



Graphical interface and navigational paths

OnCommand Unified Manager 9.5

NetApp

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Graphical interface and navigational paths

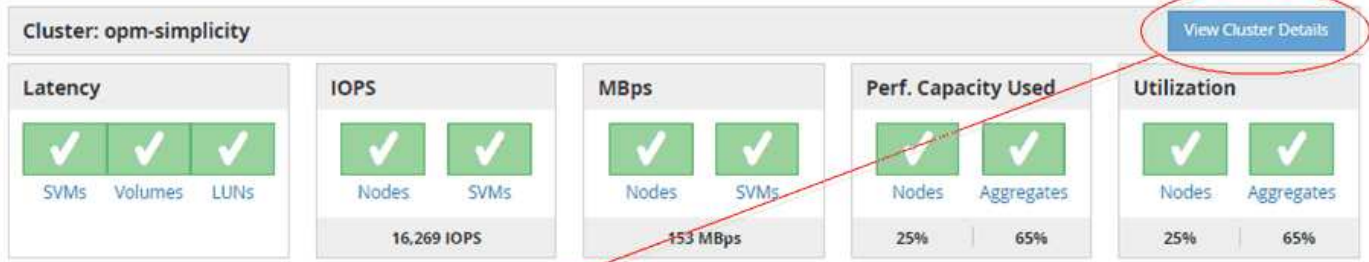
Unified Manager has great flexibility and enables you to accomplish multiple tasks in various ways. There are many navigation paths you will discover as you work in Unified Manager. While not all of the possible combinations of navigations can be shown, you should be familiar with a few of the more common scenarios.

Monitor cluster object navigation

Unified Manager enables you to monitor the performance of all objects in any cluster managed by Unified Manager. Monitoring your storage objects provides you with an overview of cluster and object performance, and includes performance event monitoring. You can view performance and events at a high level, or you can further investigate any details of object performance and performance events.

This is one example of many possible cluster object navigations:

1. From the Dashboards/Performance page, identify a cluster you want to investigate and navigate to the selected cluster's landing page.
2. From the Performance/Cluster Summary page, identify the cluster object you want to investigate and navigate to that object's inventory page. In this example, **Volumes** is selected to display the Performance/Volumes inventory page.



Performance / Cluster: opm-simplicity

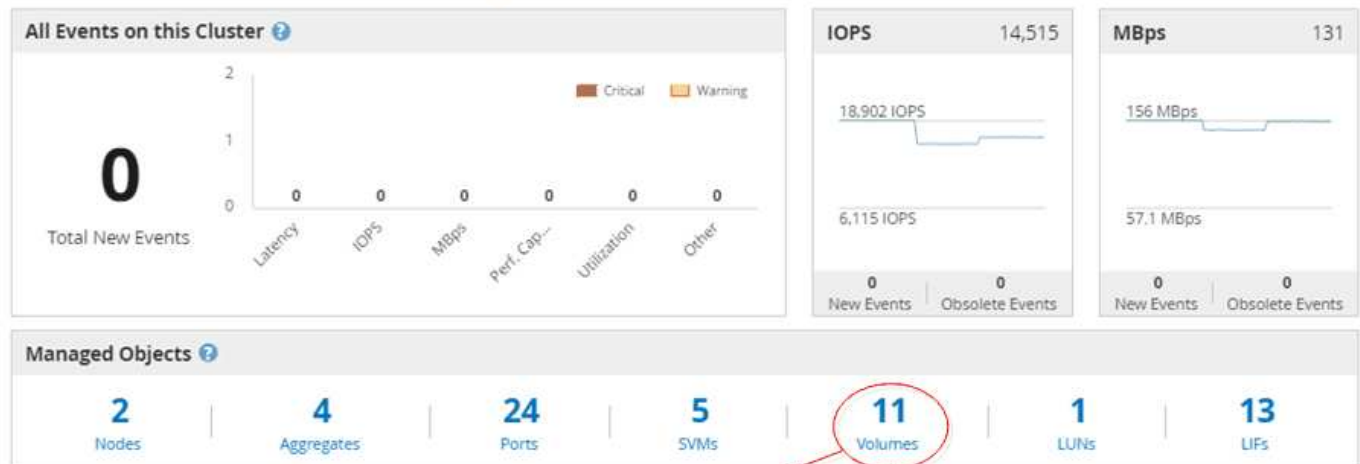
[Switch to Health View](#)

Last updated: 11:36 AM, 15 Mar

Refresh

Summary | Top Performers | Explorer | Information

IOPS, MBps are averaged over the previous 72 hours ?



Performance / Volumes on cluster opm-simplicity ?

Last updated: 11:43 AM, 15 Mar

Refresh

Latency, IOPS, MBps are based on hourly samples averaged over the previous 83 hours

Search Volume data

Filtering

Export

Assign Performance Threshold Policy | Clear Performance Threshold Policy

Status	Volume	Style	Latency	IOPS	MBps	Free Cap	Total Cap	Cluster	Node	SVM	Aggregate	Tiering Polic	Threshold
✓	vol2	FlexVol	13.8 ms/op	3,000 IOPS	23.4 MBps	474 GB	475 GB	opm-...ity	opm-...02	vs2	aggr4		
✓	vol4	FlexVol	0.503 ms/o	5,902 IOPS	46.1 MBps	474 GB	475 GB	opm-...ity	opm-...02	vs2	aggr4		
✓	fg_vol1	FlexVol	N/A	N/A	N/A	4.75 GB	4.75 GB	opm-...ity	opm-...01	vs3	aggr3		
✓	fg_julia1	FlexGroup	N/A	N/A	N/A	47.1 GB	47.5 GB	opm-...ity	2 Nodes	vs3	2 Ag...tes		
✓	test_vol	FlexVol	0.132 ms/o	< 1 IOPS	0 MBps	475 GB	475 GB	opm-...ity	opm-...01	vs1	aggr1	Snapsh...Only	
✓	vol3	FlexVol	0.244 ms/o	6,280 IOPS	49.1 MBps	461 GB	475 GB	opm-...ity	opm-...01	vs1	aggr3		

Monitor cluster performance navigation

Unified Manager enables you to monitor the performance of all clusters managed by Unified Manager. Monitoring your clusters provides you with an overview of cluster and object performance and includes performance event monitoring. You can view

performance and events at a high level, or you can further investigate any details of cluster and object performance and performance events.

This is one example of many possible cluster performance navigational paths:

1. In the Dashboards/Performance page, identify a cluster you want to investigate and click **View Cluster Details** to navigate to the selected cluster's landing page.
2. From the Performance/Cluster Summary page, identify the object type you want to investigate and click it to view the object inventory page.

In this example, **Aggregates** is selected, displaying the Performance/Aggregates inventory page.

3. In the Performance/Aggregates page, identify the aggregate you want to investigate and click that aggregate name to navigate to the Performance/Aggregate Explorer page.
4. Optionally, select other objects to compare with this aggregate in the View and Compare menu, and then add one of the objects to the comparing pane.

Statistics for both objects will appear in the counter charts for comparison.

5. In the Comparing pane at the right on the Explorer page, click **Zoom View** in one of the counter charts to view details about the performance history for that aggregate.

Latency, IOPS, MBps, Utilization are based on hourly samples averaged over the previous 72 hours

Search Aggregate data

Filtering

Export

Assign Performance Threshold Policy

Clear Performance Threshold Policy

	Status	Aggregate	Aggregate Ty	Latency	IOPS	MBps	Perf. Capacit	Utilization	Free Capacit	Total Capacit	Cluster	Node	Threshold Pc
<input type="checkbox"/>		aggr2	SSD	0.649 ms/op	1,103 IOPS	38.9 MBps	1%	1%	3,991 GB	4,023 GB	opm-s...city	opm-s...02	
<input type="checkbox"/>		aggr4	HDD	6.06 ms/op	2.23 IOPS	< 1 MBps	< 1%	< 1%	6,023 GB	6,024 GB	opm-s...city	opm-s...02	
<input type="checkbox"/>		aggr1	SSD	0.525 ms/op	77.1 IOPS	< 1 MBps	< 1%	< 1%	4,016 GB	4,023 GB	opm-s...city	opm-s...01	
<input type="checkbox"/>		aggr3	HDD	6.36 ms/op	411 IOPS	14.7 MBps	19%	17%	4,015 GB	4,518 GB	opm-s...city	opm-s...01	

Performance / Aggregate: **aggr4**

Switch to Health View

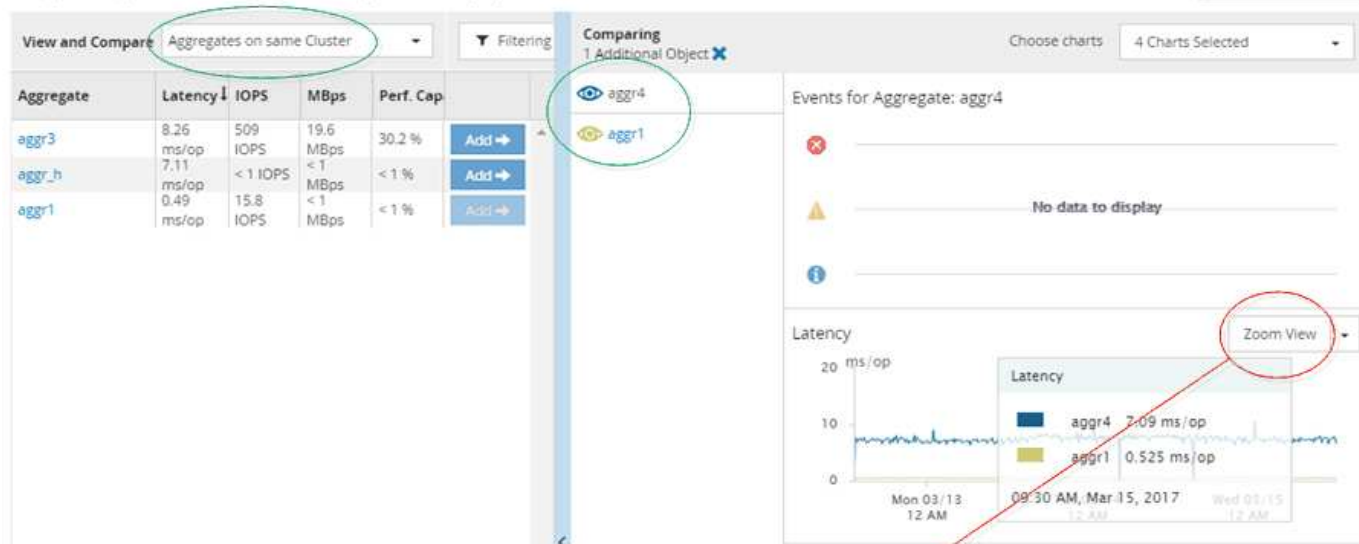
Last updated: 01:18 PM, 15 Mar

Refresh

Summary Explorer Information

Compare the performance of associated objects and display detailed charts ?

Time Range Last 72 Hours

Latency for Aggregate: **aggr4** ?

Time Range Last 72 Hours



Event investigation navigation

The Unified Manager event detail pages provide you with an in-depth look at any performance event. This is beneficial when investigating performance events, when troubleshooting, and when fine-tuning system performance.

Depending on the type of performance event, you might see one of two types of event detail pages:

- Event details page for user-defined and system-defined threshold policy events
- Event details page for dynamic threshold policy events

This is one example of an event investigation navigation.

1. In the left navigation pane, click **Events**.
2. In the Events inventory page, click the filter button and select **Performance** in the Impact Area to filter the list of events.
3. Click the name of the event that you want to investigate and the Event details page is displayed.
4. Expand any of the areas, such as Suggested Actions, to view more details about the event that may help you resolve the issue.

The screenshot shows the 'Events' page in Unified Manager. At the top, there's a header with 'Events' and a help icon, and a 'Last updated: Jan 22, 2018, 11:52 AM' timestamp with a 'Refresh' button. Below this is a search bar and a 'Triggered time: Last 72 Hours' filter. A filter dialog box is open, showing 'Impact Area' as 'Performance' and 'Availability' and 'Capacity' as unchecked options. The main table lists events with columns for 'Triggered Time', 'Severity', 'State', 'Impact Level', 'Impact Area', and 'Name'. One event is highlighted: 'QoS Volume Max IOPS/...Threshold Breached'. Below the table, the event details are shown, including a description and suggested actions.

Triggered Time	Severity	State	Impact Level	Impact Area	Name
Jan 22, 2018, 11:34...	⊗	New	Incident	Performance	Volume Latency Critical Threshold Breached
Jan 22, 2018, 11:09...	⊗	Obsolete	Incident	Performance	Volume Latency Critical Threshold Breached
Jan 22, 2018, 10:54...	⊗	Obsolete	Incident	Performance	Volume Latency Critical Threshold Breached
Jan 22, 2018, 10:34...	⊗	Obsolete	Incident	Performance	Volume Latency Critical Threshold Breached
Jan 22, 2018, 10:29...	⚠	New	Risk	Performance	Volume Latency Critical Threshold Breached
Jan 22, 2018, 10:29...	⊗	New	Incident	Performance	QoS Volume Max IOPS/...Threshold Breached
Jan 22, 2018, 10:29...	⚠	New	Risk	Performance	QoS Volume Max IOPS/...Threshold Breached
Jan 22, 2018, 10:14...	⊗	Obsolete	Incident	Performance	Volume Latency Critical Threshold Breached

Event: QoS Volume Max IOPS/TB Warning Threshold Breached (Last Seen: Jan 22, 2018, 11:54 AM)

Description: IOPS value of 600 IOPS on policy group aQoS_vol8 has triggered a WARNING event to identify performance problems for the workloads in this policy group.

[Diagnose this event to understand the root cause](#)

[View suggested actions to fix the problem](#)

Event Information

[View detailed information for this event](#)

System Diagnosis (Jan 12, 2018, 1:29 PM - Jan 22, 2018, 11:57 AM)

[Explore graphic charts to correlate key metrics along the timeline](#)

Suggested Actions

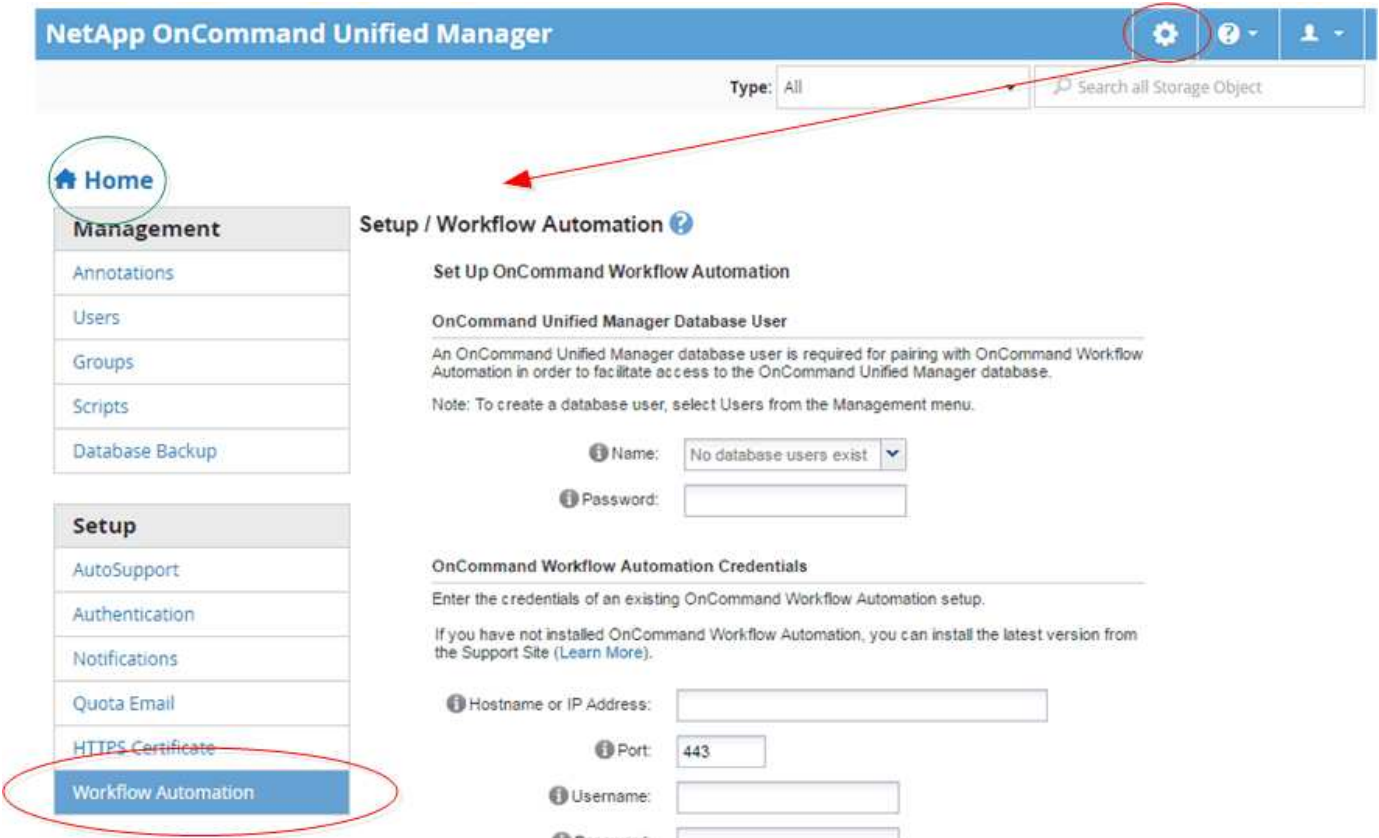
[View suggested actions to fix the problem](#)

Unified Manager administration navigation

Unified Manager administration functionality enables you to manage users and data

sources. You can also accomplish setup tasks such as authentication, AutoSupport, email, HTTPS certificates, networks, and NTP servers using the Unified Manager Administration page.

This is one example of many possible administration navigational paths. To add or remove a connection to a Workflow Automation server, follow this navigation example:



Click the **Home** icon to return to the main Unified Manager navigation page.

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