



# APPLICATION STACK MANAGEMENT BUNDLE - INSTALLATION AND USER GUIDE

*A guide for installing the complete solution for end-to-end visibility and using the Application Stack Management Dashboard.*

The Application Stack Management Dashboard helps you find the root cause of application issues at a glance. This view provides automated and contextual visibility across application, database, physical server, virtual infrastructure, and storage resources. The Application Stack Management Dashboard is a feature included in all Application Stack Enabled Products (products included in the Application Stack Management Bundle): Server & Application Monitor, Virtualization Manager, Web Performance Monitor, and Storage Resource Monitor.

With the SolarWinds® Application Stack Management Dashboard, everyone on your IT team has complete visibility of their environment and performance statuses. An automatic map shows how these infrastructure layers relate to one another so your entire IT staff can identify trouble areas at a glance. You can also use this feature to perform impact analysis.

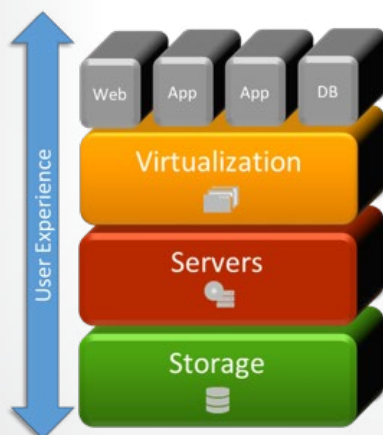
For example, the storage team plans to spend a weekend upgrading firmware on the SAN. Your boss has asked for a risk assessment and impact analysis in case something goes wrong with the upgrade. The assessment and analysis involves understanding all of the servers and hosts connected to that array as well as the business-critical applications those servers are hosting. At first, this sounds like a daunting and time-consuming task, but with the Application Stack Management Dashboard, you simply click on the array to see all the relationships and dependencies on that SAN. For example, you can view all the ESX® and Hyper-V® hosts, and the VMs and applications they serve that would be impacted if this array went down.

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## GETTING THE COMPLETE PICTURE - SETTING UP THE APPLICATION STACK MANAGEMENT DASHBOARD

The Application Stack Management Dashboard comes with every product in SolarWinds' systems management portfolio: Server & Application Monitor, Web Performance Monitor, Virtualization Manager, and Storage Resource Monitor. The graphic lists the Application Stack Enabled Products.



**Web Performance Monitor** - user experience for internal and customer facing Web applications

**Server and Application Monitor** - Applications, Servers, Hosts, Virtual Clusters, Virtual Data Centers, volumes (direct attached)

**Virtualization Manager** - Datastores, additional performance metrics for virtual servers like % ready, ballooning, snapshots, etc.

**Storage Resource Monitor** - LUNs, NAS volumes, Pools, vServers (NetApp), Storage Arrays

## APPLICATION STACK ENABLED PRODUCTS

### Server & Application Monitor

- » Monitor over 200 applications, custom applications, operating systems, and server hardware health
- » Proactively report on hardware and software IT assets
- » Monitor the availability of VMware® and Hyper-V® hosts & virtual machines

### Virtualization Manager

- » Unified performance, capacity planning, configuration, VM sprawl, VDI, and chargeback capabilities for VMware & Hyper-V
- » Use trends and alerts for data analysis and alerting users about configuration issues and performance problems across virtual clusters, hosts, and datastores

### Storage Resource Monitor

- » Get real-time storage performance visibility into heterogeneous SAN and NAS arrays
- » Monitoring for LUNs, disks, storage pools/RAID groups, and storage arrays
- » Comprehensive alerting and reporting, configuration and asset information, storage grouping, etc.

### Web Performance Monitor

- » Monitor user experience and overall performance of internal (CRM, ERP, intranet) and customer-facing Web applications
- » Drill into website load times and page load speed by location, waterfall charts for heaviest page elements, and more

## CONFIGURE EACH APPLICATION STACK ENABLED PRODUCT

### Configure

#### Server & Application Monitor

- » After installing the product, you can use the built-in discovery tool. Using SNMP or WMI credentials, you can easily add several nodes and applications and begin monitoring in minutes.

[Learn more about configuring Server & Application Monitor](#)

#### Virtualization Manager

- » Once you have the virtual appliance for VMware or Hyper-V installed, run the image or OVF template on the VM to complete the installation.



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- » Once you have installed the OVF template or the image, you can configure your infrastructure by providing credentials to the virtual center endpoints to begin data collection.

[Learn more about installing and configuring Virtualization Manager](#)

### Storage Resource Monitor

- » After installing the product, you can use the built-in discovery tool. Using the SMIS protocols, you can easily add several multi-vendor storage arrays and begin monitoring in minutes.

[Learn more about configuring Storage Resource Monitor](#)

### Web Performance Monitor

- » The only components to configure are the player and recorder modules, which is easily done by launching the executable files.

[Learn more about configuring Web Performance Monitor](#)

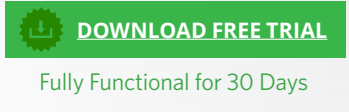
## APPLICATION STACK MANAGEMENT BUNDLE HARDWARE AND SOFTWARE REQUIREMENTS

### Orion® Server (Server & Application Monitor, Web Performance Monitor, Virtualization Manager, Storage Resource Monitor)

- » Physical or virtual server.
- » Quad-core processor 2.5 GHz or better.
- » 4-8GB RAM.
- » 2 x 146GB 15K hard drives (RAID 1/mirrored settings).
- » 1GBE NIC.
- » Windows Server® 2012 or 2008 R2 (64-bit) with IIS installed, running in 32-bit mode.
- » .Net 3.5 + 4.0.

### Orion Server® Primary Database Server

- » SQL Express comes with the Evaluation Software. If a separate SQL Server is going to be used instead of SQL Express, we recommend:
  - » Microsoft® SQL Server® 2014, 2012, or 2008 R2 Standard Edition.
  - » Dual-quad core processor 3GHz or better.
  - » 8GB RAM
  - » Mirrored drives for OS and 6 disks RAID 1+0 for database data files
  - » Hardware RAID Controller with a battery backed-up write back cache
  - » Windows 2012 or 2008 R2 Server (64-bit)



### Storage Resource Monitor Server - Profiler Module (optional for additional array support)

- » 2.5GHz CPU
- » 8GB RAM
- » 100GB volume on a priority datastore
- » 1GBE NIC
- » Windows Server® 2008 R2 or 2012 (64-bit), or Linux® RedHat® distribution (64-bit)
- » MariaDB® or Apache® Tomcat will be installed with the server

### Virtualization Manager Virtual Appliance (virtual)

- » 4-core processor 2.5GHz or better
- » 8GB RAM
- » 250GB volume on a priority datastore
- » 1GBE NIC CentOS (64-bit)
- » PostGRESQL™ and Tomcat will already be configured

### Web Performance Monitor Player & Recorder

#### Player

- » 2.0GHz CPU
- » 3GB Memory
- » OS: Windows® XP, Vista, 7, 8, 2012; Windows Server® 2003, 2008, 2012
- » TCP/IP Ports: 80/443 (TCP) open for HTTP traffic; 17777 (TCP) open for SolarWinds® traffic; 17781 (TCP) open for server-initiated communication mode
- » Internet Explorer 9, 11

#### Recorder

- » 1.0GHz CPU
- » 2GB Memory
- » OS: Windows® XP, Vista, 7, 8, 2012, Windows Server® 2003, 2008, 2012
- » TCP/IP Ports: 80/443 (TCP) open for HTTP traffic; 17777 (TCP) open for SolarWinds® traffic
- » Internet Explorer 9, 11

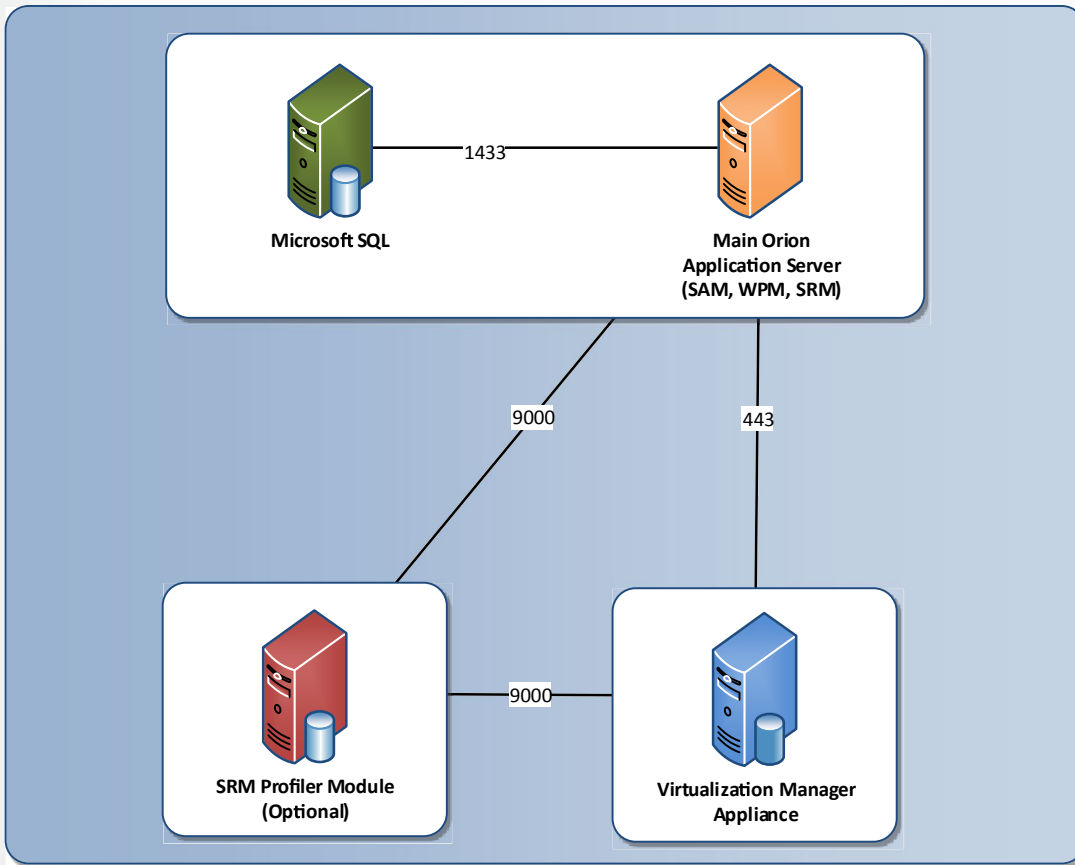


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## APPLICATION STACK MANAGEMENT BUNDLE ARCHITECTURE

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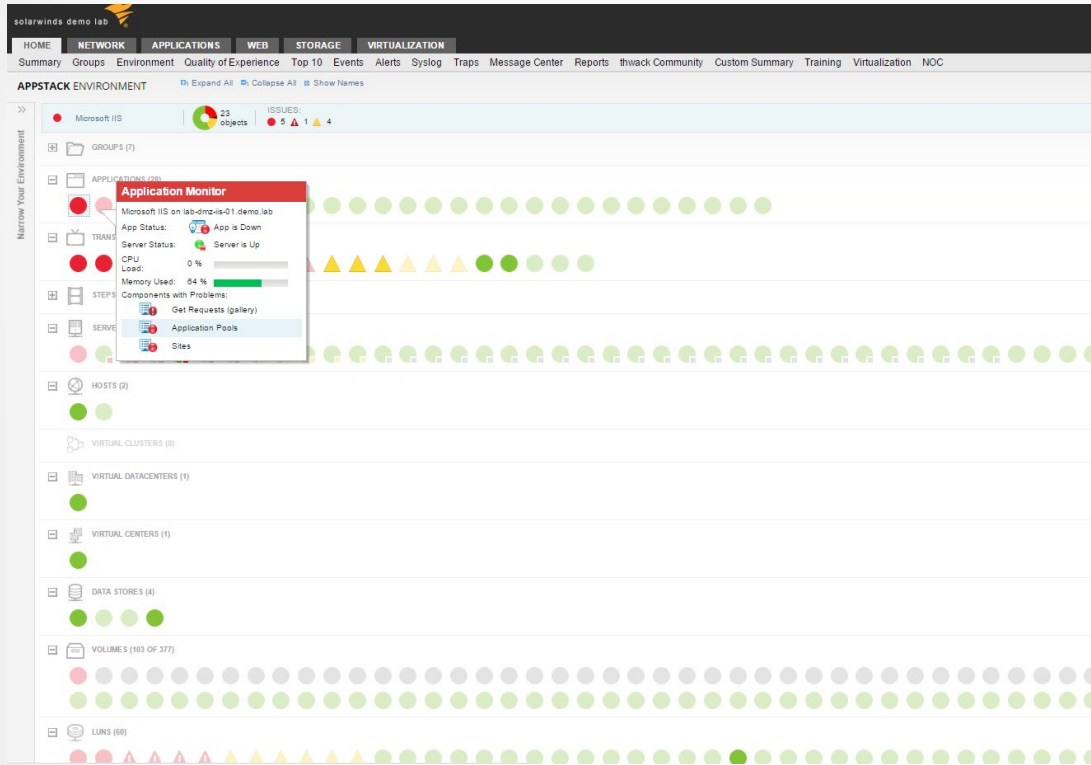


## USING AND CUSTOMIZING THE APPLICATION STACK MANAGEMENT DASHBOARD

The Application Stack Management dashboard provides end-to-end visibility across Server & Application Monitor, Virtualization Manager, Web Performance Monitor, and Storage Resource Monitor.

For example, what might seem like an alert generated by an app component could be due to the app running in a VM that is facing a resource contention issue or a storage issue where the datastore is experiencing high IOPS—causing the component to spike. You can look deeper into the LUNs and RAID groups to identify which VM the storage system is allotted to or which app the storage system is associated with.

The Application Stack Management dashboard provides full visibility, which significantly reduces the amount of time you will spend troubleshooting application issues.



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*This IIS Server is impacting the user experience of several transactions. The related server, host, data stores, volumes and LUNs are in good working order, so the root cause is related directly to the IIS server.*

After you install and configure the SolarWinds products required for your environment, you are ready learn how to use and customize your dashboard. Below are links to valuable resources to help you become comfortable customizing and using your new dashboard.

- » [Video: Application Stack Management Dashboard feature training](#)
- » Administrator Guide:
  - » [Understanding the AppStack Dashboard](#)
  - » [Navigating the AppStack Environment Dashboard](#)
  - » [Customizing the AppStack Environment](#)
  - » [Adding the AppStack Environment Dashboard to a NOC view](#)

## ADDITIONAL RESOURCES

These assets provide more insight into the Application Stack Management Bundle:

- » [Community](#) - get technical questions answered, find product documentation, and provide input to the product roadmap in the thwack® community.
  - » [Server & Application Monitor](#)
  - » [Virtualization Manager](#)
  - » [Storage Resource Monitor](#)
  - » [Web Performance Monitor](#)
- » [Whitepaper: It's All About the App: Application-Centric Systems Management](#)
- » [Request installation help link](#)

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