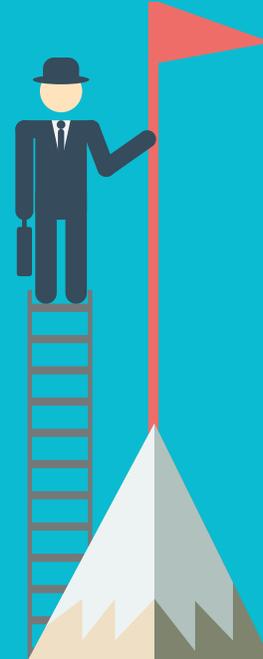


**Knowledge@Wharton – Dell Infrastructure and Cloud Computing Services**

# The CFO Imperative: Leveraging the Cloud for Business Innovation and Growth





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The fast pace of digital disruption demands that businesses must respond swiftly to changing customer and employee needs. But often, a major hurdle is the need for huge capital investments in technology — which might become outdated by the time it is operational — and the staff needed to maintain such systems. For many companies seeking increased agility, flexibility and scale, a better strategic option is the use of cloud services.

Cloud technology offers Internet-based IT resources to firms without the need for major, upfront capital outlays. By tapping services as they need them on a pay-as-you-go basis, businesses can stay flexible and efficient. Such a strategy is useful when companies have bursts of IT intensity in their operations, especially while launching new products or services or coping with volatility in business environments. Many firms also find the cloud a useful launch pad for embracing data analytics tools and the Internet of Things.

The pay-as-you-go model has been quite welcome in the C-suite, said David Wessels,

adjunct professor of finance at Wharton. While acknowledging that variable costs can sometimes be more expensive, at least the

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— Don Huesman, managing director of the Innovation Group, Wharton

business avoids the ever-present burden that comes with high fixed costs. “It also allows executive teams to be more aggressive in their growth strategy, always knowing they can scale

back the investment if they bet on the wrong market or overestimated demand of their own products and services.”

The cloud also frees a firm’s internal IT staff to focus on innovation instead of being bogged down by maintenance. With applications stored in servers run by third parties such as Amazon, Google or Microsoft, businesses do not have to worry as much about keeping up with technology upgrades and can leave cyber security to the experts. That means they can devote more time and resources to their operations.

Cloud services include providing access to servers, storage services, databases and IT applications that are run by third parties. There are public clouds such as Microsoft’s Azure or Amazon Web Services, or private clouds preferred by larger entities like health care institutions, banks and government agencies that do not want to risk storing sensitive or confidential information on public clouds. Hybrid cloud models that use public and private clouds are also popular.

## Benefits of the Cloud

Businesses were initially hesitant to embrace services run by third parties in the cloud, but they have been singing a different tune over the last few years. Companies have generally overcome their initial concerns about security, reliability, dependability and the robustness of the solutions offered on cloud platforms. For most organizations and in most sectors, cloud solutions are “at least as good as

and often better on those dimensions than can be achieved by local implementation of infrastructure,” said Don Huesman, managing director of the Innovation Group at Wharton.

Tina DeBrass, the Chicago-based director of cloud services at Dell, pointed to the case of a company that was in the business of buying hotels, improving their profitability and then selling them for a profit. One such property the company was ready to sell housed its data center. Instead of moving the servers to another location, it chose to move to the cloud to meet its IT needs, thereby conserving capital.

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Such decisions are not small considerations when looking at multiple locations — and the savings can be considerable. That should be good news to chief financial officers who daily consider risks and returns, as well as cash flows, as they weigh their cloud options. If a company keeps its IT infrastructure away from its core activities and makes it utility-based, it doesn’t have to take on too many capital risks.

To be sure, there is some lag time before any savings are realized when transitioning to a new process. “The cloud journey doesn’t always yield cost savings initially because there are a lot of legacy applications that need to

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get retooled to the new environment,” said DeBrass. But the eventual benefits of cost savings and increased agility are worth the switch especially in more volatile times. Huesman added, “Agility is more important in most sectors, given the current level of political and economic uncertainty.”

Another major benefit of the cloud is the flexibility it gives businesses that want to expand into new markets or diversify revenue streams through M&A. Global cloud providers have servers across the world that can serve a company’s employees in other cities or countries — in effect, nationalizing or globalizing the workforce without the need to open more offices.

Innovation also gets a boost when businesses move to the cloud as R&D teams use these services to accelerate new product development. For example, through the storage of significant amounts of data in the cloud, the team can access information and work from anywhere. The cloud also is a “mobile-first” service that lets applications run everywhere. Indeed, a U.S. home improvement retailer’s mobile app leveraged cloud services to guide customers to the right store aisle to find the products they want.

The cloud also lets firms using data analytics respond in real-time to business needs. For example, DeBrass said, a Formula One car-racing company that needed to do track-side mechanical assessments tapped cloud services for both predictive and prescriptive analyses quickly to apply findings to the next race. Its sponsors demanded data-driven solutions, and it could make

changes close to real time “to ensure that they perform well,” she said.

## Cloud Performance Metrics

To make sure their cloud investments are paying off, CFOs can look at various performance metrics. DeBrass said tangible gains include savings from capital expenditures in infrastructure and operating expenses as well as reductions in staffing, among other benefits. Intangible benefits that affect operations include extra speed in innovation, increased scale and improved time-to-market for new products or services.

Another incentive to companies: Outcomes-based contracts are becoming more common, where users compensate cloud service providers on the basis of the actual gains achieved, such as increased revenues or profits, speed of customer acquisition, or cost savings. Conversely, a failure to meet the promised goals results in penalties for the cloud provider. To make sure the cloud provider brings in the expected gains, it would be helpful for them to study the company’s operations before contracts are signed so they can come up with a realistic plan to bring in the promised benefits.

But Wessels cautioned that “measuring the performance of IT has always been a tricky subject.” For organizations in the cloud, he advised against measuring the return on investment of IT directly. Instead, “link technology implementation to improvements in operational metrics, and then link operational metrics back to financial performance,” he said. The

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result is a more holistic change in the company rather than just savings in one area.

## Adoption Obstacles

Some obstacles persist in cloud adoption, such as businesses being slow to change their old IT ways. “The key hurdle has been in the transformation of the traditional IT function, and the traditional IT support staff, into a service that has the skills needed to take advantage of cloud services,” said Huesman. “It can represent a significant change in operations, and can be challenging to staff that started in a different, pre-cloud era.”

Another hurdle is meeting expectations. Huesman pointed to research firm Gartner’s annual “hype cycle” reports on various technologies, noting that new technology passes “the trough of disillusionment” before reaching “the plateau of productivity.” Indeed, a 2015 Gartner report noted that “myths and hype” around cloud computing continues. “However, when used properly, cloud computing offers IT leaders real benefits, such as organizational and operational agility and, in some cases, cost savings.”

Customers sometimes expect too much from cloud services. Even as organizations move their IT needs to the cloud, they would still have to deal with the same IT challenges such

as managing anti-virus processes or monitoring IT performance logs. To maintain flexibility in staffing, they can hire managed services that allow them to go about it in a modular way.

Finally, companies using cloud providers should ask if their services would provide up-to-date versions of the technology. They also should require flexibility in their contracts to allow them to move from one type of cloud to another in either direction – from public to private or vice versa.

## What’s Next

One area with a big need for transformation from cloud services is old IT software.

Recent research shows that the average IT application is 20 years old. Companies still use

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these antiquated applications because they believe it is risky to make a change. But not changing carries its own risks, because these companies will ultimately lose their edge and competitiveness.



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The good news is that more executives outside of IT are recognizing the need. “There has been a democratization of buying behavior,” DeBrass said, noting that demand for cloud services now comes directly from functional areas like marketing instead of a procurement department. As a result, businesses are increasingly forming strategic partnerships with their IT vendors instead of managing them as discrete partners.

## Summary

The benefits of cloud services are many and proven. They include increased flexibility and speed-to-market, scale, lower IT costs, improved path to innovation and faster product releases. By letting third parties that specialize in the cloud manage IT solutions that previously were handled in-house, companies are in a better position to focus on what truly counts: innovating to stay ahead of digital disruptors.

This article was produced by Knowledge@Wharton, the online business analysis journal of the Wharton School of the University of Pennsylvania. The project was sponsored by Dell Infrastructure and Cloud Computing Services.

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