

Company Profile: Virginia Tech's Outreach Information Services (OIS) provides technical support for the university's Outreach and International Affairs (OIA) organization. OIA works with communities to address local and global economic development needs, tailors regional and online graduate and lifelong learning educational opportunities to the community served, and arranges for students to perform community service while learning.

Website: www.ois.outreach.vt.edu

Business Challenge: Ensuring the performance and availability of hundreds of systems in a distributed environment is a tough task for the small, yet dedicated OIS staff at Virginia Tech. IT efficiencies achieved through Kaseya's IT management framework help eliminate repetitive tasks while enabling consistency throughout the environment. However, any opportunity to further automate administration is greatly appreciated, improving systems availability and performance and allowing the staff to focus on more proactive projects that directly affect the organization's mission.

Solution: To automate the administration associated with setting up new users and new workstations, OIS deployed the Kaseya User State Management (KUSM) module, giving administrators the ability to seamlessly deploy, back up, and migrate user account settings between distributed machines (including application settings, power usage policies, drive mappings, and print drivers)—all from an integrated and central management console within the Kaseya IT management framework.



Virginia Tech Automates User State Management with Kaseya, Improving IT Productivity and Reducing Power Consumption

For years, Virginia Tech's Outreach Information Services (OIS) has relied on an automatic, remote IT management solution from Kaseya to ensure the availability and performance of hundreds of remote systems in a distributed environment. Taking advantage of Kaseya's intuitive and integrated interface, administrators are able to efficiently and reliably monitor, update, secure and support every workstation and server on the network from a single management console, instituting a preventative and proactive approach to IT support.

"We're a small staff that is typically stretched pretty thin," said Dr. Scott Farmer, Director of OIS, Virginia Tech. "Kaseya provides transparency throughout the environment, allowing us to take control of any system and make sure it is up-to-date and running properly. Kaseya is central to our preventative and proactive IT management strategy."

Through its use of Kaseya, OIS has reduced the typical help desk response time by more than half, improving the availability and performance of systems while keeping employees up and running. As a result, Outreach and International Affairs' (OIA) operations work smoothly and efficiently, helping the university to continue to create lasting research connections to the business, government, and non-profit communities.

However, as with nearly every college and university—and especially public institutions funded by the state—improved efficiencies continue to be sought in an effort to lower operational costs and stretch already tight budgets. One of the more time-consuming tasks is the setup and deployment of user profiles on distributed workstations. OIS has a responsibility to make sure users have access to the drives and directories they need to conduct projects—no matter where they login—and have the basic ability to print documents and access peripheral devices like scanners, display units, and fax machines.

Due to the nature of its operations, roaming profiles are not an option so deploying and maintaining these settings requires more hands-on configuration and the tedious process of sitting down with end users to set up new machines. This process typically takes an hour or more and inconveniences the end user as much as the IT administrator, preventing them from continuing their work.

Automated User State Management

In an attempt to automate the administration associated with setting up new users and new workstations, OIS deployed the Kaseya User State Management (KUSM) module, giving administrators the ability to seamlessly deploy, back up, and migrate user settings between distributed machines (including application settings, power usage policies, drive mappings, and print drivers)—all from an integrated and central management console within the Kaseya IT management framework.

The IT staff can now create, update, and back up user settings and apply the images to any workstation in its distributed network. By creating these group profiles, OIS is able to maintain consistency across a department or zone or even throughout the entire organization, easing the deployment of new machines, setting up new users and enforcing access and security policies.

For example, when OIS needs to upgrade a user to a newer, more powerful workstation, an administrator can use KUSM to capture existing user settings and automatically restore the settings on the new machine in a matter of minutes. The process can be done remotely and doesn't need to be monitored, dramatically speeding the upgrade process which in turn reduces downtime and gets researchers back up and running more quickly.

"Configuring user settings by hand can be tedious, time consuming, and there is a substantial risk of forgetting something," Dr. Farmer said. "Kaseya lets us automate the process of defining, updating, deploying and backing up these user settings, sparing us from repetitive work. It not only saves time and resources but it helps make equipment upgrades more seamless and a more positive experience for the end user."

Drive and printer mapping are done similarly, standardizing the settings on each workstation—regardless of how many users have access to it. In this way, users working on the same project are able to organize and view files the same way, helping to ensure consistency and improve productivity.

IT Automation Drives Productivity

Streamlining user state management helps OIS better support the IT needs of OIA, improving the performance and availability of remote systems without impacting end users. As a result, OIA faculty and staff have 24x7 access to the tools and data they need to complete projects accurately and on time, helping the university to create lasting research connections to the business, government and non-profit communities. The automated process eliminates much of the repetition associated with user management configuration, helps eliminate human error, and makes new equipment upgrades—completed every four years for workstations and every five years for servers—faster with less of an impact on end users.

"The faster we can do basic administrative tasks like user configuration, mapping drives, and setting up printers, the less negative impact we have on the user's work," Dr. Farmer said. "What we do—and how long we take to do it—really does have an impact on the rest of the organization."

At the same time, the efficiencies achieved through KUSM allow the IT staff to focus on more proactive projects, spending their time working directly with end users to solve real-world problems and investigating new technologies that can further support the organization's mission.

In the future, OIS would like to further protect user machines by integrating KUSM with Kaseya's Backup and Disaster Recovery Module (BU/DR) to back up user data. If a PC is lost, the process of restoring the system on new hardware can be streamlined through BU/DR bare metal restore capabilities, helping to reduce the time it takes to get end users back up and running. In less than an hour, an administrator would be able to rebuild the PC as an exact replica of the previous computer, complete with the same user accounts, user data and application, printer and drive settings.

Key Benefits

- Users settings can be transferred to new hardware within a few minutes, including personalized settings and configurations—a process that could have taken several minutes to an hour or more in the past
- Downtime for end users due to equipment upgrades or IT maintenance and configuration is minimized, improving employee productivity
- Power consumption can be monitored and regulated against a set benchmark, helping the university save electricity costs and reduce its carbon footprint
- Printer groups can be set up and applied easily, automatically directing print jobs to the closest printer
- Departmental drives can be mapped consistently between all users on a given machine, standardizing the way end users organize and access files

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-- Dr. Scott Farmer, Director of Outreach Information Services, Virginia Tech

Regulating Power Consumption of PCs

KUSM also allows OIS to monitor and better control the power consumption of each workstation, helping to reduce electricity use and lower the university's carbon footprint. Administrators can set power settings for groups of machines and regulate them against a predetermined benchmark. Machines that are consistently using more power can be analyzed and end users can be educated in power-saving procedures. KUSM can even turn off remote hard drives and monitors on a scheduled or on-demand basis.

"We're really trying to up the ante in terms of reducing power consumption in the data center and IT's impact on global warming," Dr. Farmer said. "Turning off PCs overnight and on the weekend can make a huge impact in terms of lowering the electricity bill, lessening wear and tear, and reducing the university's carbon footprint."

Currently, many OIS backups are conducted overnight and during the weekend when processing power and bandwidth demands are lower, requiring that all workstations be left on. By using KUSM's power policies feature, Dr. Farmer hopes to create backup windows early in the evening and use KUSM to automatically turn the systems off after the cycle is completed, thereby reducing the amount of time idle systems are consuming power.

About Kaseya

Kaseya is a global provider of IT automation software for IT Solution Providers and Public and Private Sector IT organizations. Kaseya's IT Automation Framework allows IT Professionals to proactively monitor, manage and maintain distributed IT infrastructure remotely, easily and efficiently with one integrated Web based platform. Kaseya's technology is licensed on over three million machines worldwide.