WHITE PAPER

ROI of a Complete Networking Portfolio: Delivering Value from the Network Edge to the Core

Sponsored by: HP

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EXECUTIVE SUMMARY

The IT market is entering a new era in which the importance of the network is greater than ever. Emerging architectures demand networking expertise, and tightly integrated systems and architectures are required to solve the complex problems of enterprise deployments. Applications such as voice, video, and converged IT architectures and services are placing fundamentally new demands on the network. Meanwhile, traditional applications running across the network have also become more ubiquitous and more demanding as the needs of businesses become more "real time."

Further, driven in part by a tougher economic environment, enterprises are examining all budget line items and are demanding solutions that not only satisfy current and perceived future needs but also represent a smarter financial investment. Economic benefits being sought now include not only low acquisition and operating costs but also improved productivity for IT staff and end users.

IDC believes that HP has clearly recognized the changing needs of the enterprise and is positioning itself as a leading provider of converged infrastructure solutions that include networking. In particular, with its recent acquisition of 3Com, HP has taken an important step toward completing its enterprise offering. By bringing this new broader networking portfolio to market through HP's direct and indirect sales channels and combining it with HP service offerings, HP Networking is now positioning itself to be a global contender and provider to enterprises and major verticals.

To determine the return on investment (ROI) associated with implementation of an HP Networking–based network solution, IDC conducted a study of 12 medium-sized to large organizations with an HP Networking infrastructure deployed in their production environment. IDC estimates that these businesses were able to reduce their total costs of networking by 66% and achieve a 466% ROI; a three-year (discounted) benefit of $147,250 per 100 users; and payback on their initial investment within 8.4 months.

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SITUATION OVERVIEW

Network Infrastructure Growth Drivers in Today's Enterprise

After suffering through the financial crises of 2008 and 2009, the IT industry in general and the networking market in particular are showing signs of stabilizing. Despite the slow economy, indeed because of it, enterprises need IT solutions that help them improve service delivery, streamline operations, and keep their operating costs low. And given the business-critical nature of the network to the IT operations of the enterprise, IDC sees businesses continuing to invest in their networks. Major drivers for enterprises making investments in networking equipment today include:

- **Importance of IT infrastructure convergence and the enabling role of the network.** Integration and IT convergence (e.g., servers, storage, networking) are a major focus of enterprises today. Businesses are integrating mission-critical applications with an eye toward streamlining operations to drive costs out of their critical business functions, improve service delivery, and increase customer satisfaction. No longer does the term "network-based businesses" refer only to Internet-based businesses such as Google or Amazon; instead, the vast majority of enterprises today are highly dependent on their IT infrastructure, key business applications, and the network that enables users to access those applications. If the network goes down, it is no longer a minor inconvenience but a serious blow to employee productivity and company revenue.
- **Growth in network endpoints.** Enterprises must be able to handle not only a growing number of users on their networks but also an explosion in the numbers and types of devices supported. Networks that only a decade ago were asked to connect corporate servers and users' desktop PCs must now support a vast array of wireless devices, smartphones and tablets, IP phones, video terminals, CCTV, network-attached print stations, point-of-sale devices, RFID readers, and a variety of other noncompute devices. This adds not only traffic but also tremendous complexity to the network. It was typical for respondents in this study to support data, voice, CCTV, videoconferencing, and wireless all from a single physical network.
- **Intelligent networks support new applications, new services.** No longer is it the network's sole function to deliver traffic from source to destination quickly and reliably. The network must now support a mix of applications and services, including voice and video, enhancing security, deploying WLANs and supporting wireless applications, and even supplying power to end-user devices with Power over Ethernet (PoE). This lays additional burden on the network, not only by placing increased demands on functionality and resiliency but also by driving the need to build intelligence into the network to control traffic flows, ensure that application delivery is aligned with business needs, and mitigate security threats compounded by increased complexities caused by the mix of users and applications supported.
- **Emergence of social networking.** Enterprises looking to get an edge in today's marketplace are increasingly adopting social networking tools, ranging from Twitter, Facebook, and YouTube to blogs, wikis, and discussion forums. They are using social media as a new means to foster communications with external audiences,

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including customers, partners, and suppliers, and to improve internal collaboration and communication among employees. As these tools reach more wide-scale adoption in the enterprise, they will place a greater burden on the network; this is particularly true of social media applications such as YouTube and videoconferencing that are based on real-time, streaming media.

- **Migration of voice and video to IP.** Businesses long ago bought into the benefits of adopting technologies such as videoconferencing and voice over IP as they looked to reduce telecom and travel costs; however, the qualitatively different nature of voice and video brings an entirely new set of challenges to network administrators. Response times for Web sites or applications of up to a second used to be acceptable, but the human eye and ear can detect delays measured in milliseconds. Simply throwing bandwidth at the problem is insufficient as the mix of application demands on the network rises. Enterprises must ensure that the bandwidth and intelligence in their network can handle these more complex quality-of-service requirements.
- **Cloud computing, desktop virtualization, and software as a service (SaaS).** Cloud computing and SaaS improve agility, efficiency, and cost-effectiveness of IT operations to the enterprise. But as a greater number of applications are delivered over the cloud, demands on the network increase. Further, as enterprises deploy desktop virtualization, tasks that were performed locally on users' PCs are now performed by servers in the datacenter, and application performance now depends on data transfer across the local area and wide area networks. These trends further add to the network workload and increase the criticality of network performance and manageability.

Simplifying Networks and Improving Application Service While Reducing Operating Costs

As the network has grown in strategic importance, it has also become more complex and difficult to manage. To combat this trend, enterprises are looking for ways to incorporate simplicity and greater manageablity into their network infrastructure. Architectural openness, common operating systems across all network devices, and solutions enabling centralized management of all network resources via a single console have all become critical selling points to the enterprise.

Even as enterprises look to simplify network management, they are taking steps to improve application performance. Anything less than best-in-class throughput, uptime, and security is not acceptable; beyond the individual piece parts and components, it is the "whole" infrastructure that enterprises want to optimize and leverage to its full business potential. Networking infrastructure must be able to deliver a flexible, application-centric environment that seamlessly provides access to business services and end users anywhere.

Compounding the difficulty for network managers is that they must balance these demands against an aggressive cost containment stance. Motivated by the economic downturn, businesses are squeezing as much as they can from their operating budgets, and IT is feeling its share of the squeeze. Networking products not only must be cost-effective in terms of initial acquisition costs but also must have a low lifetime

total cost of ownership, including network administration staff time, warranty and support costs, and energy and power costs.

Several respondents commented on these conflicting pressures and their ability to address them with HP Networking. "We now have a more stable environment, newer technology, less frequent equipment failures, higher availability, better ease of use, and reduced complexity," noted one U.S. respondent. "And HP was the lowest-cost solution when we purchased our equipment."

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Overview of HP Networking Solutions

In April 2010, HP acquired 3Com, adding 3Com's technical resources and combining the 3Com, H3C, TippingPoint, and ProCurve product lines to HP Networking. With this acquisition, HP is building an end-to-end networking portfolio to supplement the rest of its IT hardware, software, and infrastructure service offerings and to better position HP as it competes with other global end-to-end IT infrastructure providers.

The combined HP Networking portfolio is designed to help enterprises adapt to meet sophisticated networking needs with an integrated family of products designed to be scalable, flexible, and adaptive. The two companies' product portfolios have been brought together and segmented into technology groupings (A, E, V, and S) based on customer needs, which represents an initial step toward simplifying sales and support for the broad portfolio.

The HP Networking portfolio encompasses datacenter networking, enterprise routing, end-to-end security, LAN switching, branch office, mobility, and unified communications. These products are split between four product families:

- **A Series.** These products are for customers with large/complex deployments who are seeking advanced, full-featured network technology.
- **E Series.** These products are for customers seeking proven technology that is affordable and easy to use. They are designed specifically with the needs of midmarket customers in mind.
- **V Series.** These products are for value-conscious customers seeking reliable and easy-to-use connectivity solutions, namely small and medium-sized businesses.
- **S Series.** This product family consists of network security solutions and includes security solutions from the HP TippingPoint product line.

This paper focuses primarily on deployments of the A-series and E-series product lines and evaluates how they can help enterprises meet their IT infrastructure and business goals.

A Series

The HP A-series portfolio consists of a complete line of modular switches, top-of-rack switches, server blade switches, and fixed port switches, all of which offer a complement of 100Mb, 1GbE, and 10GbE connectivity options with flexible interfaces. Platforms designed for the network core can be deployed by enterprises or datacenters, while for the network edge, the A Series provides simplicity and flexibility

with wired and unified wireless options, a non-blocking architecture, an intelligent fabric that supports common endpoint services, and streamlined network maintenance and upgrades. The A Series includes routers that provide core and edge routing capabilities, as well as a family of multiservice gateway routers that are ideally suited for multisite rollouts. Finally, it includes WLAN offerings as well as the HP Intelligent Management Center (IMC) management software solution.

E Series

The HP E-series portfolio includes modular switches and fixed port switches, as well as WLAN, unified communications, and management software. The E Series is designed to deliver compelling value for a managed network infrastructure that can include local and remote wired switch deployments, controller-based and standalone wireless access points (APs), and VoIP for unified communications — all with a management interface that is simple to learn and navigate.

Unified Management Software

The HP Networking management software suite enables the administration of both wired and wireless networks, enhancing the efficiency and performance of administering security policies and ensuring performance. HP Networking offers a choice of management software offerings to fit different businesses' needs, scale, and budget. They include:

- **HP Intelligent Management Center.** HP IMC delivers integrated and modular network management capabilities designed to meet the end-to-end management needs of advanced, heterogeneous networks. HP's top-of-the-line management offering, IMC is based on a service-oriented architecture that integrates traditionally disparate management tools and can be deployed across multiple servers to provide complete management of resources, services, and users. IMC supports the management of HP, 3Com, H3C, and third-party devices.

- **HP Networking PCM+.** HP Networking PCM+ is a Windows-based network management application designed to deliver robust and detailed management of HP Networking devices. Capabilities include automatic discovery, network mapping, configuration management, firmware updating, monitoring, and troubleshooting of HP Networking devices. HP Networking PCM+ is designed to provide cost-effective management, security, and extensibility for small, medium-sized, and large networks, including remote sites. It offers analysis of network traffic, advanced virtual LAN (VLAN) management, and centralized policy and configuration management and supports management of HP Networking products.

HP AllianceONE

HP Networking has combined ProCurveONE, 3Com|ON (Open Networking), and the TippingPoint alliance partnerships into a new unified program that provides clients with a rich set of complementary technologies covering applications such as management, convergence, security, and application optimization. This forms the networking specialization of the HP AllianceONE program, which itself brings together ISVs, IHVs and SIs to deliver Converged Infrastructure solutions that can be integrated and tested across servers, storage, and networking.

METHODOLOGY

ROI Analysis

Survey Demographics

IDC based its ROI analysis on interviews with 12 medium-sized to large organizations that are using HP Networking in production deployments. Some are new HP Networking deployments, while others are upgrades or significant network expansions by long-term HP Networking customers. All have been running for a sufficient period of time to provide perspective on how the product has made an impact on their bottom line. The organizations interviewed are located in North America, Europe, and Asia/Pacific and have an average of over 9,600 users; more than 4,700 network nodes; and 31 networking sites (see Table 1). The interviews explored the companies' business initiatives and assessed the benefits and costs associated with implementing HP Networking platforms.

These interviews were supplemented by information from the IDC Business Value Database with information collected from over 3,000 companies in 43 countries and 25 industries. The information from the IDC Business Value Database was used to validate these interviews to extrapolate the business value drivers to a general business audience.

TABLE 1

Study Demographics

Metric	Value
Users	9,683.6
Nodes	4,788.4
Networking sites	31.25
Percentage of network running on HP gear	94%
Geographies	North America, Europe, Asia/Pacific
Industries	Transportation, healthcare, hospitality, legal, service provider, government, education

Source: IDC, 2010

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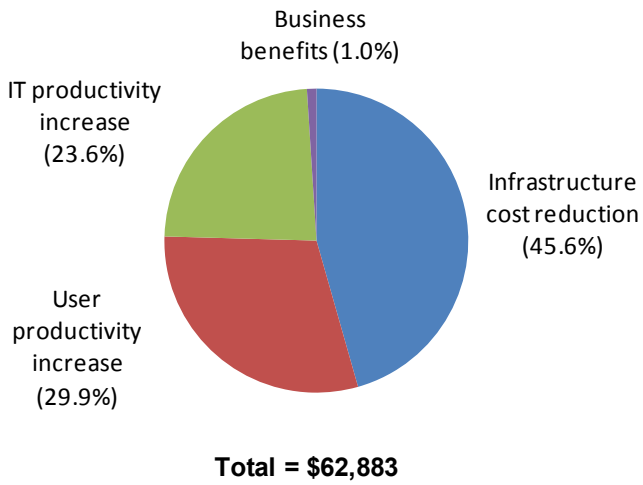
Benefits Derived from HP Networking Deployments

To assess the benefits of implementing an HP Networking solution for enterprise customers, IDC interviewed businesses that have deployed and are using HP Networking products in production environments. The ROI drivers identified for HP Networking fell into four primary areas (see Figure 1):

- Infrastructure cost reduction
- IT productivity
- User productivity/downtime
- Business benefits, including protection against lost revenue

FIGURE 1

Annual Benefits of HP Networking Solution per 100 Users



Source: IDC, 2010

Infrastructure Cost Reduction

The most significant impact of the HP Networking solution was identified to be a reduction in infrastructure costs, accounting for over 45% of the total value delivered. This was due to a combination of factors, including:

- **Purchase cost of the equipment.** Each of the respondents mentioned that a large consideration was the lower purchase cost of HP Networking equipment compared with the cost of competitive offerings. One U.S. respondent noted, "The original hardware was 70% of the price in comparison to [other vendors' products]."

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- **Maintenance and support costs.** Another factor respondents overwhelmingly cited as being very attractive is the maintenance and support costs. Many had the benefit of HP's zero-cost lifetime warranty that comes with a range of HP Networking equipment. (Please reference the HP Web site [http://www.hp.com/networking/warranty] for warranty terms and conditions.) This warranty support includes firmware updates and bug fixes. "HP has the best warranty possible," stated one U.S. respondent. "When we got the boxes, we got a free lifetime warranty, and now we don't have to worry about yearly budgets for warranties."

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- **Power consumption benefits.** Respondents mentioned that switching to HP Networking reduced the number of pieces of equipment in their infrastructure and the overall power draw, in part due to the PoE technology. While many didn't measure power consumption down to the level of individual switches, most nevertheless believe that their HP Networking equipment was reducing overall operating costs in this respect.

- **Consolidation of switches.** Several respondents consolidated switches and even networks along with their HP Networking implementation. "In our offices we had nine switches and are down to four now," commented one European respondent. "And in our datacenter we are down to four boxes and would have needed in the region of 8–10 based on where our network is now."

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- **Standardized components that reduce size of spares pool.** Respondents commented that by standardizing on HP Networking throughout their network — at the core, distribution, and access layers — they were able to reduce the variety of components in their spares pool and therefore carry fewer of them.

- **Long product life span that enables deferment of capital costs.** With the HP Networking lifetime warranty, combined with the longevity of the product, several of the interviewees expect to achieve and indeed have achieved longer life cycles with HP Networking switches than they believe they would have been able to achieve with other products. This allowed them to step down previous-generation top-of-the-line switches into less demanding roles, thereby deferring capital outlays for new equipment.

- **Facilities savings due to reduced physical footprint.** Consolidating switches and increasing port count allowed respondents to reduce the physical footprint required by their switches. One respondent was able to increase port density by a factor of about four after the upgrade to HP Networking.

The top three infrastructure cost components were networking equipment purchase savings; services, maintenance, and support; and power consumption. Combined, these components saved over $28,000 annually per 100 users (see Table 2).

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TABLE 2

Annual Cost Reduction per 100 Users

	Value ($)	% Reduction
Networking equipment (switches, routers, wired and wireless access points, security appliances, etc.)	15,818	36
Services, maintenance, support, and/or warranties	8,898	91
Power consumption	3,947	50

Source: IDC, 2010

IT Productivity

Improved productivity in IT operations amounted to about 30% of the primary benefit. The IT managers interviewed said that centralizing and automating their network management operations allowed their IT staff to spend less time on a variety of network management areas. Key items mentioned by respondents include:

- **Less spending on implementation and rollout.** A common theme among the respondents was how smoothly their HP Networking implementations and rollouts went. Many performed their implementations with in-house staff, requiring little or no external consulting or professional services time. Facilities buildout was typically the gating factor in implementation timelines, with respondents stating their actual switch deployment was straightforward and quick. "The install took a couple of months, which included choosing a partner, planning, and deployment," said one European respondent. "But actually fitting the equipment into the offices was only one day for three guys."

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- **Streamlined ongoing network management.** Respondents credited a number of features in the integrated management software that streamlined ongoing network management, including the ability to quickly set up and manage user IDs and to publish user access rights to the wireless network through Active Directory. One Asia/Pacific respondent noted, "Overall, the more graphical way to interact with HP Networking is more efficient. It's easier and more flexible to use HP."

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- **Streamlined operations by leveraging modularity.** Having switches based on common software and hardware modules in all layers of the network streamlined the operations of several respondents because they did not have to staff up with expertise on multiple different switch technologies. The reduction in complexity allowed them to implement changes faster and more flexibly accommodate user requests.

- **Simpler management and maintenance of VLANs and application networks.** Several respondents manage VLANs and application networks, and these interviewees credited HP Networking with greatly simplifying this task.

In a number of situations, respondents were able to reduce the full-time equivalent (FTE) headcount required to manage and maintain their networks, redeploying staff to more strategic and productive tasks. One respondent at a European company indicated that the organization had been managing its network with three senior staff plus several junior engineers. After switching to HP Networking, the company found that the workload was sufficiently reduced, and as a result, it was able to transfer one of the senior engineers to another task and didn't need to replace the headcount.

Other respondents pointed out that while they did not reduce their network management staff after implementing HP Networking, the ease of installing and maintaining the technology allows them to perform network administration with fewer senior engineers and to even use trainees rather than more highly skilled IT network engineers who have a higher labor rate.

User Productivity

Respondents described a dramatic decrease in network downtime after implementing HP Networking, resulting in an increase in user productivity. Companies that rely on the network for business-critical or revenue-generating operations also cited reduced risk of failure as a key benefit. On average, organizations in the study were able to reduce downtime by 90%, saving 16.6 hours per year per network end user.

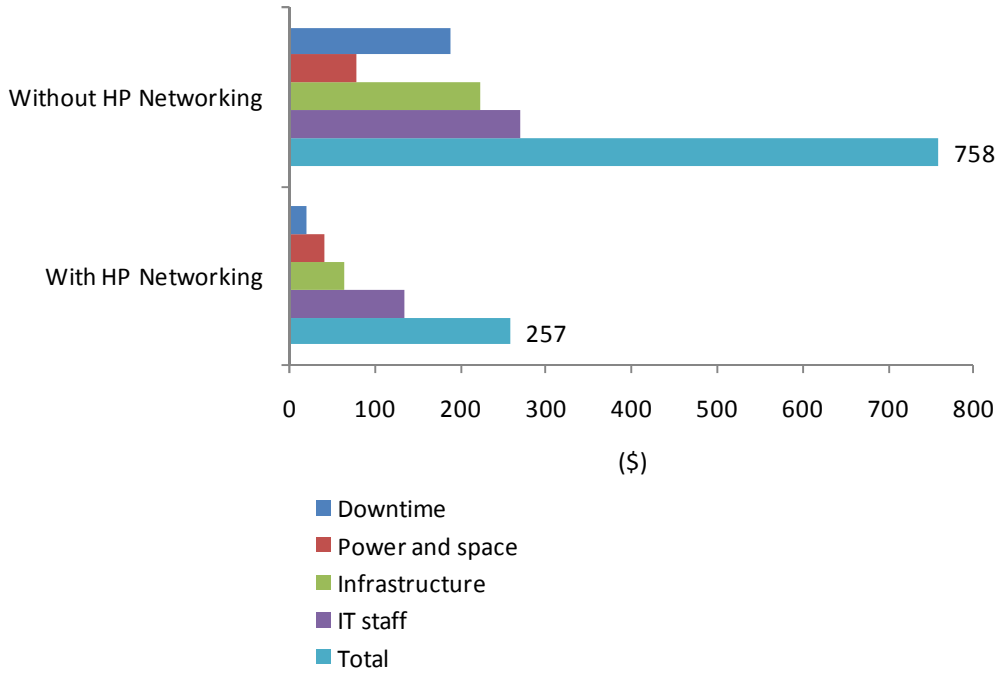
Optimizing the Networking Environment with HP

The net result of deploying an HP Networking solution was found to be the ability to optimize the networking environment. Companies were able to reduce their total costs for networking by 66% and at the same time improve the quality of networking services. IDC estimates that the companies in this study would have had average annual networking costs of $758 per user without HP. With an HP Networking solution, they averaged $257 in annual costs per user, broken down as follows (see Figure 2):

- **IT staff.** The annual cost of IT staff was reduced 50% from $269 per user to $134 per user. This represents savings in the IT staff required to directly support networking hardware and end users.
- **Infrastructure costs.** Annual infrastructure costs were reduced 71% from $222 per user to $64 per user. This includes the costs of purchasing and maintaining networking hardware and software.
- **Power and space.** Power and space costs were reduced 50% from $79 per user to $39 per user due to lower cost per kWh for power and HVAC, as well as the per square foot costs of leasing commercial datacenter space.
- **Downtime.** Annual cost of unplanned downtime was cut 90% from $188 per user to $19 per user by reducing lost user productivity from network downtime events as well as security incursions. (Note: The overall impact of downtime has increased as users have become more reliant on the network to perform their jobs.)

FIGURE 2

Annual Networking Costs per User



Source: IDC, 2010

Business Benefits

Creating a more reliable network positively impacted business operations with revenue implications as well. Not all organizations in the study experienced revenue loss as a result of downtime, but those that did reported reductions in average hourly losses of $30,000 to $100,000.

One European respondent at a legal firm noted that staff billing time was over $75,000 per hour and that network downtime would cut directly into that figure.

Other respondents mentioned benefits in meeting various compliance requirements. In some of the more severe cases, sufficiently high network downtime could cause them to lose their business license, which would have catastrophic results on the business. "Worse than lost revenue is the regulatory compliance risk," said an Asia/Pacific respondent. "[Our regulators] have the power to shut us down if our network cannot handle the demands, and if our business is closed, I'll be writing my resume."

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The top business benefits identified by IDC include protecting revenue loss from downtime and degraded operations and enhancing revenue streams coming directly from the Internet (see Table 3).

TABLE 3

Business Benefits

Metric	Average Value
Revenue loss from downtime	$511,289
Revenue loss from degraded operations	$66,000
Enhanced revenue streams coming directly via the Internet	$19,679

Source: IDC, 2010

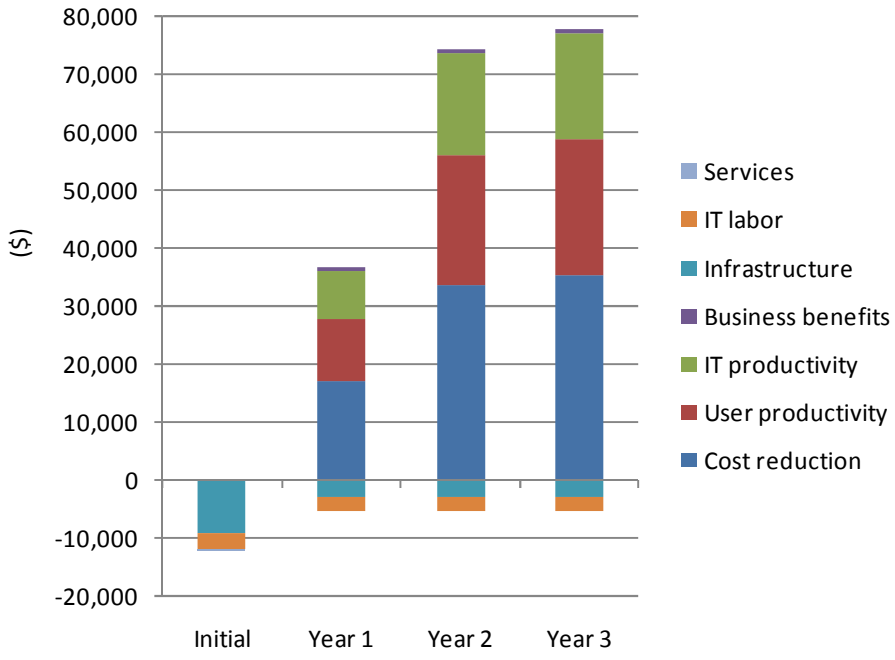
For the purposes of the financial analysis, revenue cannot be directly combined with other benefits such as cost reduction because every dollar of revenue incurs some cost to generate that revenue. IDC therefore reduces revenue savings to operational profit by assuming the revenue is generated at a 10% margin. In this study, nearly $600,000 in annual revenue savings becomes $60,000 operational profit.

Conclusion: Optimizing the Networking Environment with HP Networking

The net result of deploying an HP Networking solution was found to be the ability to optimize the networking environment, lowering the cost of providing switched Ethernet and wireless networking services while improving the quality of those services. While the specific results would vary by items such as network size, applications supported, network topology, and mix of wired/wireless infrastructure in the networking environments, IDC estimates that the companies in this study would have had a cumulative (undiscounted) benefit of $159,812 over a three-year analysis period (see Figure 3).

FIGURE 3

Cash Flow Analysis per 100 Users



Source: IDC, 2010

Results of ROI Analysis

The bottom-line analysis that all companies should perform when considering changing or upgrading their network infrastructure is whether the cost-saving benefits of the upgraded infrastructure will outweigh the costs associated with implementing the new infrastructure. In this study, IDC found that respondents who implemented the HP Networking solution were able to realize a 466% return on their initial investment, achieving a three-year (discounted) benefit of $147,250 and a payback period of 8.4 months (see Table 4).

TABLE 4

ROI Summary per 100 Users

Category	Value
Three-year (discounted) benefit	$147,250
Three-year (discounted) investment	$26,029
Net present value	$121,221
ROI = NPV/investment	466%
Payback period	8.4 months
Discount rate	12%

Source: IDC, 2010

IDC's ROI Methodology

For this ROI project, IDC worked with HP to determine the interview process and guide. HP provided the names of the companies to interview.

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

1. **Measure the benefits.** In this study, the benefits come from the following areas:

   - **IT infrastructure cost reduction** — direct costs that include IT staff labor reduction, hardware cost reductions (for purchase and deployment of incremental network infrastructure components), and reduction in service and support licensing costs

   - **IT productivity increases** — time savings from more efficient IT operations, which enable the reallocation of IT staff time from support tasks (network troubleshooting and maintenance) to higher-value activities such as supporting new business applications or technology initiatives

   - **End-user productivity increases** — increases resulting from the decrease in network downtime due to fewer downtime incidents and improved mean time to resolution (MTTR)

2. **Ascertain the investment profile** 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 Networking, IDC asked for the deployment, setup, upgrade, and maintenance costs, as well as the total cost of the services and training. This investment included the loaded costs of any incremental staff required.

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3. **Calculate the payback period and ROI** for the deployed solution by conducting a depreciated cash flow analysis of the benefits and investments over a three-year period. From the results of the interviews, IDC was able to calculate the average payback period and rate of return from investing in the HP Networking solution, as well as the net present value of the savings. IDC bases its calculations on a number of assumptions:

   - IDC uses a 12% discount rate in the ROI analysis to account for risk and to ensure a conservative analysis.

   - 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 and then subtracts the deployment time from the first-year savings.

Note on Exchange Rates

The organizations interviewed for this study came from a variety of regions around the world. All investments and benefits were gathered in the organizations' local currency and then changed into U.S. dollars at current exchange rates. All figures used in this document are provided in U.S. dollars.

IDC ANALYSIS: CHALLENGES/OPPORTUNITIES

HP Networking faces the following challenges and opportunities with respect to its networking solutions:

- **Value proposition highly tied to value pricing/free lifetime warranty.** The customers interviewed for this project were universally enthusiastic about both the up-front cost advantage of their HP Networking equipment and the free lifetime warranty available on many HP Networking products, which translates into zero annual maintenance fees. This presents HP with a great opportunity to compete at an extremely attractive price point for the midmarket. But there is a danger to HP in that tying the value proposition too closely to this low-cost story may constrain HP Networking in customers' minds and may limit its ability to serve customers whose businesses suffer immensely from even very limited downtime and value support costs as catastrophe insurance. Further, a number of competitors have in place or are currently experimenting with various forms of lifetime warranties, which could erode HP's advantage in this area. HP should continue to evolve its support model and offerings to provide greater flexibility and choice.

- **Successfully integrating the 3Com networking suite with HP ProCurve.** HP's acquisition of 3Com in early 2010 provides both challenges in terms of integrating the two technology platforms and opportunities to greatly expand the product line and business customers HP can serve. By adding 3Com's enterprise portfolio to the midmarket-focused HP ProCurve product family, HP has taken a step toward offering end-to-end solutions and becoming a significant vendor in the enterprise networking market. Providing a greater choice of offerings, particularly at the higher end of the market, can benefit both HP as it looks to

increase its share of the enterprise market and its customers as they look to HP as a "one-stop-shop" provider of networking equipment addressing a broad range of needs. At the same time, while the task of portfolio rationalization has begun in earnest, IDC believes it will take some time for HP to complete integration of its products from the datacenter to the edge and from WAN networking to wireless, voice, and security. Further, IDC expects further acquisitions and partnerships as HP continues to refine HP Networking.

- **Leveraging the 3Com acquisition to provide greater holistic services to enterprise customers.** In addition to integrating the 3Com product line into the old HP ProCurve networking products, HP has a significant opportunity in terms of its ability to integrate the higher-end networking products it obtained through the acquisition with the remainder of its IT deliver portfolio including servers, storage, PCs, and professional services. The new enterprise-class networking products (via 3Com) represent another important offering for HP as it builds its portfolio of IT products that address every critical need in the enterprise and adds to its ability to provide holistic, end-to-end solutions all from a one-stop shop. The challenges associated with this opportunity, of course, are integrating the new product portfolio into the larger product offerings, ensuring seamless interoperability with HP servers and software, and training sales and implementation teams on the new offerings.

- **Need to aggressively leverage its assets to play in both network and IT management and network security.** HP has an opportunity to provide single-pane-of-glass network management into the larger set of HP software assets. IDC sees as critical to success here the need to leverage the S Series, underpinned by the HP TippingPoint Intrusion Prevention System (IPS), into an integrated network management suite. By doing so, an HP or heterogeneous environment will be protected simply and proactively, ensuring the highest levels of application and IT availability.

Going forward, if HP can provide clear positioning and segmentation, especially at the edge and aggregation layers of the network, it can solidify its position as a leader in enterprise network infrastructure.

CONCLUSION

As enterprises deploy converged IT infrastructures, they are demanding more from their networks. They not only must meet demanding needs in terms of performance, throughput, and uptime but also must be able to handle new applications and services and a proliferation of new endpoints, including wireless devices, smartphones, IP cameras, point-of-sale devices, and RFID readers.

IT managers must architect their networks not only to meet their current needs but also to provide the scalability and functionality the business will require in the future. And driven by the soft economy, businesses must meet these demands with an eye toward delivering a strong return on investment and low total cost of ownership on new network investments.

In a study of organizations that have implemented HP Networking in a production environment, IDC found that most believe that HP Networking provides the functionality their enterprises require for current and future needs while providing a strong ROI. With the lifetime cost of ownership advantages of HP Networking, respondents feel they have achieved investment protection and will be better able to grow their network as their needs change. IDC estimated that these organizations were able to achieve a return on their investment of 466% and a payback period of 8.4 months.

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