A Cost-effective Approach to Systems Management

For organizations battling IT complexity, a hardware appliance trumps the traditional software approach for a simpler, more economical solution.

In many ways, IT staff in mid-sized companies face a tougher challenge than their counterparts in larger organizations. Although the typical mid-sized network is smaller in scope than an enterprise network, it is no less complex in terms of the variety of systems and applications that must be managed. But the mid-sized firm is at a disadvantage in one crucial respect: resources.

IT staff in mid-sized firms must be generalists, with at least some knowledge of a wide range of IT disciplines, from end point and server configuration, deployment and management to security. By contrast, the typical Fortune 1000 firm has an array of dedicated specialists to handle distinct IT functions.

Compounding the challenge is the fact that mid-sized firms tend not to have the most advanced tools at their disposal to help with day-to-day IT functions. Ninety percent of mid-sized businesses do not have automated management...
“solutions in-house,” says Steve Brasen, principal analyst for systems management with the consulting firm Enterprise Management Associates (EMA). By contrast, EMA research shows that 75 percent of Fortune 1000 firms employ automated IT management solutions, Brasen says.

There are two reasons for this disparity: the typical systems management solution is too complex for mid-sized firms as well as too expensive, EMA research shows. As a result, mid-sized firms end up using manual processes to perform functions ranging from system and application deployment to patch management, security auditing, device discovery and inventory, and more.

**Wanted: A Different Approach**

What mid-sized firms need is a comprehensive but simple and cost-effective solution to their systems management challenges. As is the case with other popular functions (ranging from storage to networking and security), the answer here lies in taking an appliance-based approach.

That’s what Dell KACE does with its K1000 Management Appliances and K2000 Deployment Appliances. The K1000 and K2000 offer a plug-and-play approach to systems management and deployment, making them far easier to install and use than their software-based counterparts. Users often report a return on their Dell KACE investment in three months or less, and achieve impressive savings over time. One customer reported savings of more than $110,000 in the first year because the Dell KACE appliances saved so much IT staff time (see sidebar).

Time is a resource that the typical mid-sized IT department simply doesn’t have enough of when it comes to meeting the many challenges they face. Chief among those challenges are systems deployment and day-to-day systems management.

Deployment issues include numerous discrete functions, such as:

- **Computer inventory scanning and assessment** to determine what systems exist on the network and what operating systems and applications they are running.
- **OS installation**
- **Disk imaging** to ensure that each machine receives the proper combination of OS and applications.
- **User state migration** to move all user data and settings from an old machine to a new one or from one OS version to another on the same machine.
- **Remote site management** for locations that lack IT staff.
- **System repair and recovery** to quickly identify and fix problems, keeping user downtime to a minimum.

Systems management likewise involves a number of functions, including:

- **Device discovery and asset management** to determine what devices exist on the network and what software packages they are running. This helps IT avoid unnecessary hardware and software purchases, and stay compliant with software license requirements.
- **Software distribution** to install new software packages and updates.
- **Configuration and policy management** to keep track of changes to various systems (which helps in troubleshooting) and to ensure changes do not conflict with application authorization policies.
- **Patch management** to ensure the timely delivery of all patches and security fixes for operating systems and applications.
- **Security audit and enforcement** to ensure that no unauthorized changes (which could present security vulnerabilities) are made to end-user systems.
- **Power management** to minimize energy use (and cost) and support “Green IT” initiatives.
- **Remote control** to manage systems at remote sites, including software installation and troubleshooting.
- **Reporting** (on issues such as system status and activity) to help IT identify trends and comply with industry regulations.
- **Help desk** to provide a way for users to report problems and for IT to ensure timely problem tracking and resolution.

A number of systems management software packages address some or all of these functions; when organiza-
Assessing the Solutions

Fortune 1000 firms employ an average of one IT administrator for every 512 workers, EMA found. By contrast, the typical mid-sized firm employs one administrator for every 175 workers. This is because Fortune 1000 firms are much more likely to employ software that automates many routine tasks, enabling their IT staff to be far more efficient.

So why aren't more mid-sized firms employing systems tools? In short, because they have trouble finding a solution that is both simple to use and affordable. Mid-sized firms typically their deployment and systems management requirements in one of three ways. The first is by conducting management talks manually, which is labor-intensive and time-consuming. The second involves using point solutions, each of which addresses a specific management function—one product may handle deployment or inventory, while others handle patch management or reporting. “Mid-size organizations end up with a collection of point products that are not integrated, resulting in swivel chair management where they have multiple interfaces to monitor and have to cut and paste information from one to another,” Brasen says. “That’s a nightmare and can be very costly because you need maintenance contracts for each point solution.”

A third option is software-based management tools. To varying degrees, these products do address many of the deployment and systems management challenges that mid-sized firms face—but they come with challenges of their own.

For one, they can be expensive, in part because they require one or more servers to run the software. That creates not only a hardware expense but also additional software licensing costs, for both the server OS and client access licenses (CALs). As EMA’s analysis shows, those expenses can be significant, in some cases even exceeding the cost of the management software (see chart).

Software-based management tools can also be difficult to install and operate. Administrators typically require significant training, which adds additional time and expense to the system rollout. And the tools often contain features that a mid-sized company may never use.

K1000 Cures the Ills of Island Hospital

Facing dramatic growth in both the number of patients it treated and in support staff, the six-person IT department at Island Hospital in Anacortes, Wash. was stretched to its limit. The number of computers the IT team supported jumped 60 percent in just two years to a total of 500 endpoints.

Chores such as software deployments took too long using Windows Server Update Services (WSUS), which could deal with only small batches of computers at a time. The hospital also lacked an inventory tool that could tell IT exactly what was running on all 500 machines.

After evaluating technologies including Microsoft Systems Management Server (SMS) and NetSupport DNA, the hospital chose the Dell KACE K1000 Management Appliance. The IT team found KACE offered a significant edge from both a cost-savings and deployment standpoint due to its appliance-based approach.

“We were a little skeptical about the speed of deployment and ease-of-use claims, but we had the appliance up and running in literally two hours,” says Steve Coryell, IT assistant director at Island Hospital. “The hardest part of deploying K1000 was running the wires!”

The K1000 immediately started sending agents to every computer to collect inventory information and also addressed the hospital’s software deployment problems. One project that required an upgrade on all 500 computers, which would have taken weeks with the prior piecemeal approach, was completed in just two days.

The K1000 automated more than 2,500 hours of IT administrator tasks in its first year while saving 1,800 hours of help desk administration time. “We estimate we saved $110,000 during the first year alone using the K1000,” Coryell says—that’s a one-year ROI of 500 percent.

The Dell KACE Difference

By taking an appliance approach, Dell KACE addresses both the cost and complexity obstacles. At the same time, the KACE appliances address virtually all required deployment and systems management functions.

Each K1000 Management Appliance is a self-contained system that deploys easily into a mid-sized organization’s network. It ships with a single-page sheet of instructions that includes just seven steps. Users simply input an IP
address range for their network, plug the K1000 into the network, and turn it on. It immediately starts scanning the IP address range for devices that run an OS it supports (including Windows, Mac and Linux). When it finds a device it can manage, the K1000 self-installs a software agent. It will also discover other types of devices that have IP addresses, such as printers and routers, and create an inventory of them.

The K1000 interface is simple enough that most users can start employing it right away, with a series of wizards to guide them. Half of all K1000 customers say they deployed the product in less than a week. Because it is an appliance, the K1000 requires no additional hardware or software licenses, which makes it far more cost effective than software-based offerings—less than half the cost of the closest competing software-based product, according to EMA’s analysis (see chart).

Additionally, the K1000 requires virtually no administrator training. Most customers only need JumpStart training, a low-cost Web- and phone-based offering designed to get them up and running in a matter of hours. In fact, most customers have the K1000 already installed and running by the time they take JumpStart training, and use it to get more familiar with various K1000 features and functions.

For customers that do want in-depth training, Dell KACE has a variety of offerings provided by a Dell KACE engineer or certified partner, covering topics including help desk, scripting and reporting.

The K1000 and K2000 offer a plug-and-play approach to systems management and deployment, making them far easier to install and use than their software-based counterparts.

Best Practices in Lifecycle Management: Comparing KACE, Altiris, LANDesk, and Microsoft SCCM

<table>
<thead>
<tr>
<th>Key Features</th>
<th>KBOX</th>
<th>Altiris</th>
<th>LANDesk</th>
<th>Microsoft SCCM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy-based Software Configuration Checking, Enforcement, and Remediation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td>Password Enforcement (hard disk, poweron, screen-saver, policy)</td>
<td>☐</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Administrator-initiated Remediation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Automatic or Scheduled Remediation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>☒</td>
</tr>
<tr>
<td>Scanning and Quarantine of Non-compliant Systems</td>
<td>✓</td>
<td>☐</td>
<td>✓</td>
<td>☒</td>
</tr>
</tbody>
</table>

Results

The city of Columbia, Tenn. spent less than a week training and deployed the K1000 in seven days, while Island Hospital in Anacortes, Wash. spent a similar amount of time training, and deployed in a mere two hours.

Both had impressive results. The city of Columbia reported a return on its investment in less than a month and an annual cost savings of more than $152,000. Island Hospital achieved ROI in less than three months and saved more than $110,000 in its first year of using the K1000 (see story).

Conclusion

Resource-constrained mid-sized firms no longer have to make do with manual processes to manage their IT environments, nor do they have to overpay for software-based systems management tools only to find them overly complex to implement and maintain.

With its acquisition of KACE, Dell is now offering a proven, appliance-based approach to software deployment and systems management. The Dell KACE appliances can pay for themselves in a matter of just a few months and free up IT staff to focus on helping mid-sized organizations meet their business goals (see sidebar).

Learn more about how Dell KACE can help give back valuable time to your systems administrators at www.kace.com.