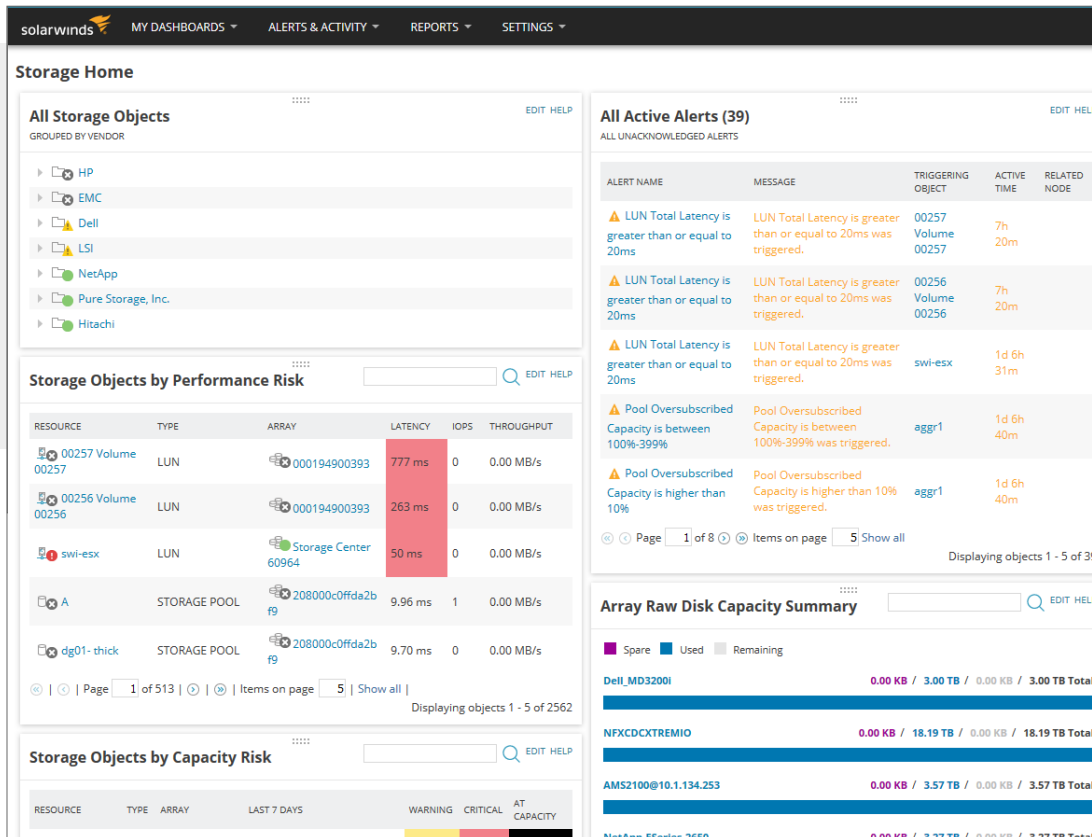


# Storage Resource Monitor

## Proactively manage your multi-vendor storage devices



The screenshot displays the SolarWinds Storage Resource Monitor interface. It features a navigation bar with 'MY DASHBOARDS', 'ALERTS & ACTIVITY', 'REPORTS', and 'SETTINGS'. The main content area is divided into several sections:

- Storage Home:** Overview of storage objects grouped by vendor (HP, EMC, Dell, LSI, NetApp, Pure Storage, Inc., Hitachi).
- All Storage Objects:** A table listing storage objects with columns for Resource, Type, Array, Latency, IOPS, and Throughput. The table shows objects like '00257 Volume' and '00256 Volume' with latency values of 777 ms and 263 ms respectively.
- All Active Alerts (39):** A table of alerts with columns for Alert Name, Message, Triggering Object, Active Time, and Related Node. Alerts include 'LUN Total Latency is greater than or equal to 20ms' and 'Pool Oversubscribed Capacity is between 100%-399%'.
- Storage Objects by Performance Risk:** A table showing objects with high latency, such as '00257 Volume' with 777 ms latency.
- Storage Objects by Capacity Risk:** A table showing objects with capacity warnings, such as '208000-Offda2b' with a warning level.
- Array Raw Disk Capacity Summary:** A bar chart showing disk capacity usage for various arrays, including 'Dell\_MD3200', 'NFXCDCXTREMIO', and 'AMS2100@10.1.134.253'.

The storage monitoring and capacity management software from SolarWinds gives you deep visibility into the performance of your multi-vendor storage arrays, and helps you closely watch the application stack for storage issues that affect application performance.

**TRY IT FREE**

30 days, full version

### STORAGE RESOURCE MONITOR AT A GLANCE

- » Monitor storage performance and isolate hotspots in your multi-vendor storage environment
- » Get end-to-end visibility into the application stack, and troubleshoot performance issues from application to storage with integration of SolarWinds® Server & Application Monitor and Virtualization Manager
- » Automate the collection and presentation of storage capacity planning and reporting
- » Reclaim storage space and simplify analysis of storage usage
- » Start monitoring your storage infrastructure typically in less than an hour

## SOLARWINDS STORAGE RESOURCE MONITOR FEATURES

### Storage performance monitoring

Get a unified view into the performance and status of your storage environment. Use Storage Resource Monitor (SRM) for agentless NAS and SAN performance monitoring, as well as monitoring on volumes, RAID groups, storage pools, disks, and more. This helps prevent downtime and helps ensure that your storage network is running at peak performance. Quickly and easily configure a full range of custom and predefined alerts.

**TRY IT FREE**

30 days, full version

### Automated storage capacity planning

Storage capacity planning is an arduous task, especially in a virtualized infrastructure. It typically involves manually creating complex spreadsheets. Storage Resource Monitor automates the collection of forecasting data so you can easily see growth rates, forecast costs and budgetary requirements, and project when capacity will be reached. In addition to simplifying storage capacity planning, SRM provides the information you need to avoid outages due to full disk errors. The centralized monitoring feature tracks performance over time to identify hot spots, peak hours, and potential outages.

### Storage LUN views

Storage LUN views give you a single-pane-of-glass look at LUN and all related infrastructure components (both physical and virtual), allowing you to diagnose performance issues. You can quickly determine if storage is truly the reason for poor VM performance. If you determine that the culprit is another VM or LUN, you can drill down and continue to diagnose the issue within the tool.

The storage LUN views are an ideal integration point between SolarWinds Virtualization Manager and Storage Resource Monitor. Virtualization Manager links to the LUN view from the cluster, ESX®, VM, or datastore view. This enables you to see the storage under your VM infrastructure, putting you just a click away from total visibility. In addition, SRM offers more information related to your LUN groups using the user-defined LUN grouping, where you can create new LUN groups, view LUN group information in the console, and leverage the groups for reporting.

### Storage I/O hotspot detection

Storage I/O hotspot detection capabilities in Storage Resource Monitor scan your multi-vendor storage environment, identify potential issues, and enable you to quickly access detailed information about the physical and virtual resources causing the problems.

### Hardware health monitoring

Monitor, alert, and report on key device metrics, including temperature, fan speed, and power supply.

## END-TO-END VISIBILITY OF THE APPLICATION STACK

Use Storage Resource Monitor to access the AppStack™ and PerfStack™ dashboards for end-to-end visibility into the applications and infrastructure performance, including the storage arrays built in the SolarWinds SRM module.

The AppStack environment in SRM is designed to deliver a powerful layer of troubleshooting visibility by showing you application performance issues that are usually caused by the server, virtual, or storage infrastructure. Quickly assess the health of your environment, as well as troubleshoot specific, interrelated problems—all from one console.

Using the PerfStack dashboard, you can cross-stack performance data and metrics across your storage arrays, virtualization, applications, systems, and networks systems, allowing for quicker problem identification. This level of visibility is achieved as a result of the native integration between Storage Resource Monitor, Server & Application Monitor, and Virtualization Manager. The integration of the AppStack dashboard allows you to better predict, prioritize, and resolve issues before end-users and the business are affected. Get end-to-end visibility into application performance problems all the way down to the storage level.

**TRY IT FREE**

30 days, full version

## SYSTEM REQUIREMENTS

HARDWARE	MINIMUM REQUIREMENTS
CPU	2.0GHz dual-processor and dual-core is recommended
Memory	8GB
Hard Drive	100GB
SOFTWARE	MINIMUM REQUIREMENTS
OS	Windows Server® 2012, 2012 R2, 2016
Database	SQL Server® 2012, 2012 SP1, 2012 SP2, 2014, 2014 SP1, 2016
.NET Framework	4.5 SP1 is required
Web Server	Microsoft® IIS™, version 6.0 and higher
Web Browser	Internet Explorer® 11, Microsoft Edge® Mozilla® Firefox® 45.0 or higher Google® Chrome® 49.0 or higher

**NOTE:** The minimum server requirements listed assume default configuration. Significantly increasing the poll rate or statistic collection rate could result in additional load on the server, which may require a larger CPU or additional memory.

## SUPPORTED STORAGE DEVICES

Storage Resource Monitor is vendor- and platform-neutral, and supports a wide variety of array manufacturers, including:

### **NetApp:**

NetApp® E-series

NetApp Filers (OnTAP 7-mode)

NetApp Filers (Clustered Data OnTAP (CDOT))

NetApp AFF

NetApp EF

### **EMC:**

EMC Unity, EMC® CLARiiON®

EMC VNX®

EMC Celerra®

EMC Isilon®

EMC Symmetrix® VMAX®, VMAXe®, DMX®

EMC XtremIO®

VMAX3 (Flash Family)

### **Dell:**

Dell® PowerVault® MD3xxx

Dell EqualLogic®

Dell Compellent®

### **IBM:**

IBM® N Series

IBM DS3xxx, 4xxx, 5xxx

IBM 6xxx, 8xxx

IBM Spectrum™ Virtualize (Vxxx and SVC)

**TRY IT FREE**

30 days, full version

IBM Spectrum Accelerate (XIV)

IBM (ESS) Enterprise Storage Server®

IBM FlashSystem A9000/A9000R

IBM DS 8xxx

TRY IT FREE

30 days, full version

#### Hitachi:

Hitachi Data Systems® AMS

Hitachi Data Systems USP, USPV, VSP

Hitachi Data Systems HUS 100 Block-side, HUS VM Block-side

#### HP:

HP® Nimble Storage AF-Series & CS-Series

HP StoreServ® 3PAR

HP StoreVirtual®/LeftHand™ P4xxx

HP StorageWorks® EVA

HP StorageWorks XP

HP MSA/P2xxx

#### Other vendors:

- » Oracle®/SUN®: StorageTek® 2xxx & 6xxx, Virtual Storage Manager 99xx Series, Flex
- » Oracle/Pillar
- » Xiotech®: Emprise 7000, Magnitude 3D 3xxx and 4xxxr
- » ONStor®
- » Dot Hill® AssuredSAN 4xxx/5xxx
- » Pure Storage®
- » INFINIDAT® InfiniBox™ Fxxxx

### TRY BEFORE YOU BUY. DOWNLOAD A FREE TRIAL!

Don't just take our word for it. At SolarWinds, we believe you should try our software before you buy. That's why we offer free trials that deliver full product functionality.

## LEARN MORE

### AMERICAS

Phone: 866.530.8100

Fax: 512.682.9301

Email: [sales@solarwinds.com](mailto:sales@solarwinds.com)

### ASIA

Tel : +65 6422 4123

Fax : +65 6593 7601

Email: [apacsales@solarwinds.com](mailto:apacsales@solarwinds.com)

### EMEA

Phone: +353 21 5002900

Fax: +353 212 380 232

Email: [sales@solarwinds.com](mailto:sales@solarwinds.com)

### PACIFIC

Phone: +61 2 8412 4910

Email: [apacsales@solarwinds.com](mailto:apacsales@solarwinds.com)

**TRY IT FREE**

30 days, full version

For product information about SolarWinds products, visit [solarwinds.com](http://solarwinds.com), call, or email.

7171 Southwest Parkway | Building 400 | Austin, Texas 78735

This document is provided for informational purposes only. SolarWinds makes no warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information contained herein.