

WHITE PAPER

Quantifying the Business Benefits of IT Service Management

Sponsored by: Hewlett-Packard Company

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EXECUTIVE SUMMARY

As organizations focus on aligning their IT infrastructures to support eservice and other business needs, IT service management is taking on greater significance and importance. Managing the IT infrastructure as a loosely interconnected group of components is no longer sufficient. Rather, the infrastructure must be managed from the viewpoint of the lines of business it supports. Specifically, IT managers must have the processes and tools to ensure that the infrastructure keeps pace with business needs and provides guaranteed levels of service at predetermined costs.

For instance, a service desk that helps IT act proactively is critical to any business with eservices because every disruption to ecommerce is immediately visible to the customer. These disruptions not only can result in substantial loss of revenue but also can lead to customer dissatisfaction and possible loss of customers to competitors.

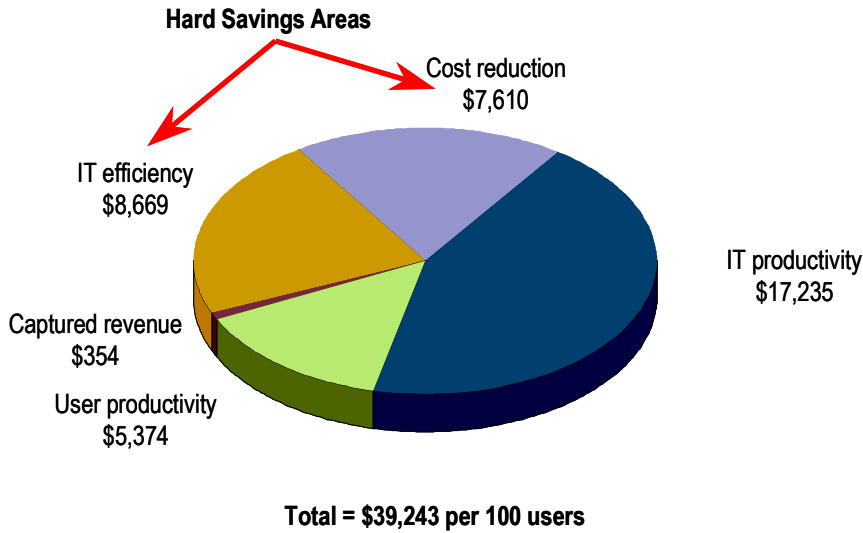
One company addressing the need for proactive and integrated service desk functionality is Hewlett-Packard. Its HP OpenView Service Desk helps enterprises and service providers manage crucial support and service processes by implementing help desk, problem, change, configuration, and service level agreement (SLA) management into a single workflow.

To validate and quantify the business benefits of such service management, IDC interviewed IT executives at a number of organizations using HP OpenView Service Desk and asked a series of questions about costs, revenue, and specific IT processes and associated time and staffing requirements, before and after deploying the software.

IDC found that, for the companies surveyed, IT productivity increased by an average of 14% after deploying HP OpenView Service Desk, contributing an average cost savings over three years of almost \$4.2 million annually. When normalized for company size, these savings amounted to \$17,235 per 100 users (see Figure 1). "Users" refers to employees who make use of the IT services supported by Service Desk.

FIGURE 1

Average Annual Savings per 100 Users from Deploying HP OpenView Service Desk



Source: IDC, 2004

After deploying HP OpenView Service Desk, the companies needed an average of 75.5% less staff time to identify and fix problems. The companies realized an average 20% reduction in the staff time needed for service level management and a 20.8% reduction in the time needed to manage the Internet/transactional customer experience. Change management required an average of 41.1% less staff time, saving an average of close to 15,000 man-hours annually. There was also an average 29% drop in time spent providing help desk support. The percentage of calls resolved at the first level increased from an average of 63% before deployment to 76% afterwards.

In addition to improving service management staff time efficiency, HP OpenView Service Desk helped improve the service delivery quality and effectiveness of the IT team. The companies surveyed reduced downtime by an average of 57% after deployment of HP OpenView Service Desk. The number of downtime incidents also dropped, by 45%. The revenue saved from the reduction in downtime averaged \$85,678 annually over three years.

By increasing network and application availability, and by evolving the help desk function to an integrated service desk, the companies surveyed realized average savings from increased user productivity of more than \$1.3 million annually over three years, or \$5,374 per 100 users.

Also, by reducing the time and effort spent on reactive maintenance and problem resolution tasks that add little value to the business, HP OpenView Service Desk helped the companies reduce IT staff by an average of 7.5% over three years, despite an average 11% growth in the number of users. IT teams redeployed staff to areas such as application management, where new functionality and proactive performance work will have a greater return for the business. Savings from increased IT efficiency averaged more than \$1.2 million annually over the three-year period, or \$8,669 per 100 users. Companies also saved an average of almost \$1.9 million over three years, or \$7,610 per 100 users, from lower IT travel expenditures and reduced spending on hardware, software, and other management tools.

Based on a median investment of \$1.2 million over three years, the average three-year return on investment (ROI) from deploying HP OpenView Service Desk was 411%, and the average payback time was 5.6 months.

IDC also determined the average "hard ROI" from deploying HP OpenView Service Desk by excluding the "soft" savings from improved IT staff and user productivity and considering only the "hard" savings from increased IT staff efficiency and from lower IT travel expenditures and reduced spending on hardware, software, and other management tools. The net present value of the hard savings from cost reductions and increased IT staff efficiency averaged \$23,705 per 100 users. Based on these savings, the three-year hard ROI from deploying HP OpenView Service Desk averaged 130%, giving an average payback period of 13.5 months (see Table 1).

TABLE 1	
ROI Analysis for Deploying HP OpenView Service Desk	
Item	Average
Three-year cost of investment	\$18,296 per 100 users
Annual cost savings and increased revenue	\$39,243 per 100 users
Net present value of three-year savings	\$73,870 per 100 users
Payback period	5.6 months
Three-year ROI	411%
Three-year hard ROI	130%

Source: IDC, 2004

INTRODUCTION

In providing lines of business with the highest levels of service at a predictable cost, IT managers face a number of challenges:

- ☒ Staying one step ahead of the constant rate of change occurring throughout the IT environment
- ☒ Tracking, controlling, and making the most cost-effective use of the ever-growing and ever more complex mix of IT assets
- ☒ Ensuring availability of external services and integrating them with internal service solutions
- ☒ Streamlining the daily activity workflow of the IT staff to allow for more proactive work and the implementation of new initiatives in a timely fashion
- ☒ Achieving centralized management and control of the IT environment so that help desk calls can be responded to and resolved quickly
- ☒ Managing business users' expectations of IT services and improving service quality within the constraints of the IT budget

For ebusiness and other "outward-facing" applications, service level management is particularly important. Customers have high expectations and little or no loyalty, so service degradations and outages need to be detected quickly and action taken promptly to isolate the cause and correct the problem.

IT service management is evolving to meet these challenges. It is doing so by supplying the tools required to track IT services and deliver them to the business user at agreed-upon quality-of-service and cost targets.

Applying IDC's ROI Methodology

To determine the current effectiveness of IT service 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 HP OpenView Service Desk, 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 HP OpenView Service Desk.
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. Even in the full business case, most of the savings were hard dollar savings and only a small fraction would be considered soft savings.

- ❑ **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 capabilities for managing crucial support and service processes, HP OpenView Service Desk aims to free up IT staff for strategic assignments while simultaneously improving the quality of service and support to users. Providing the productivity boost required to grow the business while keeping the IT staff headcount level flat is considered a hard savings area because only a fraction of the overall time saved by the team is counted toward a hard ROI result.
 - ❑ **User productivity** is increasingly dependent on service 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 service availability also contributes to a business' top lines 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; therefore, companies are expecting 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 was able to calculate the average payback period and rate of return from investing in HP OpenView Service Desk, as well as the net present value of the savings. IDC also calculated 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 net present value 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.

Because every hour of downtime does not equate to a lost hour of productivity or revenue generation, IDC attributes only a fraction of the result to savings. As part of our survey, we asked each company what fraction of downtime hours to use in calculating productivity savings and the reduction in lost revenue. We then tax 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.

Survey Demographics

IDC recently applied the methodology in a survey of enterprises using HP OpenView Service Desk, which is a software automation solution based on the service management standards developed by the IT Infrastructure Library (ITIL). HP OpenView Service Desk helps enterprises and service providers manage SLAs by showing which IT elements a service is depending on, which users or customers are receiving the service, and who is managing and supporting the service.

In the survey, IDC interviewed IT executives at a number of organizations using HP OpenView Service Desk and asked a series of questions about costs, revenue, and specific IT processes and associated time and staffing requirements, before and after deploying the software.

Company Profile

The companies in the IDC survey included service providers and enterprises drawn from a variety of industries, including manufacturing, business services, financial services, and government. They ranged in size from 28 to 140,000 employees, with a median number of 2,500 employees. The companies deployed a median number of 400 servers at 50 sites.

Of the companies interviewed, 60% use other HP OpenView products for operations management in addition to Service Desk. The rest use a variety of homegrown and other management products from such vendors as BMC, Cisco, Computer Associates, Concord Communications, IBM, and Oracle.

All the respondents use HP OpenView Service Desk for help desk management; 75% also use it for change management and 50% for service level management. After deployment, the average time users wait for help desk support has dropped from 0.71 hours per month to 0.5 hours, increasing user productivity significantly.

Deployment Drivers

In the interviews, the companies gave a variety of reasons for deploying HP OpenView Service Desk. A managed network service provider implemented the product to help it respond better to new opportunities. "We can respond to short-term opportunities now," the respondent said. "We have to do far less reengineering. IT is more nimble than it would be in a fragmented space with unintegrated tools. I've been able to support business initiatives, which over the past 24 months have been to cut costs at all costs, without reducing significantly the service level provided to our end users. I attribute that to Service Desk and my whole architecture for service management."

One insurance company deployed Service Desk as part of its ITIL implementation. "Service Desk is the only ITIL-certified product," the respondent explained. "In addition, we ITIL-certified our entire infrastructure staff. It was expensive, a few hundred bucks per person, but it was the best thing we ever did. Service Desk is far superior to all other similar tools. It reinforces the ITIL disciplines, which allow you to manage your service levels. To me, infrastructure is the simplest part of IT. You want to be able to choose your service levels and optimize costs. Service Desk is a key enabler to reinforce the ITIL disciplines to be able to do that. The key is that Service Desk is written around the ITIL language. It's supported by a company that understands the disciplines associated with ITIL; I mean really understands it. HP was an ITIL evangelist."

"Being able to manage services from end to end gave us a competitive advantage," noted a respondent from a second insurance firm. "Before, we had piecemeal tools. We were managing platforms, and we could do that very well. But we were not managing services end to end. I am also pulling in change and problem management, and service calls, and we were not doing that very well. Now we're more efficient. We've got better quality because of Service Desk and the processes that we've implemented."

An equipment supplier implemented Service Desk to create a more consistent management process. "We now have integrated change and configuration and incident management, and we have a single database," the respondent noted. "The MTTR [mean time to repair] has been reduced, and the processes have been reinforced. We know where the equipment is when there's a virus, and we can do a risk analysis now, using the information from Service Desk. We've also reduced the cost of other software licenses by about \$1.5 million a year and the cost of maintaining the hardware and software by about \$500,000 to \$1 million a year. We're also avoiding the cost of other tools, which is about \$500,000 one time, plus \$100,000 a year. "

One respondent said he could "write a paper" on the benefits of Service Desk and how it has impacted the company's processes and tools. "Service Desk has allowed me to integrate fault, performance, and configuration management into one database, distributed across multiple platforms. So I've got an operational efficiency that I didn't used to have...across IT. We're at 99.8% availability now, 24 x 7. Before it was 94.6%, and Service Desk is about 50% responsible for that change. Also, we're at 98% on most of the apps now, and we were at 95%. Service Desk is partly responsible for that change, too. In addition, we have saved money on tools we don't use anymore. We're saving \$200,000 in expense that we'd be spending keeping other systems maintained. Plus, we have had a big increase in user satisfaction, going from 82% user approval rating to 92% in 18 months."

An Australian educational institution needed a new help desk system and found that Service Desk was the best solution. "We collect more information than we could before," the respondent said. "The help desk staff are a lot more efficient. We have more granularity in how we monitor jobs down to the campus and down to the person. We have a fault history now, which is something we never had before, so we can actually follow up and see step-by-step what's happened with each particular incident, which staff was involved, and what they've done. We can see where the staff is being efficient."

Another respondent had an older help desk package, but when complaints about service increased, his company decided to buy Service Desk as a replacement and to get into service management. "We've had an increase in the quality of our service because of Service Desk, and we're getting better relationships with our end users," he noted. "Before, they used to call it the 'helpless desk.' Now they feel we can deliver, and they are seeing what level of service is required to achieve their business because we are showing them what we're delivering."

Some companies stressed the capital savings made possible by Service Desk, while others mentioned improved IT efficiency. One respondent said that his computer services firm is saving about 15% of its capex [capital expenditure] spending because of Service Desk. "We would need more tools to do what we do, and we'd have to integrate them. Because we don't have all these other tools, we avoid extra licensing fees. We saved about \$400,000 initially and an extra \$75,000 a year in support costs."

"Service Desk made our desktop people more efficient, probably 20% more efficient, and improved customer service," said another respondent. "Service Desk has given them more time to focus on proactive work instead of being strictly reactive. This means that they get their project requests completed sooner. Users are happier because they get their enhancements quicker. Our server people are probably 30–40% more efficient, and our apps people probably 20% more efficient because of Service Desk. They are the ones that interact with the business people the most. Now that they have more time, they are able to intake more business requests."

One respondent complained that other tools are not element-based. "If you don't tie your events back to the component of the infrastructure that is causing them, what's the point?" he asked. "Service Desk allows that. It's the foundation of Service Desk. With other products, we'd have to do too much integration and develop too much middleware to get what Service Desk offers. With Service Desk, it's all there."

Another respondent praised the reporting capabilities of Service Desk. "The reporting capabilities are wonderful, and the ability to customize the reports, the screen layouts, the applications, everything, is amazing," he noted. "It's allowed us to get a more accurate picture of what's out there in terms of hardware and software, which has allowed us to save money on licensing. We've also saved a ton of user time because we give users views into Service Desk so they can track their own issues. Because of Service Desk, a typical user probably saves an hour a week — and that's a lot when you add it up."

Another respondent mentioned change management. "Two years ago, we were putting in changes manually and 60% of them would fail in the sense that we had to go in later and do something to the change. Now we're putting in changes through automation and there's a 99% success ratio. In a typical week, we might put in a couple hundred changes, so the impact is significant."

SURVEY RESULTS

IDC's survey focused on the cost savings and other benefits of monitoring and managing the delivery of business services. From the results of the interviews, IDC was able to determine the average ROI and payback period that the surveyed companies realized from deploying HP OpenView Service Desk, based on increases in IT staff productivity, user productivity, and IT staff efficiency, other cost savings, and the recapture of previously lost revenue.

IT productivity. To ascertain the cost savings from improved IT productivity, IDC asked questions about staff time needed for activities related to service management and the influence on the operations management team, before and after deploying HP OpenView Service Desk. The management software is designed to increase IT staff productivity by enabling proactive, integrated network and application performance management in real time. By coordinating responses, preempting problems, and ensuring the right people are working on the right issues at the right time, the software minimizes the number of trouble tickets, shortens the mean time to repair, and reduces the time and effort needed to diagnose and fix problems.

For the companies surveyed, IT productivity increased by an average of 14%, contributing an average cost savings over three years of almost \$4.2 million annually. When normalized for company size, these savings amounted to \$17,235 per 100 users. Companies saw an average 20% reduction in the staff time needed for service level management and a 20.8% reduction in the staff time needed to manage the Internet/transactional customer experience (see Table 2). Change management required 41.1% less staff time, saving an average of close to 15,000 man-hours annually. After deploying HP OpenView Service Desk, the companies needed an average of 75.5% less staff time to identify and fix problems, 11% less time for help desk and incident management, and 20.6% less time to administer other management tools. In addition, the percentage of calls resolved at the first level increased from an average of 63% before deployment to 76% afterwards.

TABLE 2

Average Time Savings in IT Staff Activities After Deploying HP OpenView Service Desk

Activity	Time Savings (%)
Identify/fix problems	75.5
Change management	41.1
Problem management	26.7
Network troubleshooting/repair	23.9
Managing Internet customer experience	20.8
Managing other tools	20.6
Service level management	20.0
Maintaining configuration database	18.8
Network performance management	12.9
Incident management	11.0

Source: IDC, 2004

User productivity. To determine the impact of HP OpenView Service Desk 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 HP OpenView Service Desk, as well as the percentage of users affected and the estimated revenue lost per hour of downtime.

HP OpenView Service Desk aims to increase user productivity by allowing a better-coordinated IT team to increase network and application availability and by evolving the help desk function to an integrated service desk. The software ensures service delivery at the edge through improved SLA monitoring and management and proactively monitors the quality of service and reliability delivered to the user.

Among the companies surveyed, increased user productivity contributed an average savings of more than \$1.3 million annually over three years. When normalized for company size, these savings averaged \$5,374 per 100 users.

Downtime was reduced by an average of 57%, from 1.1 hours per month before deployment of HP OpenView Service Desk to 0.5 hours afterwards. The number of downtime incidents decreased from an average of 10.1 incidents per month before deployment to 5.5 incidents afterwards, a drop of 45%. The revenue saved from the reduction in downtime averaged \$85,678 annually over three years. There was also an average 29% drop in time spent on help desk support.

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 HP OpenView Service Desk. 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, HP OpenView Service Desk frees up IT staff for more strategic tasks. Also, the centralized management reduces network expenses and cuts the amount of IT travel.

In the IDC survey, the companies that deployed HP OpenView Service Desk were able to reduce IT staff by an average of 7.5% over three years, despite an average 11% growth in the number of users. Based on an average annual loaded salary of \$94,039, the companies surveyed saved an average of more than \$1.2 million annually from increased IT efficiency over the three-year period. These savings amounted to \$8,669 per 100 users. Companies also saved an average of almost \$1.9 million over three years, or \$7,610 per 100 users, from lower IT travel expenditures and reduced spending on hardware, software, and other management tools.

Payback and ROI. The median investment for the companies interviewed was \$1.2 million over three years, including hardware and software purchase and installation (45%), IT operations support (43%), and annual maintenance (12%). The average cost savings over the three-year period from deploying HP OpenView Service Desk amounted to almost \$9.6 million annually, or \$39,243 per 100 users. Over three years, with a 12% discount factor, these savings have a net present value of almost \$18 million, or \$73,870 per 100 users. Based on a median investment of close to \$1.2 million over three years, the average three-year ROI from deploying HP OpenView Service Desk was 411%, and the average payback time was 5.6 months.

Excluding the soft savings from improved IT staff and user productivity, the net present value of the hard savings averaged \$23,705 per 100 users. These savings result from increased IT staff efficiency and from lower IT travel expenditures and reduced spending on hardware, software, and other management tools. Based on these savings, the hard ROI from deploying HP OpenView Service Desk averaged 130%, giving an average payback period of 13.5 months.

CHALLENGES AND OPPORTUNITIES

The ongoing struggle for IT staffers is to work with the shifting priorities of the organization, where every business decision can dictate an IT response. Large-scale technology investments of any kind do not solve this type of problem alone. Therefore, for the IT help desk, just moving to a service management view would not necessarily drive success in the eyes of senior management. Adjusting both IT's objectives and the management systems used by IT to fit more closely with the realities of the enterprise is an ongoing challenge for IT.

Opportunities

The shift to view IT as a dynamic service, either with computing as a utility or with automated reprovisioning of resources, is on the horizon for the IT industry. To prepare for this type of change, IT departments must establish a baseline for service management with respect to staff efficiency, staff effectiveness, and service quality. HP OpenView Service Desk has many of the important components needed to establish a baseline prior to transition to an adaptive or utility computing architecture.

As more standards-based infrastructure technologies come together from the supply side of the IT industry — Intel-based platforms, Windows desktops, browsers rather than proprietary GUIs — traditional IT challenges have dissipated and evolved. IT is increasingly freed up from working on routine integration and interoperability tasks by integrated management toolsets, process standardization, and improvements. Making efficient use of the newly available time is important. Realignment of valuable IT resources to more innovation-focused activities, new application/service implementations, or proactive performance improvements will pay off in even higher service delivery quality and increased IT agility without increasing IT headcount costs. Using the views of an end-to-end system such as HP OpenView Service Desk can help IT to move forward most effectively.

CONCLUSION

IT management software is becoming crucial to enterprises and service providers that want to dynamically align businesses and IT services and achieve greater control over their IT infrastructure and an improved user or customer experience. To quantify the business benefits of IT service management, IDC interviewed IT executives at a number of organizations using HP OpenView Service Desk and asked a series of questions about costs, revenue, and specific IT processes and associated time and staffing requirements, before and after deploying the software.

The survey found that deploying the HP OpenView Service Desk solution generated significant cost savings from improved IT staff productivity and efficiency in both the service management and service delivery/operations areas. Downtime was cut by an average of 57%, reducing the revenue lost by an average of \$85,678 annually over three years and creating average savings from increased user productivity of \$5,374 per 100 users. The companies also saved an average of \$7,610 per 100 users from lower IT travel expenditures and reduced spending on hardware, software, and other management tools.

These cost and revenue savings allowed the companies to recover their investment costs in a short period of time, typically 5.6 months. Excluding the soft savings from improved IT staff and user productivity, the hard ROI from deploying HP OpenView Service Desk averaged 130%, giving an average payback period of 13.5 months. Thereafter, the companies were able to continue benefiting from the ongoing cost savings and reduction in lost revenue.

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