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**Authors:**

Matthew Marden  
 Jed Scaramella

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## Business Value Highlights

Organizations using HPE BladeSystem will achieve an ROI of 366% and break even in their investment in just under seven months through the following benefits:

**\$2,861**

Total three-year benefits per user

**15 Hours  
 Per User**

Improved application performance leads to additional productive time per year

**91%**

Mitigated risk by reducing downtime

**48%**

Lowered infrastructure costs

**40%**

IT staff time savings and efficiencies

# The Business Value of HPE BladeSystem

## EXECUTIVE SUMMARY

Customers across all industries are transitioning to the 3rd Platform, where IT organizations are seeking to leverage mobile, social, cloud, and big data solutions to drive business value. At the same time, the pace at which the business operates is continually accelerating; thus, it is critical that companies be able to connect seamlessly with their customers, utilize real-time data analytics in decision making, and improve the productivity of their own workforce. These trends are placing greater demands on IT, and enterprises need to simplify IT operations to succeed in the next era. Even though IT is being relied on to deliver enhanced and expanded services, it is still too common to find that IT budgets remain relatively flat. To succeed, organizations need to adopt systems that “do more with less” through reducing operating expense, improving staff efficiency, and speeding time to market.

IDC research shows that organizations migrating to HPE BladeSystem (HPE Blades) from traditional rack servers or upgrading their HPE BladeSystem servers make substantial user productivity gains and reduce the cost of delivering computer services by an average of 56%. IDC calculates that Hewlett Packard Enterprise (HPE) Blades customers achieve average benefits worth \$2,861 per user over three years by:

- » Driving higher user productivity with improved performance of critical business applications;
- » Reducing the frequency of server downtime and associated user productivity losses;
- » Reducing IT infrastructure costs by consolidating their server environments and deploying more virtual machines; and
- » Delivering time savings and efficiencies to IT support staffs with an integrated server platform that reduces the burden of system management, monitoring, and provisioning servers.

HPE OneView enables more efficient and flexible system configuration, provisioning, and operations.

IDC research also demonstrates that HPE’s customers can achieve additional business value from IT staff and operational efficiencies by using HPE OneView. As a common management platform for server, storage, and networking in the HPE BladeSystem, HPE OneView enables more efficient and flexible system configuration, provisioning, and operations.

## In This White Paper

IDC interviewed ten HPE customers that have migrated all or substantial parts of their physical server environments to HPE Blades and conducted separate interviews with two HPE customers that use HPE OneView. Questions asked were designed to yield information to enable IDC to build a model expressing the business impact of this bladed infrastructure on organizations’ IT and business operations. The HPE customers interviewed ranged in size from 25 to 12,000 employees and represented experiences from a cross-section of industries (see Table 1). The interviews with the two HPE OneView customers were leveraged in this study to inform a discussion of the HPE OneView product and provide example of benefits achieved by these customers but were not incorporated into the model expressing the business value of bladed infrastructure.

**TABLE 1**

Demographics of Interviewed Organizations	
	Average
# of Employees	3,136
# of IT Staff	24
# of Users (Internal)	2,937
HPE Blades Environment (physical servers)	55
% Traditional Servers	16%
% Blades Servers	14%
% Virtual Servers	70%
Industries	Health Care, Technology Service Provider, Equipment Rental, Research, Government, Retail
Regions	U.S., U.K., Sweden, Canada

Source: IDC, 2014

## Situation Analysis

It was only a short time ago that IDC would describe a company in which IT would either “support the business” or IT would “drive the business.” Today, it is becoming increasingly difficult to make that distinction. IT services are a critical element in how companies deliver new products and services, interact with customers, and differentiate themselves in the marketplace. It is true now more than ever that the datacenter is a cornerstone of the business.

Unfortunately, the increased renewed dependence on IT usually does not result in increased resources and budgets. Constrained budgets and overburdened staff are still primary challenges facing IT organizations, even as new services are delivered and more users are supported internally and externally.

There also is the expectation that IT will keep pace with the accelerated pace of business. Customers now expect faster delivery of the company’s services and products, and the internal business units expect almost immediate access to applications and data regardless of whether they are on-site or remote.

A new approach to IT is required; progressive customers are realizing that IT technologies must be measured on the value they deliver in terms of business agility from faster provisioning and ease of management.

## Business Value of HPE Blades

This study demonstrates the business value that organizations achieve by migrating their server environments to HPE BladeSystem or upgrading to new HPE Blade servers. When asked for their rationale for investing in new server infrastructure with HPE Blades, customers conveyed their need to extend virtualization and support their businesses as the primary drivers of their decisions:

- » “We needed to architect something that could support growth and allow us to put a strategic plan in place, which HPE BladeSystem has allowed us to do.”
- » “We wanted to streamline our HPE BladeSystem environment and get them to the same generation. We’re getting more output from our new Blade servers, running more business on them, and running a higher density of VMs on them.”

Interviewed organizations explained that their new HPE Blade environments have allowed them to drive virtualization deeper into their datacenters and better support their businesses. On average, these organizations have deployed 84% more virtual machines with their new bladed infrastructures, and every organization interviewed described improved user and business productivity that each attributed to its HPE Blade infrastructure.

“We needed to architect something that could support growth and allow us to put a strategic plan in place, which HPE BladeSystem has allowed us to do.”

In total, IDC calculates that interviewed organizations will achieve average benefits worth \$1,200 per year per user over three years with HPE Blades

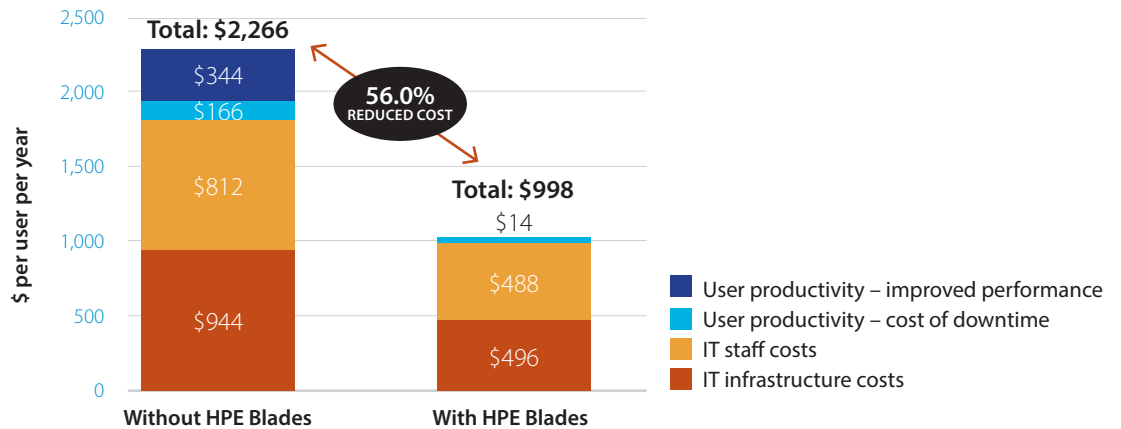
This means that HPE BladeServers have not only enabled substantial cost savings for these organizations but also brought them value through enhanced user and business productivity. In total, IDC calculates that interviewed organizations will achieve average benefits worth \$1,200 per year per user over three years with HPE Blades in the following three categories of benefits:

- » **Blades enhance user productivity and support the business.** HPE customers told IDC that users are more productive with HPE Blades thanks to improved performance and availability of important business applications. IDC projects that employee productivity gains are worth an average of \$469 per year per user over three years.
- » **Blades deliver IT infrastructure cost savings.** HPE customers reported that they have consolidated their server footprints and deployed more virtual machines, which has helped them reduce related costs, including server hardware, network infrastructure, power, and facilities-related costs. Over three years, IDC calculates that these cost savings have an average value of \$424 per user.
- » **Blades enable IT staff efficiencies.** HPE customers explained that their IT staffs have become more efficient by saving time and making productivity gains thanks to the integrated nature of the blade platform. IT staff spends less time monitoring and managing server environments and needs substantially less time to deploy a blade server. IDC puts the value of these efficiencies and time savings at an average of \$307 per user per year over three years.

The cumulative result of these efficiencies is that these organizations are able to provide improved IT services at a substantially lower cost to their users with HPE Blades.

FIGURE 1

### Costs for IT Infrastructure, IT Staff, and User Productivity with and without HPE Blades



Note: Figure 1 reflects cost comparison between current HPE Blade servers and the servers replaced.  
Source: IDC, 2014

HPE customers reported that their users are benefiting from faster and more robust performance of important business applications on their bladed infrastructures.

## HPE Blades Deliver a Reliable Server Environment that Drives Business and Productivity

HPE customers reported that their users are benefiting from faster and more robust performance of important business applications on their bladed infrastructures. Increasingly, their business models depend on maximizing the productivity of users who rely on these applications on a daily basis. In addition, these customers described how improved server performance and infrastructure agility with HPE Blades allow them to serve their customer bases better.

HPE customers reported up to a 15% productivity increase for employees since deploying HPE Blades. Thanks to improved application performance and faster application speeds with HPE Blades, IDC calculates that the average user at surveyed organizations is gaining 12.5 additional hours of productive time per year. Examples of such productivity gains included:

- » A health care provider described how nurses have achieved a substantial productivity gain with HPE Blades: "Nurses can respond to screen input faster and enter information faster in the new HPE BladeSystem environment. I would say there's been a 10% productivity increase in these activities for over 2,000 employees."
- » An apparel company explained that it has been able to bring a key electronic data processing application back in-house thanks to improved IT infrastructure performance with HPE Blades, not only saving hosting costs but also helping users of the application make productivity gains thanks to improved performance of the application: "We never would have thought about bringing that application in-house before migrating to HPE BladeSystem. Its performance is now better than ever before, even using hosting."

In addition to improved performance, these HPE customers have reduced risk associated with their IT environments because their HPE Blades servers have fewer instances of unplanned downtime and can be brought back online faster. Table 2 presents metrics regarding unplanned downtime for these organizations and shows that they have reduced the loss of productive time caused by unplanned downtime by an average of 91.3% per user per year with HPE Blades.

TABLE 2

Risk Reduction Key Performance Indicators				
	Before HPE Blades	With HPE Blades	Savings	% Improvement
Server incidents per year	45.1	4.1	41.0	90.9%
Hours needed to fix the problem (MTTR)	1.694	1.625	0.069	4.1%
Server downtime hours per year	76.4	6.7	69.7	91.3%
Downtime hours per user per year	6.02	0.53	5.50	91.3%

Source: IDC, 2014

HPE customers also have improved their ability to serve their customers. This benefit relates back to improved compute power with HPE Blades, as well as the ease with which these organizations can now provision computer resources to meet business demand. Taken together, this means an improved overall business case for these HPE customers as they minimize the cost to provide the IT infrastructure needed to run their businesses and better serve their growing customer bases:

- » A cloud services provider noted that it has reduced its time to market with HPE Blades and improved the quality of its services: "With the new HPE ProLiant Gen9 blade servers, it takes about 10% less time to deploy for new customers coming in, and we've heard from new customers that the system is running more smoothly."
- » A hosting and application services delivery provider explained how it is building its business off of its Bladed infrastructure: "HPE BladeSystem has helped us grow. It helps us keep power and other tangible costs low [and] keeps our deployment times low, which allows us to make a compelling offer to our customers."

### Lower IT Infrastructure Costs with HPE Blades

HPE customers noted a number of areas in which they are recording cost savings with HPE Blades, reducing their expenditures on IT infrastructure by an average of 47.5%. Key areas include:

- » **Server infrastructure.** Customers are able to consolidate their server environments with HPE Blades, thereby reducing their capital expenditures on server hardware without negatively impacting their workload capacity and performance. Companies using HPE Blades reduced their server hardware and associated software costs by 54% on average.
- » **Network infrastructure.** Customers report reducing their LAN and SAN switching and cabling costs by an average of 40% with HPE Blades. This efficiency relates to their consolidated server footprint as well as their use of HPE Virtual Connect modules, which allows them to connect networking and storage links to their HPE Blade infrastructure without

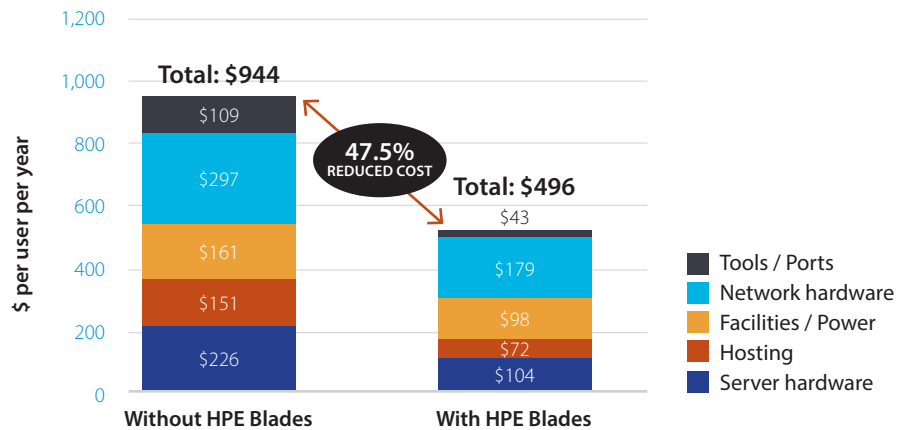
We have the ability to move virtual machines within the enclosure rather than going out and then back in

additional costs. A hosting and applications delivery provider explained how HPE Virtual Connect benefits his company: “HPE BladeSystem is very system-integrated centric, so we have the ability to move virtual machines within the enclosure rather than going out and then back in, with the backbone there already and have improved the speed with which everything can be transferred. Without HPE Virtual Connect, we would have had to buy another \$200,000 of network cores and switches.”

- » **IT facilities.** Customers have reduced their power and facilities costs because of the integrated platform of HPE Blades, efficiencies gained through shared power and cooling components, and consolidation of their server platforms. On average, interviewed organizations have reduced their power expenditures by 34% and reduced their spending on facilities by 57%.
- » **Hosting.** Customers told IDC that they are leveraging improved infrastructure performance and IT staff efficiencies to move certain workloads back in-house thanks to improved infrastructure performance. On average, this leads to 53% savings for costs associated with hosting Web content and applications. One customer in the apparel industry noted that it had moved a key customer-facing application back in-house, not only saving costs associated with hosting it but also capturing benefits from its improved performance on its Bladed infrastructure.

Figure 2 demonstrates that organizations interviewed for this study are achieving IT infrastructure cost savings in these and other areas, including further savings in costs related to tools and ports.

**FIGURE 2**  
Costs for IT Infrastructure



Note: Figure 2 reflects cost comparison between current HPE Blade servers and the servers replaced.  
Source: IDC, 2014

“Before HPE BladeSystem, 90% of staff time was spent firefighting and trying to maintain the existing environment. Now, they’re probably spending 15–20% of time on maintaining, so the same staff can bring in new workloads and support growth while being able to stay pretty flat in terms of staff headcount.”

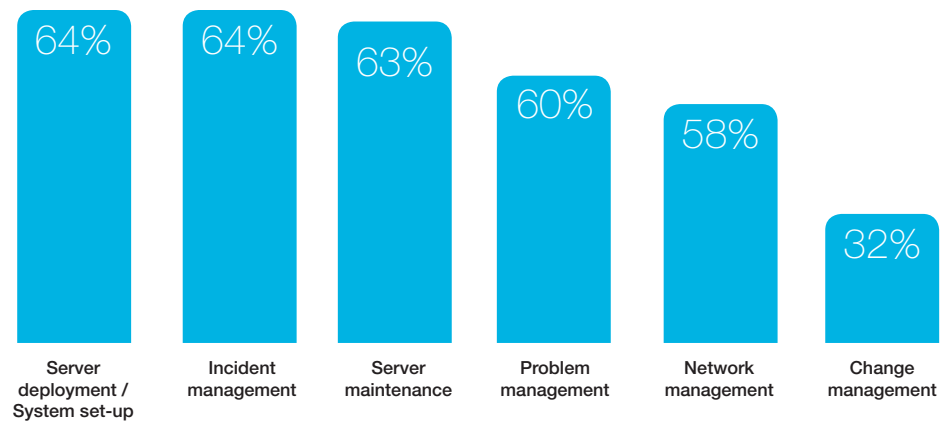
## HPE Blades Enhance IT Staff Productivity

HPE Blades have enabled IT departments at these interviewed organizations to benefit from having an integrated server platform that allows for centralized management of servers and other components within the enclosure. For IT staff responsible for monitoring, managing, and provisioning servers, this results in time savings and operational efficiencies. Consequently these organizations can invest more of their IT staff’s time to supporting and driving businesses with IT and to providing agile IT services to support evolving business needs.

Several HPE Blades customers interviewed for this study noted that they now devote substantially less IT staff time to “keep the lights on.” This is manifested in reduced IT staff time required to perform a variety of server-related responsibilities, as shown in Figure 3. An IT manager at an apparel company linked this efficiency to an improved ability to support the business: “Before HPE BladeSystem, 90% of staff time was spent firefighting and trying to maintain the existing environment. Now, they’re probably spending 15–20% of time on maintaining, so the same staff can bring in new workloads and support growth while being able to stay pretty flat in terms of staff head count.”

**FIGURE 3**

### IT Staff Increased Efficiencies with HPE Blades



*Note: Figure 3 reflects cost comparison between current HPE Blade servers and the servers replaced (% improvement).  
Source: IDC, 2014*



The objective is to unburden IT admins from manual processes and antiquated spreadsheets and allow them to discover, monitor, configure, and collaborate using a unified management solution spanning a broad range of HPE systems.

## Business Value Of HPE Oneview: Driving IT Simplification and Business Operations With a Common Management Platform

As more companies come to realize that the majority of the true costs associated with server environments is actually in the OPEX vs. the CAPEX, the management of servers is becoming a focal point. Systems management software is increasingly being viewed as a critical differentiator in server technologies.

HPE OneView is a common management platform for the server, storage, and networking in the HPE BladeSystem. As the next generation of system-specific monitoring and automated management tools, HPE OneView enables more efficient and flexible system configuration, provisioning, and operations. HPE OneView was built from the ground up to serve as a unified replacement for multiple management tools. The principle of the design is to optimize systems configuration and monitoring processes based on people-centric versus device-centric terms. The resulting solution offers simple consumer-style dashboards, powerful natural language alerts and search, and robust topological visualization. It also includes extensive out-of-the-box templates and programmable process automation capabilities that enable IT staff to customize complex workflows quickly and execute them rapidly and consistently at scale.

The objective is to unburden IT admins from manual processes and antiquated spreadsheets and allow them to discover, monitor, configure, and collaborate using a unified management solution spanning a broad range of HPE systems. This new platform approach can deliver productivity benefits while improving business agility.

IDC interviewed two organizations that use HPE OneView in addition to HPE BladeSystem to understand the benefits they are achieving with HPE OneView. IDC has not created a model to average the benefits these two organizations are achieving with HPE OneView, nor do the business value results in this study for HPE BladeSystem take into account the value of HPE OneView. However, IDC believes that the two interviews it conducted with HPE OneView customers demonstrate the types of and extent of benefits in terms of IT staffing and operational efficiencies that HPE OneView can deliver.

- » **Server deployment efficiencies.** Both interviewed organizations said that they have leveraged software-driven processes with HPE OneView to create substantial efficiencies in their deployments of servers. An airline customer using HPE OneView has reduced the average time it takes to deploy an enclosure of servers from twenty hours to less than one hour because it can automatically set all of the settings for the enclosure with HPE OneView and then deploy the servers with a single press of a button.
- » **Time to market.** These organizations can leverage policy-driven server deployments to support the rapid build-out of technologies being used by employees to drive their businesses.

HPE OneView offers improved visibility through its one pane of glass capabilities that customers can leverage to reduce the number of outages impacting their IT infrastructure.

For example, an internal services provider at a global financial services institution cut the time needed to deploy a technological solution from sixty-six days to one day by harnessing policy-driven automation with HPE OneView.

- » **Make IT a center of innovation.** HPE OneView offers functionality such as a single-user interface and intuitive search capabilities that enable organizations to reduce the amount of staff time needed to “keep the lights on.” For example, the internal services provider at the global financial institution reported that it needed about 40% less staff time for its build and maintenance operations with HPE OneView.
- » **Reduce business risk.** HPE OneView offers improved visibility through its one pane of glass capabilities that customers can leverage to reduce the number of outages impacting their IT infrastructure. The airline customer explained that it could monitor forty server enclosures on the single pane of glass, providing it with a clear view of the overall health of its systems as well as the ability to pinpoint problem areas. It regards this visibility as the most significant benefit of using HPE OneView because it means maintaining a zero downtime environment for servers running its customer-facing websites that generate huge amounts of its revenue, meaning that any outage can impact millions of dollars of revenue.

## ROI Analysis

IDC recorded the results of its interviews with HPE customers using HPE BladeSystem and it leveraged other research it has conducted into companies using HPE Blades. IDC used the following three-step method to conduct its ROI analysis:

- » **Gathered quantitative benefit information during the interviews using a before-and-after assessment.** In this study, the benefits included user productivity increase, IT cost reduction, and IT staff productivity increase.
- » **Created a complete investment (three-year total cost analysis) profile based on the interviews.** Investments go beyond the solution’s hardware and software. IT departments spend staff time installing and configuring the new solution, removing old equipment and/or software, and then maintaining the new solution over three years. Ancillary costs directly related to the solution, such as user input to planning, outsourced installation, configuration or maintenance costs, and IT staff or user training, are also included in the analysis.
- » **Calculated the ROI and payback period.** IDC conducted a depreciated cash flow analysis of the benefits and investments over a three-year period.

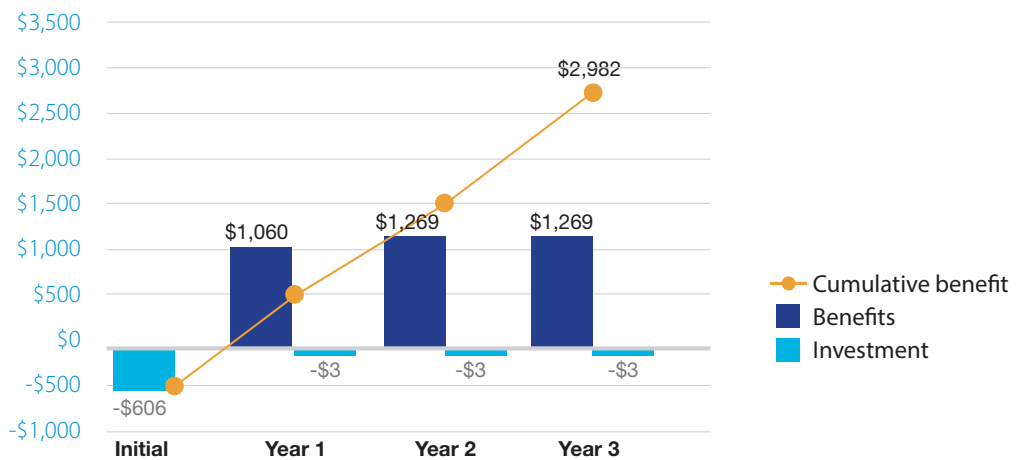
IDC uses a discounted cash flow methodology to calculate the ROI and payback period. ROI is the ratio of the net present value (NPV) and discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

The three-year ROI analysis shows that the organizations in this study spent an average of \$615 per user over three years on HPE Blades.

IDC assessed the cost, benefits, and value associated with the use of HPE BladeSystem by the average organization using it (see Figure 4). The three-year ROI analysis shows that the organizations in this study spent an average of \$615 per user over three years on HPE Blades. This investment translates to average annual benefits worth \$1,200 per user, meaning that these organizations achieved a cumulative benefit of \$2,982 per user over three years.

**FIGURE 4**

### Cost Benefit Analysis per User of HPE Blades



Note: Figure 4 reflects cost comparison between current HPE Blade servers and the servers replaced.  
Source: IDC, 2014

Table 3 provides IDC’s ROI analysis for these organizations’ use of HPE Blades. It shows that the average organization spends \$613 per user over three years on their Blades environment, which yields benefits worth \$2,861 per user. This results in these organizations breaking even on their investment in HPE Blades in 6.9 months and achieving an average ROI of 366%.

**TABLE 3**

Three-Year ROI Analysis per User of HPE Blades	
	Average per user
Benefit (discounted)	\$2,861
Investment (discounted)	\$613
Net Present Value (NPV)	\$2,247
Return on Investment (ROI)	366%
Payback (months)	6.9
Discount Rate	12%

Note: Table 3 reflects cost comparison between current HPE Blade servers and the servers replaced.  
Source: IDC, 2014

Traditional methods often focus only on the procurement of systems rather than the management and maintenance of the environments. Tangible costs, including the price of hardware and software licenses, are easy to measure.

## Challenges/Opportunities

While many companies are already taking advantage of bladed architectures to simplify their server environments, adopting blades can still present challenges for certain enterprises. A more sophisticated financial accounting method is required to identify and allocate the true costs associated with IT environments. Traditional methods often focus only on the procurement of systems rather than the management and maintenance of the environments. Tangible costs, including the price of hardware and software licenses, are easy to measure. However, soft costs, such as hardware cabling costs, facilities charges, and personnel hours needed to configure and manage the environment, often are not accounted for with precision. It is even rarer for the business impact to be accounted for in an IT purchase.

Faced with increased competition from third-party IT providers, it is critical that internal IT departments increase the speed and efficiency of delivering IT services. This study demonstrates the improved ROI and agility from migrating their server environments to HPE BladeSystem or upgrading to new HPE Blade servers. This in turn provides the opportunity for IT to turn its attention to creating business value.

## Conclusion

The IT executives interviewed clearly conveyed that they chose HPE BladeSystem because of the ease of deployment and management. This simplification of server environments translates into lower operational expenses and faster provisioning while reducing downtime.

As the industry is transformed by trends such as cloud, mobile, social, and big data, the internal IT environments must evolve as well. IT services will become ubiquitous in all parts of business, from business development to decision strategy to client services. It is critical to organizations' success that IT deploy server infrastructure that can drive higher user productivity, reduce costs, and deliver efficiency to the IT staff. As this IDC study demonstrates, HPE BladeSystem should be given strong consideration in product evaluations.

## Appendix: Research Method

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 revenue 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 bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- » Time values are multiplied by burdened salary (salary +28% 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 revenue.
- » 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. This accounts for both the assumed cost of money and the assumed rate of return.

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 assessment, we asked each company what fraction of downtime hours to use in calculating productivity savings and the reduction in lost revenue. IDC then taxed 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 prorated the benefits on a monthly basis and then subtracted the deployment time from the first-year savings.

## IDC Global Headquarters

5 Speen Street  
Framingham, MA 01701  
USA  
508.872.8200  
Twitter: @IDC  
idc-insights-community.com  
www.idc.com

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