



IT Modernization Drives Business Transformation

EXECUTIVE SUMMARY

Business increasingly views IT as an agent of change rather than just a service entity. Driven by mega trends of mobility, big data, and the cloud, IT is often asked to help transform and automate business processes while reducing overall expenditures—a seemingly impossible paradox.

This white paper uses the results of a research study undertaken by IDG and sponsored by Dell to take an in-depth look at exactly how businesses are taking advantage of these trends to modernize IT, rethink the way business processes are conducted, and leverage savings realized from modernization efforts to help fund transformation that can engage new markets and geographies as well as new business practices.

» Need for Next Gen

The past decade has seen mega trends like cloud, mobility, and big data evolve from tech buzzwords to corporate mandates. Developers and business users alike want every application to support cloud practices. Business planners want to gain intelligence insights without the need for a team of data scientists. And every user—whether internal, customer, or partner—increasingly relies on mobile devices over traditional desktop clients. “Demands of the IT user community are at unprecedented levels,” says Rick Mears, senior vice president and CIO for medical logistics giant Owens & Minor Inc. (O&M). “Whether it’s the habits of millennials or availability of new technology, you should now view anyone in the company as part of IT,

since they experience IT from dusk to dawn.”

But transforming business processes to meet evolving needs often requires modernization of the underlying IT infrastructure. Many enterprises still rely on legacy mainframe applications, obsolete server hardware and software, and decidedly mobile-unfriendly code. A recent survey from IDG and Dell reveals detailed insights into business leaders’ IT modernization plans and objectives, and suggests steps for achieving enhanced business agility.¹



1. “IT Modernization Plans and Objectives,” IDG Research Services, 2016

THE THREE DIMENSIONS OF MODERNIZATION

Modernization differs from technology refresh, which focuses on ensuring that equipment is replaced before the end of its useful life while largely retaining the existing software stack and operational processes. In contrast, modernization provides the underpinnings for enhanced business agility, faster time to market, and ultimately, business transformation in three dimensions—infrastructure, applications, and business processes.

Infrastructure modernization can include eliminating legacy UNIX and mainframe platforms and assessing existing workloads for possible migration to public or hybrid cloud. The modernization effort may also involve eliminating obsolete and unsupported platforms from the IT mix.

Application modernization involves inventorying and assessing the portfolio of existing code to extract the critical business logic, rearchitecting code to support stakeholder needs, and rehosting legacy code on x86 or Linux z/OS as workloads, governance, and security demand.

Modernization of business processes entails identification of business inefficiencies by analyzing workflows to uncover where an organization can perform more effectively, and addressing those issues with automation and other tools—with the ultimate goal of reducing cycle times and costs.

“Modernization encompasses many things,” says O&M’s Mears. “Starting on the IT-centric side, modernization involves globalization of core infrastructure components like networks, directory services, and security. The result is the ability to provide more value [and] more service to more markets.”

WHY MODERNIZE NOW? BUSINESS GOALS AND OBJECTIVES

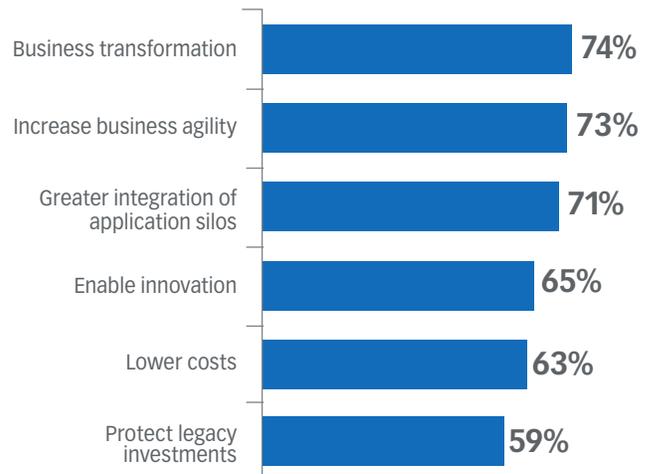
The benefits of IT modernization are evident to the survey respondents, consisting of over 100 senior IT staff. Initiatives to that end are already underway at two-thirds of firms represented in the survey. When asked which modernization objective is most important, nearly three-fourths cite transforming the business to support new technologies such as cloud, mobility, big data, and enterprise social media. This echoes Mears’ assessment of millennial workforces that are driving consumerization of the business IT experience.

Neck and neck with business transformation is increased business agility, cited by 73 percent of respondents. Clearly enterprises need to respond quickly to changing business demands and requests for new application functionality or new access modes and devices. Rounding out the top three objectives with 71 percent is achieving greater integration of application data silos. If organizations are going to build data analytics solutions that enable faster decision making, having



FIGURE 1. MOST IMPORTANT OBJECTIVES

IT modernization objectives rated either critical or very important



BASE: 106 QUALIFIED RESPONDENTS

access to all relevant business data regardless of its application of origin or storage location is critical.

Other top mentions include enabling innovation, cited by two-thirds of respondents, and protecting legacy investments to avoid compromising the logic, business processes, and intelligence associated with legacy applications (59 percent). Although many have been predicting the death of mainframe and legacy UNIX systems for decades, well over half of responding organizations still rely heavily on these systems, for better or worse. Interestingly, although cost savings is not the top objective, more than 75 percent view modernization as a cost-savings solution.

STRATEGIES AND TACTICS

» Business Process Optimization (BPO): Driving Quality Improvement

Business process optimization is an area poised for explosive growth, based on survey responses. While most responding organizations have made some progress with automation, the majority are in the beginning stages. Only 10 percent have automated 50 percent or more of their business processes, but they expect that number to grow by 400 percent in just the next 12 months, illustrating its importance in the overall IT modernization process.

Why? For most respondents’ firms, the top priority for BPO is to improve the quality of services. “It’s a way to be more efficient,

so we can invest in applications that add value for our customers, specifically to leverage people, processes, and technology to free up operating expenses and focus on innovation,” Mears says.

BPO should precede an application modernization initiative because it enables standardization of business rules and optimization of the application code to process high volume transactions with minimal effort. With increased straight-through processing enabled, resource deployment on business processing is reduced and ROI from application modernization efforts is greatly improved.

Other BPO goals cited are cost containment (42 percent), meeting compliance mandates (28 percent), and reducing time to market (26 percent).

» **Application Modernization: Mainframe Swan Song?**

For many businesses, application modernization will involve the move from proprietary to open-standards-based systems. By modernizing and migrating applications to newer, open platforms, IT gains the flexibility to shift workloads between on-premises and cloud platforms to support changes in demand or take advantage of the economic benefits of cloud solutions.

This is reflected in the survey as well. Nearly half of respondents cite agility—being able to quickly adapt to market or competitive pressures—as the top driver for code modernization. The rising importance of mobility is another factor; more than one-third struggle with subpar solutions that do not meet the modern standards of functionality, and cite that as a major pain point driving app modernization.

Older code can be more expensive to maintain as legacy programmers retire, since COBOL doesn’t have the buzz of newer languages. It is not surprising that the percentage of responding companies’ application portfolios that rely on legacy technology is expected to drop sharply from 57 percent today to just 41 percent in 12 months. Could this finally be the end of the enterprise mainframe era?

Respondent organizations are already on the road to modernization. Nearly two-thirds have their application portfolio assessment either completed or underway, and within two years, 84 percent will have begun rearchitecting their applications. UNIX and mainframe transitions are planned as well, with 43 percent planning UNIX to Linux migration within the next two years and 51 percent indicating they plan to rehost mainframe applications to x86-type platforms in the same time frame.

MODERNIZATION AND THE CLOUD

Perhaps the most impactful of all the recent technology trends has been the nearly ubiquitous adoption of cloud computing. Organizations of all sizes utilize cloud for anything from software-as-a-service (SaaS) applications provisioned by user communities to managed infrastructure maintained by cloud providers to eliminate hardware headaches for certain application workloads. Enterprises increasingly rely on a combination of on-premises and hosted cloud solutions to provide optimal flexibility and value.

Nearly two-thirds of respondents say that plans to migrate existing or new workloads to the cloud have either already occurred or are underway. More than half of those plan to migrate during the next 24 months, further highlighting the continuing importance of hybrid cloud.

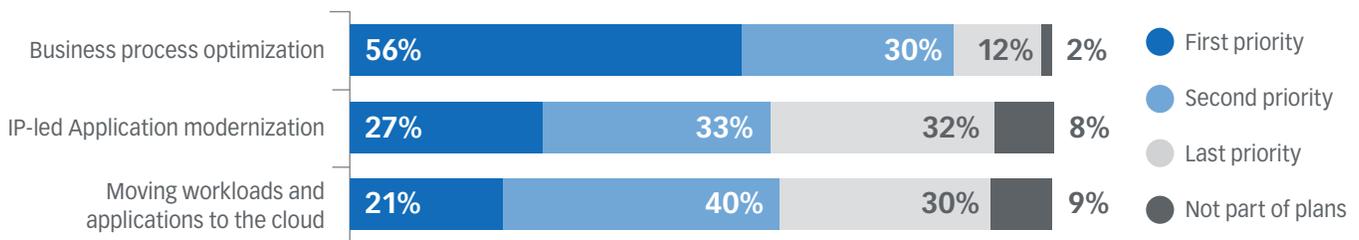
Some types of applications are more cloud-friendly than others; organizations are less likely to put back-end databases or streaming media workloads in the cloud for performance reasons, and are more likely to host regulated or sensitive data such as PCI, HIPPA or IP in a private cloud environment.

Of responding firms, 39 percent will move existing workloads to the public cloud over the next 12 to 24 months, with collaboration tools leading the way at 25 percent. Another 43 percent will migrate existing workloads to private clouds, with production applications the No. 1 choice at 27 percent overall.



FIGURE 2. **PRIORITIZING ASPECTS OF IT MODERNIZATION**

Business process optimization is often the first step in an IT modernization journey.



BASE: 106 QUALIFIED RESPONDENTS

Overall, 40 percent of the firms surveyed will migrate existing applications to hybrid cloud environments, demonstrating the continuing importance of the hybrid cloud strategy.

» It's Just Business

When asked which business objectives are driving cloud plans, responding firms cite two main factors: better use of resources and greater business agility. By adopting a hybrid cloud strategy as part of IT modernization, organizations can leverage the "people, processes, and technology" cited by Mears to transform the business. Smarter utilization plus rapid time to results can produce dramatic changes.

BEING MODERN: BEST-CASE SCENARIO

Speed to market is critical in today's ultracompetitive marketplace. Modernizing to create an agile infrastructure that is secure, flexible, and offers as-a-service simplicity enables the business to focus on innovation and adopt new technologies. It also helps to support new business initiatives. Having the ability to shift budget from maintaining obsolete hardware to sponsoring innovation can create new marketing opportunities, just as it did for Owens & Minor. (See "Modernization to Transformation")

Employees expect the same type of experience from business technology that consumer technology offers. Applications of all kinds must be developed with mobility in mind, if not with mobile devices as the primary targets. As users begin to demand always-on access that increasingly incorporates devices from tablets to wearables, a modernized IT infrastructure will play a critical role in business success.

From a security perspective, IT modernization may already be an imperative. Today's increasing number of threats demands the retirement of outdated infrastructure that is more susceptible to attacks that could compromise sensitive data or customer IP.

Modernization to Transformation

OWENS & MINOR found that IT modernization enabled a strategic shift in its business model. "Generally, it's allowed us to evolve from distribution of medical supplies to hospitals to serve all aspects of healthcare with supply chain services," Mears says. "Now, we can offer all manner of products and services to bring better solutions to healthcare, both to the U.S. and internationally. The bottom line is that modernization allows us to use people, processes, and technology to enter new markets and bring value to new customers and suppliers."

GETTING THERE: HOW TO START MODERNIZATION

There are many pieces to overall IT modernization. Many businesses find that choosing a technology partner that can offer an end-to-end IT modernization solution is the fastest way to achieve their business goals. The survey finds that 65 percent of respondents are at least somewhat likely to consider an end-to-end modernization solution. When asked why, they cite better scalability. They see that the cloud is the future and show a desire to be on the cutting edge of technology. They also recognize that an end-to-end solution offers a faster, more efficient path for new go-to-market strategies.

For Owens & Minor, Dell was the IT modernization partner that made the most sense. "Dell brought an ability to modernize our global core infrastructure that has funded a lot of the business modernization. Their special expertise in cloud has saved us considerable expense in migration that we've used to really pump out advancement and added value for our customers and suppliers," says Mears.

About Dell

Dell's consultative "customer first" approach brings a strong focus on customer needs and business outcomes. Dell offers comprehensive solutions that utilize the entire Dell portfolio – or any other existing product, tool, or vendor solution that makes sense.

Ranked as a leader in nine Gartner Magic Quadrants, Dell offers

flexible engagement models and vertical expertise in healthcare, banking, finance, manufacturing, retail, and government. The Dell Re-architect solution is based on patented IP that mines relevant business assets and requirements from legacy apps to lower risk and increase the speed and accuracy of modernization.

To find out how Dell can help your business achieve its IT modernization goals, visit:

www.dell.com/en-us/work/learn/application-modernization-services.

