

# IT Systems Management Buyers' Guide

Choosing the Best IT Systems Management Solution  
for Your Organization

Provided by



**Kaseya**

Our Automation. Your Liberation.™

[www.kaseya.com](http://www.kaseya.com)

### Executive Summary

IT systems management is more than just monitoring and patching. A complete, proactive and automatic IT systems management strategy can eliminate many of the tedious manual tasks typically associated with IT maintenance, allowing IT professionals to improve efficiencies, increase performance, reduce risk and manage growth.

Controlling the costs of IT systems management cannot be achieved by constantly fighting fires, responding to problems and reacting to user requests and environmental problems. The IT professionals that have managed to lower the cost of general support and systems maintenance and taken back control of their environment have done so by implementing deliberate processes throughout the entire IT environment, and, most importantly, introduced automation throughout the delivery of IT service as much as possible.

When choosing a solution, IT organizations should look at a broad range of key criteria: functionality, features, architecture, integration, automation, reporting and cost. Only a thorough review with these characteristics in mind will result in building an efficient and robust IT systems management strategy that empowers your organization to meet its goals. Your users, customers, administrators and stakeholders deserve nothing less.

#### **This white paper will discuss:**

- Why IT systems management is important
- The essential requirements of a complete IT systems management solution
- The pros and cons of various architecture options
- Must-have features you should look for in a solution

### Why is IT Systems Management Important?

The main goal of any IT organization is to ensure the availability of systems and applications for users. Engineers need access to design tools. Warehouse managers and shipping clerks need accurate and up-to-date inventory records. The sales force needs robust mobile devices and a reliable connection to the network. Timely and satisfying customer service is dependent on reliable access to client information. More than anything else, your users' ability to access the tools and information they need when they need it and where they need it is vital to the success of your organization.

A decentralized IT systems management strategy may work in the short run, but eventually you are going to have to develop a consolidated, integrated and proactive IT service delivery model to effectively monitor, maintain, secure and protect your IT assets. As networks grow to meet demand and new technologies and tools are put into service, IT infrastructures and the cost and labor required to manage them effectively can surge out of control. Suddenly, your staff is spending all its time resetting passwords, reconfiguring Exchange servers, uninstalling IM software and setting up new users, leaving no time for developing new business tools and efficiencies. It's a highly inefficient and costly way of delivering IT services to your organization.

<sup>1</sup> Pisello, Quirk. Network World . "How to quantify downtime". January 2004.

<sup>2</sup> Turner, Mary Johnston. IDC. "Automated, Integrated IT Operations Improve Efficiency and Deliver Cost Savings". January 2010.

“ Gartner estimates that one hour of network downtime—planned or unplanned—costs the average company \$42,000.1 ”

“ More than 40 percent of total resolution time is spent on problem isolation and root cause analysis rather than actually solving the problem.2 ”



Our Automation. Your Liberation.™

Managing highly-reliable, highly-efficient and highly-integrated infrastructures is dependent on your staff being proactive. Preventing problems is cheaper and less time-consuming than rebuilding blue-screened laptops, and it's a lot easier than explaining to the operations staff that email is going to be down for the next three hours while you rebuild the server. Automating basic and repetitive IT tasks like issuing a patch, setting up a new employee or running a regular security scan leads to healthier systems, a decrease in downtime, more productive users and less risk to the organization.

Empowering your IT staff with the tools and management information they need to optimize your organization's IT assets is one of the most important decisions you can make. We urge you to not take it lightly.

### IT Pain Points that Keep IT Professionals Awake at Night

**Machines that Manage You** – Systems have taken over our lives. They require constant attention and are notoriously high maintenance.

**Complex Software Solutions** – A 'silo' management strategy—deploying multiple solutions that aren't integrated – leads to complexity.

**Unauthorized Applications** – Not knowing what is out on your network exposes the organization to serious risk.

**Doing More with Less** – There is no denying the pressure to reduce costs and headcount at the same time responsibilities are growing.

**Disrupting Users** – You hate to interrupt anyone, but that patch is long overdue. Two people can't use the same computer at the same time, can they?

**Setting up New Users Quickly** – New hires need a new computer, a user name, an email address and access to files and applications. And it needs to be done now.

**IT Hobbyists Going Rogue** – Users who maintain their computer on their own mean well, but unless managed closely they often do more harm than good.

**Remote Security and Backups** – Distributed infrastructure needs to be backed up and secured as robustly as the desktops in the office next door.

**Virtualization and Cloud Computing** – Flexible architectures can increase productivity, save money and create efficiencies, however, they can also be quite complex and expensive to manage.

**Communicating with Decision Makers** – It is essential that you articulate the work your team has done, the current state of IT and what you need to support business goals.

## Essential Requirements for Evaluating IT Systems Management Solutions

In order to meet business goals, organizations develop and implement various business processes. These processes can be as simple as inventory tracking or an HR function or more complicated such as the sales cycle or supply chain/vendor management. On a high level, these are the day-to-day functions organizations run to develop, sell, deliver and support their products and services.

The IT department develops IT services to support these business processes. Financial software supports payroll. The sales team relies on extensive databases to keep track of leads. An efficient supply chain is dependent on asset tracking, inventory and logistics applications. Email keeps employees informed and enables them to collaborate. And so forth. Each of these services runs on IT infrastructure that has to be properly monitored, maintained, protected and secured.

<sup>3</sup> O'Donnell, Glenn. Forrester. "IT Operations 2009: An Automation Odyssey". July 2009.

“Seventy-five percent of a typical IT budget is spent on simply maintaining the existing IT operations.”<sup>3</sup>

Organizations that wish to provide high-level IT value to users in the form of services should seriously consider implementing a single, powerful and reliable IT systems management platform. This begins with the service desk. Traditionally a function of the help desk, organizations are now looking at service desks as the foundation of their complete IT systems management framework, using them as a central repository of requests in which other IT services—such as monitoring, patch management, software updates, remediation, etc.—are delivered.

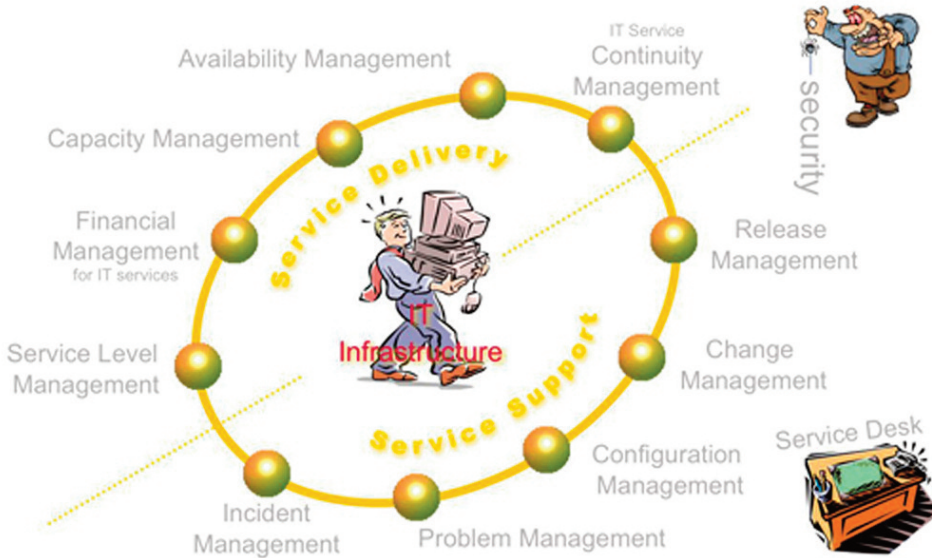


Figure 1: ITIL Best Practices merge service desk requests and remediation with preventative systems maintenance.

## Consider ITIL Process Controls

In order to deliver high-level services to users through the service desk, your IT systems management solution should be Information Technology Infrastructure Library (ITIL) ready, giving you the framework to provide value to customers in the form of defined processes and services. As you build automated processes throughout your IT systems management framework and create efficiencies throughout the organization, ITIL ensures you are meeting the needs of users from service desk requests to regular system maintenance. ITIL ensures that support functions are integrated with service delivery and information is shared seamlessly across the multiple roles within the organization.

For example, let's say that a new employee is hired. The on-boarding process isn't solely a function of HR. Payroll and benefits information needs to be implemented into the system. Facility and parking access needs to be granted. A new computer needs to be set up with passwords, policies and authentication. Some sort of systems training needs to be conducted. As much as a half dozen departments have some role in the setting up of that new employee.

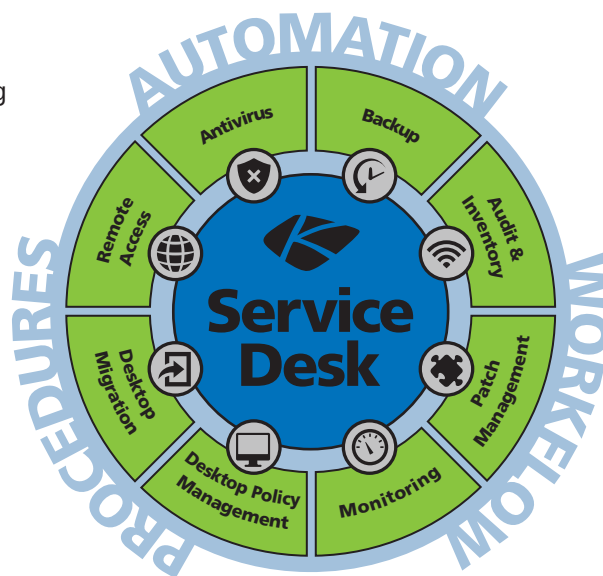


Figure 2: IT services are integrated through the service desk.

The IT services that support each business process can be integrated through the service desk with key handoffs during the process. This allows you to build a workflow that consolidates the entire process. Roles and responsibilities can be defined. People can be kept in the loop. Follow up dates, goals and other measurements can be monitored. Some tasks, like setting up passwords and authentication, can be automated. Under the ITIL framework, this is consolidated and integrated through the service desk.

### **Use Automation to Create Efficiencies and Expand Coverage**

A truly powerful IT systems management solution should turn you into an automation wizard, allowing you to essentially automate any IT task from downloading and installing the latest version of Flash or Adobe Reader to setting up a new user account. Your solution should come with hundreds of pre-populated tasks and settings and should be simple to customize and build your own agent procedures. This will allow you to automate repetitive tasks like patch management, security monitoring, backups and software updates, dramatically reducing the time and manual effort you put into administration. In effect, your IT systems management solution is an extension of the staffing resources at your disposal. So make sure your solution can hold down the fort in the middle of the night or on the weekends so you—or your staff—don't need to.

### **Single Pane of Glass**

Management functions need to be fully integrated within a common framework, giving you a single pane of glass from which to implement maintenance and remediate issues as they arise. A help desk administrator working in the service desk should be able to view performance data from the monitoring module and inventory information from the asset tracking repository. Management data should be able to flow freely throughout the platform, arming administrators with the information they need to proactively and reactively solve IT issues.

Another important factor is control. Administrators need complete—but transparent—access into all systems on the network, ensuring systems are up and running reliably and performing optimally. Auto-discovery is critical in making sure all systems are being managed as security threats often search out and exploit the weakest link in the network.

### **Manage Across Platforms**

It's rare for an organization to standardize on a single hardware or operating system platform. It's likely you manage a heterogeneous environment made up of various Windows platforms, Macs and even Linux machines. Why deploy disparate management solutions when you can consolidate on a single platform that works natively across multiple platforms.

### **Manage Expectations**

Easy-to-compile and easy-to-read reporting sounds trite but you'd be surprised how many solutions fail to deliver on this basic need. Like it or not, politics plays a role in the resources you have at your disposal to meet IT and business needs. An effective IT systems management solution not only helps you achieve your goals, but it also helps you set, maintain and plan these goals. It's vital that you inform the leadership team of the good work your team has done, what you need to continue the good work and what would happen if your needs are not met. An automated, integrated and intuitive reporting mechanism is critical to meeting these expectations.

### **Customize Per Your Industry**

A manufacturing company has different IT needs than a rural school district. A hotel chain faces different compliance requirements than a financial services agency. One size can't fit all when it comes to IT systems management, can it? Of course it can. There are solutions out there that enable customized processes, management policies, procedures and baselines. Make sure you are able to integrate the unique requirements of your specific industry (including compliance information) with standard IT systems management.

### Manage Growth

Finally, your IT systems management solution needs to be scalable and keep up with capacity as your business grows. New systems need to be provisioned quickly and folded under existing processes and procedures. Depending on your needs, make sure your solution can scale from hundreds to thousands of devices. You may also need to add management functionality as the business grows and your needs change. You may not need a compliance management module today, but what if new regulations are rolled out in the future? A framework that runs through the service desk enables this scalability. New IT services or additional agents can easily be added and folded under existing policies.

### Liberate Yourself

This freedom from tedium and level of integration allows you to focus on more strategic, revenue-generating projects. Much like preventative dental care, a proactive approach to IT systems management prevents major issues from occurring while giving you a single tool in which to quickly identify and resolve the small issues. As a result, IT is more productive and costs less, user productivity increases and the risk of security breaches, data loss or regulatory non-compliance is dramatically reduced.

## Different Deployment Options and Architectures

Now that you understand the essential ingredients that make up a complete and powerful IT systems management solution, it's time to investigate how solutions are architected. There are dozens, if not hundreds, of IT systems management tools, software and services out on the marketplace, and it's easy to become overwhelmed. If powerful and effective, IT systems management can transform the way IT service is delivered in your organization. It's important to think about how the solution will create efficiencies, improve end user service, reduce risk, manage growth and keep costs under control.

### Point Products

Single-feature point products—such as an asset management solution, a help desk solution or monitoring software—are a common option for smaller network deployments or for IT professionals with a lot of patience for integrating disparate management solutions.

**Advantages:** Point products work well for what they are engineered to do since they are designed with purpose and focus on a single function. They're also a cost-effective solution for organizations with limited budgets where one distinct area of management is an obvious priority.

**Disadvantages:** Because they are single function, point products require IT organizations to deploy a hodgepodge of solutions to cover all the major IT services required by the organization. This can be confusing for administrators and may lead to interoperability conflicts and processing bloat as each solution has its own unique management context, GUI, jargon and footprint.

**Bottom Line:** In this deployment option, there is very little integration between disparate management functions. Sure, these vendors often tout their open architecture and interoperability, but integrating disparate tools requires hundreds of hours of configuration, and you still don't get a holistic view of the entire network. The initial cost may be tempting, but you have to weigh that against the long-term overhead burden from implementing, learning and maintaining multiple tools.

### Appliances

Some vendors offer a pre-loaded, pre-configured appliance that you can plug into your environment and start managing the infrastructure right away. These plug-and-play solution providers target mid-size organizations that are ready to graduate from point product solutions.

**Advantages:** These cost-effective solutions in a box are advertised as simple to install, simple to configure and simple to use—essentially a tempting way to short-cut the complexities of initial IT systems management deployment. Since appliances are engineered by a single vendor as a total hardware/software solution you can expect they will perform well once deployed.

**Disadvantages:** Appliances tend to sacrifice functionality and flexibility for ease of use and cost. Feature sets tend to be more limited than comparable toolsets, which can leave you with gaps in the service when it comes to implementing a complete and proactive IT systems management strategy. They are often limited by the number of clients each appliance can manage—putting an unnatural ceiling on how well you can scale—requiring that whole appliances may need to be replaced during an upgrade.

**Bottom Line:** Appliances offer a useful and sure-fire way to get new capabilities within the organization in a simple and controlled way, but you may trade some level of functionality to achieve that. For this reason appliances are becoming less prevalent in deployments where deep functionality is often required. Appliances save you time and budget during the installation stage, but operational costs often remain unchanged.

### Agentless Software

Agentless management solutions typically provide a richer feature-set than appliances and don't require that software be deployed on each system. Instead, management functions and services are provided over the network (or even over the Internet).

**Advantages:** Agentless software doesn't affect the performance of systems the way some agent-based software solutions can. Agentless software also makes managing the management solution more efficient, and it can be easier to deploy, scale and use.

**Disadvantages:** Agentless software is completely dependent on network connections. If the network goes down so does your management solution. The software can also sap bandwidth from other applications, causing performance and productivity issues.

**Bottom Line:** While agentless architectures are easier to deploy and use they are not as robust or reliable as agent-based software solutions. Uncertain reliability could take away the visibility into your network and inhibit your ability to manage systems just when you need those capabilities the most.

### Agent-Based Software

Agent-based software solutions can provide the kinds of feature sets, reliability and robustness required by just about any sized organization from small SMBs to large enterprises. Agent-based management systems can offer a complete and scalable solution and often integrate many core management capabilities in a single platform, ensuring that workflow and data are easily managed throughout the system. The best of agent-based software solutions consolidate all functions through a single agent, whereas some legacy systems still require multiple agents to be installed in order to provide complete functionality.

**Advantages:** By placing natively written agents on each managed device, IT departments are given the greatest level of control to perform any task necessary. Agent-based software is protected from outside influence and can continue to operate when non-agent based software may be effected by network, authentication or configuration issues.

**Disadvantages:** Some systems require time and careful planning to setup and roll out across organizations—especially solutions that are dependant upon multiple site servers for local connectivity. In addition, agents on managed devices need to be monitored and updated regularly, though many agent-based solutions do this automatically.

**Bottom Line:** Organizations that want to reduce manual labor and consolidate and centralize management functions should consider an agent-based software solution. It's a big step in terms of commitment; however innovation and competition among agent-based vendors are bringing costs down.

## Must-Have Feature List

Feature lists can be confusing. And they often include things that are unnecessary. Here is a list of must-have features that you should look for in a solution to help you implement a complete, automated IT systems management strategy based on ITIL best practices.

<b>Service Desk</b>	
<b>Feature</b>	<b>Why It's Important</b>
ITIL Ready	Lays the framework for implementing ITIL best practices.
Staffing Roles and Organization	Clarifies responsibilities and enables clear mapping to workflow and processes.
Change Request Service Desk	Monitors and verifies all system changes for security, performance and consistency.
Automated Remediation	Reduces manual labor and speeds time to resolution by carrying out automated functions when specific incidents are raised.
Automated Escalation and Routing	Ensures timely approach to major or long-running items by routing alerts and tickets to appropriate staff.
Staff and User Email Notifications	Communicates maintenance and planned downtime to the operations staff.
Mobile Management Consoles	Allows access to full-featured management application on mobile devices.
Knowledge Base	Collects policy information and best practices in a central repository.
Web service API	Shares management data with other solutions (including reporting and compliance).

<b>Patch Management</b>	
<b>Feature</b>	<b>Why It's Important</b>
Scheduled Patch Management Scans	Automatically checks to make sure each system has the latest patches installed to ensure consistent and robust security policies.
Policy-Based Approach	Creates policies across a multitude of systems that control deployment of patches through approval.
Reporting	Compiles installed, missing, approved and unapproved lists as well as easy-to-read graphs to quickly assess estate compliance.
Patch Scheduling	Saves disruptive upgrades for off-hours when the operations staff is offline.
Patch Rollback	Uninstalls updates that fail or cause unintended consequences.
Windows Auto-Update Controls	Overrides Windows patch processes so patches can be centrally controlled through your management system.
Custom Patches	Simplifies the process to build and add your own patches into the system.
Alerting	Verifies that patches are installed and sends an alert if they are not; alerts on environmental issues or other patch issues.
Flexible Distribution	Frees you from relying on Windows System Update Servers and automatically detects if machines are on or off network.

## Remote Access

Feature	Why It's Important
Access to Key OS Features	Provides direct access to desktop, registry, command line, event viewer, service etc. saves desk visits which speeds configuration and remediation times.
Background Control	Performs function in the background without needed users to be logged on or off.
User Interaction	Enables flexible notification and privacy controls.
Device Identification	Finds machines easily by machine name, user name, or other machine identifier; also links from help desk or service desk directly into remote access.
Flexible Access	Eliminates dependence on user interaction when starting VPNs, identifying IP addresses or installing software on the fly.
Logging	Tracks remote access by process, machines, type of access, date and time spent on each process for easy reporting and analysis.

## Monitoring

Feature	Why It's Important
Windows Event Logs	Analyzes trends for system optimization, reporting and compliance.
Real-Time Performance Data	Optimizes performance and availability by monitoring for predefined thresholds while learning typical behavior. Analyzes trends for system optimization, reporting and compliance, and automatically finds all OS performance counters.
Windows Service Monitoring	Monitors and tracks all automatic services, restarts and services exceptions while mapping multi-instance counters.
Log Monitoring	Templating and pattern recognition based monitoring of all kind of flat file logs to look for variable alert conditions.
Customized Network Monitoring	Enables platform-neutral network monitoring via industry standard SNMP.
Comprehensive and Flexible Monitoring Dashboards	Includes detailed and drill-down views, exception lists, and Service Based state to track key business services.

## Desktop Policy Management

Feature	Why It's Important
Policy Templates	Builds lists of centrally managed templates that include all user desktop settings that map to different business areas and functions.
Power Settings with Power Status Dashboard	Monitors power consumption and turns off idle systems and monitors (or puts them to sleep).
Network, Drive, File and Printer Mapping	Remotely and automatically gives users access to the files they need based on pre-determined policies.
Application Blocking	Prevents unsupported applications from download.
Default Settings (Desktop Appearance, Shortcuts, Office Settings, Browser Settings)	Gets users up and running quickly.

## Desktop Migration

Feature	Why It's Important
Migrate User Settings from Windows XP to Windows 7	Gets users up and running more quickly after migration.
Migrate Settings (Date & Regional, Mouse & Keyboard, Printer, Network, Sounds & Multimedia, Microsoft Office, IM, Browser, Skype, Mobile Browser, documents, Profiles, Custom Folders & Files)	Gets users up and running more quickly after migration with a consistent look and feel across independent operating systems. This enables users to be immediately productive on new operating system with limited support intervention.
Migration Readiness Dashboard	Ensures systems have the hardware and software specifications required for desktop migration and spits out an estimated cost for updating systems.

## Audit and Inventory

Feature	Why It's Important
Server, Workstation and Mobile Audits	Keeps an up-to-date and accurate asset management list for inventory, planning, security and compliance.
Complete Inventory Lists that Include: Devices, Printers, System BIOS, Software Licenses and Versions, System Changes	Empowers administrators with the management data they need for daily maintenance, remediation, reporting and compliance.
Flexible Reporting	Compiles reports for compliance (for both security and license management), cost analysis, migration readiness, baselines for rebuilds, detailed hardware review, hardware upgrade needs, detailed software lists and versions down to individual file level if required.

## Backup and Recovery

Feature	Why It's Important
Dashboard View of Backup Status	Monitors current and past backup status for consistent and robust data protection.
Scheduled Backups	Conducts backups during off-peak hours for reduced user disruption.
Fast and Easy Recovery	What good are backups if the recovery process is unreliable or complex?
Universal Restores	Restores damaged systems to whatever hardware is available for fast recovery. Also helps for heterogeneous system migrations.

## Anti-Virus

Feature	Why It's Important
Consolidated Security Dashboard	Checks current anti-virus status of all systems on one screen.
Complete Security Status	Includes real-time file, email, link and Web protections for each agent.
Schedule Scans	Conducts scans during off-peak hours for reduced user disruption.
Threat Detection and Analysis	Speeds diagnosis and helps identify problematic users.
Anti-Virus License Management	Keeps track of deployed agents and license status.
Security Profiles	Creates pre-set security policies per type of user for fast, easy deployment and protection.
Microsoft Exchange Protection	Keeps email communication safe from viruses and other security threats.
Security Alarms	Tracks changes in security status and alerts administrators to potential problems.

## Support

Feature	Why It's Important
24x7 Global Support	Your business is 24x7, so should your management platform.
Localized Support	As you grow your business overseas, administrators should be able to work in their native language.
Platform Support (Windows, Mac, Linux)	Systems management shouldn't be an inhibitor to choice. Even if you aren't managing Linux today, you may next year.
Maintenance	Check maintenance contracts to understand costs over the life of the investment (e.g. 3-5 years) and determine if upgrades are included or charged for separately.
Expansion	Grow with business needs by scaling up to meet demand and by offering extra add-ons, third-party modules and APIs.

## Conclusion

IT systems management doesn't have to be disruptive, labor intensive or complex. The right solution can streamline and standardize management across the organization while making sure users have reliable access to business tools. A solution that is based on ITIL best practices ensures you are meeting the needs of users while creating efficiencies and supporting growth. In this way, you can ensure healthier systems, a decrease in downtime, more productive users and less risk to the organization.

Technology is supposed to make our lives easier. Isn't it about time you delivered on that promise?

### About Kaseya

Kaseya is the leading global provider of IT Systems Management software. Kaseya's solutions empower virtually everyone — from individual consumers to large corporations and IT service providers — to proactively monitor, manage and control IT assets remotely, easily and efficiently from one integrated Web-based platform.

To learn more, please visit [www.kaseya.com](http://www.kaseya.com)

©2010 Kaseya. All rights reserved. Kaseya, the Kaseya logo, Our Automation. Your Liberation. are among the trademarks or registered trademarks owned by or licensed to Kaseya International Limited. All other marks are the property of their respective owners.



# Kaseya

Our Automation. Your Liberation.™

[www.kaseya.com](http://www.kaseya.com)