Sponsored by: **Oracle**

Authors:
Peter Rutten
Matthew Marden

March 2015

Assessing the Business Value of Integrated Systems

OVERVIEW

The surge in mobile, big data, social, and cloud trends — which IDC refers to as the 3rd Platform of computing — is demanding new IT strategies. IT executives need to consider every new hardware and software investment in light of this transformation. Key objectives are bringing the opex of today's IT under control and moving toward automated, high-performance, and cloud-based IT infrastructure. There's growing interest in integrated systems, in which compute, storage, networking, and management software are combined and optimized as a single automated system to achieve these objectives.

In the traditional approach, IT procures various components from different vendors and pieces them together. Servers and storage systems end up locked into an inflexible, silo-like structure, often running just one application. With an integrated system, all resources are managed as one large, virtualized, and automated environment that can be divided into any number of smaller resources, which provide a range of operational and business benefits.

This Solution Brief leverages IDC's research among users of integrated systems and quantifies the business benefits they reported, as follows: 46.7% IT staff productivity improvement, 60.7% increase in speed of application deployment, 64.0% faster delivery of equipment, 92.3% reduction in downtime, and 47.7% reduction in datacenter-related IT spending. On an annual basis for a 1,000-user firm, these findings translate into IT staff efficiency gains worth $214,500, additional productive time from improved operations worth $306,300, improved reliability worth $256,700, and reduced datacenter costs worth $153,600.

In part because of these advantages, IDC expects the worldwide integrated systems market to grow from $7.3 billion in 2013 to $17.9 billion in 2018 and estimates that 15% of the IT hardware market (server, external storage, and networking) will be sold as part of an integrated system by 2018. This Solution Brief highlights the Oracle SuperCluster as an example of an integrated system.

Business Value Highlights

46.7%
IT staff productivity improvement

60.7%
Increase in speed of application deployment

64.0%
Faster delivery of equipment

92.3%
Reduction in downtime

47.7%
Reduction in datacenter-related IT spending

IDC
Analyze the Future

Business Benefits of Integrated Systems

Reduced Capex and Opex

By pulling together server, network, and storage resources, integrated systems increase hardware utilization rates and decrease datacenter footprints, lowering capex and opex. Organizations can support more workloads and users per CPU, requiring fewer physical servers, fewer network ports, and less storage. Performance improvements allow for virtualization, DBaaS, and private cloud expansion, bringing cost savings and organizational agility. As complex legacy hardware is replaced, IT staff effort is reduced, and automation and management tools further save IT staff time.

Greater Flexibility, Agility, and Business Continuity

Integrated systems enable organizations to break down inefficient IT silos. This means less time spent on routine maintenance and more time spent on innovation for the business. Faster deployment of hardware and applications saves time and increases agility. Consequently, IT departments can spend more time on business-enabling activities such as developing new customer-facing applications. Further, the higher reliability from hardware and software integration and automation reduces downtime, including downtime caused by human error. It also brings systems back online faster, while support from a single vendor is easier to obtain. As a result, IT productivity is improved and revenue loss is avoided.

Improved Performance and Efficiency

Applications perform better and more reliably on integrated systems, improving user productivity, while automation, less complexity, and greater staff efficiencies lead to faster application deployment and equipment buildout. This allows IT to better meet the needs of the lines of business, which in turn carries through to improved business performance and higher revenue.

Quantified Business Benefits of Integrated Systems

IDC's research into the deployment and use of integrated systems shows that organizations can generate strong business value through operational and staff efficiencies. Table 1 presents the business value achieved with integrated systems.

TABLE 1

Improvements Related to Use of Integrated Systems

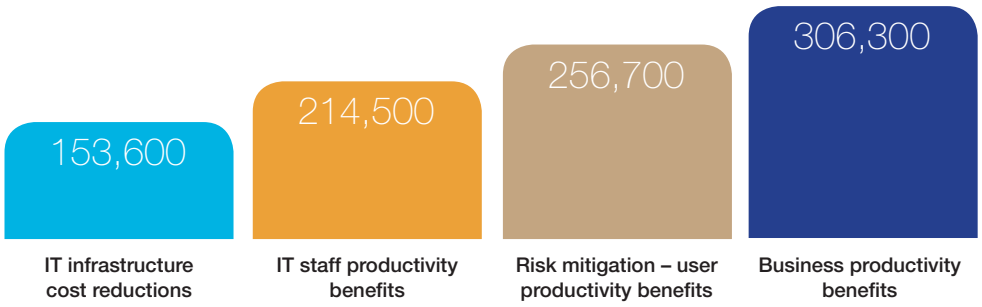
	%
IT infrastructure cost reductions	
Server costs	58.4
Network costs	65.1
Storage costs	41.0
Power/facilities costs	14.6
IT staff productivity benefits	
IT staff efficiency gains	46.7
Risk mitigation — user productivity benefits	
Frequency of unplanned downtime	76.4
Productive time lost to unplanned downtime	92.3
Business productivity benefits	
Average user productivity increase	0.4
Time to deploy applications	60.7
Time to deploy new equipment	64.0

Source: IDC, 2015

Figure 1 presents the annual dollar amounts that the identified operational and staff efficiencies on average translate to for a 1,000-user organization.

FIGURE 1

Typical Annual Benefits for a 1,000-User Organization Using an Integrated System



Source: IDC, 2015

"Take an example of one of our big month-end reports — an account reconciliation report. It took 20 hours to run. On SuperCluster, that's 20 minutes .... Now that we're live, we took our month-end close from 7 days down to 5 days. What CFO doesn't love that?"

— Ron Pollard, CIO, Specialized Bicycle Components

Example of an Integrated System: Oracle SuperCluster

The SuperCluster is part of Oracle's line of "engineered systems," which IDC includes in its integrated systems category. The SuperCluster is Oracle's highest-performing system, billed as ideal for database and application consolidation and private cloud deployments.

Greater Performance

The SuperCluster touts significant improvements in performance because of hardware and software innovations, most notably its in-memory capability. Oracle applications can run up to 20x faster because of the SuperCluster's large memory and compute capacity. One Oracle customer, Specialized Bicycle Components (Morgan Hill, California), recently took a SuperCluster into production and quickly realized improvements in performance and business cycle. During proof-of-concept (POC) testing, the firm saw 17 times greater performance than on its legacy system. Taking the SuperCluster into production took 65 days — from POC to deployment. Today, on the SuperCluster, the company's monthly accounts reconciliation report takes 20 minutes to process instead of 20 hours. The firm reduced its month-end close period from 7 days to 5 days. The firm also says that support is fast and greatly simplified with a single vendor.

Reduced Complexity

The SuperCluster features Oracle's Enterprise Manager, which provides efficient system management across all layers of the system — from the applications to the middleware to the databases and down to the operating system, virtual machines, servers, and storage. Enterprise Manager also plays a role in setting up DBaaS, a service for which the SuperCluster has been optimized. When setting up DBaaS, IT can flexibly activate or deactivate multiple concurrently active and securely separated "pluggable databases." Business users benefit from the very fast, flexible deployment of a secure and dedicated database for their specific business purpose.

Enterprise Cloud

Another Oracle customer, Dimension Data (Johannesburg, South Africa), which serves 6,000 enterprises, set out to reduce opex by decreasing the number of managed objects, simplifying management, reducing maintenance, standardizing the stack, and obtaining single-stack support. The company decided that the SuperCluster would achieve all this as well as the creation of a multitenant enterprise cloud that the firm could market as a service. This allowed large customers to start production on multiple secure pluggable databases, and it opened up a new segment of smaller customers that may need no more than a single partition on a single core. Services include IaaS, PaaS, DBaaS, and APaaS. "As we mature within the market and as we get better at what we do, we are able to deploy both databases and applications much faster on the SuperCluster in this multitenanted environment," said Ian Lewin, Head of Engineered Solutions of Dimension Data.

Conclusion

IDC believes that integrated systems are an attractive option for businesses looking to streamline their datacenter operations; increase performance, productivity, and flexibility; and reduce capex and opex. Vendors of integrated systems promise attractive ROIs, and customers are interested in the math that bears that out. The Oracle SuperCluster is a high-performing option that can provide the types of business benefits presented in this Solution Brief in an appliance-like package.

Appendix: Methodology

IDC compiled the data used in this white paper from interviews it conducts every year with organizations using integrated systems such as Oracle SuperCluster. Business value results were normalized by expressing them in terms of dollar benefits for an average organization with 1,000 IT end users. To quantify benefits related to IT staff operations, IDC multiplied time savings and efficiencies by an average annual loaded salary of $100,000 while using an average annual loaded salary of $70,000 to quantify time savings and productivity benefits for other non-IT staff employees.

IDC Global Headquarters

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

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

IDC Analyze the Future