Technical white paper

# Integration with HP Operations Manager i



**HP Operations Analytics 2.0** 

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### **Purpose**

This paper describes how HP Operations Analytics can be integrated with HP Operations Manager i.

### **Benefits of HP Operations Analytics**

Operations Analytics is a unique platform for both simple and complex IT operational problem-solving. Use Operations Analytics to access, combine, and compare the metric, topology, event, and log file data that your Operations Analytics administrator configures to be collected from diverse sources in your IT environment.

Because this data is collected from multiple domains, Operations Analytics enables you to identify answers to problems that are not easily solved using other methods.

Operations Analytics processes this data according to your search query. These results assist you with the following kinds of tasks:

- Identifying and analyzing the pattern of problems in your IT environment.
- Identifying the cause of resource or application usage problems.
- Troubleshooting server and network performance problems.
- · Identifying configuration or inventory changes

### **HP** Operations Manager i

HP Operations Management (OMi) enables you to monitor and manage the events that occur in your IT environment, and helps you restore disrupted services and minimize service disruptions.

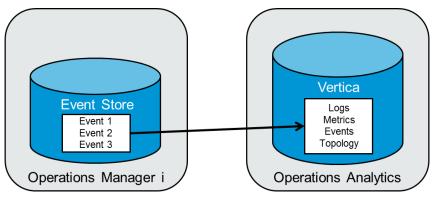
The Service and Operations Bridge directs reported IT-environment events to the central event console, the Event Browser. There they are automatically correlated, relating the events to the IT services that depend on the IT infrastructure, linking infrastructure management with application and business service management.

Key benefits are:

- Identify root causes quickly in today's dynamic environments
- View business services and the underlying IT infrastructure upon which they rely
- Bring events, metrics, and topology in from disparate element managers, such as Nagios and Microsoft SCOM
- Automated, topology-based monitoring configuration of agentless and agent-based monitoring
- Self-Service Setup Thresholds, intervals, and other configuration parameters can be changed by nonoperations staff

#### Goal

When you follow the instructions provided in this paper, you will be able to analyze OMi events in Operations Analytics:



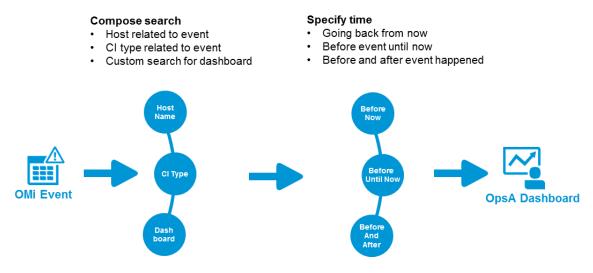
### **Prerequisites**

Before you can perform the procedures in this paper, your environment must meet the following minimum requirements:

- It must contain a server running Operations Analytics 2.0.
  - Data collectors must be configured.
- It must contain a server running Operations Manager i 9.1 or above.
- It must have Single Sign-On configured with a matching key in both products.

### **Cross-Launch Flow**

Information from the selected event in OMi can be used to display an analytics dashboard of Operations Analytics. Cross-Launch parameters permit specifying which time windows should be analyzed.



The following three sections show typical cross-launch use cases.

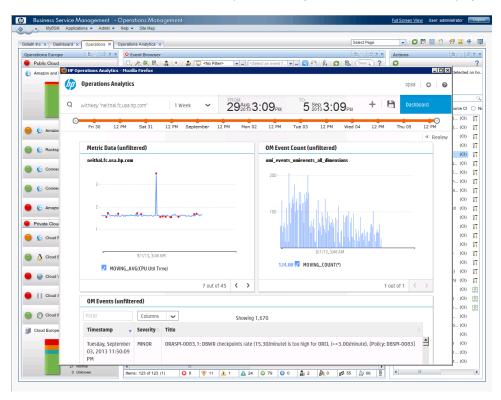
Note: For additional information, see Appendix A: How to setup cross-launch tools in OMi

# Use Case 1: Analyze what happened on the host that is related to the event

The DNS name of the host that is related to the OMi event can be used to search for metrics, log files, events, and topology in Operations Analytics.

#### **OMi URL Launch Tool**

Select an event; then start the tool. The Operation Analytics search result will be displayed in a popup window.



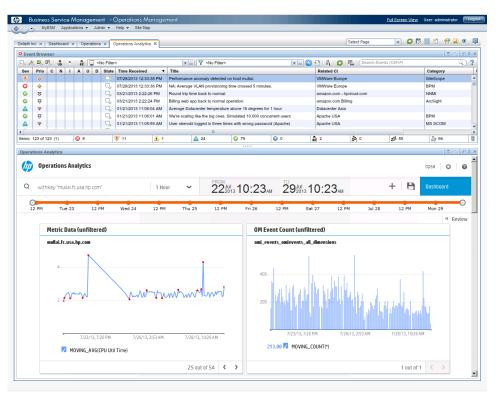
#### **Example URL launches**

Tool Name	Tool URL
Host - Last hour	<pre>http://<opsa_server>:8080/opsa/#/dashboard&amp;search=with key "\${event.node.dnsName}"&amp;start=1h</opsa_server></pre>
Host - Last 12 hours	<pre>http://<opsa_server>:8080/opsa/#/dashboard&amp;search=with key "\${event.node.dnsName}"&amp;start=12h</opsa_server></pre>
Host - 8 hours before and after	<pre>http://<opsa_server>:8080/opsa/#/dashboard&amp;search=with key "\${event.node.dnsName}"&amp;start= \${event.timeCreated.seconds}&amp;end=~8h~</opsa_server></pre>
Host - 2 days before until now	<pre>http://<opsa_server>:8080/opsa/#/dashboard&amp;search=with key "\${event.node.dnsName}"&amp;start= \${event.timeCreated.seconds}&amp;end=~2d</opsa_server></pre>

Note: For additional information, see Appendix A: How to setup cross-launch tools in OMi

#### OMi MyBSM page

Select an event. The Operations Analytics mashup component will automatically display the Operations Analytics search result.



#### MyBSM component examples

Component	URL	URL Parameter (Fragment)
Last day	http:// <opsa_server>:8080/opsa/</opsa_server>	<pre>/dashboard/&amp;search=withkey%20% 22&lt;&lt; event.node.dnsName &gt;&gt;%22&amp;start=1d</pre>
Last week	http:// <opsa_server>:8080/opsa/</opsa_server>	<pre>/dashboard/&amp;search=withkey%20% 22&lt;&lt; event.node.dnsName &gt;&gt;%22&amp;start=1w</pre>

Note: For additional information, see

Appendix B: How to setup a MyBSM page in OMi

# Use Case 2: Search for information related to the CI type of the event

Events in OMi are related to Configuration Items. Each Configuration Item (CI) has a type. If a tool has been set up for a CI type then it is only visible for events that are related to this type or any sub-type.

This functionality can be used to search Operations Analytics for tags that are related to the CI type of the selected event.

#### **Example URL launches**

Tool Name	Tool URL
All Oracle - Last hour	http:// <opsa_server>:8080/opsa/#/dashboard&amp;search=orac le&amp;start=1h</opsa_server>
Host Oracle - Last 12 hours	<pre>http://<opsa_server>:8080/opsa/#/dashboard&amp;search=orac le withkey "\${event.node.dnsName}"&amp;start=12h</opsa_server></pre>

Note: Create these tools for the CI type Oracle in the OMi tool manager

# Use Case 3: Show a custom dashboard

You can specify any Operations Analytics search string in OMi tools. That way a set of default dashboards or tag searches can be made available to the OMi operators.

#### **Example URL launches**

Tool Name	Tool URL
Performance Overview – last 1h	http:// <opsa_server>:8080/opsa/#/dashboard&amp;search=OAEn vironmentOverview&amp;start=1h</opsa_server>
RTSM Overview - last week	http:// <opsa_server>:8080/opsa/#/dashboard&amp;search=RTSM Overview&amp;start=1w</opsa_server>
Disk – 1 day before and after event	<pre>http://<opsa_server>:8080/opsa/#/dashboard&amp;search=disk &amp;start=\${event.timeCreated.seconds}&amp;end=~1d~</opsa_server></pre>
Memory - 2 days before event until now	<pre>http://<opsa_server>:8080/opsa/#/dashboard&amp;search=memo ry&amp;start=\${event.timeCreated.seconds}&amp;end=~2d</opsa_server></pre>

Note: Create the tools for the CI type Configuration Item if you want to make them always visible.

### FAQs

### What if a log on page appears when the tool is started?

Single Sign-on is not set up properly. See the Single Sign-on configuration instructions in the *Operations Analytics Installation and Configuration Guide*.

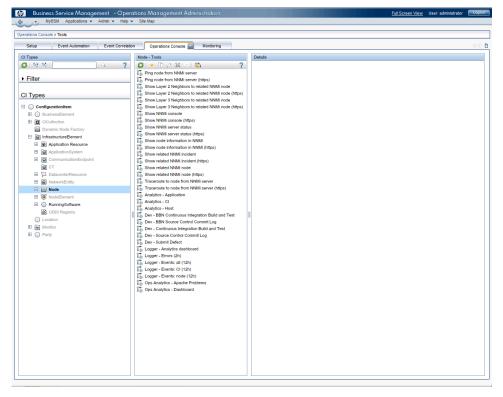
Make sure that the initString matches the initString configured in OMi: Admin > Platform > Users and Permissions > Authentication Management

### Appendix A: How to setup cross-launch tools in OMi

You can set up tools that open a new browser window and navigate to a URL in OMi's **Administration** area. Select **Admin > Operations Management > Tools**, or click the **Tools** link on the Site Map's Administration page:

	ness Service Management – Site Map		Full Screen View User: administrator	
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ons	Administration			
			Change the default p	ag
	Service Health O		System Availability Management	
	View Builder	L-32	Summary	
	CI Indicators		Metrics and Indicators	
	Custom Image			
	CI Status Alerts		RTSM Administration	
	Assignments - Health Indicator Assignments   KPI Assignments   Propagation Rules		Modeling - IT Universe Manager   Modeling Studio   Impact Analysis Manager   CI Type Manager   Enrichme manager	
	Repositories - KPIs   Indicators   Business Rules   Context Menus		Data Flow Management - Reconciliation Priority   Integration Studio   Discovery Control Panel   Data Flow F Setup   Adapter Management   Data Flow Probe Status	2
	Service Level Management O		Administration - Package Manager   Scheduler   State Manager   Cl life cycle	
	Agreements Manager			
	SLA Data Corrections		Platform	
	SLA Alerts		Setup and Maintenance - Downloads   License Management   Data Partitioning and Purging   Manage Profi Databases   Infrastructure Settings   Audit Log   Server Deployment   System Health	1
	Assignments - Health Indicator Assignments   KPI Assignments   Propagation Rules		Report Scheduling	
	Services Manager		Locations	
	Repositories - Service and CI Offerings   Calendars   Outage Categories   KPIs   Indicators   Business Rules		Content Packs	
	Operations Management O		Users and Permissions - User Management   Authentication Management	
	Setup - Connected Servers   Certificate Requests   Content Packs   Monitored Nodes		Recipients - Recipient Management   End User Management Alerts Notification Templates	
	Event Automation - Event Forwarding   Notifications   User Group Assignments   Time-Based Event Automation		Downtime Management	
	Automatic Run Book Execution   Event Processing Customizations   Indicator Mappings   Downtime Behavior		Event Management - Connected Servers   Forwarding Rules   Notifications	
	Event Correlation - Topology-Based Event Correlation   Stream-Based Event Correlation   Event Storm Detection   Event Suppression		Integrations	
	Operations Console - Run Book Mappings   Custom Actions   Tools   Performance Graph Mappings   View Mappings	1000	EMS Integrations Admin	
	Mappings Monitoring - Indicators   Management Templates & Aspects   Policy Templates   Assignments & Parameters		Operations Orohestration	
	Deployment Jobs		Application Lifecycle Management Integration	
	End User Management O		BSM Connector	
	Anitoring		Personal Settings	
	Script Repository		User Account	
	Alerts		Recipient	
	Settings		Menu Customization	
	Diagnostics			
	Transaction Management			
	Transaction Management O			

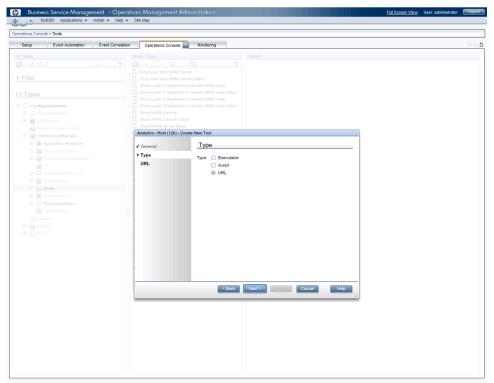
After the Tool manager loads, select the CI type for which you want to create the tool:



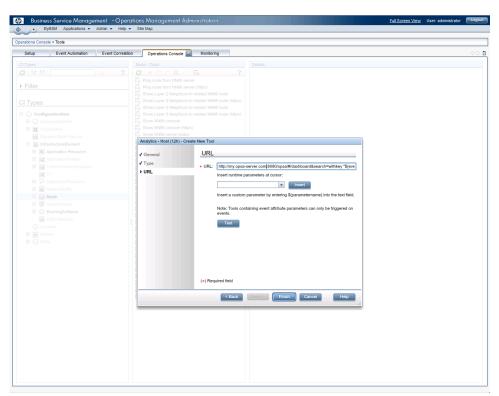
Click	Ne	w	ltem	and	sp	ecify	y the name of the tool:	
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Setup Event Automation Event Correlation	Operations Console	Monitoring		0
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	5 Show NNMI console			
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Application Resource	General	General		
	Туре			
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	1	< B.	Cancel Help	

#### Select the URL Type:



Specify the **Tool URL** as described in the previous Use Cases. Replace <*opsa\_server*> with the name of your Operations Analytics server:



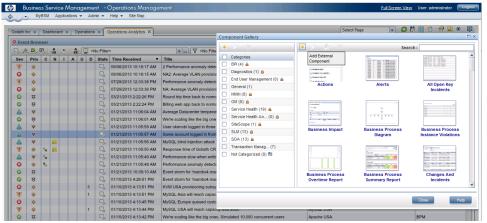
## Appendix B: How to setup a MyBSM page in OMi

The following steps outline how to create a MyBSM component.

Click **Components**:

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Θ	۰							۵.	09/06/2013 10:18:15 AM	NA2: Average VLAN provisioning time crossed 5 minutes.	VMWare Europe	BPM
$\nabla$								۵.	07/29/2013 12:33:38 PM	Performance anomaly detected on host mullai.	VMWare Europe	SiteScope
Θ	۰							۵.	07/29/2013 12:33:36 PM	NA: Average VLAN provisioning time crossed 5 minutes.	VMWare Europe	BPM
۲	岛							Π.,	03/21/2013 2:22:26 PM	Round trip time back to normal.	amazon.com - hpcloud.com	NNMI
0	岛							Π.,	03/21/2013 2:22:24 PM	Billing web app back to normal operation.	amazon.com Billing	ArcSight
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0	- 谷							Π.	01/21/2013 11:06:01 AM	We're scaling like the big ones. Simulated 10.000 concurrent users	Apache USA	BPM
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	▼								01/21/2013 11:05:57 AM	Same account logged in from USA and Europe within 5 minutes (Apache)	Apache USA	ArcSight
	▼							Π.,	01/21/2013 11:05:56 AM	MySQL blind injection attack T2344B detected	MySQL USA	TippingPoint
V	<b>\$</b>	۹.						Π.,	01/21/2013 11:05:50 AM	Response time of Goliath CRM web app is slow.	Apache Europe	BPM
	▼	۹.						Π.	01/21/2013 11:05:49 AM	Performance slow when writing to Goliath002 database.	MySQL Europe	Operations Manager
Θ	<b>\$</b>	۹.						L.	01/21/2013 11:05:48 AM	Performance anomaly detected on machine mambo3.mambo.net.	VMWare Europe	SiteScope

Click Add External Components:



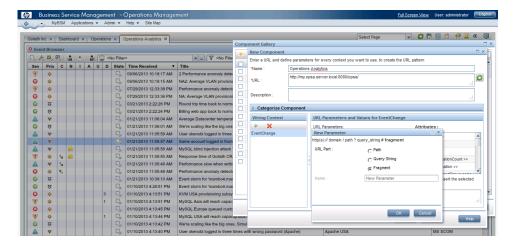
Specify the Name of your component and the base URL. For example, if your Operations Analytics server is called my.opsa.server.local then the URL is http://my.opsa.server.local:8080/opsa/

Business Se Admin 👻 Help 👻 Site M 💽 🤨 🗒 🔝 🏠 🛃 😂 👰 th Inc × Dashboard × Operations × Operations Analytics × Component Gallery Event Browser New Component 🦽 🔍 😹 🐁 🛔 🛄 <No Film 💌 ... 🝸 <No Filt Enter a URL and define par ters for every context you want to use, to create the URL pat Sev Prio C N I A U D State Time Received Operations Analytics http://my.opsa.server.local:8 0 URL : Description ☆ ▲ ☆ ☆ ◆ × Categorize Component URL Parame Wiring Context ect C Context hange lewChange 01/21/2013 11:05:48 AM 8 01/21/2013 10:39:10 AM 01/10/2013 4:28:51 PM Event storm for 'mambo4.ma 01/10/2013 4:28:51 PM 01/10/2013 4:13:51 PM 01/10/2013 4:13:51 PM 01/10/2013 4:13:45 PM 01/10/2013 4:13:44 PM KVM USA p OK Cancel MySQL Asiz MySQL Euro MySQL USA will OK Cancel Help 01/10/2013 4:13:42 PM We're scaling like the big 2013 4:13:40 PM MS SCO

In the Wiring Context box, click Add Context. Select EventChange; then click OK:

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Θ	<b>\$</b>						L.	01/10/2013 4:13:45 PM	MySQL Europe queued custo		·			
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Select the Fragment URL Part; then click OK:



Specify the value for the URL Parameter as described in previous Use Cases. Replace *< opsa\_server>* with the name of your Operations Analytics server:

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$\nabla$	۰					1		01/10/2013 4:13:44 PM	MySQL USA will reach capaci	(y mine			OK Cancel	telo

After you have saved your component you can add it to any page that contains an event browser.

# **Appendix C: Cross-Launch parameters reference**

### **Supported time Parameters**

Time	Symbol	Examples
hours	h	1h, 2h, 3h,
days	d	1d, 2d, 3d,
weeks	W	1w, 2w, 3w,
months	m	1m, 2m, 3m,

Using start and end to specify the time window

	some time ago	yesterday	now
Before now			start=1d
From event until now		start=1378376880076	
Before event until now		tart=1378376880076 nd=~1h	
Before and after event	start=13783 end=~12h~		

To learn more about HP Operations Analytics visit the following: <a href="http://www.hp.com/go/opsanalytics">http://www.hp.com/go/opsanalytics</a>

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