

# 8 Tips for Delivering the Performance End-Users Demand: Agentless IT Monitoring Gets Practical

By Tom Speight

## INTRODUCTION

Organizations of every size need to monitor and manage their computer systems and applications for performance and availability, but few have ample information technology (IT) budgets and staff to devote to the job. A practical alternative to high-end monitoring solutions has emerged in the form of agentless monitoring. However, diligence is necessary to make sure that the agentless approach you choose will be able to provide the functionality you need.

This paper serves up eight tips for using agentless system and application monitoring to meet users' expectations. It redefines what an agentless solution can and should be able to do, and provides steps to success with this method.

**The distinguishing characteristic of agentless monitoring is that you don't have to install software agents on the systems you are monitoring.**

### TIP 1: CONSIDER AGENTLESS MONITORING, PROVIDED IT'S COMPREHENSIVE ENOUGH

The distinguishing characteristic of agentless monitoring is that you don't have to install software agents on the systems you are monitoring. The upside of the agentless approach is the simplicity and savings that come from faster deployment, lower software license fees, and streamlined operation. Until recently, these benefits came with a steep downside: very limited capabilities. You usually could not expect an agentless product to do much more than collect a few statistics. The more recent trend is to build on industry-standard technologies, such as SSH, Telnet, WMI, rexec, HTTP, JDBC, and JMX, to take agentless monitoring to a higher level.

Choose well, and today it's possible to find an agentless monitoring and reporting product that combines affordable agentless monitoring with strengths once provided exclusively by more expensive agent-based software. The best of the new breed of agentless solutions will offer the most desirable features of high-end monitoring: multiplatform support, comprehensive application coverage, extensive reports and graphs right out of the box.

### TIPS FOR DELIVERING THE PERFORMANCE END-USERS DEMAND

1. Consider comprehensive agentless monitoring.
2. Make multiplatform a must.
3. Make rapid deployment a priority.
4. Be security-friendly.
5. Monitor proactively.
6. Stop false alarms.
7. Save with a self-maintaining solution.
8. Reduce the burden of proving SLA performance.

Determine whether the agentless product you are considering requires the purchase and installation of layered software. Some packages are not self-contained, which means they rely upon add-ons such as a database or report writer to be usable. Prerequisites like these diminish the cost savings and ease of use that you're after.

### TIP 2: MAKE MULTIPLATFORM A MUST

While the new and improved capabilities of agentless monitoring would be a boon on any single platform, multiplatform coverage is now available in some packages and should be included on your checklist. Look for a broad scope of operating system and application support directly out of the box.

Operating system support may span Microsoft Windows®, Red Hat®, Linux®, SuSE, Linux®, Hewlett-Packard HP-UX®, IBM AIX®, and Sun Solaris™ platforms. Application support may extend to a variety of application servers, Web servers, databases, messaging, and infrastructure products from different vendors. Think J2EE®, Apache™, Oracle®, Microsoft Exchange, and the like. In addition, look for the ability to specify and track a range of user and business metrics, including transactions and service level agreements (SLAs).

You stand to get more from a multiplatform package designed to be truly platform-neutral from the start, as opposed to one developed for Windows environments and retrofitted for Linux platforms (or vice versa). The idea is to have consistent capabilities across the platforms you are monitoring.

### TIP 3: MAKE RAPID DEPLOYMENT A PRIORITY

Get ready to redefine your idea of quick deployment if you are accustomed to agent-based application and system monitoring that

takes days, weeks, or months to implement. A full-featured agentless solution can be installed and in production in less than a day—or even less than an hour.

Immediate deployment should be complemented by ease of use, so that you will be able to focus on managing the performance and availability of your systems and applications instead of on your monitoring software. Take into consideration how intuitive the solution is. Is training necessary? And a well-designed user interface, preferably a Web browser, will provide a dashboard that allows you to be productive from the time that the monitoring software is installed.

**TIP 4: BE SECURITY-FRIENDLY**

IT security has become a hot button issue because of the increasing threat of intrusions and attacks, not to mention the government regulations with which many organizations must comply. Application and system monitoring must therefore conform to your organization’s security and firewall policies. An agentless monitoring product is inherently policy-friendly because there is no need to install agent software on the monitored computers.

Of course, additional security-conscious features should be on your checklist. One is role-based security that permits users to see only those tasks and information for which they are authorized. Access to your monitoring system must be protected as well. For example, a product that provides a Web browser interface should use HTTPS (Hyper Text Transport Protocol Secure) to enable secure access over your intranet or the Internet. A firewall-friendly product will be able to monitor using a single open TCP port across domain.

**TIP 5: MONITOR PROACTIVELY**

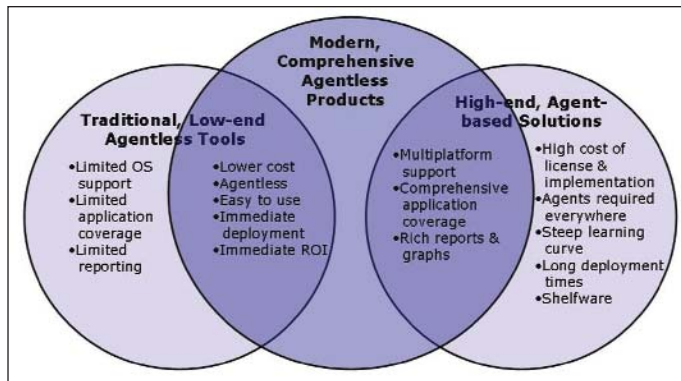
The previous steps form the foundation for this next tip: proactive monitoring. When you don’t have the information to fix a minor issue until after it has mushroomed into a major problem, it’s too late; your service level and your user satisfaction have already taken the hit.

To be proactive, you need a view into the health of your systems and applications from a real-time perspective in addition to trend and historical reporting. A convenient dashboard can present you with the information that you need, when and how you need it. Seek out hyper-link navigation that lets you drill down to investigate problems and identify performance and capacity issues so they can be addressed before users are affected.

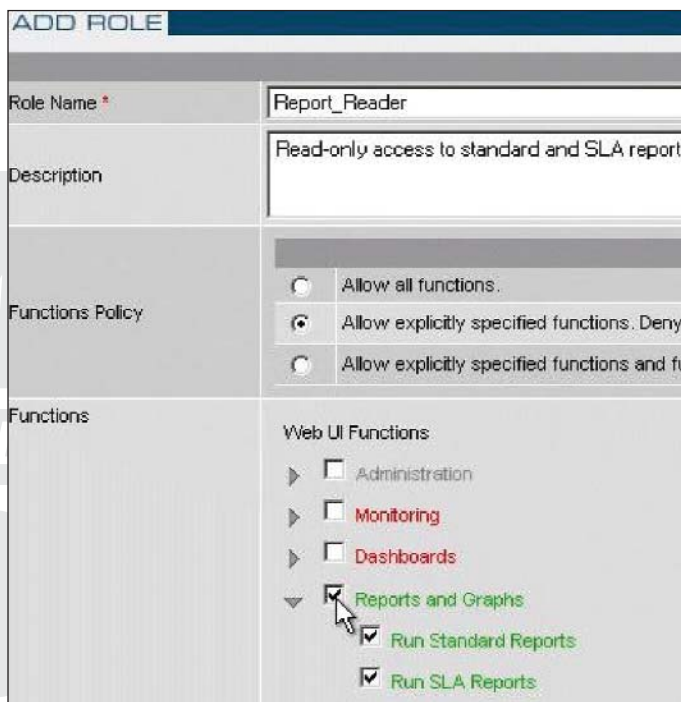
Your monitoring product should be able to present in-depth information in this concise, organized, graphical style. For example, you should be able to see a snapshot of the event that lets you zoom in for details including the severity of the event, the number of times it has occurred, the application involved, and the specific application component affected. (Note: In monitoring terms, an event is defined as an exception, problem, or issue that is identified by monitoring one or a combination of operational metrics.)

**TIP 6: STOP FALSE ALARMS**

A serious problem that is preceded by too many false alarms can go ignored, in a scenario that plays like a modern version of “The Boy Who Cried Wolf.” How do you curb false alarms when appropriate event thresholds will vary between different systems and applications?



**Figure 1: Comprehensive Agentless Capabilities** Modern agentless products combine lower cost and ease of use with the comprehensive coverage previously provided only by higher end, agent-based solutions.



**Figure 2: Role-Based Security** Role-based security enables you to restrict certain users to specific tasks, such as “reporting only” operation.

Preset, manufacturer-recommended monitoring thresholds are useful and necessary. But to stop false alarms you need to tune thresholds that trigger alerts and alarms to be sure they are meaningful in context of the particular system or application. Keep in mind that the right values may change over time. The easier it is to examine and modify these thresholds—either for a single system or globally—the better. You want to be able to pull up an event, investigate the details, and adjust the relevant thresholds on the spot.

Another distraction is a screen flooded with a stream of the same repetitive event. It’s preferable for a solution to present such events once – commonly referred to as event folding – allowing you to click on each incident to examine its history of recurrence.

**TIP 7: SAVE WITH A SELF-MAINTAINING SOLUTION**

Once installed, your monitoring tool should be able to update itself automatically without you or anyone on your team having to perform ongoing maintenance. The advantages are obvious: greater efficiency

and lower cost of ownership. The time you save can then be spent on goals that are important to your business.

The product should be capable of performing its own internal maintenance and database administration on a day-to-day basis. Software updates should be downloaded and installed without interruption to normal operation, and without requiring the attention of an operator. Ideally, you should install the software once and never again.

**TIP 8: REDUCE THE BURDEN OF PROVING SLA PERFORMANCE**

Even when users are satisfied with the performance and availability levels you've achieved, you need to document that service level agreements are being fulfilled. Reduce the burden of proof with agentless monitoring that integrates the required reporting and graphing. Not only will you avoid developing reports and graphs from scratch, but also you will be able to produce documentation quickly and easily whenever your organization requires it.

What's more, a dashboard may present gauges, graphs, and statistics that let you evaluate SLA adherence in real time. You will then be positioned to spot developing trends and problems within the context of SLAs, allowing you and your team to act before users notice an adverse impact.

Whether supplying you with real-time or historical SLA information, a standout monitoring solution will correlate, analyze, and present key statistics in a graphical, easy-to-understand style. Summary views as well as in-depth details should be provided.

Reporting and analysis should take into account that meeting an SLA normally depends on multiple factors. Aggregating data from monitored entities in this manner is beneficial in a number of ways. For instance, delivering a service to business users may require that the CPU, memory, I/O, and network availability all perform at a "good" level. If a problem affects one of these components—say that an I/O bottleneck impairs service—the monitoring solution should report the service level as degraded even though the condition of the other three components remains "good."

Another case where a monitoring tool can help by providing SLA information along multiple dimensions is server redundancy (whether the servers are clustered or not). Perhaps five different monitored servers are running a Web application when one server goes down; that might still be "good" for the particular service level. The condition would fall to "degraded" if two servers went down, and so on. While the remaining three servers might all remain in good condition, the overall service level is the primary concern.

**CONCLUSION**

Simplicity and savings are only the beginning of what agentless IT monitoring ought to provide. To help you successfully deliver the performance and availability that your end-users demand, the most desirable of agentless solutions will also have functionality that resembles

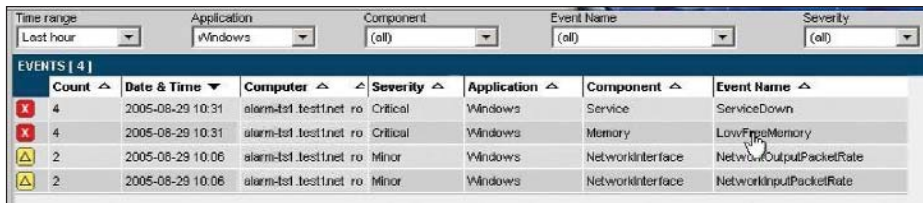


Figure 3a: Event Monitoring with Drill-Down Event Summary display

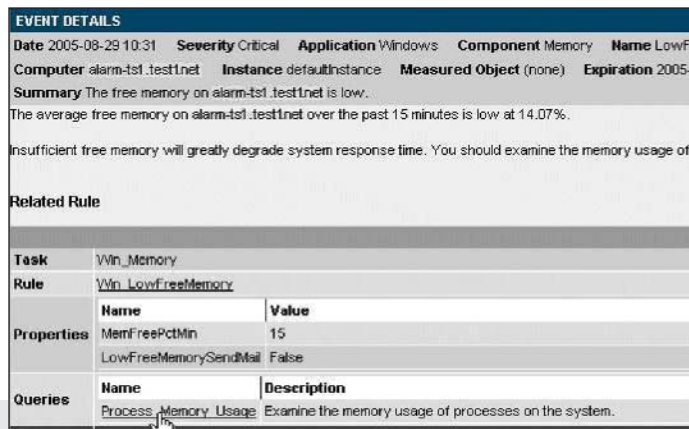


Figure 3b: Event Monitoring with Drill-Down Event detail provided in drill-down view



Figure 4: SLA Dashboard

higher-end, agent-based products. Less-capable agentless products—with limited operating system support, limited application coverage, and limited reporting—are in plentiful supply but may fall well short of your needs.

When you consider an agentless product, determine whether proactive system and application management are realistic expectations with that package over the long-term. Using these tips will help you understand how practical any given agentless approach is for your objectives.

Heroix delivers award-winning software products that help organizations optimize the availability and performance of applications, databases, systems, and IT infrastructure running across multiple platforms. Today, with a presence in over 40 countries, Heroix has delivered performance management solutions to over 1,000 organizations worldwide, including Horizon Lines, Kaiser Permanente, Honeywell, Tembec, Motorola, Inc., and Boston Sand & Gravel Company.

Heroix believes that the information in this document is accurate as of its publication date; such information is subject to change without notice. Heroix is not responsible for any inadvertent errors.

Heroix and the Heroix logo are registered trademarks of Heroix. All other trademarks are property of their respective owners. All other company and product names mentioned are used only for identification purposes and may be trademarks or registered trademarks of their respective companies.