

## WHITE PAPER

# Validating the Business Benefits of Integrated Systems Management: The LANDesk Software Customer Experience

Sponsored by: LANDesk Software, an Avocent Company

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## EXECUTIVE SUMMARY

IT organizations want to provide high-quality, low-cost technology services to business units as part of their basic mission; however, software complexity, manpower changes, mergers and acquisitions, and changing business requirements have complicated that mission. Trends such as managing mobility, virtualization adoption, new and increasing compliance and governance requirements, and the need to modernize existing infrastructure add further complication to managing the IT environment. As a result, IT organizations have started adopting Information Technology Infrastructure Library (ITIL) and IT service management best practices to help streamline their management processes and address the multiple challenges.

Vendors such as Avocent (and its LANDesk products) have worked to embed and integrate functions within their product offerings to reduce the complexity associated with using multiple software products from different vendors. Additionally, Avocent is doing more to align LANDesk technology with ITIL and IT service management, including providing a better description of how its products fit within the ITIL process standard and how its products can be used to address ITIL requirements (i.e., LANDesk's software supports the configuration management database [CMDB]). As a result, IT organizations using LANDesk products are experiencing significant benefits.

IDC interviewed 15 companies to quantify those benefits to IT departments. The benefits were categorized across four areas and resulted in an estimated \$36,736 in savings per 100 users annually for customers:

- ☒ IT management productivity increase — optimizing IT staff activities through automation
- ☒ User productivity increase — reducing user downtime caused by system outages or change and configuration activities
- ☒ Revenue increase — reducing time to market by delivering more reliable business services
- ☒ Cost reduction — optimizing IT operations in inventory and response to issues

IT organizations also benefit when they:

- ☒ Standardize on one set of system management solutions integrated across datacenter PCs and handhelds, with one console to manage servers and PCs. In fact, IT organizations benefit when a single console can handle as many capabilities as possible to address the security needs of the organization along with configuration management capabilities to provide effective, reliable solutions for business units.
- ☒ Move from manually intensive, nonrepeatable processes toward documented processes that allow more automation in provisioning new servers or automatically tying changes to the problems they correct.

This white paper covers the business value experienced by selected Avocent customers in their use of LANDesk solutions.

## INTRODUCTION

With the adoption of ITIL, IT service management, and other process-centric frameworks, IT executives are better able to modernize their organizations and focus on initiatives that seek to increase business revenue or lower costs.

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## Challenges Arising from IT Complexity

Challenges that complicate IT executives' cost reduction task include the requirement for new IT capabilities and managing an IT department with heterogeneous solutions selected to work within specific IT stovepipes. IT executives deal with these challenges in the following ways:

- ☒ Adopting multiple software and hardware technologies to manage PC, server, handheld, and security solutions. This approach has the advantage of providing solutions focused on each individual technology, but it leaves IT managers with solutions that may not be integrated with each other or other data repositories and solutions.
- ☒ Support remote users by using multiple technologies that can cope with bandwidth constraints, remote access requirements, and different endpoint technologies and operating environments.
- ☒ Managing the evolving IT security threat environment. Threats to the corporate IT environment have moved far beyond the mere hacker and have increased to include the criminal element that attacks networks, installs spyware on corporate and personal PCs to generate revenue, and organizes attacks for hire.
- ☒ Managing risks associated with the adoption of new technology. Introducing new technology to the production environment, even with testing, can invite accidental changes from unanticipated reactions from applications. The risk associated with adopting new technology increases only if an organization is not sure of the baseline hardware and software configuration of its production IT environment to begin with.

- ☒ Managing IT governance and compliance issues. Part of documenting regulation compliance requires following the appropriate audit, configuration management, and control procedures and documenting that the procedures were followed. Introducing new solutions or systems invites opportunities for making unintended changes in the IT environment.
- ☒ Minimizing end-user disruption/impact. End-user downtime and productivity loss have a significant impact on all organizations. Minimizing the impact of IT activities on users is therefore an important consideration when introducing changes to the production environment.
- ☒ Minimizing IT resource and time overhead. Planning and performing operating system upgrade/migration projects as well as ongoing life-cycle application and system management require extensive use of IT managers' time. Allocating that time over new and existing requirements as well as across different IT silos creates challenges that extend into corporate policies and individual personalities.

The net result is that IT complexity has made the IT environment much more difficult to manage and, as a result, increased the difficulty that IT organizations have in aligning IT with business unit needs and requirements.

### ***ITIL: Next-Generation System Management***

To overcome the challenges and complexities of the IT environment, IT departments have increased their adoption of best practices based on ITIL, which provides a framework for the process-oriented management of hardware, software, and services. These best practices are being adopted worldwide by IT departments that wish to improve customer service as well as business alignment with both internal and external customers. Additionally, these standards help streamline and standardize internal IT processes, resulting in higher IT efficiency and improved service delivery to end users.

One of the most critical areas that need strong operational processes is managing changes to the IT infrastructure. This includes authorized and planned changes as well as capabilities for detecting and preventing unauthorized changes.

### ***IT Department Maturity***

ITIL helps align IT with the business via processes that connect people to other people, people to technology, and technology to technology. As IT organizations adopt these processes, document the use of these processes within their organizations, and measure the performance of their organizations against a benchmark, they begin to see benefits to the company in the form of lowered costs, increased revenue, improved performance, and improved service levels. Over time, these processes are improved based on key metrics that enable IT to more efficiently deliver service to the appropriate user. At the start of ITIL adoption, an IT organization may have dealt with a rogue environment, where individual users brought their own PCs with their own software for IT to manage when PC problems occurred. Yet with the adoption of a standard PC and a company-approved set of applications, the number of problems associated with the PC may go down significantly, and IT may

manage more quickly and efficiently the problems that do occur. This systematic, organizational increase in process efficiency over time is referred to as IT maturity. Third-party software solutions can help increase IT maturity by increasing technology-to-technology process management. Third-party solutions are also a critical component in creating people-to-technology and people-to-people processes.

### ***Governance and Compliance***

Embedding the risk management and governance discipline in the configuration and change management processes eventually helps position the business to mitigate noncompliance risk. It also enables IT operations efficiencies that allow the business to effectively respond to changing market conditions and pursue new revenue and market opportunities. This state of operational efficiency would be analogous to the "real-time" supply chain.

### ***Change and Configuration Management***

IT departments are following best practices when they take a sustainable approach to compliance, viewing it as a part of a continuous management approach to application, hardware, and software change and configuration management. Continuous compliance is a necessary competency to ensure the success of IT department initiatives on behalf of business unit customers and the company as a whole.

### ***Auditing and Audit Support***

The process of tracking and managing the changes occurring to configuration items (CIs) leads to ensuring that configuration audits can be accurately and quickly conducted. As a result, improvements are managed and controlled with good information that results from the audit.

## **DEALING WITH THE CHALLENGES: THE BENEFITS OF ITIL AND IT SERVICE MANAGEMENT**

One of the benefits of the IT service management view that comes from ITIL is that IT organizations can take a life-cycle approach to aligning IT with the business and provide the business with solutions in a timely manner. Vendors have spent the past few years evolving their solutions to help address IT service management by further integrating existing functions for PC management, including asset discovery and inventory, software distribution, and remote control. Further, they have augmented their solutions with more workflow automation capabilities to smooth transition from one step within a process to the next step. One vendor in particular that is doing this is Avocent Corporation.

## Avocent Corporation's LANDesk Solutions

LANDesk Software initially began as a spin-off of Intel Corporation in 2002, when the division within Intel that was responsible for the development, marketing, and support of the LANDesk Management Suite was established. LANDesk's initial strategy was to provide best-in-class software solutions for the midsize enterprise. On April 27, 2006, Avocent and LANDesk announced that they had signed an agreement under which Avocent would acquire LANDesk. Avocent had focused on the manufacture of keyboard, video, and mouse (KVM) switching; remote access; network connectivity; and serial connectivity devices. Prior to this announcement, the companies had a channel partnership with each other. In March 2005, Avocent had announced the launch of the Avocent Alliance Program for Independent Software Vendors, with the LANDesk product group providing the initial software capability. Moving forward, the LANDesk product group continued its focus on software-based PC management but broadened that focus to address security, server management, and datacenter management through the ownership with Avocent.

### *The Business Value of LANDesk Solutions*

To quantify benefits associated with an IT service management-focused solution, as well as to determine how a specific vendor solution worked for customers, IDC conducted a study of LANDesk customers to determine specific business benefits to those customers. IDC interviewed 15 companies headquartered in the United States representing the publishing, media, construction, finance, and education industries. These companies had an average of 16,307 employees and 11,841 IT users (73% of employees). Table 1 displays the demographics.

**TABLE 1**

#### Study Participant Profile

Average number of employees	16,307
Average number of users	11,841
Users per IT staff	169
Average number of PCs	12,182
Range of total PCs	800–120,000
Geography	United States

Source: IDC, 2008

## Benefits

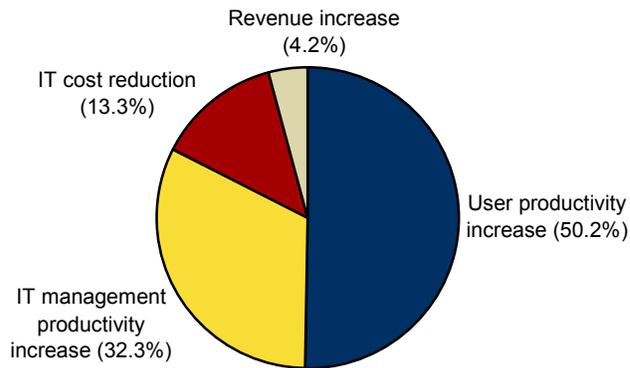
Study participants quantified the following benefits from deploying LANDesk management solutions:

- ☒ IT management productivity increase — optimizing IT staff activities through automation
- ☒ User productivity increase — reducing user downtime caused by system outages or change and configuration activities
- ☒ Revenue increase — reducing time to market by delivering more reliable business services
- ☒ Cost reduction — optimizing IT operations in inventory and response to issues

Total benefits were \$36,736 per 100 users annually as shown in Figure 1.

**FIGURE 1**

Average Annual Benefits per 100 Users



Source: IDC, 2008

### IT Management Productivity Increase

LANDesk remote support is a critical element of implementing ITIL because it allows IT technicians to see a user's computer from the IT workstation. IT technicians no longer make trips out of their department to resolve trouble tickets. IT is saving staff time and improving the speed of resolution. The results of the interviews showed that on average, the mean time to repair (MTTR) dropped 72% after the deployment of LANDesk.

Remote support improves not only incident resolution but also new workstation or new office provisioning. The IT department can push applications out to new parts of the organization without actually visiting the site. One company, while establishing several new user centers (remote education sites with online access), built packets of applications and automated scripts and delivered them from the IT department. Before the deployment of LANDesk, completing the installation for one new user center could take as long as five days — now, the company provisions new user centers in six hours. The remote capability and the speed of installation also improves the IT staff's ability to manage refreshes and upgrades when needed.

The help desk is more efficient since the LANDesk deployment. The number of support calls has dropped 47%, and the call time has declined from an average of 15 minutes to just eight minutes. With remote access to users, the help desk has increased the average Level 1 resolution rate from 18% to 64%. The total help desk savings are equivalent to \$5,011 per 100 users.

One customer summarized the experience with LANDesk as follows: "It's been amazing since we put in LANDesk. We can't live without it anymore. We connected everything to LANDesk to do inventory. The remote control has been an amazing help. The help desk loves it. Everything's at their fingertips."

Improvement in IT management productivity accounted for 38% of total benefits, or \$11,854 annually, per 100 users.

#### **User Productivity Increase — Downtime Reduction**

Patch management and security management are key contributors to the improvement in downtime. The automated patching solution keeps the customer's security applications environment up to date. When LANDesk Security Suite was first installed at one company, over 400 variants of spyware were discovered in the system. The customer's system was subjected to at least 10 security incidents per month, but after the deployment, the number of breaches dropped to just one per month. One customer said, "Before LANDesk, it would take us a full workday to resolve an issue — eight hours on average. Now, it's 30 minutes."

#### **User Productivity Increase — Automated Configuration**

Manually configuring or installing applications or waiting for IT technicians to arrive at the workstation is a significant impediment to a user's productive time. In most instances, users do not have the administrative rights to install or edit application settings. Thus, when new software is required, the user must surrender his or her machine for the duration of the procedure. With respect to installation and configuration downtime, one customer said, "The average user downtime per month is around 30 minutes. Before, it was probably about 2 hours."

When system downtime is reduced, user productivity is improved immediately. One customer mentioned, "I would say that a user experiences about 8 hours of downtime per month on average today. Before LANDesk, I would say that it was about 24 business hours."

The annual total user productivity benefit is \$18,458 per 100 users.

## **IT Cost Reduction**

Companies institute ITIL practices to gain control over their IT operations, better serve their needs, and reduce costs. The companies in this study selected LANDesk Asset Manager to improve inventory management and avoid unnecessary purchases. For instance, companies determine their PC life cycles and forecast future purchases with more precision. IT departments can track unused hardware and, when necessary, provide excess equipment to a new user rather than make a new purchase.

Similarly, savings result from managing software licenses. Too often, the number of software licenses in a company goes unchecked. Before implementing LANDesk, one company purchased a new license whenever a new user account was established. Since the deployment, the company tracks the status of licenses — when a new user requires access to an application, the IT organization can inquire about unused licenses in the company, and if any are available, the expense is avoided.

Other hard costs are reduced as well. Travel costs are reduced via LANDesk remote management. One customer estimates that the reduction in travel saves eight hours per week. For another customer, because the help desk now gains direct access to workstations that require a repair, IT technicians do not have to drive across the city each day. This saves the company up to 40 miles driven per week.

The results from the interviews show that on average, a company can expect \$4,874 in annual cost reduction benefits per 100 users.

## **Revenue Increase**

Typically, IT management solutions impact revenue in two ways:

- ☒ Because the environment is more stable and users have fewer unplanned outages, users are ultimately more productive and are afforded more time to pursue activities that support the business. They may improve a relationship with a current customer, approach a potential new customer, or design a new deliverable to advertise in the future.
- ☒ The business processes are more reliable and consistent, and therefore the output of the processes has a reduced time to market. The lag between production and income is improved, resulting in more sales cycles per year and greater revenue.

In this study, users contributing to revenue-generating activities resulted in a total benefit of \$5,011 annually per 100 users.

## ROI Analysis

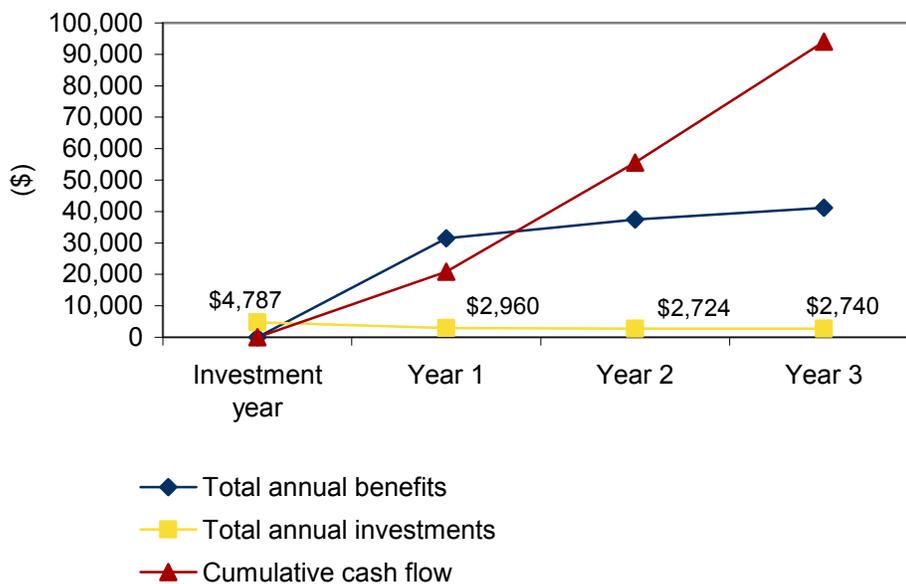
IDC uses a three-step methodology for conducting ROI analysis:

- ☒ **Gather quantitative benefit information during the interviews using a before-and-after assessment.** In this study, the benefits included IT management productivity increase, user productivity increase, revenue increase, and IT cost reduction.
- ☒ **Create a complete investment (three-year total cost analysis) profile based on the interviews.** Investments go beyond just the solution's hardware and software. IT departments spent staff time installing and configuring the new solution, removing old equipment and/or software, and then maintaining the new solution over three years. Ancillary costs directly related to the solution, such as user input to planning, outsourced installation, configuration or maintenance costs, and IT staff or user training, are also included in the analysis.
- ☒ **Calculate the ROI and payback period by conducting a depreciated cash flow analysis of the benefits and investments over a three-year period.** IDC uses a 12% discount rate in the ROI analysis to account for risk and to ensure a conservative analysis.

Figure 2 shows the annual benefits, investments, and cash flow over the course of the analysis. The annual investments remain relatively flat over time, while the annual benefits per year increase after the deployment. In the third year of use, the cumulative cash flow reaches \$94,037 per 100 users.

**FIGURE 2**

Benefits, Investments, and Cash Flow



Source: IDC, 2008

The three-year ROI analysis shows that on average, the companies in this study spent \$11,552 per 100 users deploying and maintaining LANDesk and received \$87,352 per 100 users in benefits for a net present value (NPV) of \$75,800 (see Table 2). The companies saw a payback period of 4.8 months after deployment and an ROI of 656%.

**TABLE 2**

Three-Year ROI Analysis per 100 Users

Three-year benefits (discounted)	\$87,352
Three-year investments (discounted)	\$11,552
Net present value	\$75,800
ROI	656%
Payback period (months)	4.8
Discount factor	12%

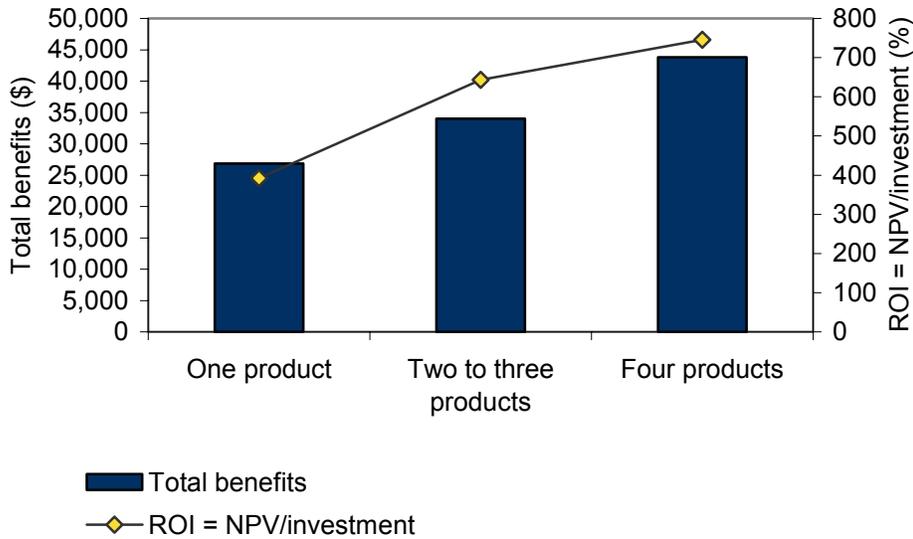
Source: IDC, 2008

**Building the Optimized Environment**

Moving to an ITIL standard environment is a series of steps — implementing processes and best practices in all IT services areas across the entire organization. IDC found that enabling management technology had to support each area and deploying multiple management products in an integrated suite yielded the highest returns. When deploying a single product, companies were able to achieve \$26,851 in annual benefits per 100 users and an ROI of 392%. Companies deploying two to three products generated \$34,000 in benefits annually and an ROI of 643%. At four products, the maximum in this study, benefits climbed to \$43,782 per 100 users annually and an ROI of 745%. Figure 3 shows that integrated multiple management solutions generate significantly more benefit than the incremental costs associated with the software purchase and IT support.

**FIGURE 3**

ROI Analysis by Number of Products



Source: IDC, 2008

## CASE STUDY PROFILES

### International Publishing Company

This international publishing company is based in New York and employs 4,000 people. Regional offices are located in over 20 cities, and employees use a mix of desktop and laptop PCs to write and edit hundreds of stories, columns, and ads that the company publishes. The company's highly distributed environment requires the IT professionals to use solutions that manage across a large number of PCs within the infrastructure.

LANDesk has contributed to improving IT staff productivity and reducing operating costs for this publishing company. Since the deployment, the company has saved valuable staff hours, increased the quality of its data, and reduced total hardware and software expenditures.

**IT Staff Productivity.** Prior to the LANDesk deployment, the company manually tracked all of its inventory. This task was consuming up to 10 administrator hours per month, and the internal clients were not satisfied with the inaccurate data being presented. By loading the entire inventory into the LANDesk system and creating an automated reporting feature, the company was able to reduce the time administrators spent tracking inventory by 90%. The database now accounts for all materials in the inventory, and the information provided to management is precise. As a manager mentioned, "We're able to provide quick reports that management can count on."

The remote management applications have increased IT staff productivity. The time required for installing new applications has been greatly reduced because the technicians do not need to visit each computer. The company estimates it saves 10 miles of technicians' travel per week. With remote support, the IT staff can concurrently push business applications out to all the designated machines. LANDesk has enabled IT staff to pursue more business-critical activities because fewer hours are required for provisions and upgrades. A recent deployment required an hour to create the package and less than 10 minutes to push the application out to 100 PCs.

**Cost Reduction.** LANDesk's asset management capability allows the IT organization to store information about software licenses, warranty data, and the age of its hardware. IT technicians found that 200 copies of an application were installed, but 80 copies had not been used in the previous six months. Removing the unused licenses saved the company \$130,000 that year. Now it can save money through allocating unused copies to new users rather than purchasing new licenses. The company tracks all of its computers by model number. This serves two purposes — one, IT knows how old each machine is and retires the hardware at the appropriate time; two, IT has manufacturer warranty information and utilizes the agreement rather than making the repairs in-house — optimizing the warranty and saving staff hours.

**Security.** Security breaches have also been reduced since the LANDesk deployment. When LANDesk was first deployed, the company detected hundreds of variants of spyware in the system. When the number of variants was totaled, spyware was responsible for at least 10 downtime incidents per month. But since the introduction of LANDesk Security Suite, the number of incidents per month has been cut from 10 to 1. In addition, the MTTR has been reduced from 8 hours to 30 minutes. The customer said, "We no longer get the calls about pop-up ads or viruses. I can remember spending a good 25 hours troubleshooting one virus issue, and that wasn't rare. I'd say that about 75% of the improvement in availability would be security related." By providing tighter security, LANDesk has reduced the number of crashes, improved user productivity, and saved IT staff time.

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## **U.S. Hospital**

This hospital is based in Alabama and has over 1,800 employees, including doctors and other healthcare professionals, in its network. As is the case in most hospitals, a large percentage of those doctors use laptop computers to track prescriptions, patient visits, and patient status. Because of the need to protect sensitive, personal patient information, these laptops need a management solution that not only updates software residing on the laptop but also secures critical, private patient information from unauthorized access.

LANDesk helped offer consistent, high-quality services to the staff and patients, while the total number of workstations grew by 28% year over year. The hospital deployed LANDesk because it supports accurate asset management and system automation. A manager said, "We wanted to make sure that each hospital could manage its own inventory. We wanted a core server with the ability to slice the data either at an enterprise level or at the site level."

**IT Staff Productivity.** LANDesk helped decrease the amount of staff time required for asset and inventory management. Administrators used to manually align software licenses and user accounts when new applications were launched. As the customer said, "We did this because we got tired of doing an inventory every time we got a new application." In the past, the hospital hired outside consultants to evaluate resources and reinventory every three months. Since the LANDesk deployment, asset management is conducted internally and the hospital is saving \$10,000 per year.

Staff time is also saved with respect to the help desk. Because the hospital has been growing rapidly, the total number of calls to the help desk has not declined since the deployment; however, the customer estimates that the Level 1 resolution rate has increased from 40% to 58%.

**Cost Reduction.** While the asset management capability saves the hospital staff hours, it also helps control spending. This customer is using LANDesk to determine its PC life cycles, which will allow the hospital to track the age of each machine and create long-term, accurate budgets with little or no overstock. A manager said, "It will help us avoid buying what we don't need. On the hardware side, we have saved about \$100,000 per year."

**Security.** Automated system patching increases IT staff productivity and helps ensure security. Before the deployment, the customer's patching procedures were conducted on a random basis without prioritization, leaving the environment at risk. However, not all patches apply to all customer environments — choosing only the appropriate patches is critical. One manager noted LANDesk's flexibility in this area: "The LANDesk patch management is unique. Instead of sending out all patches to all PCs in your environment, you can match patches to systems. The last time I checked with these other tools, it was still all or nothing." The automated patching and virus protection procedures have saved the equivalent of six IT staff members per year.

**Downtime.** Greater security measures and automated patching have led directly to less system downtime. The customer estimates that it has experienced 50% less downtime because of the LANDesk deployment. More system uptime means that users are performing more business-enabling tasks.

## **CHALLENGES AND OPPORTUNITIES FACING AVOCENT**

Avocent continues updating and improving its products, broadening beyond its initial IT asset management and software distribution capabilities to offer security, service management (through its partnership with and subsequent acquisition of Touchpaper Software), and workflow management. LANDesk will need to continue to address challenges such as continuing its growth trajectory within Avocent. As a result of being acquired by Avocent back in 2006, the LANDesk product group must now contend for marketing, sales, and R&D resources and funding, which it did not have to do as a standalone company.

## Opportunities

It's no secret that Avocent acquired LANDesk with an eye toward integrating the LANDesk Management Suite with other hardware-based solutions and management capabilities around server management for customers. IDC expects that the tighter integration that will occur between the management platforms for DSView with LANDesk Management Suite will enhance service request management for the business user and the server user.

Capitalizing on Windows Vista and Windows Server 2008 migrations, Microsoft's release of these operating environments also presents Avocent with the opportunity to partner with other vendors in ensuring smoother Windows Vista and Windows Server 2008 rollouts within the enterprise. The configuration management experience of customers that have rolled out previous operating environments should aid IT departments rolling out Windows Vista.

## CONCLUSION

ITIL is a process standard used by IT organizations in managing changes to hardware and software configurations across the IT environment. ITIL is also one of the process standards used to help align IT with business objectives and goals. The datacenters, PCs, and mission-critical servers and applications require IT executives to ensure that changes affecting the infrastructure improve business unit and customer performance. ITIL also benefits IT organizations when the IT shop standardizes on a set of system management solutions with a single console to provision, secure, and manage servers and PCs.

LANDesk products have created PC, handheld, and server management solutions based on ITIL and IT service management for customers that consolidate consoles for managing the datacenter as well as the desktop. LANDesk also augments these capabilities with run-book automation and security solutions for an effective management solution that customers are using to significant advantage. 15 IT organizations surveyed showed savings of \$36,736 per 100 users annually, broken out into the following areas:

- ☒ **IT management productivity increase** — optimizing IT staff activities through automation. The number of support calls has dropped 47%, and call time has declined from an average of 15 minutes to just eight minutes. With remote access to users, the help desk has increased the average Level 1 resolution rate from 18% to 64%. The total help desk savings are equivalent to \$5,011 per 100 users.
- ☒ **User productivity increase** — reducing user downtime caused by system outages or change and configuration activities. Total user productivity and downtime benefits equal \$18,458 per year per 100 users.
- ☒ **Revenue increase** — reducing time to market by delivering more reliable business services. In this study, revenue-generating activities resulted in a total benefit of \$5,011 annually per 100 users.

- ☒ **Cost reduction** — optimizing IT operations in inventory and response to issues. Annual cost reduction benefits total \$4,874 per 100 users.

IDC recommends IT organizations consider the LANDesk Management Suite for implementation within their organizations.

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