The purpose of this guide is to help you understand how SolarWinds® Server & Application Monitor (SAM) can help you do your job more efficiently, and increase the performance and uptime of your applications.

**What is SolarWinds Server & Application Monitor?**

SolarWinds Server & Application Monitor is affordable and easy-to-use systems management software that provides deep visibility into application and server (physical and virtual) performance issues for proactive performance alerting and faster troubleshooting. SAM offers built-in monitoring support for more than 200 applications, and the ability to create custom monitors to support any homegrown application or system.

**Why Do Application & Systems Teams Love SolarWinds SAM?**

- **One stop shop**: No need for multiple tools and custom scripts. Monitor multi-vendor applications and servers from a single console.
- **Affordable**: Priced competitively to cater to the monitoring needs of organizations of all sizes, from a handful of servers to multi-site deployments with thousands of apps.
- **Be the first to know**: Be proactive. Receive alerts about issues before they become problems that negatively impact business and end-users.
- **Respond faster**: Find the root cause of application problems, and fix them quickly.
- **Minimize downtime**: Optimize your IT infrastructure and reduce management overhead.
- **Everything works out of the box**: Use prepackaged monitoring templates, alerts, and reports to begin monitoring immediately.
- **Do-it-yourself deployment**: No need for professional services for deployment and setup. Download and install SAM and start monitoring in about an hour.
- **Power of customization**: Easily extend monitoring to any custom or homegrown application.
- **Forecast resource needs**: Track server resource usage, asset inventory, and capacity planning.

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“After deploying SolarWinds Server & Application Monitor, we are able to react to and resolve ‘down’ applications before the customer has time to call the Service desk or open a trouble ticket.”

*Don Ward, IT Manager, TopBuild Corp*
What Problems Does SAM Help You Solve?

IT pros who face the following challenges on a daily basis need SolarWinds SAM.

- Do you frequently encounter slow applications and servers in your IT environment?
- Are you getting alerts at the first sign of trouble so you can fix problems before they impact the business and end-users?
- Are you able to pinpoint where the application issue originated? Is it in the application, database, operating system, physical server, virtual environment, storage, or network?
- Do you spend too much time and manual effort diagnosing and determining the cause of issues, instead of troubleshooting and fixing them?
- Are you using multiple tools and custom scripts to manage your multi-vendor systems and dozens of applications?

ROI to Business & IT Teams

A recent survey shows that every hour of downtime can cost companies anywhere between $40,000 and $50,000. SolarWinds customers who use SAM were able to significantly reduce downtime and realize ROI in just a few months. Reduce TCO over many years with a one-time purchase and perpetual license.
Monitoring Applications

Simplifying Application Monitoring with Templates

SolarWinds SAM can access agent-less and agent-based monitoring via WMI and SNMP protocols to poll monitoring information from applications and servers. SAM automatically discovers servers and applications on your environment.

To simplify monitoring and provide quick access to performance data for specific applications, SAM uses templates. A template is a blueprint that defines a collection of component monitors designed to monitor a device or application. A component monitor is a metric, which gets the current status or value of a monitored service or process.

For example, a template to monitor Active Directory® will include component monitors to measure and report on metrics, such as LDAP client sessions, DNS client service, directory read/sec and write/sec, etc. You can add more component monitors to this template, or remove them as needed.

Benefits of Using Templates:

- **Broad coverage**: Key monitors and metrics are available out of the box to monitor more than 200 enterprise applications, or use any of the 800+ templates created by SAM users and shared on thwack®, SolarWinds’ online community.
- **Simplicity**: Instead of modifying monitors for hundreds of individual applications, just edit and customize a single template and apply it to multiple applications.
- **Flexibility**: Pick and choose component monitors for each template. Select and use only the monitors that you need, and save on license costs.
- **Power to customize**: Easily edit and modify templates, or create your own for monitoring custom applications, servers, devices, or virtually anything that can send data to SAM.
Applications Supported Out of the Box

SolarWinds SAM offers out-of-the-box templates to monitor 200+ business applications including:

- View list of supported applications »
- View built-in monitoring templates »

Deep Application Monitoring with Built-In AppInsight Templates

SAM also offers three out-of-the-box super templates: AppInsight™ for Microsoft® Exchange®, IIS, and SQL Server®. These solve complex problems via deep performance monitoring. AppInsight templates have a fixed number of component monitors: 50 for Exchange, 30 for IIS, and 50 for SQL Server.

- **Exchange Server Monitoring**: View mailbox, database, status, and storage; identify replication issues; and monitor user mailbox activity.
- **Microsoft IIS Monitoring**: Monitor the availability of websites and application pools, report SSL certificate expiration, and perform remote actions to start/stop application pools.
- **SQL Server Monitoring**: Proactively monitor database connections, error logs, SQL agent job status, index fragmentation, long-running queries, and more.

“The built-in AppInsight templates in SolarWinds Server & Application Monitor provide useful and intuitive data that can be viewed in a single pane of glass.”

*John Marcial, IT/Systems Administrator, Carlson Wagonlit Travel, Inc*
AppInsight for IIS

AppInsight for SQL Server
Extend Monitoring to Custom Applications
SolarWinds SAM allows you to build new templates, or modify built-in templates to extend monitoring to virtually any custom or homegrown applications. You can import existing scripts such as Nagios scripts as they are to Server & Application Monitor the built-in script processor enables you to convert Nagios® scripts to a format that can be used to alert, schedule, run jobs, and report findings in Server & Application Monitor.

In addition, you can leverage more than 800 custom monitoring templates shared on thwack and available right within the product.

- View templates available on thwack »
- Watch video on building custom templates »

Monitoring Servers
SolarWinds Server & Application Monitors (SAM) monitors the health and performance of multi-vendor servers.

- Monitor server response time, packet loss, and network latency.
- Track CPU, memory, and disk usage, and forecast when capacity will run out.
- Monitor server storage volumes, disk usage, and capacity metrics out of the box.
- Monitor the health of server hardware and blade enclosure and isolate failures in components, such as battery, CPU, fan, temperature, memory, etc.
- Remotely remediate server issues. Terminate runaway processes, start/stop services, reboot servers, etc.
- Centrally manage and track server hardware and software asset information.

Learn more about server monitoring »

Hardware Health Monitoring
Hardware failure is responsible for more than half (55%*) of IT system outages. SAM lets you see the status and performance of critical server hardware components, such as fan speed, temperature, power supply, CPU, battery, and more. Quickly identify server hardware issues impacting server and application performance.

Monitor the hardware health metrics of Dell® PowerEdge™, HP® ProLiant®, IBM® eServer xSeries servers, and VMware® ESX/ESXi hypervisor.
**Capacity Planning & Forecasting**

SolarWinds SAM provides a detailed view of your server resources, including CPU load, memory used, disk capacity, etc. This lets you clearly see all server resource consumption. Make accurate capacity forecasts by tracking peak and average capacity over time. Find and fix server capacity issues before they impact end-users and business productivity.

**Remediate Server Issues Remotely**

SolarWinds SAM provides a set of built-in tools to troubleshoot server issues remotely.

- Service Control Manager: Monitor services, and remotely start/restart/stop them.
- Real-time Event Viewer: Event logs can be viewed in real-time and filtered by log type, event source, and severity level.
- Windows® Scheduled Task Monitor: Gain quick visual access to the status of scheduled tasks configured on your Windows nodes.
- Remotely reboot server at the click of a button.
IT Asset Inventory

SolarWinds SAM lets you discover and manage server hardware and software inventory in one centralized location.

- **Automatically discover and store IT asset data**
  
  SAM automatically collects IT asset details, including system information, processors, memory, volumes, hard drives, USB ports, drivers, storage controllers, network interfaces, firmware, installed software, and OS updates.

- **Track assets throughout their life cycle**
  
  Track your software assets, such as version, installation, or purchase date, latest software updates, and more. Track hardware details, such as purchase date, usage, warranty expiration date, and location. This actionable data helps you decide if you should replace old or faulty hardware, and more.

- **Quickly alert and report on IT assets**
  
  Accurately report on asset inventory with charts and tables. Built-in reports show current asset usage along with model number, last update dates, names of admins who installed the updates, total resources used, unused hardware, etc.
Monitoring Virtualized Environments

Along with physical servers, SolarWinds SAM lets you monitor the health and availability of hypervisors (host) and virtual machines (guest). You can easily identify whether the application problem is due to a performance issue in the virtualized infrastructure or not. SAM supports monitoring VMware® vSphere® and Microsoft® Hyper-V®.

- Hypervisor (virtual server/host) monitoring metrics include CPU load, memory utilization, list of virtual machines, and more.
- Virtual machine (guest) monitoring metrics include availability statistics, CPU and memory consumption, network traffic, and more.

“On a number of occasions, SolarWinds Server & Application Monitor has helped us troubleshoot performance issues with virtual machines.”

James Spencer, IT/Systems Administrator, Ideal Integrations.
Faster Troubleshooting with Application Dependency Mapping

Diagnose and troubleshoot application problems faster with the AppStack™ dashboard. Find out if a slow application issue is due to a performance problem in the application itself or the underlying physical and virtual server infrastructure and storage environment.

Benefits of Using AppStack Dashboard:

- Easily pinpoint the root cause of application issues across system, virtual, and storage infrastructures.
- Clearly see dependencies and relationships between various elements of the application stack.
- With a single click, you can drill deep to identify performance and resource capacity issues.
- Get a unified view across multi-vendor applications, servers, hypervisors, and storage arrays.

For example:

If you have a slow SharePoint® application, you can easily see what other IT components SharePoint is connected to, including physical server, virtual server, virtual machine, or storage volume. At a single glance, you can see the health of the dependent IT infrastructure and isolate the root cause.

Integration with SolarWinds Virtualization Manager, Storage Resource Monitor, and Web Performance Monitor extends the AppStack dashboard’s capability to provide deep insight into virtual layers and external NAS and SAN storage infrastructures to pinpoint deep-rooted performance problems.

Learn more » | View AppStack Dashboard »
Pre-Packaged Alerts & Reports

SolarWinds SAM comes with a wealth of pre-built alerts and reports that allow you to get started immediately. These alerts and reports are easily customizable from the Web interface. You can modify them to suit your custom needs, or easily build new alerts or reports from the Web console.

SAM leverages the alerting engine from the core Orion® platform, which supports building intelligent alerting conditions:

- Define device dependencies to help ensure you don’t receive unnecessary alerts and prevent floods of useless messages.
- Configure alerts for correlated events (alert if X and Y are true), and sustained conditions (alert if Y is true for more than five minutes).
- Dynamically calculate baseline thresholds and set up alerts based on network baseline data.
- Escalate alerts automatically through a variety of alert delivery methods.

Automate report generation and delivery with over 100 out-of-the-box reports available in SolarWinds SAM. You can easily modify them or build new reports based on custom requirements.
Intuitive & Customizable Dashboards

SolarWinds SAM provides a highly intuitive and user-friendly dashboard and monitoring console. Detecting performance issues becomes much easier and faster with the help of custom views, easily modifiable widgets, charts, and graphs.

- The built-in dashboards and top 10 views allow you to easily monitor key metrics and isolate issues. You can also create your own custom monitoring views, NOC views, and individual widgets and resources.
- Automatically discover servers and applications and add them to network maps. SAM allows you to automatically connect the components on the map to visually represent your network. You can create multiple layers of maps and use them to drill down from top level (country, state, etc.) to granular locations (site, building, floor, etc.)
- Dynamically sort applications into logical groups, such as location, vendor, and any custom property.

Monitor IT Infrastructure On-Premises & In The Cloud

SolarWinds SAM is primarily an agentless software that lets you monitor applications and servers across your on-premises IT environment. The optional agent installation extends monitoring to the cloud.

- Use agent-less monitoring for on-premises infrastructures.
- Use optional agent-based monitoring for apps and servers on:
  - Public cloud infrastructures, such as Amazon® EC2, Microsoft® Azure®, and Rackspace®.
  - DMZ networks.
  - Satellite, remote, and branch offices.
Enterprise Scalability

SAM is purpose-built to support the monitoring needs of small, medium, and large networks. As your requirements for polling grow higher, you can easily add Additional Polling Engines to extend monitoring capabilities.

If you have a distributed network across different locations, you can install multiple instances of SAM, and roll up monitoring data to a single view with the help of the Enterprise Operations Console.

If you are concerned about high availability, SolarWinds offers Failover Engine (FoE), which lets you have an active-passive setup for SAM. Should the primary server (active) where SAM is installed fail for some reason, SolarWinds FoE fails over to a secondary server (passive) to help ensure that SAM continues to monitor your infrastructure uninterrupted.

Deeper Monitoring Insight with SolarWinds Orion Platform

SAM is powered by the SolarWinds Orion platform, which provides a common set of services that let you easily integrate products with one another. Because of Orion, SAM can easily extend to other IT management software from SolarWinds, such as Network Performance Monitor, Virtualization Manager, Storage Resource Monitor, Web Performance Monitor, and more.

The Orion platform allows you to add functionality as needed, providing end-to-end visibility across networks, systems, and applications. It offers a unified experience, alerting, reporting, and integrated metrics for contextual visibility, relationship mapping, and troubleshooting.

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<thead>
<tr>
<th>Benefits of the Orion Platform:</th>
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<tr>
<td>• Modular and scalable.</td>
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<td>• Offers broad coverage and deep monitoring capabilities.</td>
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<tr>
<td>• Consolidated monitoring data and context across various IT layers to provide a unified monitoring view.</td>
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<td>• Centralized management and administration.</td>
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Customer Testimonials

“It’s much easier with SolarWinds SAM to create custom monitors and application models, and monitoring and reporting Exchange status is greatly improved and less time intense. SolarWinds is much easier, in that we feel like we control the monitoring solution instead of it controlling us!”

David Speer, System Engineer, Skanska AB

“This product is reliable, easy to use, and provides a whole lot of features at my fingertips!”

John Shook, IT/Systems Administrator, ACSI

“Compared to Nagios®, I get more time to monitor and less time programming. I can also trend performance issues, which I could not do earlier. The most valuable feature of SAM is its ability to get it up and running out of the box in minutes.”

Jim Morrison, IT Professional, Dassault Systèmes

• Read more customer testimonials by TechValidate research »
• Read more customer reviews on TrustRadius »

How is SAM Licensed?

SolarWinds Server & Application Monitor (SAM) is licensed by the number of component monitors, which is any measurement of application health and availability. Examples of component monitors include performance counters, services, processes, URLs, etc.

For each license tier, in addition to component monitors for applications, you will be able to monitor physical servers, hypervisors, and disk volumes at no extra cost.

View full list of licensing tiers and pricing » | Licensing guide »

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<th>AL150 License Tier Includes Monitoring</th>
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<tr>
<td><img src="image1.png" alt="Icon" /> Up to 150 Component Monitors for Applications</td>
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<tr>
<td><img src="image2.png" alt="Icon" /> Up to 150 Physical Servers, Hypervisors, Virtual Machines</td>
</tr>
<tr>
<td><img src="image3.png" alt="Icon" /> Up to 150 Volumes (Logical Disks)</td>
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NOTE: Licensing tiers have been set up to help you get the most beneficial pricing and monitoring limits. If you want to learn more about licensing, please reach out to us.

• Email us at sales@solarwinds.com.
• Call us at (+1) 866.530.8100.
• Generate an online quote.
Additional Resources

- Product Page »
- Supported Applications »
- Datasheet »
- Online Demo »
- Licensing Guide »
- Onboarding Guide »
- Admin Guide »
- Case Studies »
- Training Videos »
- ROI Infographic »

About SolarWinds

SolarWinds (NYSE: SWI) provides powerful and affordable IT management software to customers worldwide from Fortune 500 enterprises to small businesses.

In all of our market areas, our approach is consistent. We focus exclusively on IT pros, and strive to eliminate the complexity that they have been forced to accept from traditional enterprise software vendors. SolarWinds delivers on this commitment with unexpected simplicity through products that are easy to find, buy, use, and maintain, while providing the power to address any IT management problem on any scale.

Our solutions are rooted in our deep connection to our user base, which interacts in our online community, www.thwack.com, to solve problems, share technology and best practices, and directly participate in our product development process.

Learn more today at www.solarwinds.com.