IDC
Analyze the Future

Business Value Highlights

Reduced staff time needed for server management

68.4%

Reduced staff time needed for server deployment

83.8%

Reduced productive employee time lost due to hardware downtime and degradation

96.3%

Five year total business benefit

$4.79M

Five-year ROI:

368%

Payback period:

10 months

The Business Value of Cisco UCS as a Platform for SAP HANA and Other SAP Mission-Critical Applications

EXECUTIVE SUMMARY

IDC finds that leveraging data analytics in business decisions is becoming a top priority for an increasing number of companies. This in turn is placing new demands on IT organizations; the need is twofold: to manage new streams of unstructured data from sources such as social media and to speed response times to deliver real-time analytics.

As analytic and business application systems grow ever more sophisticated, and their operational platform requirements become more complex, enterprise IT is turning to integrated systems to reduce the complexity, risk, and cost of managing datacenter infrastructure for such applications. Cisco has been a market leader in integrated systems since the introduction of the Cisco Unified Computing System (UCS) more than five years ago.

SAP has responded to the demand for data analytics by developing SAP HANA, a comprehensive in-memory database software system that is delivered on platforms built to SAP specifications by select system partners.

SAP applications are cornerstones of many organizations' business operations. Thus organizations running SAP applications need to put in place compute and network infrastructure solutions that maximize the performance and ease the operation of SAP applications and SAP HANA. Accomplishing this can be challenging in the context of competing demands placed on IT departments and making organizations' IT operations as cost effective as possible while also increasing business agility.

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Analyze the Future

Leveraging these advantages enables organizations running SAP HANA and SAP ERP applications on Cisco UCS to achieve significant IT and business benefits. IDC calculates that the organizations interviewed for this white paper are achieving average annual benefits of $4.79 million per organization over five years.

To meet these objectives, many organizations are turning to Cisco UCS to support SAP HANA and other mission-critical SAP applications. Cisco UCS offers SAP-specific advantages such as delivering an architecture customized for running SAP HANA as well as benefits based on UCS' integrated nature, strong scalability, and centralized system management and administration.

Leveraging these advantages enables organizations running SAP HANA and SAP ERP applications on Cisco UCS to achieve significant IT and business benefits. IDC calculates that the organizations interviewed for this white paper are achieving average annual benefits of $4.79 million per organization over five years. This translates to an average return on investment (ROI) of 368% over five years and breakeven in their investment in Cisco UCS in 10 months. Cisco UCS customers are benefiting by:

» Improving the performance of SAP HANA and other SAP Business Suite applications, thereby driving higher employee productivity

» Leveraging the ease of managing datacenter infrastructure and carrying out server deployments with Cisco UCS to save significant amounts of IT staff time

» Cutting the amount of productive employee time lost due to downtime

» Reducing organizations' spending on hardware, software, and other datacenter-related costs, thanks to the cost-effective, integrated nature of Cisco UCS

In This White Paper

This white paper presents IDC's analysis of the business value organizations are achieving by using Cisco UCS as a platform for SAP HANA and other SAP Business Suite applications. This analysis is based on IDC's interviews with 12 Cisco UCS customers. These organizations are all relatively large organizations (1,500–85,000 employees), with an average of 25,383 employees. Interviewees represent a variety of industries: natural resources, agriculture, energy, government, automotive, retail, food and beverage, distribution, technology, healthcare, and IT. These organizations are based in the United States, EMEA, Mexico, and Brazil.

IDC designed these interviews to obtain quantitative and qualitative information about how these organizations are using Cisco UCS, with an emphasis on their use of Cisco UCS as a platform for SAP HANA and other mission-critical SAP applications. Based on this information, IDC determined the average financial impact on the organizations from their use of Cisco UCS. Table 1 provides an aggregated profile of the organizations surveyed for this white paper.

On average, Cisco UCS constitutes about one-third of the organizations' physical server environments. All interviewed organizations reported using Cisco UCS as a platform for their SAP environments. Seven of these organizations are running SAP HANA on a Cisco UCS compute infrastructure, while the other five organizations are running other mission-critical SAP applications on Cisco UCS and either are in the process of deploying or are considering deploying SAP HANA on their Cisco UCS infrastructures.

TABLE 1

Demographics of Interviewed Organizations	
Average number of employees	25,383
Average number of IT staff	663
Average number of internal IT users	14,264
Average number of Cisco UCS servers	36
Average number of Cisco UCS servers as a percentage of server environment	31
Industry	Natural resources, agriculture, energy, government, automotive, retail, food and beverage, distribution, technology, healthcare, and IT
Region	United States, EMEA, Brazil, and Mexico

Source: IDC, 2014

Situation Overview

Compute and Network Infrastructure Challenges for SAP HANA Deployment

IDC is observing that real-time data analytics functionality (the immediate availability of analytics that includes current operational data) is increasingly becoming one of the top IT priorities for major enterprise organizations. IDC describes big data and data analytics as a new generation of technologies and architectures designed to economically extract value from very large volumes of a wide variety of data by enabling high-velocity capture, discovery, and/or analysis without the need of pre-calculated data structures like InfoCubes. To gain a competitive advantage in their marketplace, businesses are seeking to leverage the ability to make data-driven decisions more quickly.

Using data analytics as a means to generate competitive advantage requires both access to data and the speed to analyze data. Companies that can exploit analytics via advanced modeling and in-memory platforms to make better decisions at the point of action will achieve greater business efficiency and competitiveness while reducing risk.

A complete data analytics platform includes both hardware and software elements. The software includes applications for discovery and analytics to support real-time analysis and automated transaction decision making. The hardware includes optimized infrastructure that consists of servers, storage, and networking, with centralized management for all hardware elements.

SAP HANA is an in-memory database software platform built on an optimized hardware platform to serve both analytic and transactional workloads. It is the preferred SAP platform for both SAP BusinessObjects and SAP Business Suite applications.

SAP HANA is largely a self-contained system that requires an environment tailored to SAP's exact specifications. Cisco is one of only a few vendors chosen by SAP to build and deliver such an environment.

SAP defines strict KPIs to ensure that optimal performance criteria are met. All the required software, including firmware, storage software, operating system (OS), and the HANA platform, is preloaded by the hardware vendor. Key design characteristics of this architecture include the following:

» High-speed networking I/O components to ensure maximum performance
» High-throughput storage I/O components to ensure data persistency
» Redundant components to grant availability of mission-critical applications

Despite the fact that each of the vendors chosen for this white paper offers a system tailored to SAP's specifications, these platforms are not exactly alike and differ in design architecture, scalability, component selection, and management complexity.

Integrated Systems Drive Efficiency and Flexibility

IDC believes that the adoption of integrated systems is rapidly moving from evaluation to mainstream use, with customers increasingly deploying tier 1 applications. Progressive companies view integrated systems as a means to optimize their IT environments so that IT services can better leverage the business units to increase workforce productivity, drive revenue opportunities, and connect with their customers.

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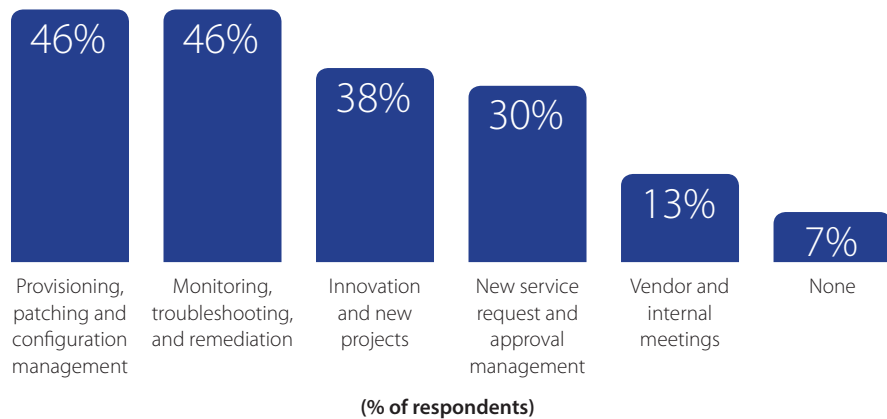Given the competitive pressures in the market, improving IT efficiency is a critical success factor for businesses. IDC surveys indicate that only 20% of IT staff time is spent on innovation and new projects, and the other 80% of IT staff time is spent on maintenance (or "just keeping the lights on"). Companies realize that they must find methods to flip this ratio so that they do not fall behind the competition. Many customers have identified integrated systems as a solution to increase the efficiency and flexibility of their IT environments. Figure 1 shows how IT decision makers and administrators view integrated systems as a means to increase time to value by reducing the time allocated to provision new systems as well as for monitoring and troubleshooting.

FIGURE 1

Integrated Systems Deliver IT Efficiency

Q. Of these five tasks, which, if any, do you expect will be conducted more efficiently in a converged or integrated systems environment?

46%	46%	38%	30%	13%	7%
Provisioning, patching and configuration management	Monitoring, troubleshooting, and remediation	Innovation and new projects	New service request and approval management	Vendor and internal meetings	None

(% of respondents)

n = 308
Source: IDC's Converged and Integrated Systems End-User Survey, July 2013

Cisco Unified Computing System

An Optimized Platform for SAP HANA

Cisco and SAP have partnered to deliver an optimized UCS architecture for running SAP HANA, which provides fast transaction processing with real-time insights. UCS draws on Cisco's proven expertise in networking, leveraging Cisco Nexus to enable high-bandwidth and low-latency connectivity between SAP HANA nodes and the persistency layer; this also allows SAP HANA deployments to scale more easily and transparently. Further, the Cisco UCS technology allows customers to add more blades on the fly without shutting down the application; in turn, this can have a positive effect on SAP user productivity.

Running SAP HANA on the Cisco UCS server platform offers the opportunity to reduce the hardware and maintenance costs associated with running multiple data warehouses, operational systems, and analytical systems. The UCS architecture allows patching to occur while the system is running, with just a reboot to activate the new version; there is no required downtime for any firmware or OS patch.

A principal design element of UCS is to break away from old static IT datacenter models and deliver on a new IT model that pools server, storage, and networking resources into a flexible virtualized environment that can be provisioned (or reprovisioned) as workloads and business demands require. At the time this white paper was written, SAP was piloting a multi-instance model, which should be ready for the production environment in the near future. UCS stands poised and ready to embrace this model upon its release by SAP.

Key Elements in Cisco's UCS Solution

» **In-memory computing and persistency:** Response times for data reads are significantly improved with Cisco UCS in-memory computing. Cisco Nexus networking handles substantial I/O traffic between server and storage to ensure database persistency.

» **Service profiles:** The Cisco UCS Manager speeds provisioning with predefined images of server, storage, and networking configurations.

» **System management:** The centralized management utilizes policy-based management to automate maintenance tasks, thereby saving valuable IT resources.

» **SAP IT process automation by Cisco:** Based on best practices, Cisco UCS standardizes and automates IT processes for SAP applications and supports maximum uptime and optimal resource usage.

» **SAP HANA–tailored datacenter integration:** Cisco UCS is easy to integrate into existing infrastructure; companies can opt to run SAP HANA on Cisco UCS and plug into the existing storage environment.

» **Partner strategy:** Customers have more choices and need not be locked into one proprietary solution; they can keep existing infrastructure as there is no need to rip and replace.

» **On-premises and cloud:** Cisco supports both on-premises and cloud deployment models; these deployment models are good for now — or into the future if customers choose to change models going forward.

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Business Value of Cisco UCS

IT departments face a challenging dual mandate to optimize their datacenter infrastructures while improving the performance of critical business applications and transforming IT into a business driver. This has required IT departments to consider new approaches to optimize their datacenter infrastructures, including the use of integrated platforms such as Cisco UCS.

The organizations interviewed for this white paper reported that they are achieving a variety of operational and business benefits from having an integrated datacenter server platform in Cisco UCS to support their use of SAP HANA and other SAP applications. The most common benefits cited included:

» Increasing employee productivity by bettering the performance of SAP HANA and other mission-critical SAP applications, which are used by large numbers of employees on a daily basis

» Improving business agility by having more flexibility in terms of server and technology deployments that can be leveraged to support changes and business strategies

» Greatly reducing the amount of IT staff time required for server management and deployment

» Minimizing the productivity drain associated with server downtime by limiting the occurrence of downtime and cutting the time needed to get server infrastructures back online

» Taking advantage of Cisco UCS' integrated nature to optimize datacenter-related costs
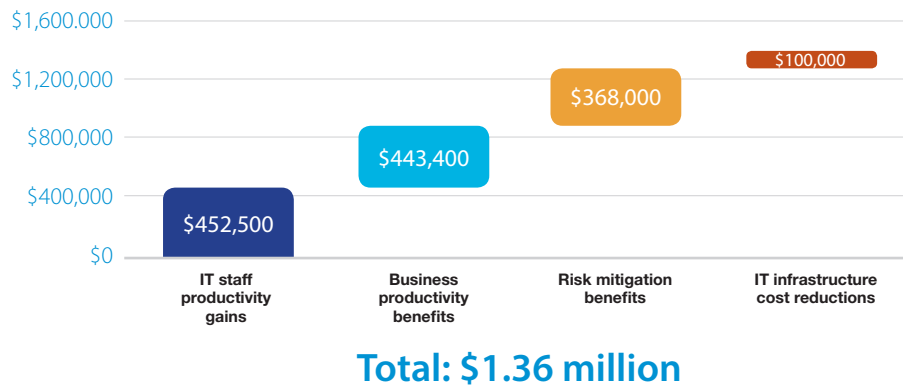
Financial Benefits Analysis

IDC measured the financial impact to organizations using Cisco UCS as a platform for SAP HANA and other SAP mission-critical applications by aggregating data collected from interviewed organizations. In total, IDC calculates that these organizations will achieve financial benefits worth an average of $1.36 million per organization per year ($9,561 per 100 internal users over five years from their use of Cisco UCS in four areas (see Figure 2):

» **IT staff productivity gains:** Leveraging automation and improved datacenter visibility enables the organizations to make their server management, server deployment, and overall IT operations more efficient. IDC projects that the organizations are realizing benefits worth an average of $452,500 per organization per year over five years, or $3,172 per 100 users, from saving IT staff time and improving productivity.

» **Business productivity benefits:** Improving the performance of SAP HANA and other SAP mission-critical applications helps the organizations to benefit from higher employee productivity. IDC calculates that the organizations are achieving benefits worth an average of $443,400 per organization per year over five years, or $3,108 per 100 users, from improved end user productivity.

» **Risk mitigation benefits:** Cutting the incidence of downtime significantly and resolving problems faster allow the organizations to limit the amount of productive employee time lost. IDC calculates the productivity gain attributable to reduced downtime at an average value of $368,000 per organization per year over five years, or $2,580 per 100 users.

» **IT infrastructure cost reductions:** Consolidating their datacenter footprints with the integrated Cisco UCS platform helps organizations to save on hardware, software, and facilities costs. IDC projects that these savings are worth an average of $100,000 per organization per year over five years, or $701 per 100 users.

FIGURE 2

Average Annual Benefits per Organization

Total: **$1.36 million**

Source: IDC, 2014

With Cisco UCS, less IT staff time is needed for server management, server deployment, and day-to-day IT responsibilities. The organizations can use these time savings to redeploy IT staff resources to more strategic responsibilities that have greater business value.

Optimizing IT Staff Resources with Cisco UCS

Interviewed organizations reported that Cisco UCS has enabled them to make their IT staff more efficient and productive. With Cisco UCS, less IT staff time is needed for server management, server deployment, and day-to-day IT responsibilities. The organizations can use these time savings to redeploy IT staff resources to more strategic responsibilities that have greater business value. IDC calculates that the interviewed organizations are achieving average IT staff time savings and productivity benefits worth $452,500 per organization per year over five years, or $3,172 per 100 IT users (see Figure 3).

As a result, surveyed organizations are able to devote 68.4% less IT staff time to server management in their Cisco UCS environments.
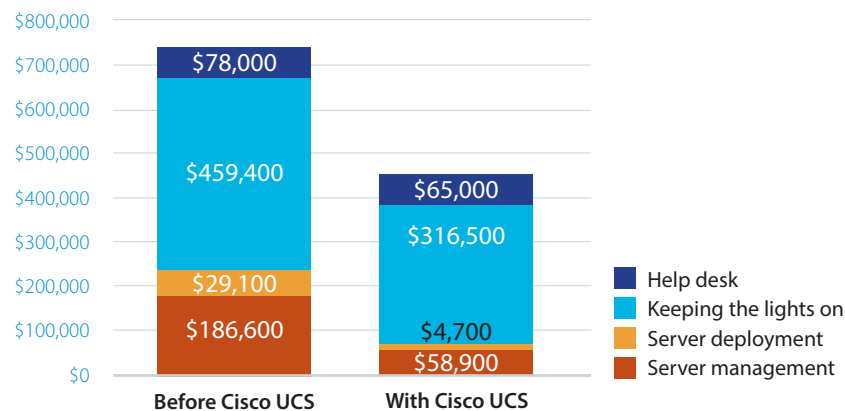
IT staff time savings and productivity gains flow from the fact that Cisco UCS provides datacenter flexibility and increased automation through policy-based management. The Cisco UCS Manager maintains and applies software-defined characteristics of servers to make the management and deployment of servers less burdensome. As a result, surveyed organizations are able to devote 68.4% less IT staff time to server management in their Cisco UCS environments. Further, policy-based management enables the automation of many day-to-day maintenance responsibilities, which permits organizations to reallocate staff resources to other strategic operations.

Policy-based management with the Cisco UCS Manager enables the organizations to expend less staff time on maintenance than they did with their previous server environments, although ease of management with Cisco UCS also benefits their overall IT operations. Supporting the automation of many tasks and avoiding the redundant use of resources with Cisco UCS enable organizations to avoid IT staff hires and spend less time keeping the lights on. As one Cisco UCS customer explained, "If we used other hardware for SAP HANA, we would have higher maintenance costs and would need at least one more database administrator and operational and application IT staff member."

Interviewed organizations also reported that Cisco UCS has enabled near-real-time provisioning of servers, reducing the amount of staff time needed for server deployments by 83.8%.

Interviewed organizations also reported that Cisco UCS has enabled near-real-time provisioning of servers, reducing the amount of staff time needed for server deployments by 83.8%. This not only saves IT staff time but also drives business by enabling the organizations to link datacenter infrastructures to their business strategies. As one Cisco UCS customer commented, "It's a whole new ballgame because I'm just doing the configuration of the servers once, and I can reuse that every time I put in a new blade. I just do it once and deploy it over all of the servers that I want to change. So I have a huge benefit in administrative time, and I can even do it ahead of time."

FIGURE 3

Average Cost of IT Staff Before and After Cisco UCS Deployment per Organization

Note: Data does not include additional IT staff time savings and productivity gains in other areas, which are included in overall IT staff productivity gains.

Source: IDC, 2014

Cisco UCS as a Server Platform for SAP HANA Drives Performance and Increases Productivity

Interviewed organizations said that using Cisco UCS as a server platform for SAP HANA and other business-critical SAP applications has improved their performance. Several customers noted that they have achieved reduced data query times for SAP HANA and faster SAP application performance. This gets data to end users faster, and they can accomplish more, thanks to better-performing applications. This results in more productive employees at the organizations, ultimately driving better business results.

IDC calculates that the organizations are achieving higher average productivity of 2.5% among employees who were noted as benefiting from improved SAP HANA and other SAP mission-critical application performance on the Cisco UCS platform. Beyond improved productivity, the organizations also reported capturing more revenue as they have reduced the occurrence of downtime with Cisco UCS. IDC calculates that this is worth an average of $443,400 per organization per year over five years, or $3,108 per 100 internal users of IT services, in improved productivity and additional revenue captured (see Table 2).

TABLE 2

Business Productivity Gains

	Average per Organization
Improved business productivity	
Average productivity increase — SAP environments	2.5%
Average productivity increase — number of users impacted	386
Value of improved user productivity	$410,700
Revenue enhancements	
Additional revenue from improved operations	$327,200
Operating margin	10%
Annual operating margin increase	$32,700
Overall business productivity gains	$443,400

Source: IDC, 2014

Cisco UCS helps optimize the performance of SAP HANA and other mission-critical SAP applications because of its high-bandwidth and low-latency connectivity nature; its strong failover capabilities and limited downtime enable organizations running SAP HANA and other mission-critical SAP applications on Cisco UCS to experience improved performance and maximize application uptime.

Cisco UCS customers provided a number of examples of how the performance of SAP HANA and other SAP mission-critical applications has improved since deploying Cisco UCS:

» As one Cisco UCS customer noted, "Today, with Cisco UCS and SAP HANA, we have 70% higher performance than we achieved with a traditional database." The customer attributed this increased performance to both SAP HANA and its use of Cisco UCS as a server platform for SAP HANA.

» One Cisco UCS customer explained that it was able to carry out a significant regulatory project driven by SAP HANA more efficiently and thoroughly: "The data could be worked in another system than UCS, but the performance would be worse and there'd be more work. I think it would be a few extra hours per month for the 50 people on the team."

» One Cisco UCS customer estimated that its dialog response time for SAP ECC 6.0 queries has decreased by more than 40% with Cisco UCS: "The way you judge SAP performance is by dialog response times. Before we had Cisco UCS, we were averaging about 1.4 seconds dialog response time. When we put in UCS, we went down to 0.8. This is resulting in a time savings per user of about 10%."

Further, the Cisco UCS Manager enables organizations to add server blades as needed without shutting down applications, thereby bringing scalability to their business operations without jeopardizing employee productivity or business continuity. This means that the organizations can scale their datacenter infrastructure to meet their business needs in a more timely fashion. As a result, applications get pushed through to internal and external end users faster, driving their businesses. One Cisco UCS customer explained this benefit as follows: "To deploy a new server now to support an application with Cisco UCS, it basically takes an hour. Before, it would take probably three days."

Reducing Risk with Consolidated and Template-Driven Datacenter Infrastructure

Since deploying Cisco UCS, the interviewed organizations have fewer downtime instances (94% on average) and are resolving downtime incidents in less time (42% reduction per incident). As a result, they have cut the amount of productive employee time lost due to downtime by 96.3%.

"Before we had Cisco UCS, we were averaging about 1.4 seconds dialog response time. When we put in UCS, we went down to 0.8. This is resulting in a time savings per user of about 10%."

"To deploy a new server now to support an application with Cisco UCS, it basically takes an hour. Before, it would take probably three days."

IDC calculates that this translates to a productivity benefit worth an average of $368,000 per organization per year over five years, or $2,580 per 100 internal users of IT services.

Interviewed organizations attribute their ability to reduce the negative impact of downtime on the technology behind Cisco UCS as well as Cisco UCS' consolidated footprint. One customer praised the increased visibility it has into problems as they arise with Cisco UCS: "We have better visibility with Cisco UCS into the health of our systems and what our performance bottlenecks are. That allows us to troubleshoot faster and saves probably 50% of the time it takes for troubleshooting." Another customer referenced Cisco UCS' consolidated nature as follows: "Cisco UCS is running with 30% fewer components that could fail. We've had 50 blades running on Cisco UCS for two years now and SAP HANA running on them for nine months, and still no outages."

For companies running SAP HANA and other business-critical SAP applications on Cisco UCS, minimizing server and system downtime is essential to business. One customer explained that it had reduced the number of revenue-impacting downtime instances it experiences per year from four to less than one on average with Cisco UCS. This customer directly tied reduced downtime to more revenue: "The company shuts down when there's server downtime because end users don't have [access to] important apps, which means we lose $2 million per day. Per hour, just divide by 24."
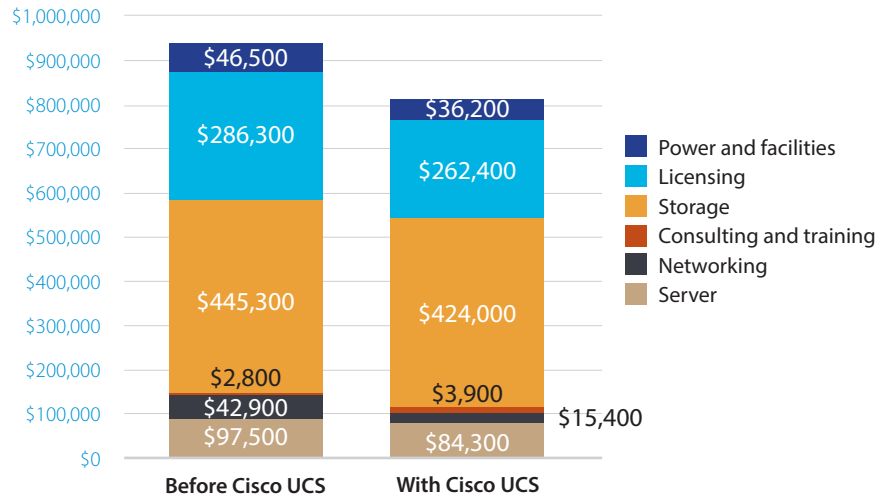
Optimizing the Datacenter Infrastructure with Cisco UCS

Cisco UCS customers reported that they are reducing and avoiding datacenter costs by maintaining more integrated datacenter infrastructures. Cisco UCS' unified fabric of compute and network elements enables interviewed organizations to maintain simpler, more efficient datacenters. IDC calculates that with Cisco UCS, these customers are saving an average of $100,000 per year over five years in datacenter-related costs, or $701 per 100 users of internal IT services (refer back to Figure 2).

Interviewed organizations explained how Cisco UCS helps them limit datacenter-related costs. As a base matter, they need fewer servers because of improved performance and reliability with servers within their Cisco UCS platforms. As one customer explained, "Because you need redundant boxes in a traditional setup, we'd have easily 50% more footprint." Another customer noted that Cisco UCS' unified fabric helped it reduce network-related costs: "If you want to cable up a standard rack server, you need exactly the same number of cables I do to get eight new Cisco servers into my UCS. In a year, I think we avoid at least 100 cables." In addition, reduced datacenter footprints with Cisco UCS are helping the organizations save on power and facilities costs (see Figure 4).

For companies running SAP HANA and other business-critical SAP applications on Cisco UCS, minimizing server and system downtime is essential to business.

FIGURE 4

Average Spending on IT Infrastructure Before and After Cisco UCS Deployment per Organization

Legend:
- Power and facilities
- Licensing
- Storage
- Consulting and training
- Networking
- Server

Before Cisco UCS:
- $46,500
- $286,300
- $445,300
- $2,800
- $42,900
- $97,500

With Cisco UCS:
- $36,200
- $262,400
- $424,000
- $3,900
- $15,400
- $84,300

Source: IDC, 2014

ROI Analysis

IDC uses a discounted cash flow methodology to calculate the ROI and payback period. The 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.

IDC assessed the cost, benefits, and value associated with the 12 interviewed organizations' use of Cisco UCS as a server platform for SAP HANA and other SAP mission-critical applications over a five-year period (see Figure 5). IDC calculates that the organizations are spending an average of $88,600 per organization ($621 per 100 internal users of IT services) each year over five years, not including initial one-time costs, which average $712,400 per organization ($4,995 per 100 users). Based on these investments, the organizations will achieve annual benefits worth an average of $1.36 million per organization per year ($9,561 per 100 users) over five years. IDC projects that over five years, the organizations will realize an average cumulative net gain of $5.64 million ($39,539 per 100 users).

FIGURE 5

Cost Benefit Analysis per Organization
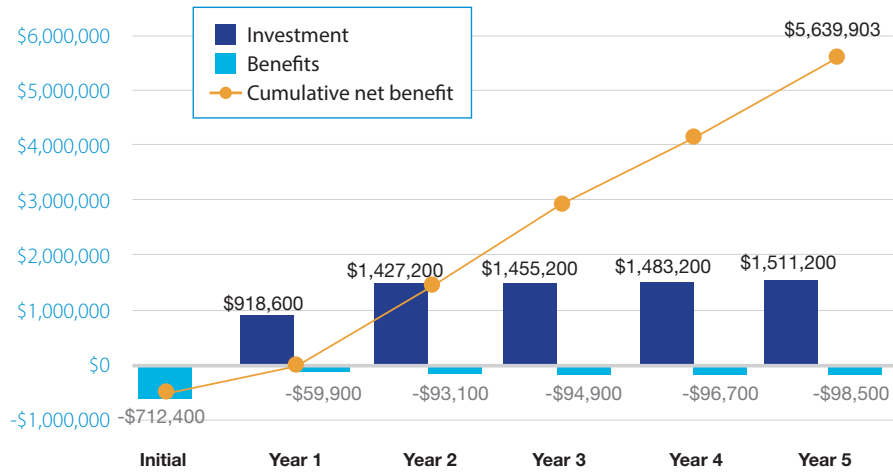
Source: IDC, 2014

Table 3 provides IDC's ROI analysis for the organizations' use of Cisco UCS as a server platform for SAP HANA and other SAP mission-critical applications over five years. The five-year ROI analysis shows that the organizations interviewed for this white paper will spend on average $1.03 million per organization ($7,186 per 100 users) on Cisco UCS. In return, the organizations will realize on average $4.79 million in benefits ($33,607 per 100 users). This results in an NPV of $3.76 million per organization ($26,421 per 100 users). This means that interviewed organizations will break even on their investment in Cisco UCS 10 months after beginning their deployments and will achieve an ROI of 368%.

TABLE 3

Five-Year ROI Analysis

	Average per Organization	Average per 100 Users
Benefit (discounted)	$4.79 million	$33,607
Investment (discounted)	$1.03 million	$7,186
Net present value (NPV)	$3.76 million	$26,421
Return on investment (ROI)	368%	368%
Payback period	10.0 months	10.0 months
Discount rate	12%	12%

Note: The ROI is measured per 100 users of IT services.
Source: IDC, 2014

Challenges/Opportunities

IDC sees opportunities for Cisco to help customers with SAP HANA deployments on UCS. However, there are also some challenges for Cisco to get there.

Challenges

> **Cultural change:** Cisco is well established in the market as a trusted source for networking systems. Now Cisco seeks to be seen as facilitating the role of IT as partner and collaborator with application development teams and as a trusted source for server technology. The challenge for Cisco is to communicate to customers that its compute platform has the same investment protection as its networking equipment, allowing Cisco to compete for deployments of mission-critical workloads.

> **Demonstrating the ROI of the solution:** Implementing these new technologies will require new capex for many enterprises and may have an effect on ongoing opex as well. SAP will have to demonstrate how the benefits and savings to the broader business will yield an attractive ROI to make the change worthwhile.

Opportunities

> **For customers:** There is a real choice in server platforms for SAP HANA; the advantages of Cisco UCS for flexible deployment should be considered. Further, given the significant market presence of Cisco networking solutions, customers can leverage in-house Cisco networking expertise to build on the capabilities of the IT team.

> **For Cisco:** Offering a platform for SAP HANA creates significant opportunity for Cisco to deliver compute and networking systems with a specific business value proposition that gives the company inroads versus server incumbents.

Conclusion

SAP has changed the game for enterprise applications by providing SAP HANA as the preferred platform for both analytic and SAP Business Suite applications. This move is in line with a general trend toward the implementation of key IT assets using integrated systems that IDC has identified through end-user survey research. The nature of SAP HANA, with its in-memory data management and clustered scalability, presents interesting challenges to the hardware partners building its system platforms.

Cisco is well established in the market as a trusted source for networking systems. Now Cisco seeks to be seen as facilitating the role of IT as partner and collaborator with application development teams and as a trusted source for server technology.

Cisco has stepped up to the plate to meet these challenges with the Cisco UCS server platform, a product that leverages a highly flexible and efficient memory management model combined with the sophisticated network management capability of Cisco Nexus. Although SAP's specifications for the SAP HANA platform are the same for all server platform providers, these platforms should not be considered alike. Customers considering integrated systems for SAP HANA deployments should think about the following:

» The memory-intensive nature of SAP HANA calls for efficient and flexible memory management capability such as that provided by Cisco UCS.

» The use of clustering and cooperative processing across nodes to achieve scalability by SAP HANA suggests a need for the kind of flexible and scalable network infrastructure offered by Cisco Nexus as a part of Cisco UCS.

» The Cisco UCS Service Profiles reduce time to deployment from days to minutes.

» Customers concerned with maintaining a uniform storage management strategy should consider that, of the SAP HANA integrated systems available, only Cisco UCS offers a choice of storage platforms.

Appendix: Research 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:

» 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.

» Ascertain the investment made in deploying the solution and the associated training and support costs.

» Project the costs and savings over a five-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 five-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 taxes the revenue at that rate.

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

Note: All numbers in this document may not be exact due to rounding.

About IDC

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