CIs. The report displays data collected during the last 30 days of the specified date.

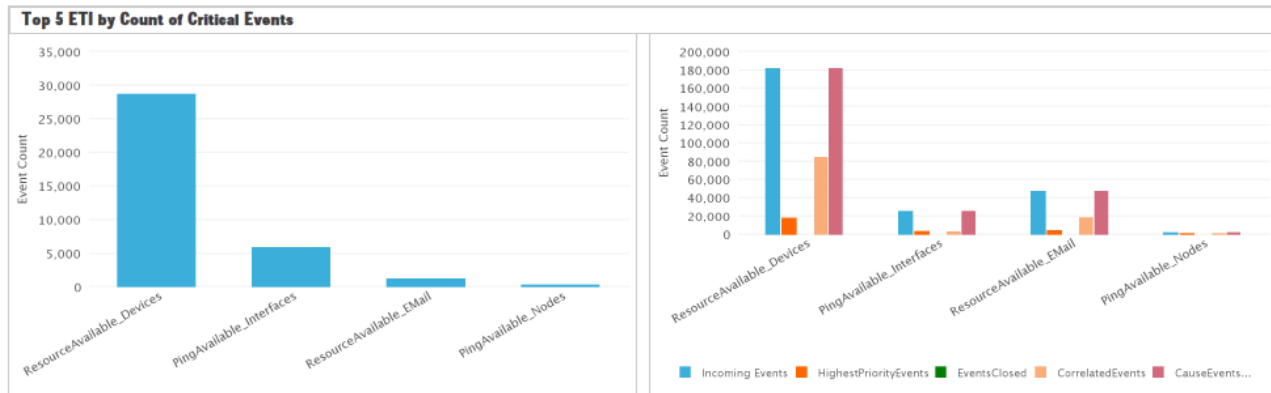
OMi Event Distribution Executive Summary

Displays the summary of the event distribution by application, Event Type Indicator (ETI), and CI type for specified time period.

Operations Management (OMi)

Report Period: 2/1/16 - 2/29/16

OMi Event Distribution Executive Summary



Event Statistics by ETI for the Period 2/1/16 - 2/29/16

Event Type Indicator	Critical Events	Incoming Events	Avg Closure Time (in min)	Average Time To Respond (in min)	Average Resolution Time (in min)
HardwareAvailable_Disk	0	31,881	120.00	45.00	56.00
PingAvailable_Interfaces	5,802	24,990	120.00	45.00	56.00
PingAvailable_Nodes	192	1,038	0	0	0
ResourceAvailable_Devices	28,602	181,224	120.00	45.00	56.00
ResourceAvailable_Email	1,143	46,638	120.00	45.00	56.00
SoftwareAvailable_Oracle	0	39,360	120.00	45.00	56.00

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OMi Event Forecast Summary

Helps predict the incoming events from different domains such as Systems, Network, Microsoft SQL, and so on based on past data. These reports help you assess the increasing or decreasing trend of the incoming events per domain and the average event resolution time.

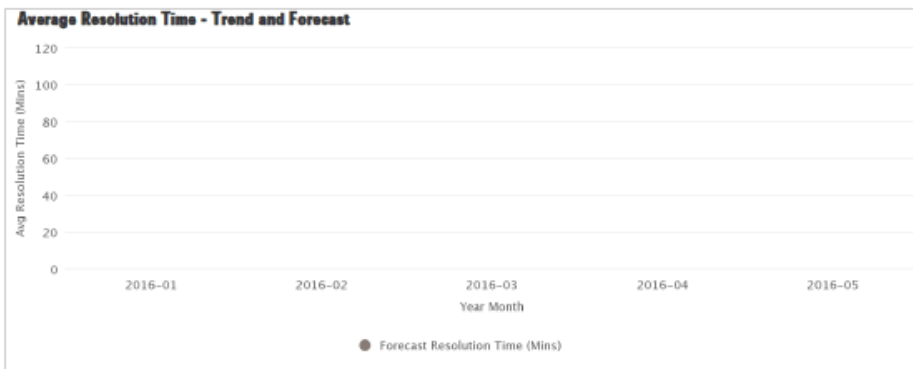
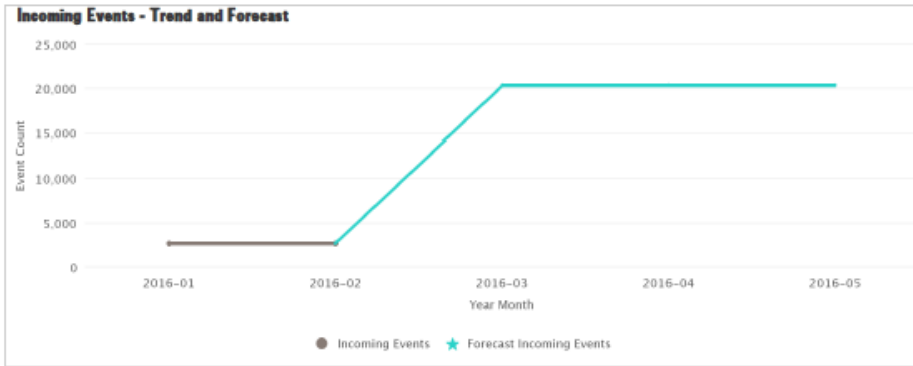
OPERATIONS BRIDGE REPORTER

Operations Management (OMi)

Report Period: 2016-01 - 2016-05

OMi Event Forecast Summary

Domain Name AppServer



Domain Name	Incoming Events Forecast			Avg Resolution Time (Mins) Forecast		
	2016-03	2016-04	2016-05	2016-03	2016-04	2016-05
AppServer	20,400	20,400	20,400	~20	~20	~20

OMi Event Summary by Significance

Displays event by significance, percentage of cause, count of events by distribution, and count of correlated events.

Top N Categories by Events

Displays the Top N (5,10, 15) event count of categories, such as category name, critical event, minor events, warning events, normal events, unknown events, and total events.

Top N CIs by Events

Displays the Top N (5,10, 15) CIs based on incoming events and critical events in the context of the selected business view(s).

Top N Domains by Events

Displays the Top N (5,10, 15) domains based on incoming events and critical events. A domain is defined as a group of out of the box views. For example, "System Management" domain will represent the views used to get SiteScope and Operations Agent and monitored nodes. The incoming and critical events are calculated based on the Top CIs in the views that belong to the domain.

OMi Event Backlog Overload Correlation by User Groups

Displays the Top N (5,10) groups based on high backlog overload. Backlog overload is defined as the percentage of events whose "time to own" is twice the average "time to own", for an event, in a group.

Detail Events

OMi Event Assignment by User Groups

Displays the summary of the events assigned for each of the user groups for specified time period.

OPERATIONS BRIDGE REPORTER

Operations Management (OMi)

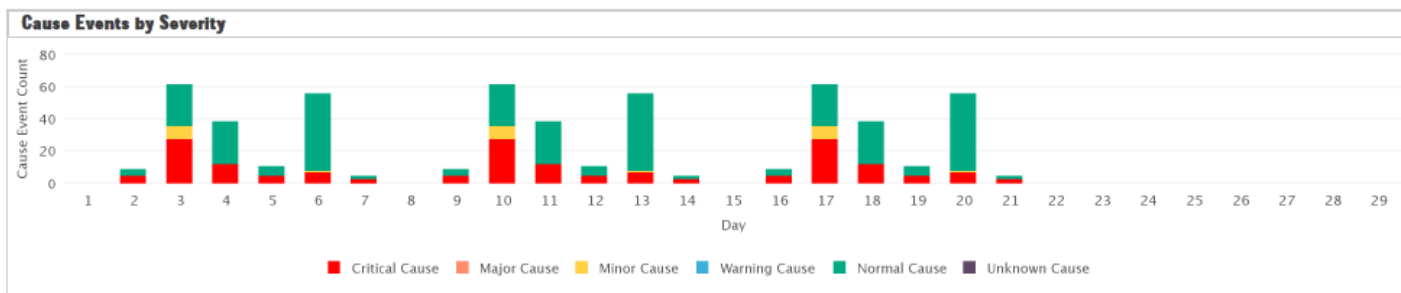
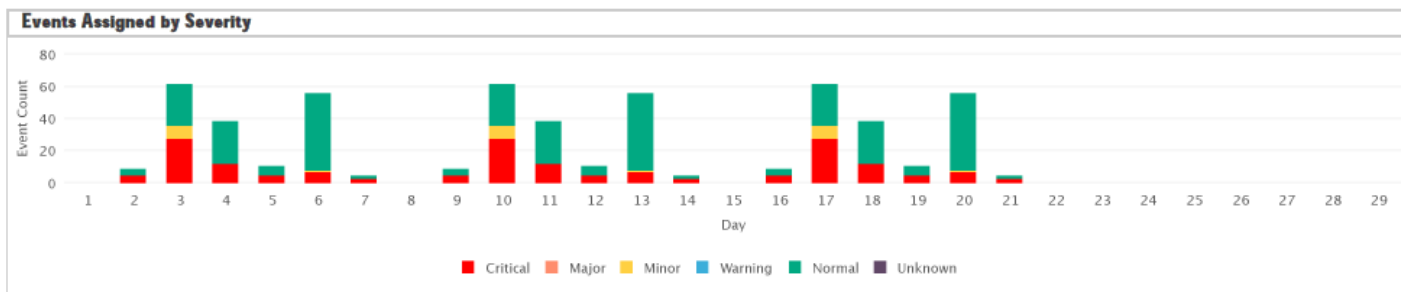
Report Period: 2/1/16 - 2/29/16

OMi Event Assignment by UserGroups

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

UserGroup Name GroupName_administrator

Event Statistics for GroupName_administrator			
Events	Cause Events	Critical Cause Events	High Priority Events
531	531	162	150



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OMi Event Assignment by Users

Displays the summary of the events assigned for each of the users for specified time period.

OMi Event Summary by CI

Displays the overall event count, event categorization, event severity categorization, and event duration based on the events raised for the selected CIs.

OMi Event Summary by ETI

Displays the overall event count, event categorization, event severity categorization, and event duration based on the ETI.

You must install the ETL content pack for ServiceHealth to see data in this report. HPE OBR verifies if an ETI is a Health Indicator and if the K_HI dimension table is populated before the report is generated.

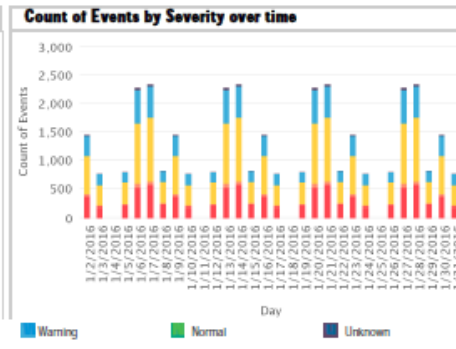
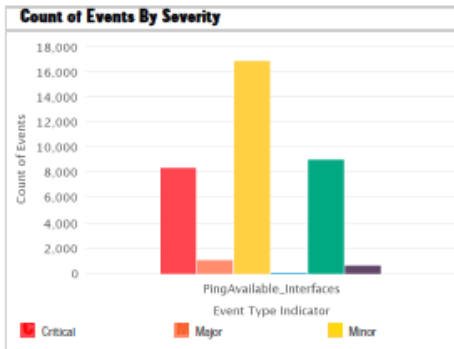
Operations Management (OMi)

Report Period: 1/2/16 - 1/31/16

OMi Event Summary by ETI

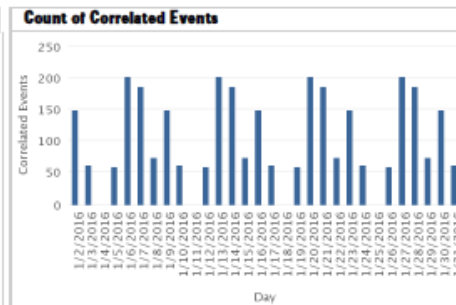
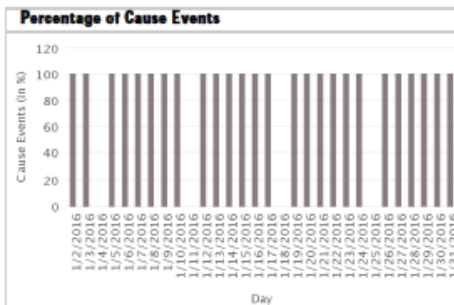
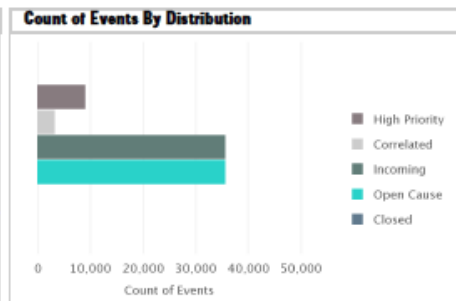
Event Type Indicator

PingAvailable_Interfaces



Events Duration and Events Summary

Average Responsiveness (Time to Respond in Minutes)	45
MTTR (Average Resolution Time for Events in Minutes)	56
Average Closure Time for Events in Minutes	120



Event Trend

OMi Event Distribution Over Time

Displays the event count details and the distribution details of the events for a CI. It also shows the graph of events based on the amount of time taken to acknowledge, resolve, and close the events.

OPERATIONS BRIDGE REPORTER

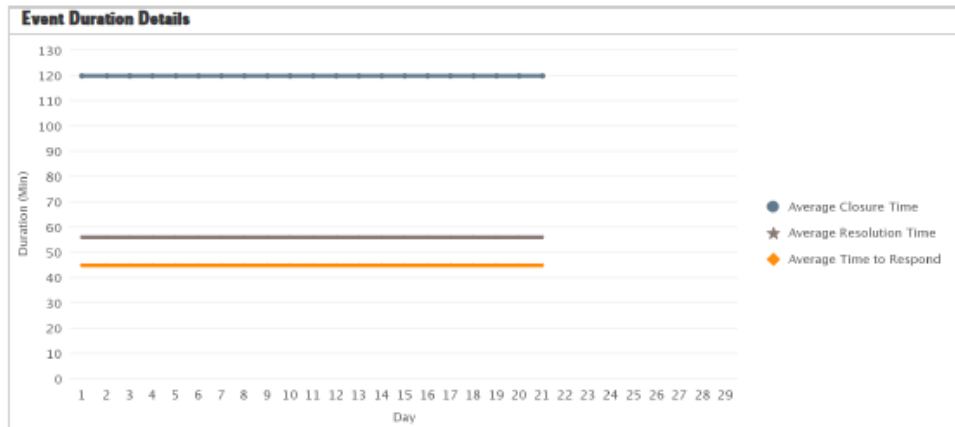
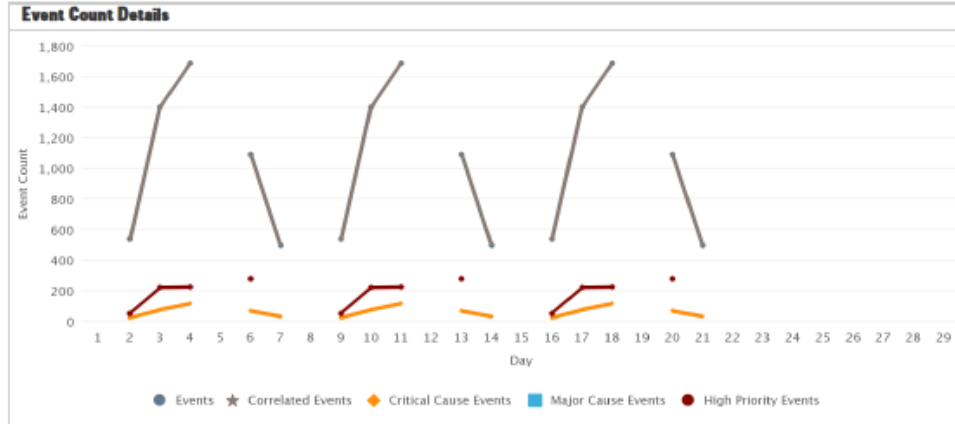
Operations Management (OMi)

Report Period: 2/1/16 - 2/29/16

OMi Event Distribution Over Time

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

CI Instance Name 5FL_9RW_1RK_1SW **CI Instance Type** node



System Management

The System Management reports help to anticipate resource problems in IT environment before they become serious. The reports display historical information about the performance and availability of key system resources which helps in analyzing the actions that were taken to resolve issues in the past. From higher level executive reports, one can navigate to detailed reports to analyze the root cause of problems.

Reports

This section describes the following System Management reports:

Executive Summary Reports

SM Executive Summary

Displays inventory, summary of present and forecasted capacity and usage data of system resources, along with the availability, and exceptions in systems for a given Business Service or Business View/Node group.

SM Heat Chart

Enables to identify systems that have crossed the threshold values defined for CPU utilization, memory utilization, physical disk I/O rate, and network I/O rate for a given Business Service or Business View/Node group.

SM System Availability Summary

Displays the availability details of the nodes 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 one can identify those nodes that cross the availability thresholds.

OPERATIONS BRIDGE REPORTER

System Management

Report Period: 1/1/16 - 1/31/16

System Availability Summary

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 |

Business Service(s) All
Business View(s) / Group(s) All
Shift Default_Shift **Location** All

System UpTime and Down Time Details					
Node Name	Average Uptime %	Average DownTime %	Average Availability %	Total Uptime in Hours	Total Downtime in Hours
iwf0041041.ind.hp.com	100	0	100	653.17	0
iwf0041043.ind.hp.com	100	0	100	668.67	0
iwf1088154.hpswlab.a dapps.hp.com	100	0	100	668.5	0
iwf1088155.hpswlab.a dapps.hp.com	100	0	100	667.67	0
iwf1088156.ind.hp.com	100	0	100	668.33	0
iwf1088160.ind.hp.com	100	0	100	668.33	0
iwf1088169.hpswlab.a dapps.hp.com	100	0	100	668.67	0
iwf1089074.ind.hp.com	91.92	8.08	100	614.42	54
iwf1089077.ind.hp.com	100	0	100	645.67	0
iwf1089078.ind.hp.com	100	0	100	668.33	0
iwf1089079.ind.hp.com	100	0	100	668.33	0
iwf1089080.ind.hp.com	100	0	100	668.67	0
iwfbtold16.ind.hp.com	91.92	8.08	100	614.25	54
iwfqald1-9.ind.hp.com	100	0	100	667.5	0
iwfv00448.hpswlab.a adapps.hp.com	91.92	8.08	100	614.42	54
iwfv00602.hpswlab.a adapps.hp.com	100	0	100	667.67	0
iwfv90044.hpswlab.a adapps.hp.com	100	0	100	668.5	0
lrzone1.ind.hp.com	91.92	8.08	100	614.25	54
qald1-10.ind.hp.com	100	0	100	667.5	0
shrbat11.ind.hp.com	91.91	8.09	100	613.58	54
shrbat2.ind.hp.com	91.92	8.08	100	614.25	54
shrcpbat1.ind.hp.com	91.92	8.08	100	613.92	54
shrcpbat3.ind.hp.com	91.91	8.09	100	613.58	54

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SM System Exception by Group

Enables to view the number of exceptions in each of the defined node groups for a given time period.

SM System Forecast Summary

Provides a summary of the current CPU and memory utilization (average and 90th percentile) of all the monitored physical or standalone systems and virtual hosts, such as ESX servers, in an IT 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. One can compare the GoS across different groups and also drill down to view GoS of every node of a group.

SM System Inventory

Displays the overall information and values of key resources for the systems in a Business Service or Business View/Node group.

SM System Resource Outage Forecast Summary

Displays the systems that are projected to cross the 100 percent threshold value for CPU and memory utilization within the next 30, 60 and 90 days, for a given Business Service or Business View/Node group.

SM Top and Bottom 5 Systems

Displays the top and bottom five systems based on the average availability, and the average of the CPU utilization or memory utilization over the selected period of time.

OPERATIONS BRIDGE REPORTER

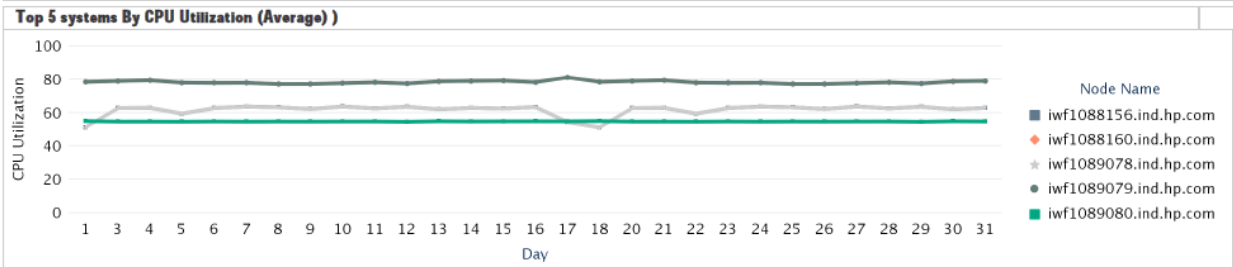
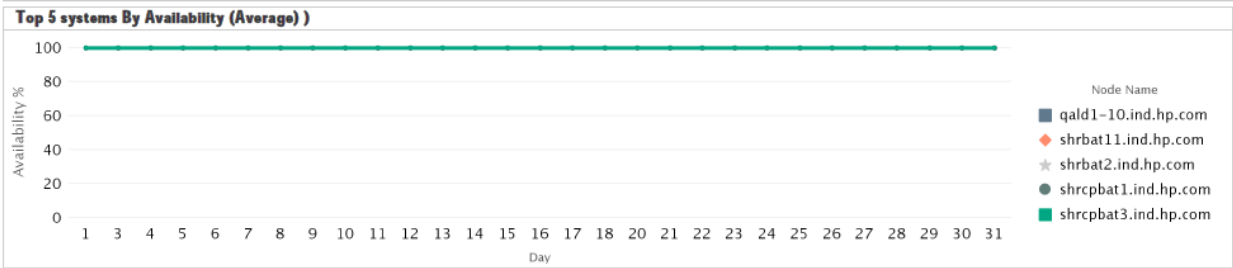
System Management

Report Period: 1/1/16 - 1/31/16

Top 5 Systems

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Business Service(s)	All
Business View(s) / Group(s)	All
Shift	Default_Shift
Location	All



Refresh Date: 2/21/16 9:37:58 AM GMT+00:00 Page 1 of 3

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SM Top and Bottom 10 Filesystems by Free Space Utilization

Displays the top and bottom 10 performance of filesystems based on free space utilization over a period of time.

SM System Availability

Displays the average availability of the monitored system nodes, as a heat-map based on predetermined thresholds, for every hour across the selected time period.

System Management

Report Period: 2/1/16 - 2/29/16

System Availability

Business Service(s)	All		
Business View(s) / Group(s)	All		
Shift	Default_Shift	Location	All
Node Name	iwf0041041.ind.hp.com		

Average Availability %	Average Availability > 95%								Average Availability > 90% and < 95%								Average Availability < 90%							
Date / Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2/1/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/2/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/3/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/4/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/5/2016																								
2/6/2016									100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/7/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/8/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/9/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/10/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/11/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/12/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/13/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/14/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/15/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/16/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/17/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/18/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/19/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2/20/2016	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

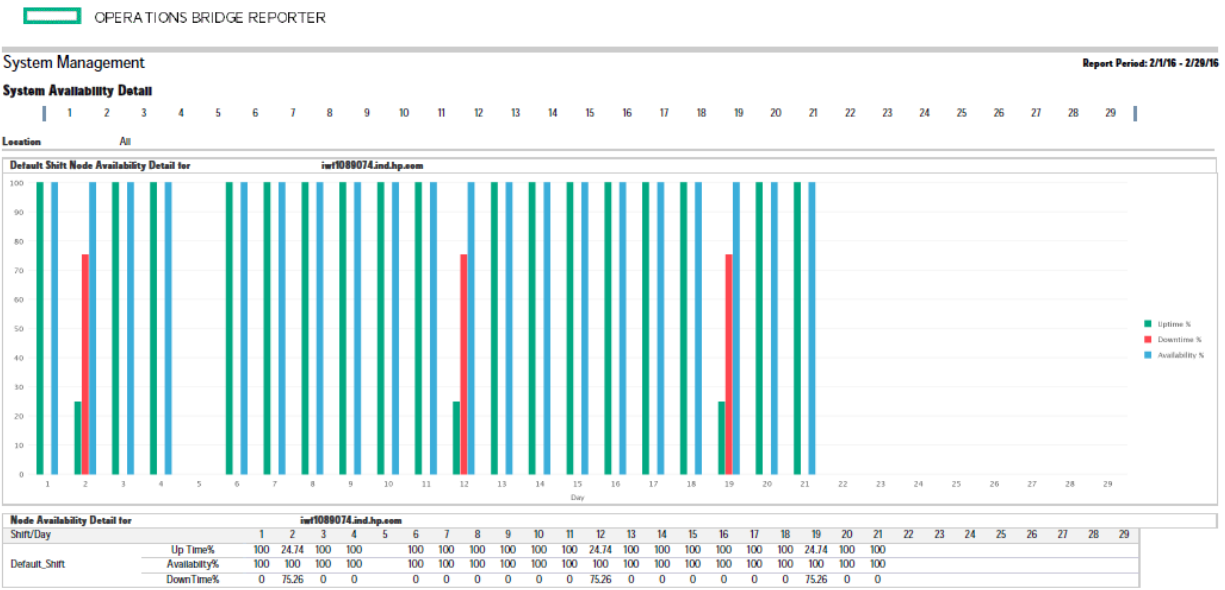
Refresh Date: 2/21/16 9:30:38 AM GMT+00:00 Page 1 of 46

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Performance Reports

SM System Availability Detail

Displays the uptime, downtime, and availability percentages for the selected nodes over the specified period of time. Displays the availability details of the monitored system nodes, as a heat-map based on predetermined thresholds, for every hour across the selected time period.



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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 system(s) 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.

OPERATIONS BRIDGE REPORTER

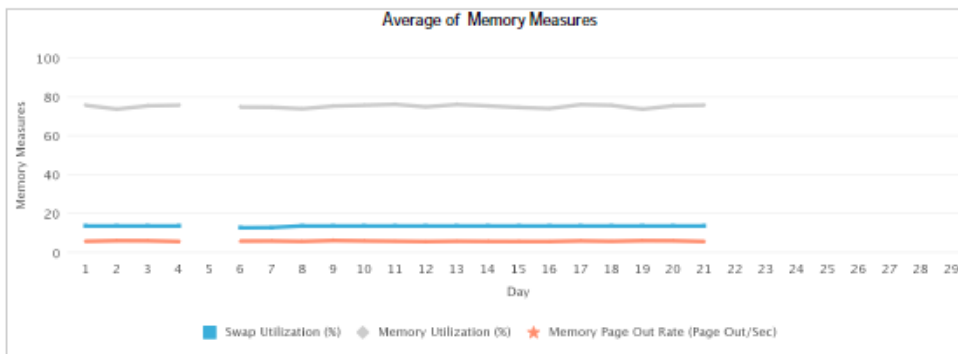
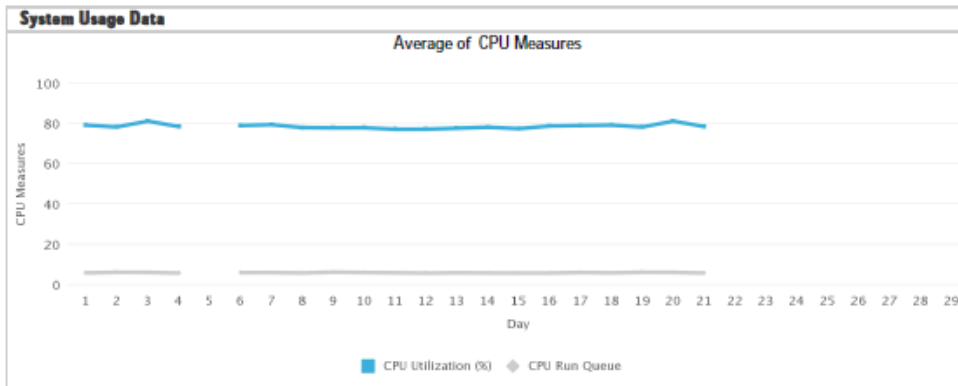
System Management

Report Period: 2/1/16 - 2/29/16

System Usage Detail

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Shift	Default_Shift	Location	All
Node Name iwt1088160.ind.hp.com			
Processor Architecture		Number of CPUs	
Model		CPU Speed (MHz)	
OS		Physical Memory (GB)	
		Linux	



SM Filesystem Utilization Detail

Displays fine grain details of the 10 best and worst performing filesystems.

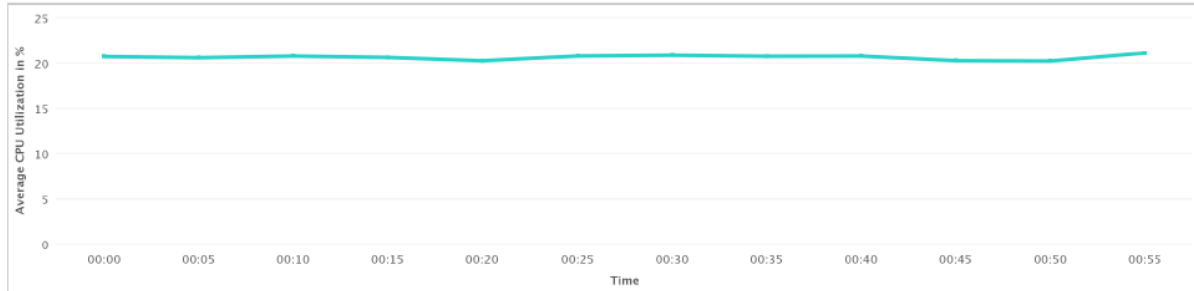
Operational Reports

NRT Resource Utilization

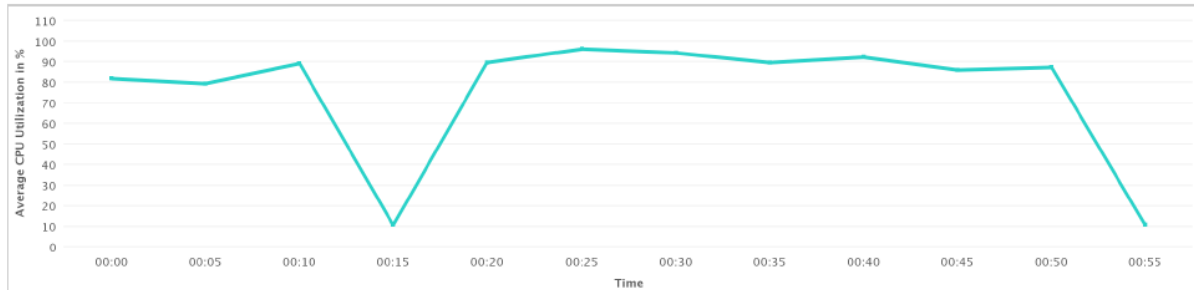
Displays the resource utilization trend of the selected node and the selected metric at the 5- minute (rate data) granularity for the last 24 hours.

NRT Resource Utilization

Average CPU Utilization in % for bsovz1.ind.hp.com



Average CPU Utilization in % for imf1088160.ind.hp.com



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Resource Utilization - Trend

Displays the trend of resource utilization of the selected node over the following time periods:

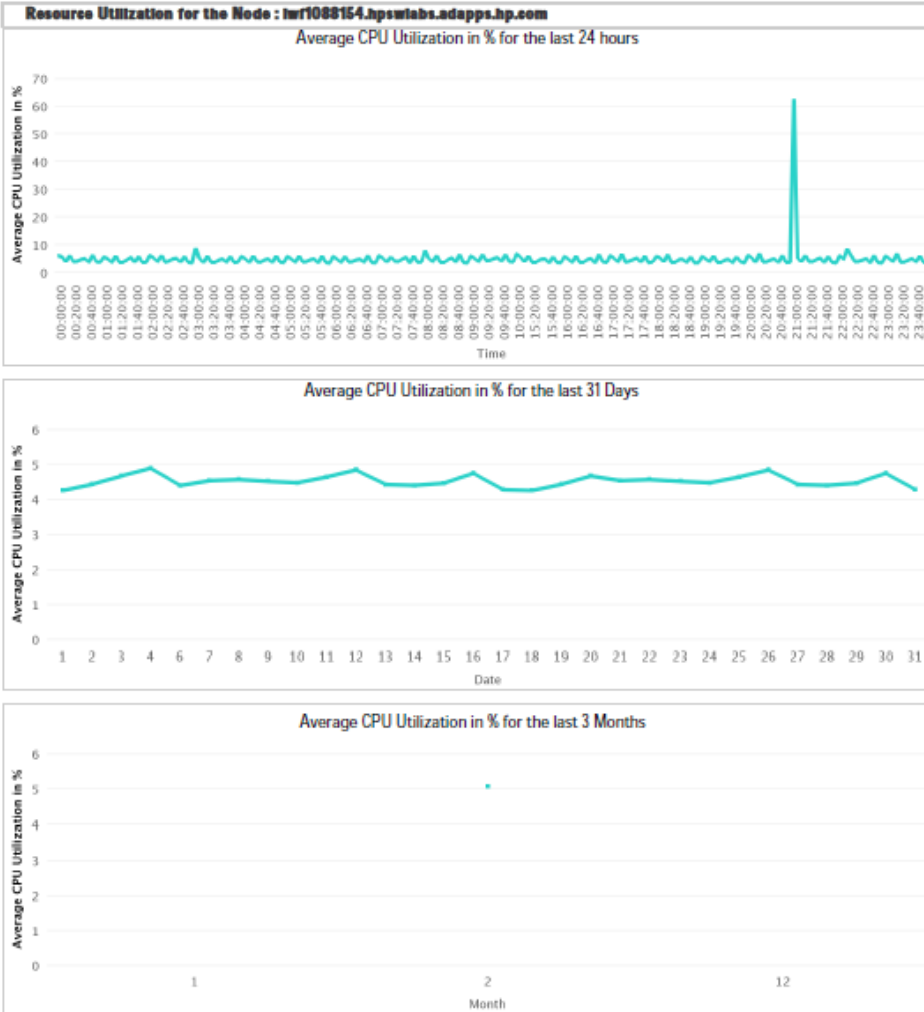
- 5- minute (rate data) granularity for the last 24 hours
- Hourly (hourly data) granularity for the last 31 days
- Daily (daily data) granularity for the last 3 months

OPERATIONS BRIDGE REPORTER

System Management

Report Period: 12/17/2015 12:00:00 - 2/21/2016 12:00:00

Resource Utilization Trend



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Virtualized Environment Management

The Virtualized Environment Management reports display the performance data about the virtual machines (VMs), and physical systems hosting the virtual machines, installed in an IT environment.

Reports

This section describes the following Virtualized Environment Management reports:

Executive Summary Reports

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 an IT 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.



System Management Virtualization

Report Period: Until 2/21/16

Virtualization Logical System Inventory

Business Service(s)	All
Business View(s) / Group(s)	All
Location	All

Physical Node - iwrf0041057.ind.hp.com					
Node OS	ESX-Serv	Node CPU Speed (MHz)	2,499	No. of CPUs	24
Node Model	ProLiant DL385 G7	Virtualization Type	VMware	Physical Memory (GB)	123.97

Available Logical Systems											
Logical System	OS Type	State	Number of Disk	Number of LAN	Minimum CPU Entitlement (no.of CPUs)	Maximum CPU Entitlement (no.of CPUs)	CPU Shares	Minimum Memory Entitlement (MB)	Maximum Memory Entitlement (MB)	No. Of CPUs	Physical Memory (GB)
iwrf0041058.ind.hp.com	Windows		1	1	0	Unlimited	8,000	0	Unlimited	8	16
iwrf0041059.ind.hp.com	Windows		1	1	0	Unlimited	8,000	0	Unlimited	8	16
iwrf0041060.ind.hp.com	Windows		1	1	0	Unlimited	8,000	0	Unlimited	8	16
shrcpbjar.ind.hp.com	Windows		1	1	0	Unlimited	1,000	0	Unlimited	1	1

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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 to 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 Resource Outage Risk Forecast Summary

Displays the physical systems that are projected to cross the threshold value for CPU and memory utilization within the next 30, 60 and 90 days, for a given Business Service or Business View/Node group. It also displays the virtual machines that are hosted on the affected physical systems. It displays the affected virtual hosts and number of VMs hosted on each servers. A cross launch option is also available to do more detailed analysis on affected VMs.

SM Virtualization Top and Bottom N Logical Systems

Displays the top and bottom N (5, 10, 20) logical systems based on the selected measure such as CPU utilization, memory utilization, availability and hypervisor type, for a given Business Service or Business View/Node group.

SM Virtualization Top and Bottom N Nodes

Displays the top and bottom N (5, 10, 20) physical systems, that host logical systems, based on the selected measure such as CPU and memory utilization and OS type, for a given Business Service or Business View/Node group.



System Management Virtualization

Report Period: 2/1/16 to 2/29/16

Top and Bottom N Nodes

| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 |

Business Service(s)	All
Business View(s) / Group(s)	All
Hypervisor Type	All
Shift	Default_Shift
Location	All

Top 5 Nodes by -		Average CPU Utilization (%)				
Node Name	Model	Processor Architecture	Number of Logical Systems	Average CPU Utilization (%)	Average Memory Utilization (%)	Average Grade of Service
qald1-10.ind.hp.com	Sparc		1	9.66	55.18	2.16

Bottom 5 Nodes by -		Average CPU Utilization (%)				
Node Name	Model	Processor Architecture	Number of Logical Systems	Average CPU Utilization (%)	Average Memory Utilization (%)	Average Grade of Service
qald1-10.ind.hp.com	Sparc		1	9.66	55.18	2.16

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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 an IT 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.

Performance Reports

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.

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.



System Management Virtualization

Report Period: Until 2/21/16

VMware ESX Server detail inventory

Location All

ESX Node Name: ordvz3.bbn.hp.com			
Node OS	ESX-Serv	Physical Memory (GB)	123.97
Node Model	ProLiant DL385 G7	No. of CPUs	24

Available Logical Systems								
Logical System	Logical System OS	Number Of Disks	Number Of Virtual CPUs	Number Of Network Interfaces	CPU Reservation (MHz)	CPU Limit (MHz)	Memory Reservation (MB)	Memory Limit (MB)
iwf0041049.bbn.hp.com	Windows	1	8	1	0	Unlimited	0	Unlimited
iwf0041050.bbn.hp.com	Windows	1	8	1	0	Unlimited	0	Unlimited
iwf0041051.bbn.hp.com	Windows	1	8	1	0	Unlimited	0	Unlimited
shrcp8943.bbn.hp.com	Windows	1	1	1	0	Unlimited	0	Unlimited

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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.



System Management Virtualization

Report Period: Until 2/21/16

VMware Inventory

This Report displays the Inventory Details of the VMware Cluster and Non Cluster ESX Nodes.

Summary									
Number of Clusters	Total CPU Capacity(GHz)		Total Memory Capacity (GB)		Number Of ESX Nodes	Number Of Logical Systems		VM density	
3	441.49		921.79		14	62		4.43	

Cluster Inventory						
Cluster Name	Total CPU Capacity (GHz)	CPU Unreserved (GHz)	Number Of CPU Cores	Total Memory Capacity (GB)	Number Of ESX Nodes	Number Of Logical Systems
SHRDevCluster	245.28	244.67	96	575.89	8	46
SHRQACluster	76.26	76.26	24	153.97	4	14
SHRRDCluster	119.95	119.95	48	191.93	2	2

Non Cluster inventory - ESX Nodes									
ESX Node	Model	CPU Speed (MHz)	CPU Capacity (GHz)	CPU Cycle Unreserved (GHz)	Memory Capacity (GB)	Number Of Logical Systems	Number Of CPU Cores	Number Of Disks	Number Of Network Interfaces

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, one 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 Servers Top and Bottom N

Displays the top and bottom N(5, 10, 15, 20) ESX Servers based on the selected measure such as CPU utilization, memory utilization, net I/O rate, and swap utilization for given Business Service or Business View/Node group.

SM Virtualization VMware Top and Bottom N Logical Systems

Displays the top and bottom N (5, 10, 15, 20) logical systems, hosted on ESX Servers, based on selected measure such as active memory, CPU and memory utilization, CPU ready time, and unavailability for a given Business Service or Business View/Node group.

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