

Veritas InfoScale
Operations Manager 8.0.0
Patch 100

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Veritas Services and Operations Readiness Tools (SORT)

Veritas Services and Operations Readiness Tools (SORT) is a website that provides information and tools to automate and simplify certain time-consuming administrative tasks. Depending on the product, SORT helps you prepare for installations and upgrades, identify risks in your datacenters, and improve operational efficiency. To see what services and tools SORT provides for your product, see the data sheet:

https://sort.veritas.com/data/support/SORT_Data_Sheet.pdf

VIOM Patch 8.0.0.100

This document includes the following topics:

- [Changes introduced in this patch](#)

Changes introduced in this patch

The following sections describe the changes that are introduced in this patch.

Reconciliation of InfoScale Core Plus licenses

The License reconciliation feature lets you seamlessly compare InfoScale license usage data against each entitlement, and to view the effective license position summary of an organization.

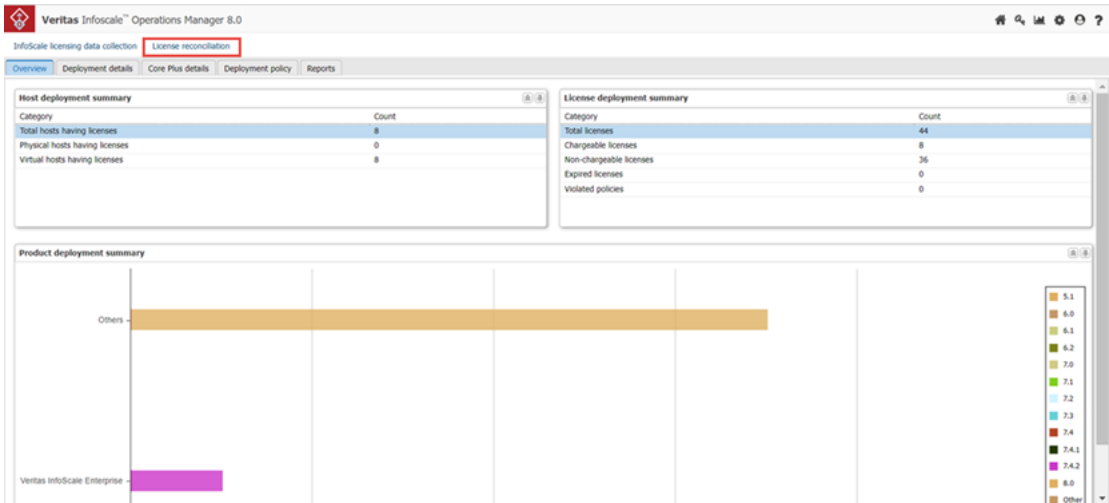
Previously, Veritas provided the Excel tool and CSV formats to collect the license usage data against each entitlement and platform-related information on InfoScale deployments in your environment.

As an administrator, you can use the License reconciliation in your environment from a licensing perspective.

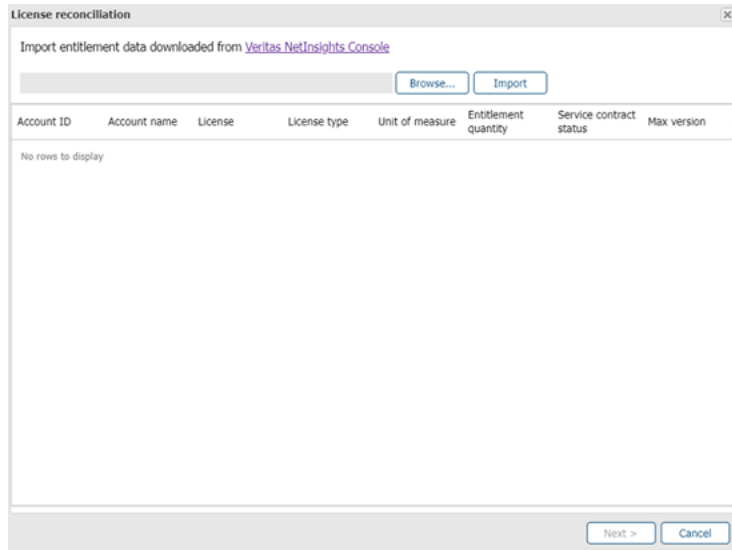
To perform the license reconciliation, ensure you that the VIOM Management Server is at 8.0.0.100 or later.

To use License reconciliation

- 1 In the Management Server console, open license perspective, and click the **License reconciliation** option at the top of the toolbar.



The License reconciliation window appears.



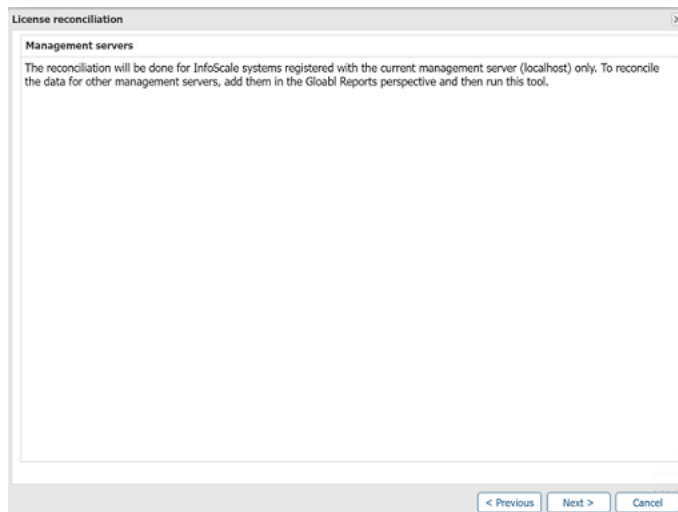
Note: In the License reconciliation window, you need to import the entitlement file. Therefore, download the entitlement file available from the Veritas NetInsights Console and save it in your local system.

To download the entitlement file from the NetInsights Console application perform the steps sequentially:

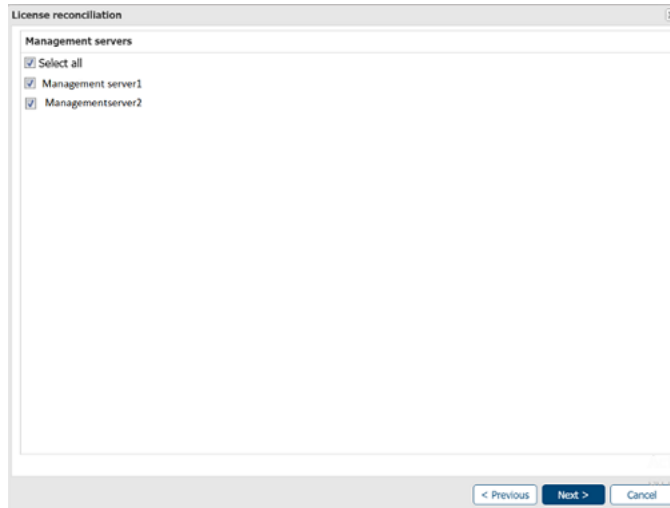
- Sign into <https://sso.veritas.com/>
 - Select **NetInsights Console** application and then select **Usage Insights**
 - Select **Registration and downloads** menu and **Reconciliator** and then **Download entitlements files**
- 2 Click **Browse** to locate the appropriate entitlement file (CSV format) that you want to upload.
 - 3 Click **Import** to upload your entitlement file in to VIOM Management Server and click **Next**.

The Management Server window appears; proceed as follows:

- Scenario 1:
 You can see the following window, if there is no Management Server configured in the Global Reports.



- Scenario 2:
 You can see the following window, If there are Management Server configured in the Global Reports. By default, all the Management Servers are selected.



- 4 Irrespective of both the scenarios mentioned in the step 4, click **Next**. The Effective license position summary page displays.

Product	Entitlement type	License meter	Entitlement quantity	Used entitlements	Over / Under
AVAILABILITY	PERPETUAL	CORE	323.0	20.0	303.0
AVAILABILITY	PERPETUAL	COREPLUS	220.0	0	220.0
AVAILABILITY	PERPETUAL	SERVER	3.0	0	3.0
AVAILABILITY	SUBSCRIPTION	CORE	124.0	0	124.0
AVAILABILITY	SUBSCRIPTION	COREPLUS	220.0	0	220.0
AVAILABILITY	SUBSCRIPTION	SERVER	3.0	0	3.0
ENTERPRISE	PERPETUAL	CORE	69.0	18.0	51.0
ENTERPRISE	PERPETUAL	COREPLUS	10.0	0	10.0
ENTERPRISE	PERPETUAL	SERVER	2.0	0	2.0
ENTERPRISE	SUBSCRIPTION	CORE	159.0	0	159.0
ENTERPRISE	SUBSCRIPTION	COREPLUS	220.0	0	220.0
ENTERPRISE	SUBSCRIPTION	SERVER	2.0	0	2.0
FOUNDATION	PERPETUAL	CORE	814.0	0	814.0
FOUNDATION	PERPETUAL	COREPLUS	1.0	0	1.0
FOUNDATION	PERPETUAL	SERVER	2.0	0	2.0
FOUNDATION	SUBSCRIPTION	CORE	589.0	0	589.0
FOUNDATION	SUBSCRIPTION	COREPLUS	1.0	0	1.0
FOUNDATION	SUBSCRIPTION	SERVER	4.0	0	4.0
STORAGE	PERPETUAL	CORE	38.0	4.0	34.0
STORAGE	PERPETUAL	COREPLUS	220.0	0	220.0
STORAGE	PERPETUAL	SERVER	6.0	0	6.0
STORAGE	SUBSCRIPTION	CORE	3015.0	0	3015.0

The Effective license position summary page displays the calculated license usage of an organization.

- **Entitlement quantity:** Specifies the total number of entitlements for each account. It shows the product usage limit for that entitlement.

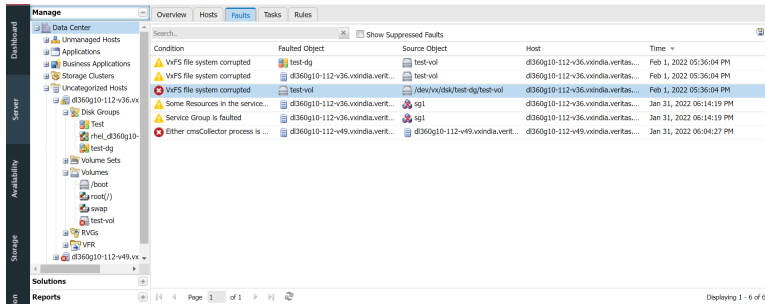
- **Used Entitlement:** Specifies the total number of used entitlements against each entitlement.
 - **Over/Under usage:** Specifies the number of entitlements that are available or overused. If the entitlement is overused the value will be shown with a negative sign.
- 5 Click the **Save** button to download license usage data in the CSV format.

The following is the downloaded sample entitlement (CSV) file that includes the **Reconciliation Summary** and **InfoScale Server** details:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Product	Entitem	License	Quantity	Quantity	Over	Under												
2	AVAILA	PERPPE	COREP	323	20	303													
3	AVAILA	PERPPE	COREP	230	0	230													
4	AVAILA	PERPPE	SERVEF	3	0	3													
5	AVAILA	SUBSCJ	COREP	124	0	124													
6	AVAILA	SUBSCJ	COREP	220	0	220													
7	AVAILA	SUBSCJ	SERVEF	3	0	3													
8	ENTERI	PERPPE	COREP	69	16	51													
9	ENTERI	PERPPE	COREP	10	0	10													
10	ENTERI	PERPPE	SERVEF	2	0	2													
11	ENTERI	SUBSCJ	COREP	169	0	169													
12	ENTERI	SUBSCJ	COREP	220	0	220													
13	ENTERI	SUBSCJ	SERVEF	2	0	2													
14	FOUND	PERPPE	COREP	814	0	814													
15	FOUND	PERPPE	COREP	1	0	1													
16	FOUND	PERPPE	SERVEF	2	0	2													
17	FOUND	SUBSCJ	COREP	589	0	589													
18	FOUND	SUBSCJ	COREP	1	0	1													
19	FOUND	SUBSCJ	SERVEF	4	0	4													
20	STORA	PERPPE	COREP	38	4	34													
21	STORA	PERPPE	COREP	220	0	220													
22	STORA	PERPPE	SERVEF	6	0	6													
23	STORA	SUBSCJ	COREP	3015	0	3015													
24	STORA	SUBSCJ	COREP	230	0	230													
25	STORA	SUBSCJ	SERVEF	2	0	2													
26	UNIDENTIFIED ENTITLEMENTS			0															
27	*Hours missing Product bundle information																		
28																			
29																			
30	Reconciliation Summary																		
31	Core m	D-Driv	e mapping	E-Exist	mapping	N-No	mapping												
32	Amount	12																	
33	Enterprise	6																	
34	Storage	1																	
35	Availabl	6																	
36	Foundat	0																	
37	Number	0																	
38																			
39																			
40	Host	Product	License	Version	Meter ty	License	Infoscal	Entitem	Platform	VM	CPU mc	#Cores	Core Pk	#Core F	Core mc	Management	Server		
41	STORA	SLIC		8	PER-CC	PERPPE	KEYLES	A68947	SUSE Li	V	Intel(R)	4	1	4	D				
42	ENTERI	SLIC		8	PER-CC	PERPPE	KEYLES	A51921C	SUSE Li	V	Intel(R)	4	1	4	D				
43	ENTERI	SLIC		8	PER-CC	PERPPE	KEYLES	A51921C	SUSE Li	V	Intel(R)	4	1	4	D				
44	ENTERI	SLIC		8	PER-CC	PERPPE	KEYLES	A51921C	Oracle S	V	SPARC	1	1	1	D				
45	AVAILA	SIG			PER-CC	PERPPE	KEYLES	A36378E	Red H	V	PowerP	4	1	4	D				
46	AVAILA	SIG			PER-CC	PERPPE	KEYLES	A165257	Microsc	V	Intel(R)	4	1	4	D				
47	ENTERI	SLIC		7.4.2	PER-CC	PERPPE	KEYLES	A495212	Microsc	V	Intel(R)	4	1	4	D				
48	AVAILA	SLIC		7.4.2	PER-CC	PERPPE	KEYLES	A36378E	Red H	V	Intel(R)	4	1	4	D				
49	AVAILA	SLIC		7.4.2	PER-CC	PERPPE	KEYLES	A36378E	Red H	V	Intel(R)	4	1	4	D				

Notification about a corrupted VxFS file system

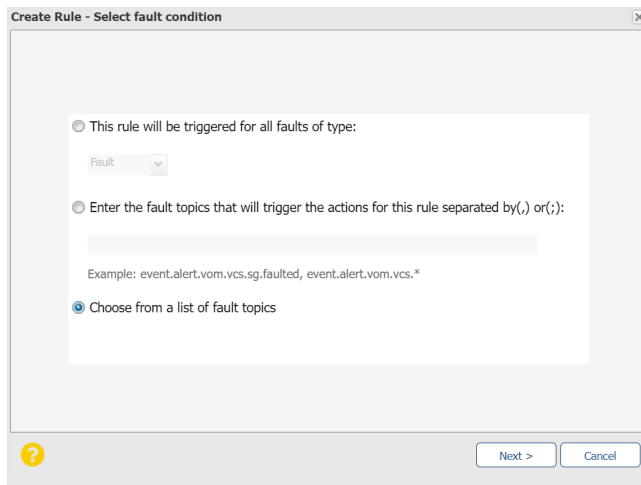
Veritas InfoScale Operations Manager discovers FULLFSCK flag on a VxFS file system every 24 hours. If the file system is corrupted, a fault 'SF_FILESYSTEM_CORRUPTED' is raised.



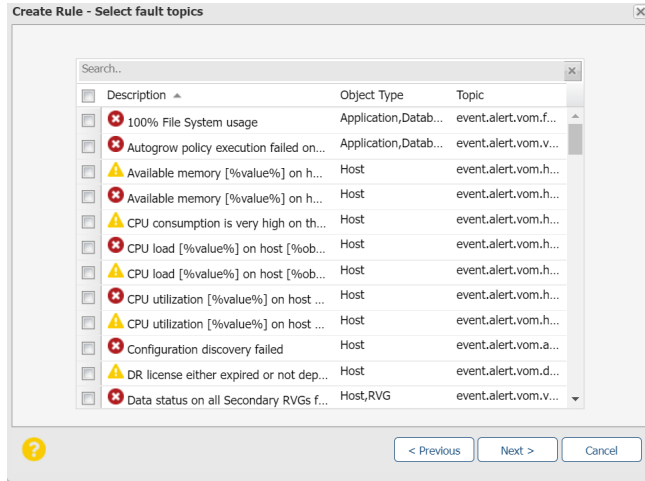
You can create a rule to get an email/SNMP notification about this fault.

Complete the following steps

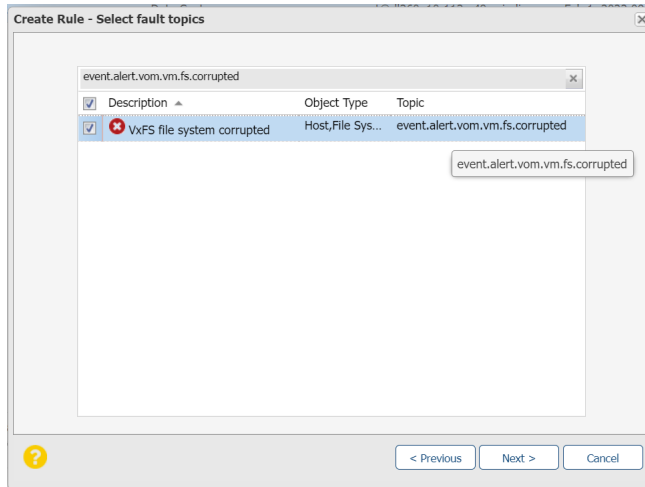
- 1 In the Server perspective, click **Rules** and right-click to create a new rule.
- 2 Select **Choose from a list of fault topics** in the following screen. Click **Next**.



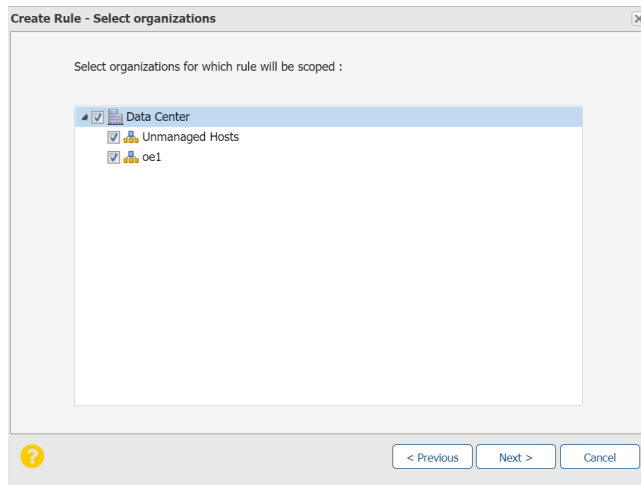
- 3** Enter **VxFS file system corrupted** to search this topic or select **event.alert.vom.vm.fs.corrupted** in **Topic** .



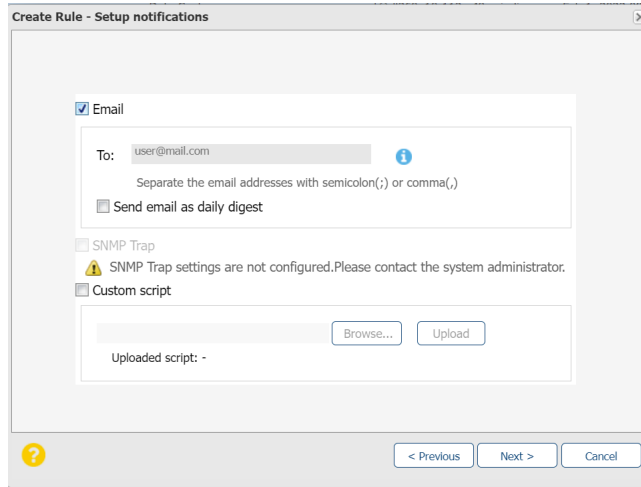
- 4** Select the rule as indicated in the following screen. Click **Next**.



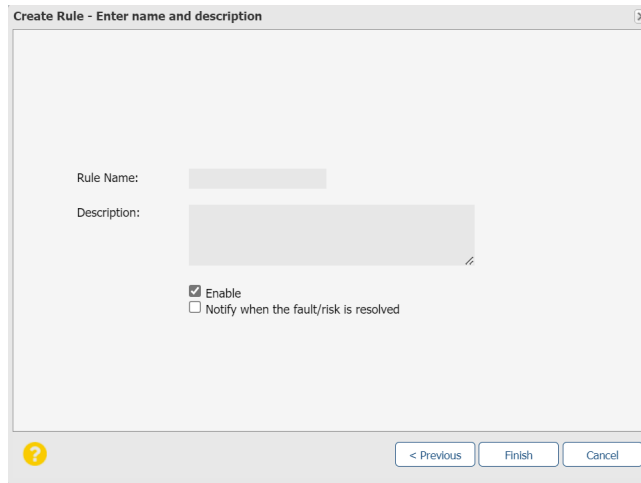
- 5 Select Organizations for which you want to send this notification. Click **Next**.



- 6 Select **Email** and enter the email addresses of those who want to receive this notification. You can enter multiple email addresses as indicated. Click **Next**.



- 7 Enter a **Name** and **Description** for this rule. Optionally, you can click the check box next to **Notify when the fault/risk is resolved**. If you select this option, an email notification is sent when the file system is back. Click **Finish**.



You have successfully created a rule for email notifications to be sent when a file system is corrupted. Email notification contains the corrupted file system path.

Support for InfoScale servers hosted in AWS cloud environments

When a new host is added to the Veritas InfoScale Operations Manager CMS, the host is discovered and listed as an uncategorized host in the Server perspective. If the host belongs to a cluster, the cluster is displayed under **Uncategorized Cluster** in the Availability perspective

When you click **Uncategorized Hosts**, host details like state, platform, architecture, SF version, build version, IP address, VCS version, and so on are displayed. Veritas InfoScale Operations Manager can also discover hosts deployed in an AWS environment and accordingly display the cloud name, VPC ID, resource name, subnet Id, zone details.

Note: Veritas InfoScale Operations Manager supports the discovery of InfoScale hosts in an AWS cloud environment only if the hosts are running on Linux or Windows.

Some of these attributes are displayed as columns for each uncategorized host, whereas the other attributes are displayed in the Properties area in the perspective view. You can right-click each of the attributes and select Show as column to display the selected attribute as a column in the table.

You can view attributes related to uncategorized cluster in the Availability perspective.

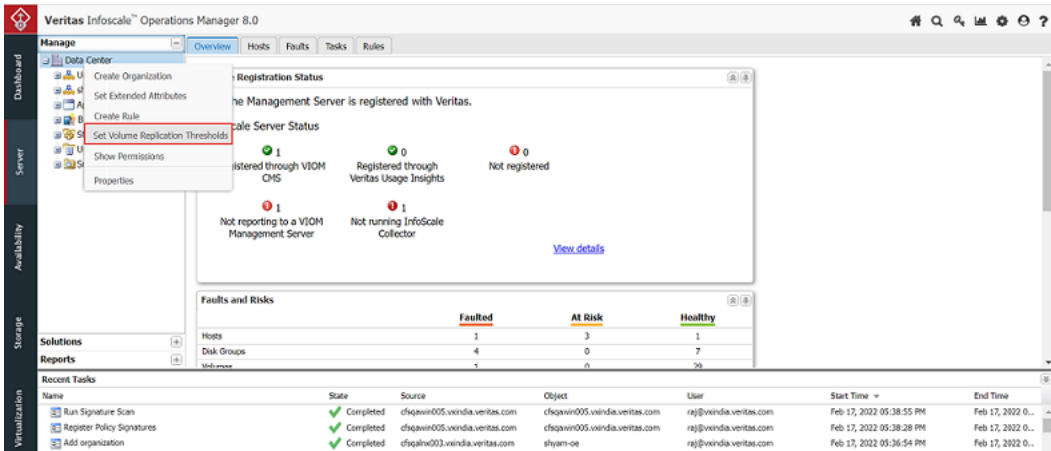
Support for global VVR replication monitoring thresholds

Using **Set Volume Replication Thresholds** option you can specify a common low or high replication threshold values to raise an alert for an Organization.

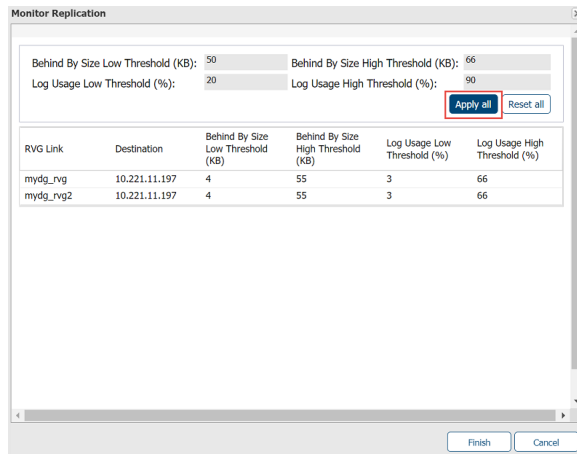
To perform this task, your user group must be assigned the Admin role on the host or the Server perspective. The permission on the host may be explicitly assigned or inherited from a parent Organization.

Perform the following procedure to monitor VVR replication threshold globally

1. Right – click the **Data Center** menu to use **Set Volume Replication Threshold** option. The Monitor Replication window appears.



2. Set the VVR replication threshold values for all the RVG links for an organization and click the **Apply all** button.



3. Click the **Finish** button, to completed the process. A success message appears.

RVG Link	Destination	Behind By Size Low Threshold (KB)	Behind By Size High Threshold (KB)	Log Usage Low Threshold (%)	Log Usage High Threshold (%)
mydg_rvg	10.221.11.197	50	66	20	90
mydg_rvg2	10.221.11.197	50	66	20	90

Threshold values updated successfully.

Security vulnerabilities fixes in Veritas InfoScale Operations Manager

As part of a privately reported vulnerability, Veritas has discovered security vulnerabilities with Veritas InfoScale Operations Manager (VIOM) as described below.

Table 1-1

Issue	Description	Severity
1	Improper Neutralization of Input During Web Page Generation ('Reflected Cross-site Scripting')	Medium

Table 1-1 (continued)

Issue	Description	Severity
2	Absolute Path Traversal	Medium

Issue #1

A reflected cross-site scripting (XSS) vulnerability allows a malicious VIOM user to inject malicious script into another user’s browser. (CWE-79)

Severity: Medium

CVSS v3.1 Base Score 4.8 (AV:N/AC:L/PR:H/UI:R/S:C/C:L/I:L/A:N)

Affected Versions

Veritas InfoScale Operations Manager (VIOM) Management Server and Managed Hosts/Agents 8.0, 7.4.2, 7.4, 7.3.1, 7.3, 7.2, 7.1, 7.0. Earlier unsupported versions may be affected as well.

Summary

Cross-site scripting Reflected (XSS) vulnerability affects the Veritas Operations Manager application, which allows authenticated remote attackers to inject arbitrary web script or HTML into HTTP/GET parameter which reflect the user input without sanitization. The Veritas Operations Manager web application does not properly check parameters sent via GET methods which are included in the server response.

Affected Endpoints

http://hostname:5634/admin/cgi-bin/listdir.pl

Security Impact

By exploiting this vulnerability it is possible to conduct phishing attacks against users of the Veritas Operations Manager web application.

Issue #2

An absolute path transversal vulnerability allows a user to gain unauthorized access to resources on the server (CWE-36).

Severity: Medium

CVSS v3.1 Base Score 4.9 (AV:N/AC:L/PR:H/UI:N/S:U/C:L/I:N/A:N)

Affected Versions

Veritas InfoScale Operations Manager (VIOM) Management Server and Managed Hosts/Agents 8.0, 7.4.2, 7.4, 7.3.1, 7.3, 7.2, 7.1, 7.0. Earlier unsupported versions may be affected as well.

Summary

The web server fails to sanitize the input data allowing a remote authenticated attacker to read files on the filesystem arbitrarily. By manipulating the resource name in the GET requests referring to files with absolute paths, it is possible to access arbitrary files stored on the filesystem, including application source code, configuration files and critical system files.

Prerequisites

It is required to have access to the web application as a user with administrative/root role.

Affected Endpoints

<http://hostname:5634/admin/cgi-bin/rulemgr.pl/getfile/>

Security Impact

By exploiting this vulnerability on the web server it was possible to read any file on the filesystem, being the web application running with the privileges of the root user.