

## WHITE PAPER

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# Quantifying the ROI Benefits of Integrated Systems Management

Sponsored by: LANDesk Software

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## EXECUTIVE SUMMARY

As companies decentralize their operations and extend their reach worldwide via the Web, the challenge of maintaining and managing desktops and servers is becoming ever more critical and complex. The drive for increased business efficiency and the growth of virus attacks and other security threats have also focused attention on protecting desktops and keeping users as productive as possible.

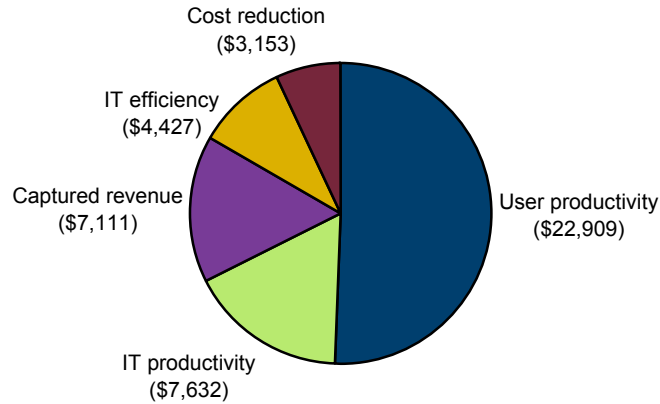
IT managers can choose from a number of point product solutions to handle discrete systems management functions, such as patch management, software distribution, and asset management. Increasingly, though, they are deploying an integrated management suite that performs all the required management functions without the hassle of buying and integrating additional point solutions when new needs arise. An integrated management suite also provides the benefits of centralized control and the simplicity and convenience of one console, architecture, and database.

To determine the relative business benefits of an integrated systems management suite and point product solutions, IDC conducted in-depth interviews with enterprises using LANDesk Management Suite 8 and companies using point product solutions. From the results, IDC was able to quantify the average cost savings from each approach. IDC was also able to calculate the average payback period and three-year return on investment (ROI) that the enterprises realized from deploying the LANDesk software.

IDC found that the enterprises using LANDesk Management Suite 8 saved an average of close to \$1.1 million annually over three years in increased user productivity due to reduced downtime and less time lost on system administration tasks. When normalized for company size, these savings amounted to \$22,909 per 100 users (see Figure 1).

**FIGURE 1**

**Average Annual Savings per 100 Users from Deploying LANDesk Management Suite 8**



**Total = \$45,231 per 100 users**

Source: IDC, 2004

For the companies surveyed, the number of downtime incidents dropped by an average of 29% following the deployment of the LANDesk software, resulting in an average 59% reduction in downtime minutes. On average, the companies surveyed reduced the direct revenues lost from downtime by \$338,321 annually, or \$7,111 per 100 users.

After deploying the LANDesk software, the companies reduced the time spent on managing their networks, systems, and applications by an average of 20%, or 8,971 man-hours annually. The annual savings from the improved IT productivity amounted to an average of \$361,322, or \$7,632 per 100 users.

For the companies surveyed, the average number of desktops managed by each full-time equivalent (FTE) employee rose from 823 before deploying the LANDesk software to 1,085 afterwards, an increase of 32%. This improved management efficiency yielded an average payroll savings of \$220,625 a year, or \$4,427 per 100 users. Additionally, the savings from reduced travel and lower bandwidth, software licensing, and capital expenditure (capex) costs averaged over \$149,358 a year, or \$3,153 per 100 users, yielding an average total expense reduction of \$369,983 a year, or \$7,579 per 100 users, from improved IT management efficiency.

In evaluating the total ROI of deploying the LANDesk software, IDC used the payback and net present value (NPV) methodology. The NPV method calculates the value in today's dollars for the three-year returns on an investment, including the annual average cost savings in IT management and user productivity, IT management efficiency, and system availability.

For the LANDesk customers surveyed, the total savings averaged close to \$2.17 million annually, or \$45,231 per 100 users (see Table 1). IDC accounts for the opportunity costs realized by not having invested the initial amount in some other instrument yielding a 12% return. This results in an NPV of \$4.54 million for the companies surveyed, or \$95,520 per 100 users.

**TABLE 1**

ROI Analysis for Deploying the LANDesk Suite

| Item                                      | Average                |
|---|------------------------|
| Three-year cost of investment             | \$11,441 per 100 users |
| Annual cost savings and increased revenue | \$45,231 per 100 users |
| Net present value of three-year savings   | \$95,520 per 100 users |
| Payback period                            | 90.5 days              |
| Three-year ROI                            | 846%                   |
| Three-year hard ROI                       | 72%                    |

Source: IDC, 2004

Based on an average investment of \$536,843 over the three years, the payback period from deploying the LANDesk systems management solution averaged 90.5 days for the companies surveyed, yielding an average ROI of 846%.

Excluding the "soft" savings from improved IT staff and user productivity, IDC calculates that the NPV of the "hard" savings averaged \$7,579 per 100 users. These savings result from increased IT staff efficiency; lower IT travel expenditures; and reduced bandwidth, software licensing, and capex spending. Based on these savings, the hard ROI from deploying the LANDesk suite averaged 72%, giving an average payback period of 18.5 months.

**INTRODUCTION**

Organizations are undergoing a number of organizational changes that place growing demands on IT systems management. Increased decentralization, together with greater globalization via the Internet, for instance, is making systems management more complex and difficult and exposing organizations to new levels of security threats. At the same time, IT managers must support a growing diversity of devices and platforms in the face of aggressive cost-cutting and staff shortages as well as provide measurable and quantifiable business value.

A number of point product solutions are available to handle single, specific systems management functions, such as software distribution or asset management. Many of these point products have considerable functional depth, but IT administrators have to integrate each new point product with other management tools, which can be a time-consuming and costly process. Instead of purchasing multiple point solutions, IT managers may choose to deploy an integrated systems management solution that performs all the required management functions without the hassle of integrating new tools and with the benefits of centralized control. Instead of buying discrete point products when new needs arise, the IT manager simply adds functionality within the existing suite. Proponents claim that consolidating and integrating tools and support processes into a systems management suite reduces infrastructure requirements and cuts training and support costs.

One firm that offers an integrated systems management solution is LANDesk Software. Its LANDesk Management Suite 8 automates such critical and time-consuming tasks as patch management, software installation, OS migration, and software license management. It unifies the most requested IT management capabilities into a single console and allows IT administrators to schedule and distribute software applications and files automatically, take control of remote desktops to diagnose and fix problems, and install patches without impacting user operations. Built from the ground up with a single database structure, LANDesk Management Suite 8 uses a highly distributed three-tier architecture and provides targeted multicast and peer-to-peer distribution. Dynamic bandwidth throttling further increases bandwidth efficiency, especially over slow or intermittent connections.

To determine the business benefits of integrated systems management solutions and individual point solutions, IDC conducted in-depth interviews with a number of enterprises using LANDesk Management Suite 8 or a variety of point solutions. IDC asked detailed questions about the implementation costs and the savings realized to validate and quantify the business benefits of point and integrated systems management solutions. IDC also applied its proprietary ROI methodology to the results to determine the average ROI and payback period the surveyed companies realized from deploying LANDesk Management Suite 8.

## IDC'S ROI METHODOLOGY

To determine the effectiveness of IT systems management, IDC has developed an ROI methodology that measures the total costs of deployment and the sum of the savings achieved. The methodology calculates the ROI in a three-step process:

1. **Ascertain the investment** made in the purchase and implementation of the solution and the associated training and maintenance costs. To get an accurate assessment of the investment in deploying LANDesk Management Suite 8, IDC asked for the deployment, setup, upgrade, and maintenance costs, as well as the total cost of the software and training. This investment included the loaded costs of the incremental staff required to operate the LANDesk software.

2. **Measure the gains** in IT staff and user productivity from deploying the solution, revenue recaptured from reduced downtime, and cost savings from increased IT staff efficiency and lower capital and operating expenses.

❑ **IT staff productivity** indicates how effectively IT managers and their staff use their time. Besides reducing operations costs, gains in IT productivity can free up staff to implement new initiatives more rapidly, helping to create a competitive edge. With its proactive and automated capabilities for systems management processes, LANDesk software aims to free up IT staff for strategic assignments while simultaneously improving the quality of service and support to users.

❑ **User productivity** is increasingly dependent on system uptime as organizations become progressively more network-centric. When users are unable to access network resources, their productivity may be severely impaired. User productivity also suffers when employees have to wait for help desk support or other IT administrative tasks. Because users often are able to move to other business applications when service interruptions or performance degradations occur, only a small fraction of the potential user impact time is counted toward the final ROI result.

❑ **Recaptured revenue.** Higher system availability also contributes to a business' top line because less revenue is lost due to downtime and potential service penalties are avoided. Additionally, downtime can be costly in terms of diminished customer satisfaction and possible loss of a customer's business.

❑ **Cost savings.** IT staff efficiency is a measure of how well the IT management organization can achieve economies of scale and scope of work with its people, tools, and practices. To remain competitive, companies must be able to grow their systems and networks at a faster rate than the IT staff required to support them. Skilled IT professionals continue to be scarce, so companies expect existing staff to take on more work and responsibilities. If IT departments are unable to achieve the required economies of scale and scope, they restrain corporate managers' business decisions and discourage aggressive deployment of technology to gain a competitive advantage. Because improved IT staff efficiency reduces payroll costs, the savings are hard savings. Other hard savings include cost reductions from lower travel expenditures and from reduced spending on hardware, software, and other management tools.

3. **Calculate the payback period and ROI for the deployed solution.** From the results of the interviews, IDC can calculate the average payback period and rate of return from investing in the LANDesk systems management solution, as well as the NPV of the savings. IDC also calculates a separate hard ROI using only the hard savings and excluding the soft savings from improved IT staff and user productivity.

IDC bases its calculations on a number of assumptions:

☒ Time values are multiplied by burdened salary (salary + 40% for benefits and overhead) to quantify efficiency and manager productivity savings.

- ☒ Downtime values are a product of the number of hours of downtime multiplied by the number of users affected.
- ☒ The impact of unplanned downtime is quantified in terms of impaired end-user productivity and lost revenues.
- ☒ Lost productivity is a product of downtime multiplied by burdened salary.
- ☒ Lost revenue is a product of downtime multiplied by the average revenue generated per hour.
- ☒ The NPV of the three-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost (see sidebar, The Impact of Methodology Changes on ROI Results).

Because not every hour of downtime equates to a lost hour of productivity or revenue generation, IDC attributes only a fraction of the result to savings. As part of the survey, IDC asks each company what fraction of downtime hours to use in calculating productivity savings and the reduction in lost revenue. IDC then taxes the revenue at that rate.

Further, because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis, then subtracts the deployment time from the first-year savings.

### The Impact of Methodology Changes on ROI

Over the past few years, IDC has continued to refine and improve its ROI methodology. Although the research techniques and the reliance on user experience remain largely the same, IDC has tweaked its analysis, always with the goal of creating a more conservative and supportable outcome. The following changes in analysis have affected the ROI results:

- **Deployment.** IDC delays the realization of benefits by the time required to deploy the solution. Previously, benefits were realized from day one in year one.
- **Taxes on revenue gained.** IDC applies a 30% tax rate to regained revenue. Previously, IDC did not.
- **Discount rate.** Benefits are discounted by a 12% rate in calculating the present value of savings. Previously, IDC used a 6% discount rate.

These changes need to be considered in comparing the results from IDC's 2001 LANDesk study with those of the current study. The changes include:

- **Deployment.** Deployment of the LANDesk software averages 1.5 to 1.9 months — reducing total first-year benefits in the current study by 15%.
- **Discount rate.** If a 12% rate had been used in the 2001 study, the total benefits would have been 11% less.

Applying the results of the changes in methodology to the 2001 study yields the following outcome:

- **2001 study:** ROI of 805% and payback period of 94 days
- **2004 study:** ROI of 846% and payback period of 90.5 days

## Survey Demographics

IDC recently applied the methodology to its survey of enterprises using LANDesk Management Suite 8. Specific figures for savings and costs came from interviewing IT managers at companies of different sizes and from various industries that have deployed the LANDesk systems management solution.

For the survey, IDC interviewed IT managers at 11 companies and asked a series of questions about specific administrative processes and the associated time and staffing requirements before and after deploying the LANDesk software. The average number of employees was 5,672 (see Table 2), though some companies had 14,000 employees and revenues of more than \$3 billion. Interviewees represented a number of different industries, including financial services, healthcare, manufacturing, transportation, utilities, media, engineering, and education.

**TABLE 2**

### Profile of Surveyed Companies

| Item                             | Average |
|----------------------------------|---------|
| Number of employees              | 5,672   |
| Number of desktops managed by IT | 3,406   |
| Number of servers managed by IT  | 240     |
| Number of server sites           | 44      |
| Number of IT management FTEs*    | 127     |

\* Full-time equivalents (employees)

Source: IDC, 2004

The IT managers are responsible for an average of 3,406 desktop systems throughout their organizations. They also manage an average of 240 servers at 44 sites, running an array of applications with mixes of Windows servers, along with NetWare, Unix, Linux, and other servers.

Managing these desktops and servers, as well as the networks that support them, requires a significant investment in help desk and other IT personnel. The average IT management team at these companies have 127 FTE professionals, who are paid an average fully burdened salary of \$72,100.

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## Deployment Drivers

In the interviews, the companies gave a variety of reasons for deploying LANDesk Management Suite 8. One healthcare firm chose the LANDesk software to improve asset management and general desktop management and to replace a number of disparate tools.

"We were using an inventory tool for inventory only — a third-party, Web-based remote control program that was bulky at best — and Novell's ZENworks application for software distribution," the respondent said. "We wanted something that was more integrated and more robust, and we chose LANDesk primarily because it provided us with the most bang for the buck. A big selling point was targeted multicast, because we have a very distributed environment.

"We have reduced costs because of LANDesk — fewer visits to the workstations and increased efficiency in deploying applications. We can now distribute applications at night, and the fixes are stickier."

An education authority chose the LANDesk suite to reduce the amount of work needed to support and maintain devices at 26 different sites spread over 100 miles of the county. "People gave up calling the help desk because they weren't getting help the way they needed it," the respondent said. "Sometimes it took us a month to get someone out to one of the sites to look at something. Now, they call and they get resolution right away, and they are tickled pink.

"We've calculated something like 4 FTEs of savings due to desktop management, and the network guys are probably 10% more efficient because of LANDesk," the respondent noted. "We've started looking at where machines are not being used, and we've gone from a three- to a four-year cycle in replacing PCs. At \$1,100 to \$1,400 per machine, we're saving close to \$80,000."

A transportation company reported that it had delayed hiring additional staff because of the LANDesk software — "two on the desktop side and one on the server side," according to the respondent. "By being able to deploy applications to remote locations using LANDesk, we've not only gotten the application there sooner, but we've avoided increasing bandwidth to 212 remote locations. We're saving about \$100 per month per location on average."

Another healthcare firm deployed the LANDesk suite after realizing it could not support its remote desktops and laptops cost-effectively as the number of users grew. "If we were going to do the same amount of work without LANDesk, we'd need another 25 people," the respondent said. "In addition, other people are more efficient. I would say that the help desk is 5% to 10% more efficient. We've also been able to tighten up our antivirus deployment and our antivirus updating, so network security has been greatly increased."

The respondent added, "Training is easier because the apps are the same — people can use any computer — and it made training our help desk analysts a lot easier." The LANDesk software has also helped the company deal with departments that have different requirements for software, including what they want on their desktops and how it should be configured. "LANDesk gives us the ability to create a base image for a desktop and then roll up packages for individual departments. When we apply a patch across the company, we go in to all these rollup files and put a patch in, so we're putting out a desktop that's already updated. It's incredible. Misconfigured desktops have been reduced by 95%."

A media firm uses the LANDesk software to deploy patches more quickly. "We didn't get LANDesk with the purpose of being able to patch our workstations," the respondent said. "But when we started to see the kinds of intelligent intrusions we hadn't had before, we knew it would become a problem if we didn't do something. That's when we realized we could use the LANDesk software distribution piece. Now we're avoiding the problems rather than simply reducing them."

"We have so many machines that one image will not work for all of them. We have a lot more flexibility with LANDesk. It also gives us a pretty good visual as to what we have out there — different versions of operating systems and hardware systems. That helps us better manage our projects. We use [the LANDesk software] to provide counts of licenses, and it helps us keep them at the right number. I would say that we're saving \$10,000 to \$20,000 a year. I'd also estimate our six help desk/desktop guys are 50% more efficient."

The respondent from a utility company said the remote control feature of the LANDesk software was "itself worth its weight in gold." He added that he also uses the software for patch deployment with all the security patches for Microsoft and for inventory. "It's given us the ability to be more aware of licenses," he said. "We were able to back down on the number of licenses because we never had that number of users on the system at the same time. We saved \$10,000 to \$20,000 on one application alone."

An engineering firm saved time and expense with the LANDesk software because it is less vulnerable to viruses. "Users are getting the patches they need right away. We have scripts when a virus is detected. We saved a bunch of time on cleanup, about 10 hours per month, I'd guess. Also, we're saving 20 minutes with each new PC. We've had 1,500 PCs since we got LANDesk, and we'll have 1,500 in the next year."

"The server guys are also saving time on the branch servers. We used to have to log into every one of the 200 servers to do an update. Now I can push it in a number of minutes. We save an hour per server build, and there are probably a couple a month."

## SURVEY RESULTS

IDC's survey focused on the cost savings and other benefits of managing desktops, servers, and applications. From the results of the interviews, IDC was able to determine the average ROI and payback period that the surveyed companies realized from deploying LANDesk Management Suite 8, based on increases in IT staff productivity, user productivity, and IT staff efficiency; other cost savings; and the recapture of previously lost revenue.

IDC also interviewed IT managers at six companies using a variety of point product management solutions and calculated the average savings realized (see sidebar, Results for Point Product Solutions).

**IT productivity.** To ascertain the cost savings from improved IT productivity, IDC asked questions about staff time needed for activities related to systems management and the influence on the IT management team, before and after deploying the LANDesk software.

In the companies surveyed, the annual savings from improved IT management productivity amounted to an average of \$361,322, or \$7,632 per 100 users. The IT managers interviewed reported that they had realized substantial savings in staff hours expended on system setup and configuration, software installation and upgrade activities, help desk and user support, and hardware and software asset management.

Annual time savings in desktop system setup and configuration averaged 34%. The company also reported an average 45% reduction in time spent addressing virus outbreaks, an average 53% savings in staff hours for software installation and upgrade work, and a 21% time savings in help desk and user support (see Table 3). In addition, LANDesk reduced the time spent on hardware and software asset management by 37% and on network troubleshooting by 31%. In total, the companies reduced the time spent on managing their networks, systems, and applications by an average of 20%, or 8,971 man-hours annually.

### Results for Point Product Solutions

For this survey, IDC also interviewed IT managers at six companies using a variety of point product management solutions, ranging from asset and inventory management tools to tools that track help desk calls and monitor security intrusions. IDC asked a series of questions on specific administrative processes and the associated time and staffing requirements before and after deploying the point product solutions and calculated the average savings realized.

Companies using point product solutions had lower IT productivity improvements than companies using the integrated management suite. Their IT staffs spent 29% more time on routine, nonproductive tasks than the IT staffs of their counterparts using the integrated software.

Companies with the point product solutions achieved an average 17% improvement in the number of desktops managed by each FTE, compared with a 32% improvement for the organizations using the integrated management suite. Also, the companies with the integrated software were able to resolve a greater percentage of problems from a central location (81% versus 49%), shortening user downtime and reducing the time and cost of travel.

**TABLE 3**

## Time Savings on IT Staff Activities from Deploying the LANDesk Suite (%)

| Activity                               | Time Savings |
|--|--------------|
| Desktop system setup and configuration | 34           |
| Software installation and upgrade      | 53           |
| Hardware/software asset management     | 37           |
| Help desk/user support                 | 21           |
| Addressing virus outbreaks             | 45           |
| Network troubleshooting/repair         | 31           |

Source: IDC, 2004

**User productivity.** To determine the impact of the LANDesk software on user productivity, IDC asked questions about employee time lost waiting for help desk and other IT administrative support, before and after deployment. User productivity also suffers when system downtime prevents access to needed applications and information. IDC asked about the number of downtime incidents and amount of downtime, before and after deploying the LANDesk software, as well as the percentage of users affected and the estimated revenue lost per hour of downtime.

For the companies surveyed, the number of downtime incidents dropped by an average of 29% following the deployment of the LANDesk software, resulting in an average 59% reduction in downtime minutes. On average, the companies surveyed reduced the direct revenues lost from downtime by \$338,321 annually, or \$7,111 per 100 users.

Increased user productivity from reduced downtime and time lost to system administration tasks contributed an average savings of close to \$1.1 million annually over three years among the companies surveyed. When normalized for company size, these savings averaged \$22,909 per 100 users. The average duration of a help desk call dropped from 14.38 minutes before deployment of the LANDesk software to 8.44 minutes afterwards. Virus infections also dropped from 243 per year before to 173 after. Fewer users were affected (26% before to 3% after), and the problem resolution time was cut from 1.5 hours to 20 minutes.

**IT efficiency.** To determine increases in IT efficiency, IDC asked questions about the average number of servers and users supported by each staff member, before and after deploying the LANDesk software. IDC also asked about IT staff salaries.

By reducing the time and effort spent on reactive maintenance and problem-resolution tasks that add little value to the business, LANDesk Management Suite 8 frees up IT staff for more strategic tasks. Also, the integrated management solution reduces administrative expenses and cuts the amount of IT travel.

For the companies surveyed, the average number of desktops managed by each FTE rose from 823 before deploying the LANDesk software to 1,085 afterwards, an increase of 32%. This improved management efficiency yielded an average reduction in IT headcount growth of three FTEs a year. With an average first-year loaded salary of \$72,100, and annual increases of 5%, the payroll savings from increased management efficiency averaged \$220,625 a year over the three years, or \$4,427 per 100 users.

Further efficiency savings came from distributing software applications and files from a central location, which eliminated the need for contractors and reduced the time and travel costs for installing software. Additionally, by taking control of remote desktops to fix problems, IT staff members were able to further cut down on the number of visits to remote sites.

The number of problems resolved centrally increased by 62%, from 20% before deployment of the LANDesk software to 82% afterwards. Together, the savings from reducing travel and bandwidth, software licensing, and capex costs averaged over \$149,358 a year, or \$3,153 per 100 users, yielding an average total expense reduction of \$369,983 a year, or \$7,579 per 100 users, from improved IT management efficiency.

**Payback and ROI.** Overall, the companies invested an average of \$536,843 over three years in deploying the LANDesk systems management solution, including \$209,358 for purchase and installation and \$62,807 for maintenance. When normalized for company size, this amounts to \$11,441 per 100 users.

For the LANDesk customers surveyed, the total savings averaged close to \$2.17 million annually, or \$45,231 per 100 users. IDC accounts for the opportunity costs realized by not having invested the initial amount in some other instrument yielding a 12% return. This results in an NPV of \$4.54 million for the companies surveyed, or \$95,520 per 100 users.

Based on an average investment of \$536,843 over three years, the payback period from deploying the LANDesk systems management solution averaged 90.5 days for the companies surveyed, yielding an average ROI of 846%.

Excluding the soft savings from improved IT staff and user productivity, IDC calculates that the NPV of the hard savings averaged \$7,579 per 100 users. These savings result from increased IT staff efficiency; lower IT travel expenditures; and reduced bandwidth, software licensing, and capex spending. Based on these savings, the hard ROI from deploying the LANDesk suite averaged 72%, giving an average payback period of 18.5 months.

## **CONCLUSION**

In today's cost-conscious corporate environment, IT systems management is becoming increasingly critical, especially as enterprises decentralize their operations and globalize their reach via the Web. To quantify the business benefits of IT systems management, IDC conducted in-depth interviews with 11 enterprises using LANDesk Management Suite 8 and asked a series of questions on specific administrative processes, and the associated time and staffing requirements, before and after deploying the LANDesk software.

The survey found that deploying the integrated management suite generated significant cost savings from improved user productivity, reduced downtime, and higher IT staff productivity and efficiency. These savings covered the cost of deploying the software in a short period of time, after which the companies continued to reap the benefits of the deployment, creating a sizable ROI.

For the companies surveyed, the payback period with the LANDesk software averaged 90.5 days, yielding an ROI of 846%.

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