

Centrally Managed Software Deployment and Administration

Manage updates and integrate software deployment through the service desk where systems operations can be viewed in the context of your overall systems management strategy. Become the IT hero at your school.



Kaseya

Managing software across thousands of distributed systems is tough for large corporations with enterprise-sized budgets, staffing and resources.

Doing the same in an education environment? People have no idea.

Not only are budgets watered down and staffing spread thin, but also systems are hardly consistent on a single platform. Software procurement is made independently through varying departments and each subscribes to different IT policies and procedures. Two systems in the same classroom could be owned and managed by two completely independent IT organizations—one through the College of Arts and Sciences and the other by the research department.

Yet, all systems have to connect to the same networks, interoperate with various IT systems and adhere to basic security controls and authentications. For this reason, your software deployment efforts need to be consolidated and integrated within your overall IT systems management framework while remaining in compliance with internal IT policies and external contractual obligations. But what if your current software management tools hate each other and simply do not get along with the rest of your systems and network administration tools?

It's enough to make your head spin.

Luckily, the Kaseya IT Automation Framework gives you the ability to centrally manage and distribute software on distributed systems, allowing you to sustain a healthy and open IT environment while remaining in compliance of software deployment policies. Tasks like deploying patches, standardizing on a software platform and rolling out a new solution are conducted remotely and automatically in the background from a central Web-based management console by your dedicated IT administrators.

This white paper will educate you on:

- Using software deployment to meet the needs of education IT environments.
- The shortcomings of current software deployment solutions.
- How Kaseya helps you centrally manage and distribute software on remote systems in a campus environment.
- Four tips and tricks that our engineers have collected to help you with specific software deployment tasks.

Using Central Management of Software Deployment to Meet the Needs of Education IT Environments

As stated in the introduction, education IT environments are extremely heterogeneous. Disparate software versions are deployed on varying hardware platforms across a campus environment—each one likely managed by a different remote management tool. With half a dozen versions of the Windows operating system alone, it's easy to see how heterogeneous systems can add many steps to deploying, monitoring and updating software.

Lack of visibility is a major contributor to increasing your workload. Education IT departments often don't know what software is installed on distributed systems in a campus environment, making a simple patch update more complex than it needs to be. Before software is deployed, remote systems need to be detected and audited to find out what version is currently installed

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and what needs to be done to make the computer ready for its update. After deployment, the system needs to be tested, monitored and flagged for remediation if unsuccessful. Without fingertip access into pertinent inventory information and without the ability to conduct remote operations seamlessly on each machine, what should be a simple update turns into a multi-step complex operation. Multiply that by hundreds—or even thousands—of machines and you have a major workflow and efficiency problem.

Dealing with the Shortcomings of Current Software Deployment Solutions

Current remote control solutions are mainly point products that cause complexity rather than create efficiencies through the software deployment and management process. Mainly, they lack the visibility needed into remote systems that allows for planning and testing of software deployment. IT departments simply do not know the current state of systems and whether they are ready for the update. Instead, most education IT departments push out software without knowing if the systems can handle the upgrade.

As you can imagine, this blindfolded approach leads to a lot of repetitive, manual labor. Updating systems one-by-one is tedious—and, frankly, maddening. Pre and post routines such as rebooting, clearing temporary files and making registry edits have to be done manually as does checking that required components are installed such as space on the hard drive, enough memory or a fast enough processor. Even if it takes only ten minutes to manually check readiness, conduct pre-deployment routines, install the software and then wrap up the operation, you still have repeat the process hundreds or thousands of times. And that's not fun for anyone.

Lastly, most software deployment tools are not integrated with the service desk, preventing your staff from combining remote sessions with the remediation of unsuccessful installs. If a process fails, the administrator has to log out of the software deployment tool, boot up a remote control application, worm in and remediate the issue. Once done, he would have to back out again and repeat the deployment process. Again, each step takes time and has to be repeated over and over and over again.

There has to be a better way to deploy software, manage it remotely over the course of its lifecycle and update it when necessary. And you should be able to do this efficiently and automatically so you can focus on more strategic projects.

Kaseya Provides Complete Visibility and Integrated Software Deployment

The Kaseya IT Automation Framework provides this level of efficiency and control by integrating software deployment and management with the rest of your IT systems management framework. In addition to providing administrators with detailed inventory information such as hardware platform, memory and hard drive space through the same central dashboard they use to conduct remote maintenance, Kaseya can route software deployment and management through the service desk where issues can be quickly remediated and operations viewed in context of your overall systems management strategy.

For example, suppose a new research application needs to be deployed on 25 desktops in a science lab. An administrator can trigger a series of automated commands that automatically installs the software on the required machines.

- Kaseya audits the systems and checks their readiness for installation
- Desktops that need additional components (memory, drivers, OS upgrade) are flagged and a ticket request created for each machine
- Pre-deployment and automated scripts are processed on the systems, including uninstalling the old software and wiping the temporary files folder
- The application is pushed out to waiting systems and installed
- The desktops are rebooted and the software is tested
- Additional alerts are set for the systems and reports are routed to an administrator

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Routing software deployment and management functions through a single management console also helps education IT professionals tie IT operations to the school's operational processes, such as on-boarding a new graduate student or standardizing the layout of research publications. Kaseya ties each action to the IT technician (and manager) who is responsible for changes and approvals, which ensures that the desired end-user service gets completed and logged. Simple and efficient. For example, a user can issue a software request ticket that is routed first to the department's accounting team for procurement approval. Once approved, Kaseya routes the ticket back to the IT service desk where technicians can physically deploy the software on the system.

While Kaseya is easy to use, it isn't a primitive management tool. The Kaseya self-service user portal empowers students, researchers and faculty to conduct basic software operations without requiring help desk resources. Users such as the faculty can log into the Kaseya system and install pre-populated install packages for pre-approved applications. This ensures that users have access to the tools they need while ensuring they are only using authorized solutions and all systems are in line with the school's IT and security policies. Otherwise, users could download unstable applications from the Web or accidentally infect their system with dangerous spyware. This empowerment speeds up the software deployment process, protects the school from dangerous malware and reduces help desk requests.

Specific Tips and Tricks from Kaseya

The following pages present some tips and tricks you can use with Kaseya to automate software deployment and management. As always, we just ask that you be responsible by using this information for good and not for evil.

Tip One Patch Management

The Problem:

It's Tuesday, and Microsoft releases a major security patch update of Windows XP, Windows Vista, Windows 7, Windows Server 2003 and Office. Some of the patches are labeled critical, so speed is essential as un-patched systems pose a gigantic risk to the school. Downed systems could mean a loss of productivity for students, faculty and researchers, preventing homework, grading and special projects from getting done. Unfortunately, your team manages more than 4,000 systems across campus with varying platforms, operating systems, security policies and authentications.

The Current Solution:

Administrators use separate remote access tools to download, install and test the patch on each system. With 4,000 systems in the environment, it will take weeks to identify and update each computer. There go the weekends for the tech team. And even then, every system that needs the patch is not assured of being updated.

The Kaseya Approach:

A single administrator logs into the Kaseya system and accesses a pre-populated patch policy that was customized months before. Executing the command with the press of a single button, the administrator is able to download the patches once from Microsoft's website, install them on a test machine and test for compatibility issues when running other applications.

Once certified, Kaseya automatically checks inventory information for systems with the affected software, wakes them up, checks their readiness and pushes the patches out to waiting machines. Any system that lacks the required specifications is identified, taken offline and automatically flagged by the service desk for later remediation.

The patches are then automatically installed on each waiting machine, and the systems are rebooted as necessary. The final step is to monitor performance and availability data and flag systems that are inhibiting strange behavior. The single administrator can then access a report identifying systems that did not receive the patch for one reason or another and remotely access the systems for further remediation. As a result of this streamlined process, all 4,000 machines are scanned and patched in minutes.

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Integrated Management Functions:

- Patch management
- Auditing
- Agent procedures
- Wake on LAN (with Intel VPro technology)

Benefits:

Software patches can now be issued all at once at the push of the button. Kaseya ensures that every machine that needs the patch is identified and updated and systems that are not updated are taken offline and flagged for remediation. A management task that used to take days now takes minutes, and it's done more completely and consistently across the entire IT environment.

Tip Two Software Standardization

The Problem:

In an effort to standardize the layout of the school's research publications, prevent accessibility issues and streamline the editing and publication process, the dean mandates that all systems be upgraded to Office 2010 before the next semester begins in a week's time. The problem is that there are 15 computer labs spread across campus—each with 60 to 100 systems each that run a variety of the Office suite.

The Current Solution:

It's all hands on deck. Instead of getting ready for the upcoming semester, administrators fan out across campus and manually tackle the upgrade. The administrators literally walk into the labs and move from desktop to desktop, downloading and installing Office 2010 on each system. Computers that require an upgrade to their operating system or need a driver installed are flagged for a trailing technician that gets the computers ready and completes the upgrade. With 20 administrators—even the head of information services is called in to help—87 percent of upgrades take five days to complete. The remaining systems are taken offline and are remediated and upgraded over the next month.

The Kaseya Approach:

A single administrator logs into Kaseya and identifies the systems that need to be upgraded. Out of 1,125 desktops, 342 already have Office 2010 installed and 623 are ready for installation. The Administrator also runs a migration readiness report to identify hardware and OS readiness. He identifies 113 that need to be upgraded to Windows 7, 29 that need additional memory and 18 that need multiple components. The dashboard also spits out an estimated cost to bring each system to readiness. The report is sent to the dean and the budget office—both of which approve the request.

Tickets are generated for the desktops needing upgrades and are assigned to technicians who install the necessary components. Once every system is ready, the administrator schedules an agent procedure that pushes the Office 2010 suite to the desktops at 2 a.m. The old versions of Office are uninstalled and the new software is installed. The systems are rebooted and tested to make sure the deployment was successful. Kaseya prints out a report that shows that 15 systems are unable to launch the software. Tickets are generated and the issues are remediated overnight.

Now, all 1,125 desktops are now standard on the Office 2010 suite. The whole process took less than a day—most of which was spent waiting for the budget office to sign off on the approval—and required only a single systems administrator and a level one help desk technician. Everyone else, including the head of information services, continued their regular duties of getting ready for the start of the semester. The administrator even found time to draft an email to all students and faculty informing them of the change that included a tutorial on the new features of Office 2010.

Integrated Management Functions:

- Software Deployment
- Desktop Migration
- Desktop Migration Readiness Dashboard
- Service Desk

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Benefits:

Office documents are now standard across the school's research department, and the process of bringing systems up to readiness didn't sap IT resources at a time when most administrators should be focusing on getting ready for the new semester. Most importantly, the upgrades were done quickly (within a single day) and presented minimal disruption to users.

Tip Three Software Procurement

The Problem:

A professor needs Adobe Acrobat on her laptop, and she needs it now.

The Current Solution:

The professor fills out a software procurement request and sends it up to the head of her department. The head of the department approves her request and forwards it to the budget office. The budget office sits on it for a few days and finally approves the request, but the paperwork is lost in transit. Finally, the request is sent to the IT group where a ticket is created and assigned to an administrator. After searching through software licensing contracts, the administrator finds out there are no more licenses and a new seat would have to be purchased from Adobe. After getting approval from his boss, the transaction is made and the software is remotely deployed on the professor's laptop. The process takes more than one week to travel through the various bureaucratic layers. So much for getting Acrobat "now."

The Kaseya Approach:

The professor submits a purchase order request that is automatically routed through her boss and the budget office. She checks the status of her request through Kaseya's end user portal and nudges the decision makers when the process stalls after a few hours. Once approved, the ticket is routed to the IT service desk where an administrator logs onto Kaseya and checks the inventory for an additional license.

There aren't available licenses but that's by design. With increased visibility into user habits, software licenses are purchased on demand as needs arise instead of the typical over-procurement strategy that most school's employ. The administrator purchases the license from Adobe's website and checks the readiness status of the professor's laptop. It's online and has all the required components already installed. A dialogue pops up on the desktop asking if it is a good time to install the software which requires a reboot.

Pleased that her request is coming through on the same day of her initial request, the professor selects 'Yes' from the dialogue box. She saves the open documents while the software is remotely installed. Her laptop reboots and she is good to go. She launches Acrobat and her original purchase order request pops back in her email asking her to close the ticket. She smiles, clicks 'confirmed' and continues her work.

Integrated Management Functions:

- Service Desk
- Auditing
- Migration Readiness Dashboard
- Software Deployment
- End User Portal

Benefits:

Aligning IT operations with business processes and procedures makes stake holders accountable to approvals and keeps the process moving through to next steps. The professor is able to track her request from the department head to the budget office to the IT service desk. A process that used to get bogged down and take days or weeks, can now be tracked and pushed through on a timeline more in line with user needs.

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Tip Four User Self Service

The Problem:

A proponent of the Socratic Method, a philosophy professor strives to facilitate one-on-one instruction with his students. However, with his lecture courses growing to 300 students each and a limited office hours schedule, it is virtually impossible to find the time to speak with each student. Social media has changed that. Having a conversation over the Internet is now a viable teaching tool that can supplement lectures and break-out sessions. The problem is finding the right tool that allows the professor the access and collaboration he needs but isn't too bloated or loaded down with adware.

The Current Solution:

The professor does a Google search and finds a free instant messaging tool. He downloads it to his laptop but soon experiences major performance issues. His computer is sluggish, and he notices that pop-up ads keep launching on his desktop. After PowerPoint crashes in the middle of a lecture, he decides enough is enough and uninstalls the program and goes back to cramming as much face-to-face time he can during his four hours of office hours each week. He's also unaware, unfortunately, of a pending visit to the dean's office with the IT director because his rogue action not only crashed his PC but also brought down the Exchange server for the entire humanities department.

The Kaseya Approach:

The professor logs into the Kaseya End User Portal and browses a list of pre-approved applications. He sees an instant messaging tool and clicks 'run'. A pre-existing agent procedure launches on his desktop, checking the readiness of his system. Pre-deployment tasks are executed, the software is installed and the computer reboots. Within a few minutes, the professor is able send his students an email introducing the new teaching tool with instructions for download and a schedule. The first question he always poses is: "Is technology good?"

Integrated Management Functions:

- End User Portal
- Agent Procedures
- Software Deployment

Benefits:

Upgrades to network infrastructure is completed on time and isn't held back because of a simple configuration issue. The process to manually make the change on all machines is automated through Kaseya and is assured of identifying and updating every machine that needs to be redirected.

Contact Kaseya Today

Remote access and remote control needs to be integrated within a single management framework, allowing you to conduct powerful maintenance on distributed machines without putting the district at risk and without disrupting users. Kaseya provides this level of integration, consolidating remote management on a single pane of glass.

Contact Kaseya today for more information and to request a live demo of our powerful IT Systems Management solution.

About Kaseya

Kaseya is the leading global provider of IT Systems Management software. Kaseya 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.

For a free 30 day trial visit www.kaseya.com/download

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