

## WHITE PAPER

# Gaining Business Value and ROI with HP Insight Control

Sponsored by: HP

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May 2009

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## EXECUTIVE SUMMARY

IT organizations are under tremendous pressure to generate competitive advantage by delivering reliable, cost-effective services to line-of-business units and end users alike. Recent economic events are challenging CIOs and IT managers to optimize and maintain IT infrastructures while controlling costs and meeting service-level objectives for business-critical workloads. These tasks are becoming even more challenging as infrastructures become increasingly complex due to trends such as multitier architectures and the rapid spread of server virtualization. Business units demand innovative new projects to meet ever-changing needs while IT budgets continue to be squeezed. All too often, IT managers are being asked to cut spending or at best live with modest increases while facing spiraling costs for operational items such as power and cooling.

To deal with these challenges, IT management must constantly look for ways to recover and redirect operational spending by increasing staff productivity and efficiency, increasing the availability and utilization of infrastructure resources, and reducing the cost and difficulty of managing complexity in the datacenter. One approach to achieving greater operational efficiency is the use of hardware and software management tools to help mitigate risk, lower costs, and accelerate growth. HP Insight Control suite (ICE) server management is built upon HP Systems Insight Manager (SIM) and is designed to improve IT staff efficiency, improve server uptime, and maximize server and facilities utilization.

HP Insight Control suite delivers server life-cycle management functions tuned for HP ProLiant and HP BladeSystem environments in the areas of system health, performance monitoring, remote control, automated deployment, vulnerability scanning and patching, power management, and virtualization management. These capabilities help improve IT operations by streamlining IT service rollouts, reducing incidence of unplanned downtime, increasing power efficiency, and delivering unified management of physical and virtual infrastructure.

IDC has conducted an ROI analysis of the benefits associated with using select components of the HP Insight Control portfolio as well as the integrated HP Insight Control suite. The HP Insight Control suite includes rapid deployment, remote management, power management, capabilities for managing virtual environments, and health and performance monitoring. End users can purchase these capabilities in a suite — the HP Insight Control suite hosted on Windows or the HP Insight Control suite for Linux (ICE-LX) hosted on Linux — or they can purchase select components individually. HP also provides HP Insight Server Migration software for ProLiant to

complement the Insight Control solution set. As of March 2009, HP began bundling the ICE suite with select ProLiant models to provide a combined offering for ProLiant customers — one SKU with hardware and software together. This approach has been used for some time for HP BladeSystem servers with HP Insight Control bundled with HP BladeSystem c-Class enclosures.

For this study, IDC interviewed IT staff from 15 North American, European, and Asian companies ranging in size from 200 to 10,000 employees and between 20 and 900 IT staff. Industries represented include banking, consulting, telecommunications, education, and technology. Four of these companies were identified directly by HP, and the other 11 were recruited from a customer list provided by HP. Illustrative quotes taken from these interviews are provided throughout this paper.

## KEY FINDINGS

The companies interviewed for this study are using at least one element and as many as five elements of the HP Insight Control suite. Overall, IDC found that HP Insight Control users were able to realize a significant return on investment, with ROI in excess of 400% when implementing a single HP Insight Control product and over 500% when implementing all HP Insight Control products. Payback periods were well under one year (see Table 1).

**TABLE 1**

Three-Year ROI Summary: All Insight Control Products

Category	Data
Total benefits (per 100 users)	\$48,380
Investment (undiscounted)	\$6,021
Net present value (NPV)	\$32,978
ROI = NPV/investment (discounted)	563%
Payback = investment/NPV (months)	6.1
Deployment time (months)	0.7
Discount rate	12%

Source: IDC, 2009

Further, a deeper analysis of the ROI benefits of HP Insight Control reveals the following:

- ☒ The benefits were found to improve as more HP SIM extensions were added to the mix; the average ROI for implementing a single product was 402%, while the average ROI associated with implementing all products grew to 563%. Similarly, the benefits realized over three years per 100 users were \$24,085 for a single product, growing to \$48,380 for companies that implemented all products.
- ☒ On average, the largest contributor to economic benefits was found to be increased IT staff productivity, representing 42% of overall average three-year benefits. Customers found that their IT departments became more efficient and saved time in server deployment hours, server asset management, server hardware maintenance, and new application deployment. This was followed by line-of-business user productivity savings, estimated to be 26% of overall benefits, and IT infrastructure cost savings, estimated to be 18% of overall savings. Finally, IDC found that by protecting and improving system uptime, HP Insight Control can also safeguard company revenue; for example, in cases where companies rely upon the Web for revenue streams, IDC estimated that protected revenue contributed 14% of overall economic benefits.
- ☒ Different components provide a different breakdown of benefits. For example, the HP Insight Rapid Deployment (RDP) software drives the greatest percentage of savings in IT staff savings, while the HP Integrated Lights-Out (iLO) remote management software provides the greatest percentage of benefits in safeguarding end-user productivity.
- ☒ The companies were able to nearly double the number of servers managed per administrator, increasing the server-to-administrator ratio by an average of 98%.
- ☒ After HP SIM was deployed, the amount of downtime dropped by an average of 77%, declining from 2.1 hours per month to 0.6 hours per month.

## **ADDRESSING IT SYSTEM MANAGEMENT REQUIREMENTS**

### **IT Management Needs**

IT management needs are being driven by a number of major economic and organizational factors. Chief among these factors is the ongoing cost squeeze on IT budgets. Operating costs have grown to the point where they now consume the lion's share of IT budgets, leaving little room for funding innovative new projects. As a consequence, IT management is continually looking for ways to recover and redirect operational spending by increasing staff productivity and efficiency. Productivity-enhancing measures include the use of automated management software tools as well as the introduction of technologies to enable server consolidation and boost server utilization.

Key concerns for CIOs and IT managers, based on recent IDC studies, include:

- ☒ **Pressures to contain both capital and operating costs.** Controlling IT costs — both capital expenditures and ongoing operational expenses — remains a key requirement. Capital cost optimization focuses on optimizing the process and timing of hardware and software acquisitions and deployments, while operational cost containment focuses on driving IT staff efficiencies and managing rapidly escalating power and cooling costs.
- ☒ **Need to align IT with the business and show business relevance.** Increasingly, IT is viewed as a service provider to the business, providing services that deliver and support key business processes and applications. Alignment includes such activities as relating infrastructure events to their impact on IT services and end users, tracking IT and business metrics, and calculating the costs of delivering specific services.
- ☒ **Need to achieve service objectives for key workloads.** IT needs to deliver agreed-upon service levels in terms of availability and performance to meet business objectives. As unplanned downtime impacts business operations and user productivity, service levels of key workloads must be tracked in terms of uptime, workload volumes, and response times for key transactions and for user interactions. Operational service levels must be compared against service objectives, with provisions for adjusting workload priorities and resource allocations to meet requirements. 24 x 7 environments require high availability and business continuity, driving the need for such functions as automated event and fault management. In the words of a midmarket North American financial services institution that was interviewed for this study, "During downtime, upwards of 1,500 people can be impacted. The cost to our business could be millions in an hour."
- ☒ **Need to improve infrastructure utilization.** The overall requirement for IT is to improve the efficiency and ROI of the IT hardware and software assets deployed in the datacenter and throughout the organization, especially by increasing server utilization. Server platforms can include distributed Unix, Linux, and Windows systems used for such functions as application servers, database servers, Web components, and middleware. IT needs to track actual utilization levels and optimize the allocation of infrastructure resources to applications and workloads. Decision support is required to optimize asset deployments occurring as a result of major datacenter infrastructure changes, such as server consolidations resulting from corporate mergers and acquisitions.

*"During downtime, upwards of 1,500 people can be impacted. The cost to our business could be millions in an hour."  
— A midmarket North American financial services institution*

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## Benefits of Infrastructure Platform Management

Infrastructure management software is commonly used to support operational functions such as system management, network management, applications management, job management, and database management. Across these functions, management software provides a number of key benefits that can result in cost savings and operational efficiencies. These benefits include the following:

- ☒ **Saving IT staff time by automating routine tasks.** Management software can be used to automate routine tasks, such as monitoring common types of infrastructure alerts and providing automated responses for known conditions. This automation can increase IT staff efficiency by reducing time spent on routine functions and by increasing the scale of operations that can be achieved by each staff member. For example, it can increase the number of hardware devices that an individual system or network administrator can manage.
- ☒ **Leveraging of staff resources, leading to increased IT productivity.** Productivity is a measure of how much staff time can be spent on work that brings value to the business — such as deploying new or improved applications to increase competitive advantage. Use of management software can help increase the proportion of staff time that can be used for more productive work that can increase business value.
- ☒ **Higher availability.** With business functions throughout the organization increasingly depending on information systems, system and network uptime plus application and database availability are key IT requirements. While costs vary based on factors such as the nature of the applications, any unplanned downtime has direct costs to the business that come from loss of business opportunity and decreased end-user productivity. The use of infrastructure management software can reduce downtime, improve application performance, and improve revenue opportunity to the business.
- ☒ **Faster response to incidents.** The use of infrastructure software can greatly improve the speed with which IT can respond to infrastructure incidents. This can occur in a number of ways, including automated responses to simple alerts and alarms; automatic creation of trouble and repair tickets for service desk functions; and problem determination and resolution aids such as event correlation, impact analysis, and root cause analysis.
- ☒ **Cost savings and improved ROI.** As demonstrated repeatedly by numerous IDC studies, the overall effect of using automated software tools for IT infrastructure management typically results in cost savings and positive ROI. Areas for cost savings include reduced hardware and software costs, IT staff efficiency, end-user productivity, and enhanced operations for business applications, including reduced downtime and faster performance.

## HP INSIGHT CONTROL OVERVIEW

### HP Systems Insight Manager and HP Insight Control Suite

HP distributes and sells a full line of platform management software with HP servers. Foundational unified server management is provided by HP SIM, which provides support for HP ProLiant, Integrity, and BladeSystem servers; HP-UX, Windows, and Linux operating environments; HP Storage; and other industry-standard servers.

HP SIM enables critical management functions such as hardware fault monitoring and alerting; hardware configuration, data collection, and reporting; and BIOS, firmware, and driver updates. HP Insight Control extends the capabilities of HP SIM with life-cycle functions. HP Insight Control is symbolized in Figure 1.

**FIGURE 1**

HP Insight Control Suite



Source: HP, 2009

HP Insight Control provides integrated management functions for HP ProLiant and HP BladeSystem servers. HP Insight Control suite is founded on HP SIM and includes a number of software components. In a Windows-hosted environment, these components would include such capabilities as HP Insight Foundation suite for ProLiant, HP Insight RDP software, and HP iLO 2 Advanced software. Similar capabilities exist for Linux-hosted environments, but with differences of implementation suited for Linux system administrators. Management functions include automated server software deployment, monitoring and remote control, advanced remote management (with HP iLO), vulnerability scanning, patch management, and optimization through power management and virtualization management. Users have the option of purchasing HP Insight Server Migration software for ProLiant to support physical-to-physical [P2P], physical-to-virtual [P2V], virtual-to-physical [V2P], and virtual-to-virtual [V2V] migrations.

HP Insight Control software is deployed on a central management server that controls the core functions of deployment, monitoring, control, optimization, and integration. Managed servers are instrumented via the HP iLO management processor and HP Insight Management Agents. Table 2 shows the relationship between core HP platform management functions and individual software components, including the HP Insight Control suites.

**TABLE 2**

HP Platform Management Functions

Function	Included in HP Insight Control Suites?	HP Product Examples
Deploy	Yes	HP Insight Rapid Deployment software
Deploy	No	HP Insight Server Migration software for ProLiant
Monitor	Yes	HP Systems Insight Manager
Monitor	Yes	HP Insight Performance Manager module
Control	Yes	HP Integrated Lights-Out (iLO) 2 Advanced
Optimize	Yes	HP Insight Power Manager software
Optimize	Yes	HP Insight Virtual Machine Manager software for ProLiant
Integrate	No	Integration modules connect to enterprise management software

Notes:

HP Insight Server Migration software for ProLiant can be purchased separately.

HP products may vary in implementation between the HP ICE and HP ICE-LX suites.

Source: HP and IDC, 2009

**HP Insight Control Functions**

This section contains a description of the key functions provided by HP Insight Control suite, along with comments taken from the customer interviews performed for this study regarding some of those functions:

- ☒ **Deploy.** Deployment facilities are based on the HP Insight RDP software in the HP ICE suite and enable building servers from defined profiles. Deployment includes on-the-fly server configuration and provisioning of operating system and application images. The HP ICE-LX suite provides rapid, scalable deployment with integrated firmware updates and a choice of modes, including an "avalanche" mode for parallelized image provisioning in large environments. HP Insight Server Migration software provides facilities to migrate existing server images to new server hardware or to virtual server images. An IT manager at a large North American software provider noted, "To deploy a server without SIM and RDP would take 2–3 hours. Now we can do it in 20–30 minutes."

*"To deploy a server without SIM and RDP would take 2–3 hours. Now we can do it in 20–30 minutes." — An IT manager at a large North American software provider*

- ☒ **Monitor.** HP Insight Control provides centralized facilities for monitoring server and storage hardware. Alerts can be generated to notify of actual or pending hardware failures or outages. The HP Insight Performance Manager module in the HP ICE suite allows detecting and troubleshooting of hardware performance bottlenecks. The integrated Total Control Monitoring in the HP ICE-LX suite provides health and performance monitoring with customizable thresholds, robust analyses of metrics, and integrated alerts.
  
- ☒ **Control.** Remote control is provided by advanced management software based on innovative iLO features. Key capabilities include keyboard virtual mouse (KVM) for remote system console, virtual media for remote software update and file copy, and embedded system health monitoring. A European Global 2000 semiconductor provider stated, "iLO is my favorite. I don't work in my datacenter, but if there's a network or hardware issue, I can still get to the server. I'd say it saves us 200 hours per month in IT staff time across our infrastructure."
  
- ☒ **Optimize.** Optimization is aimed at reducing operational costs. Key facilities include power management, such as the HP Insight Power Manager software, which can contribute to savings in utility costs, and virtualization management. HP has recently introduced the Dynamic Power Capping capability for ProLiant servers, managed by Insight Control, which can limit the maximum power consumed by individual servers, thus increasing the number of servers that can be operated at a given level of total available circuit power. Optimization also includes functions for managing virtual environments to improve server utilization. HP Insight Virtual Machine Manager software provides these functions.

*"iLO is my favorite. I don't work in my datacenter, but if there's a network or hardware issue, I can still get to the server. I'd say it saves us 200 hours per month in IT staff time across our infrastructure." — A European Global 2000 semiconductor provider*

### **HP Insight Control Economic Benefits**

The economic benefits provided by HP Insight Control fall into four primary categories. This section contains a description of those categories, as well as comments on those categories provided by customers interviewed for this study:

- ☒ **IT staff efficiencies.** Staff efficiencies stem from time saved on tasks performed by IT administrators and technicians and translate into increased productivity benefits in server administration, server deployment, server asset management, server hardware maintenance, and new application deployment time. An Asian mobile telephony provider said, "HP SIM saves us time. A lot of time. We can reduce our need to hire IT staff, and we're more efficient."
  
- ☒ **IT infrastructure cost savings.** These benefits include costs saved by reducing the number of servers deployed per year, avoided costs for server and OS upgrades, reduced need for storage capacity and system monitoring, and reduced travel costs. "We can tune the machines better, which allows us to avoid buying unnecessary servers," stated a European Global 2000 semiconductor provider. "Across the world, we can avoid buying maybe 50–100 servers out of our 4,000 total."
  
- ☒ **User productivity.** By reducing unplanned downtime, HP Insight Control can help ensure that users have access to critical systems whenever required, leaving them free to focus on their value-added business activities. The impact felt by a European Global 2000 consulting and integration company was dramatic. "We had downtime before; I would estimate a couple hours per year per user. Now with SIM and iLO, it's down to 30 minutes per year per user."

*"HP SIM saves us time. A lot of time. We can reduce our need to hire IT staff, and we're more efficient." — An Asian mobile telephony provider*

*"Across the world, we can avoid buying maybe 50–100 servers out of our 4,000 total." — A European Global 2000 semiconductor provider*

*"We had downtime before; I would estimate a couple hours per year per user. Now with SIM and iLO, it's down to 30 minutes per year per user." — A European Global 2000 consulting and integration company*

- ☒ **Time savings — focus on value-add initiatives.** By reducing the amount of time required by IT staff to "fight fires," HP Insight Control can free them up to focus on more strategic, value-added initiatives and projects. These projects, which are often focused on improving overall competitive market position, improving customer experience, or reducing the amount of time required to get new products to market, can in turn have a positive impact on business results.

## **HP INSIGHT CONTROL ROI ANALYSIS**

Estimating the ROI associated with HP Insight Control required IDC to perform separate analyses of the components associated with the product. Because each component has its own value proposition and is capable of being deployed independently, IDC utilized an "additive" ROI model to estimate the benefits associated with deployment of individual modules, multiple modules, and the entire HP Insight Control suite.

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### **Additive ROI Model**

To build the additive model to estimate the ROI associated with HP Insight Control, IDC aggregated the data gathered through customer interviews into groups based on customer purchase patterns. IDC then performed multiple ROI forecast analyses to account for the fact that components can be deployed individually or in combination. The resulting analysis discusses the benefits associated with the deployment of HP Insight Control and demonstrates the differences between deploying the entire suite and deploying combinations of fewer components.

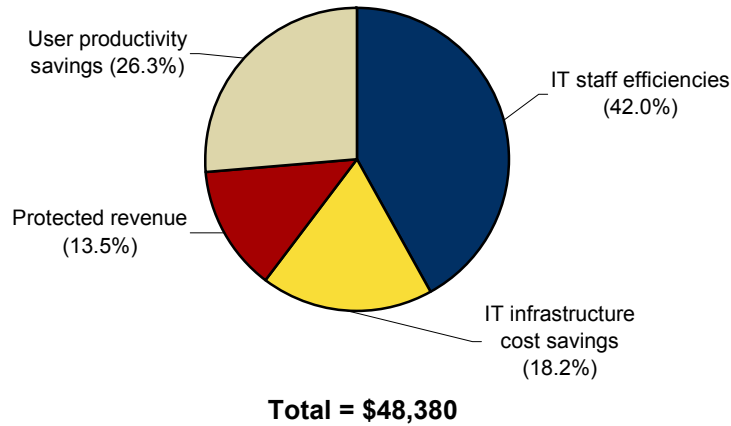
IDC's results showed that whether companies deployed a single component or the full HP Insight Control suite, positive financial benefits and ROI were realized in all deployment scenarios.

### **All Products Model**

IDC found that companies can expect to achieve benefits of \$48,380 over three years per 100 users when deploying the full suite of HP Insight Control components (see Figure 2).

**FIGURE 2**

Average Benefits over Three Years per 100 Users: All Products



Source: IDC, 2009

IT staff productivity makes up 42% of the benefits when deploying all products. These savings are derived from streamlined server administration and reduced hours required for server deployment and monitoring. A midmarket North American financial services firm interviewed for this study stated, "Before installing SIM, 20% of our time was spent maintaining the hardware. Now I'd say it's 1%, if that much."

*"Before installing SIM, 20% of our time was spent maintaining the hardware. Now I'd say it's 1%, if that much."  
— A midmarket North American financial services firm*

At 26%, user productivity provides the next largest proportion of financial benefits. Users experience fewer unplanned system outages and spend less time waiting for each outage to be repaired. According to a major North American healthcare provider, "It makes for a quicker recovery when something blows up. I'd say it saves about 50 hours per year in downtime."

*"It makes for a quicker recovery when something blows up. I'd say it saves about 50 hours per year in downtime."  
— A major North American healthcare provider*

Reduced IT infrastructure costs, which include reductions in hardware/software purchases and travel cost reductions, account for 18% of the expected annual benefits. "With PMP, we're avoiding buying hardware like memory, disk, etc.," noted a midmarket North American law firm. "We're probably saving \$50,000 per year."

*"With PMP, we're avoiding buying hardware like memory, disk, etc. We're probably saving \$50,000 per year."  
— A midmarket North American law firm*

Finally, revenue increases account for 14% of the total. A North American Fortune 500 pharmaceutical firm stated, "In our industry, one of the main drivers is getting new drugs out the door, and if you hold these things up for even a week, you're losing a lot of money. With HP Insight Control, we are not holding people up the way we used to, saving comfortably a couple of weeks a year, and that's worth millions."

*"With HP Insight Control, we are not holding people up the way we used to, saving comfortably a couple of weeks a year, and that's worth millions."  
— A North American Fortune 500 pharmaceutical firm*

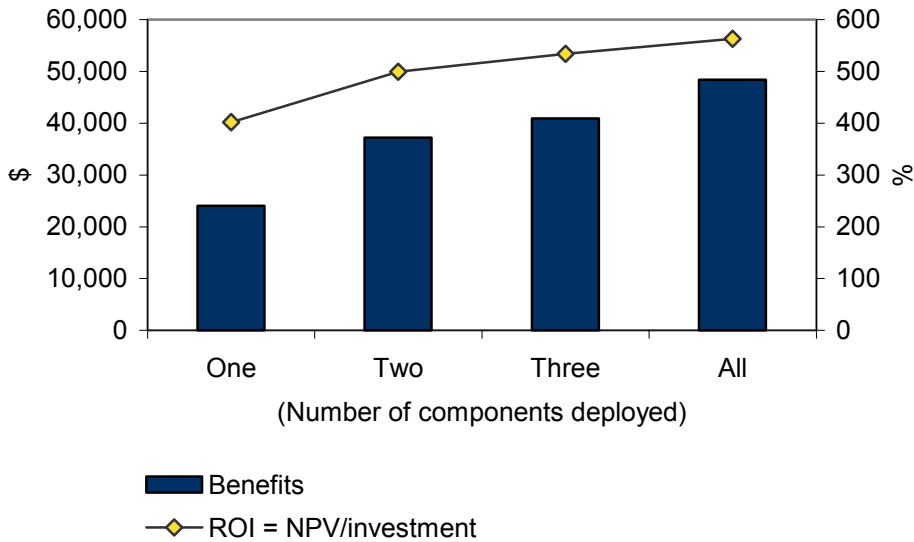
A summary of the ROI benefits of implementing the entire Insight Control suite is provided in Table 1. A three-year analysis shows that customers can expect a return on their investments of over 500% when deploying the entire HP Insight Control suite, and the payback term will be just over six months.

### Benefit Analysis of Component Combinations

The IDC model found that when deploying a single component, companies were able on average to achieve \$24,085 in benefits over three years per 100 users and to realize an ROI of 402%. Further, when the number of deployed components increases, the economic benefits increase as well. This relationship is demonstrated in Figure 3.

**FIGURE 3**

Incremental Increase in ROI Benefits over Three Years per 100 Users



Source: IDC, 2009

Table 3 provides a detailed breakdown of ROI benefits based on the number of product components deployed. While the level of investment increases as the number of products increases (from \$3,964 per user for a single product deployed to \$6,021 for all components), the overall benefits increase at an even greater rate, resulting in increased ROI. The increased ROI is driven by the additional value of having an integrated solution — the components are compatible, so no additional software is needed to support communications and the incremental increase in IT staff time to manage the component is negligible compared with the benefits. Further, the payback period also falls as the number of products deployed increases, from 9.6 months for a single product to 6.1 months for all products.

**TABLE 3**

## ROI Comparison Summary

Three-Year ROI Analysis	Number of Components Deployed			
	One	Two	Three	All
Total benefits	\$24,085	\$37,241	\$40,890	\$48,380
Investment (undiscounted)	\$3,964	\$5,137	\$5,335	\$6,021
ROI = NPV/investment (discounted)	402%	499%	534%	563%
Payback = investment/NPV (months)	9.6	7.2	6.3	6.1
Deployment time (months)	0.25	0.25	0.25	0.7
Cost per server	\$321	\$388	\$633	\$678

Source: IDC, 2009

**IDC's ROI Methodology**

IDC utilized its standard ROI methodology for this project. This methodology is based on gathering data from current users of the technology as the foundation for the model. Based on these interviews, IDC performs a three-step process to calculate the ROI and payback period:

1. Measure the savings from reduced IT costs (staff, hardware, software, maintenance, and IT support), increased user productivity, and improved revenues over the term of the deployment.
2. Ascertain the investment made in deploying the solution and the associated training and support costs.
3. Project the costs and savings over a three-year period and calculate the ROI and payback for the deployed solution.

IDC uses the net present value (NPV) of the savings and increased revenue over three years in calculating the ROI and payback period for the deployment. The NPV of the savings is determined by subtracting the amount that would have been earned by investing the original sum in an instrument yielding a 12% return (to allow for the missed opportunity cost that could have been realized using that capital).

IDC uses the following assumptions in its calculations:

1. To quantify savings from IT efficiency, IDC multiplies time values by burdened salary (salary + 40% for benefits and overhead).
2. Because the full benefits of the solution are not available during the deployment period, IDC prorates the benefits on a monthly basis and subtracts the appropriate amount for the deployment time from the first-year savings.

## CHALLENGES/OPPORTUNITIES

HP has made IT infrastructure manageability and strong platform management a priority in terms of messaging and positioning its products to IT organizations. To date, HP platform management software such as Systems Insight Manager and Insight Control provide positive proof points that HP is focused on providing products that deliver its message. Studies based on end-user experiences have demonstrated positive ROI for the use of these software tools.

Going forward, HP will be challenged to broaden the scope of its platform management software in terms of functional capabilities and at the same time continue to provide integration across platform management suites and also continue to integrate with enterprise management software. Another challenge is to increasingly align with and support best practices and process frameworks, such as ITIL, to help IT organizations achieve efficiencies through improved operational processes.

Another area that is rapidly evolving and requires attention at the platform tools level is integration with runbook and datacenter automation software, as IT organizations increasingly look to automated operations to achieve further efficiencies. The opportunity for HP is to provide and demonstrate even broader benefits to IT organizations based on enhanced platform management software.

## CONCLUSION

IT organizations are under tremendous pressure to live within limited budgets while managing increasingly complex infrastructures, providing high levels of uptime, and providing systems capabilities to support the strategic needs of the business. IT managers are depending on platform and enterprise management tools to automate repetitive tasks, improve systems availability, and improve staff productivity.

HP Insight Control, based on HP Systems Insight Manager, provides tools that support core management functions including server deployment, monitoring, control, optimization, and integration for HP ProLiant and HP BladeSystem servers. This IDC study examined the benefits of using HP Insight Control, including cost savings and ROI, based on in-depth interviews with IT organizations at 15 separate companies representing a broad range of industries. The study found that HP Insight Control provides positive financial benefits across the board, with three-year projected ROI starting at over 400% and payback periods of under 10 months. Further, the study determined that these benefits increase based on the number of HP Insight Control components installed, with the All Products model yielding a three-year ROI of 563% and a payback period of 6.1 months. Overall, the results demonstrate the strong positive ROI benefits from deploying HP Insight Control that have been achieved by the IT organizations participating in this study.

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