The "5 New Realities" of Server Monitoring

Server monitoring has never been more critical. Today, your servers are a vital cog in the IT machine, a machine that increasingly represents the core of your business. Whether a server's used for email, e-commerce, or ERP, downtime is not an option. The effective monitoring of servers is essential to ensure your business and its applications are running. If you're responsible for the performance and availability, as well as maintenance, of these servers, your job is tough and getting more complex every day.

Unfortunately, most server monitoring tools fall into one of two categories; either too complex and expensive or too shallow and cheap. This short guide will review the "5 Realities" that are key to understand when searching for a server monitoring solution.

The Reality of Server Monitoring: Complexity is Increasing

Reality #1:

Monitoring Today's Heterogeneous Datacenter

The Problem

The growing datacenter faces two problems; growth in the number of servers and the growth in different server technologies. This growth can be attributed to new projects, growing lines of business, mergers and acquisitions, and more. However, the end result is the same. Increasing numbers of servers and technologies that need to be monitored and managed, often without an increase in IT resources. That is a daunting challenge. Your infrastructure now undoubtedly includes a mix of both physical, legacy, virtual and even cloud servers and applications. Many platforms now reside as part of your service delivery, perhaps including flavours of Windows, Linux, UNIX, Netware, VMware, Hyper-V, Amazon EC2, Rackspace, and more. While monitoring a single server platform can be challenging, administering this heterogeneous mix can feel downright impossible.

Additionally, some organizations no longer have a Windows, UNIX or VMware specialist as the staffing cost can be high. Lean IT departments depend on smart generalists that can tackle many issues. However, these gurus need the right tools to help them, and IT, succeed. While point solutions are available for monitoring a specialized type of server, installing, maintaining, and managing multiple monitoring point solutions is a poor strategy. Point tools lead to higher costs, higher complexity, and more finger pointing.

How You Succeed

To make a heterogeneous datacenter easier to manage and monitor, you need a complete, multi-platform monitoring solution, one that can be used to monitor every type of server and OS in your organization. With the right multi-platform monitoring tool, administrators are empowered with a

consistent dashboard that provides a single pane of glass for the entire infrastructure. This type of suite allows you to scale your efforts and manage the challenges of monitoring various server platforms, where one IT generalist has the tools to monitor any server platform in your organization expertly. As a result, complexity and administrative effort is reduced dramatically making IT much more efficient and productive.

Checklist:

- ✓ **Multi-platform Monitoring.** Look for tooling that can cover all server and application platforms, including UNIX, Windows, Linux, Novell, VMware as well as cloud platforms.
- ✓ **A Complete IT Dashboard for Servers, Applications and Networks.** Look for a single tool that provides 100% visibility and control over the entire IT service delivery process. This will make monitoring a complex environment much easier and scalable. Trying to manage (and afford) multiple different point tools can be a nightmare, both on staff and budget. Today, it's simply not necessary.
- ✓ **Ease of Use.** Look for a solution that both fits IT's needs and is easy to deploy and use. How fast can you get from alert to fix? How fast can you generate reports? How easy is it to add custom monitors? Can you deploy in one day or one week?
- ✓ **Affordable Pricing.** Look for high value in terms of both cost and staff time needed to deploy, maintain and use it. Is it good value for what you get? Does it need additional services to deploy? Does it need a full time administrator to maintain it? Is the solution all-in-one or do you have to pay for each new module? Is it priced per element, CPU, socket, etc?

Reality #2:

Growing Servers, Shrinking Resources

The Problem

Ultimately, administrators are asked to do a lot more, with a lot less in today's environment. Some analysts estimate that without automation, one full-time administrator can only manage 11 UNIX servers or 30 Windows-based servers. For a 1,000 server environment, this would equal 30 to 100 full-time server administrators. This is headcount that most businesses simply cannot afford to hire and retain in today's economic climate.

How You Succeed

To have any hope of meeting the demands of monitoring a growing numbers of servers with limited resources, administrators need to reduce the time and effort required to monitor and administer servers. Automating monitoring can pay huge dividends in increasing the number of servers managed. This needs to include routine automated monitoring of performance and availability metrics, as well as automated alerts and reporting. To easily scale, server monitoring needs to be easy to install, maintain, and customize. In addition, the solution needs to enable monitoring across multiple datacenters and offices so that, whether the server is based in Tokyo or New York, an administrator can get real-time status reports and alerts fast.

Checklist:

- ✓ **Deep and Complete Server monitoring.** Look for a tool that automatically captures the all the granular server metrics you need and measures them against user defined thresholds.
- ✓ **Intelligent Alerting and the Three "R's."** Look for alerts that are smart enough to avoid "sea of red" alert storms and always sends the Right information, to the Right person, at the Right time (RRR).
- ✓ **Quick Do-it-Yourself Deployment.** Look for installation and full deployment in days (to minimize time from purchase to value), with no additional services required compared with the lengthy, multi-month deployment times of both legacy monitoring solutions, and integrating a tool soup of point solutions.
- ✓ **Customization.** Look for the ability to easily add custom monitoring that ensures the flexibility to quickly adapt to the fast, changing demands of your business.

Reality #3:

Understanding Service Levels and Your Infrastructure

The Problem

The helpdesk is getting flooded with calls from business users...again. A quick look at your current monitoring tools show the associated servers are up and running. What next? What happens if you hear complaints about slow CRM response times or dropped shopping carts on your website? The

server appears to be operating at 75% of capacity. Is that the issue? The executives want answers, what are you going to tell them?

How You Succeed

Monitoring at the server level is important, but only part of the story. Servers play a key role in a complex ecosystem, one that consists of applications, databases, middleware, network devices, and more. In today's datacenter, application monitoring is a must have as well. This is especially true in the context of end-user transactions and service levels. What really matters is whether sufficient service levels are being delivered and SLA monitoring and reporting can help you connect all the dots. This ensures and proves your service levels to the business.

Achieving this goal requires full visibility and control of the entire IT infrastructure that is relied upon to deliver a specific business service. You need a solution that helps you quickly and easily set up services levels, proactively alerts you before services go off the rails, and helps you report your success to management with graphs and reporting they can understand. That's how you both ensure and communicate optimal service levels.

Checklist:

- ✓ **Visibility into all Service Level Components.** Look for a solution that can help you easily connect all infrastructure and applications that make up a service.
- ✓ **Quick SLA Monitoring and Reporting Set up.** Look for easy set up of SLAs. Can you quickly link all your infrastructure and applications together to define a service? Can you do it in under 20 minutes? Can you automate the reporting?
- ✓ **Know Before You Miss an SLA.** Look for a product that can alert you before you miss an SLA. Intelligent reporting and alerts should be able to notify you when a service is trending to miss its mark, with plenty of time for you to fix the problem before it's too late. Also, look for SLA functionality that can account for non-priority hours, like maintenance windows, or off hours (nights, weekends, etc).
- ✓ **Always Dry Run SLAs First.** Look for SLA capabilities that allow you to "back test" your potential SLAs before you commit to them. Running potential SLAs against historical data (the past 6 months for example) will clearly show if you would have hit or missed the SLA. This is essential before you commit to an SLA and helps remove your SLA risk, meaning you'll never have to sign up for an SLA until you know you can meet it.
- ✓ **Easy SLA Management Reports.** Look for graphing and reporting that can be automatically sent to you with the details you need, while sending periodic reports to

business managers, in a format they can easily understand. Meeting an SLA is only part of your responsibility, communicating it to business managers in a way they can understand is just as important.

Reality #4:

Monitoring Virtualized Environments

The Problem

Companies in many industries and of every size have adopted virtualization technologies like VMware for good reason. Virtualization promised to help your company pool its resources to drive cost savings while driving better IT performance and increasing IT flexibility and scalability. If only it were that easy in reality.

While virtualization has great potential, it also has some serious challenges when it comes to monitoring and management, as just about everyone knows by now. Virtualized environments are an ecosystem of interrelated parts, all of which must be functioning optimally to ensure that business applications remain available. When virtualization gets implemented, an entirely new layer of “moving parts” gets added to the mix, and increasing the complexity of the IT environment and making monitoring a much deeper challenge.

How You Succeed

While VMware and other vendors offer various point tools for monitoring virtualized infrastructure and applications, they fail because they can’t provide a complete view of the entire ecosystem. Companies need an easy, efficient and complete way to monitor both the virtualized and non-virtualized datacenter environment. You need a broad solution that can monitor all servers, hosts, applications, and databases, as well as virtualization platforms like VMware. By combining this complete infrastructure view with deep and extensive support for the VMware environment, an effective monitoring solution enables you to fully optimize VMware and virtualization investments while ensuring high service levels.

Checklist:

- ✓ **Extensive VMware Health Checks.** Look for a solution that can provide deep data on your VMware environment, including reports on what to virtualize next, metrics on memory ballooning, VM density graphing, VM Zombie killer reports and much more.
- ✓ **SLA Monitoring and Reporting in Virtual Environments.** Look for SLA management that can easily map between the physical and virtual aspects of your datacenter to ensure service delivery.
- ✓ **Monitor Virtual and Physical Environment Together.** Monitoring the physical and virtual environments with different tools wastes time and budget. In most cases, IT needs a complete, integrated view of both environments for proactive and reactive systems management. It's not a good strategy to purchase different point tools for this type of monitoring when there are good all-in-one tools that cover monitoring across these environments much more cost-effectively.

Reality #5:

Effective Capacity Planning

The Problem

If there is one area the still haunts IT managers and systems administrators, it's capacity. Do you know when you are going to run out of capacity before it happens? If you do, are you able to quickly produce management reports that clearly show when and why you'll need the additional capacity budget. These are the types of capacity questions that can be near impossible to answer without the right tools and historical data.

What You Need to Win

Effective capacity planning and server resource monitoring and reporting starts with the ability to collect and manage all data in a performance data warehouse. This is key in being able to predict when and where you'll run out of capacity before it happens. Setting alerting thresholds for capacity and reviewing capacity trends (via charting) will quickly and easily put you in control. Additionally, reports should be able to identify underutilized server resources and make them available for allocation.

Checklist:

- ✓ **Collect Historical Performance Data.** Look for a solution that collects and stores performance data, as the best and easiest way of finding capacity issues is with historical capacity trending, whether that be capacity levels over the last minute, hour, day, month or year.
- ✓ **Intelligent Capacity Alerting.** Look for Capacity alerting that works by understanding capacity trends and quickly alerts you when capacity thresholds are breached. That gives you time to find and fix the capacity problems before they become a nightmare.
- ✓ **Automate Capacity Fixes and New Capacity.** Look for a solution that can recognize threshold breaches and automatically take actions to rectify the situation. Need more capacity? Have a solution that can dynamically spin up new capacity when it's needed, alert you as to what is going on, and then automatically de-provision capacity when it's no longer needed to control sprawl and zombie VMs.

Server monitoring is getting more complex every day, and most tools on the market are failing their customers. Most solutions are either are too big, too complex and too expensive, or too small, too narrow, and have limited functionality. The key is to understand the needs of your IT environment (both today and in the future) and then select the best, most cost-effective tool.

Free Checklist:

If you are considering evaluating server monitoring solutions, this "**IT Systems Management Vendor Evaluation Checklist**" is an excellent way to start. It's designed to be vendor agnostic and customizable to help you compare different products. A free download is available here:
Download Here: IT Systems Management Vendor Evaluation Checklist

up.time Server Monitoring: IT Systems Management Made Easy

1. **Free Trial:** Pilot up.time in Your Environment for Free with a 30-Day Enterprise Trial with support included. Download at www.uptimesoftware.com
2. **Learn More:** Visit our Resource Center to learn more – up.time resources

Who is uptime software?

uptime software is the creator of up.time, the complete IT dashboard for watching over servers, applications, networks and IT services. Powerful, affordable and easy-to-use monitoring, alerting and reporting that provides unified performance, availability and capacity management across the enterprise datacenter. Over 120,000 IT professionals and managers in mid-enterprise and enterprise companies across 40 countries have downloaded up.time to increase IT performance while consistently saving IT staff time and budget.

✓ A Complete IT Dashboard:

An IT dashboard that scales to monitor 50,000+ elements and services across all platforms and multiple datacenters. Comprehensive IT systems performance management and IT capacity management, including deep server monitoring, application monitoring, and network monitoring. Dashboards, granular root-cause analysis and reporting tools, SLA management, IT automation and more.

✓ Powerful:

Granular monitoring and reporting without the complexity of “Large Enterprise” tools. Monitor across VMware, Windows, UNIX, Linux, Novell and more.

✓ Easy:

Browser based and installs in 15-minutes or less. Do-it-Yourself deployment in just days.

✓ Affordable:

Licensing designed for maximum value with everything included and easy to understand per-element pricing (elements are physical servers, virtual servers, and network devices). Just count what you want to monitor. Unlimited application and service monitoring.