

EXPLORING NEW MODELS FOR ENTERPRISE IT

A REPORT PREPARED BY CFO RESEARCH SERVICES, IN COLLABORATION WITH HP FINANCIAL SERVICES



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About this report

In late summer and early fall of 2011, CFO Research Services, in collaboration with HP Financial Services, conducted extensive research to explore the ways in which the corporate finance function was evolving in its management of IT functionality to drive business growth, and how this evolution may be changing the relationship between the finance function and the technology function. We also wanted to find out how CFOs at large, international companies are seeking to provision enterprise IT today, particularly with the advent of new delivery models, such as cloud computing.

To gain insight into these topics, CFO Research Services interviewed more than 30 senior executives with finance experience at large companies in the United States, Latin America, Europe, Australia, and Asia. The following companies agreed to participate in our research:

- A.C. Milan (Italy)
- Adidas China (China)
- Alfa (Mexico)
- Ambit Group (India)
- American Tower (U.S.)
- ASM International (Netherlands)
- Ballast Nedam (Netherlands)
- Cargill Asia (China)
- Companhia Paranaense de Energia – COPEL (Brazil)
- COTO C.I.C.S.A. (Argentina)
- CWS-boco International (Germany)
- Cytec Industries (U.S.)
- DONG Energy (Denmark)
- Elders (Australia)
- Eurocopter (France)
- Grupo OSDE (Argentina)
- Jabil Circuit (U.S.)
- John Wood Group (U.K.)
- Kemira (Finland)
- Leggett & Platt (U.S.)
- MindTree (India)
- Olam International (Singapore)
- Pure Fishing (U.S.)
- REpower Systems (Germany)
- Royal Vopak (Netherlands)
- Schneider Electric (India)
- Taiyo Yuden (USA)
- Tesco Property (China)
- Urbi Desarrollos Urbanos (Mexico)
- Vale (Brazil)
- WESCO International (U.S.)

In addition, three companies preferred to keep their contributions confidential.

This report is the second of two resulting from our research. It discusses the different approaches that finance functions at large, international companies are using to match new models for the provision of enterprise IT with evolving business needs. In particular, our report covers finance executives' perceptions of the potential for cloud computing services and the role cloud computing may play in their companies' technology strategies.

Executive summary

To the avid supporters of cloud computing, moving corporate IT systems to the cloud will have CFOs and CIOs alike floating on air. Cloud, they argue, will pare capital spending, speed the introduction of new computing systems, permit better matching of IT resources to IT needs, and make it easier than ever for companies to grab the data they need and convert it to actionable information. Other CFOs—particularly those who have worked through many an IT implementation—may be more skeptical, but they also remain intrigued, eager to find out if cloud computing can deliver on its promises.

Many companies are in the process of exploring the best uses of public clouds (applications and hosting services offered over the Internet that are available to anyone), private clouds (Internet-based resources exclusive to a single company), and hybrid IT models (integrating cloud computing environments, either public or private, with in-house systems). Some are moving ahead with cloud cautiously, experimenting with discrete applications here and there—and, especially at larger companies, often using a private cloud platform—as they identify the potential for cost savings or business benefits. Others, however, are pushing forward more aggressively to deploy the capabilities offered by cloud.

To gain better insight into how CFOs around the world view cloud computing and are planning to take advantage of it, CFO Research Services interviewed more than 30 senior executives with finance experience at large companies in the United States, Latin America, Europe, Australia, and Asia.

This report is the second of two resulting from our research. Our key findings:

- **CFOs are generally taking a cautious approach to adopting cloud capabilities, but they acknowledge that they can't afford to ignore the promise of the cloud—faster, cheaper, and more flexible access to computing power that can provide both better control over IT costs and better ability to respond to the customer.**
 - The most enthusiastic backers of the technology argue that it will reduce capex while allowing for faster and more flexible deployment of IT assets. They are also looking to the cloud to help them to become even more responsive to their customers, through such means as linking customers more tightly with marketing, planning, and production.
 - Most CFOs appreciate cloud computing's ability to allow them to rapidly scale IT systems in keeping with shifting business needs: rapidly expanding to accommodate new users and new computing demands

“Anytime you can increase functionality, ease of use, mobility, and those types of things—which is what cloud computing can do—I have to believe that it’s a game-changer,” according to the CFO of a U.S.-based leasing company.

when needed, and rapidly shrinking if those demands dissipate.

- However, relatively few companies are willing to plunge in head-first, preferring to “test the waters” by using either public or private clouds only for mission-specific functions in a hybrid IT environment.
- **Before fully embracing cloud computing, many CFOs insist they will have to address the potential pitfalls—including those they may not know enough about to consider yet.**
 - Data privacy and security are among the concerns CFOs bring up most frequently.
 - In addition, several CFOs are reluctant to give up the flexibility they have to make changes in their own in-house systems, while also expressing uncertainty about the potential cloud computing offers for individual business units to circumvent cost and process controls.
 - Some CFOs lament that because cloud computing is still quite new, there are few case studies available documenting long-term success with the technology.
- **Encouragingly, early adopters of cloud computing technology report positive experiences. To cite just a few examples:**
 - At Alfa in Mexico, which is building a private cloud for its own use, CFO Ramon Leal says the initiative is helping his company meet the information needs of the business with greater speed and flexibility.
 - Elders Ltd. in Australia, encouraged by its success with cloud-based CRM software, is installing a new ERP system that will be hosted on a private cloud by a third-party provider. CIO and former CFO Shaun Hughes says this approach is allowing it to build

out that system without having to invest in more infrastructure than it needs right now.

- Grupo OSDE in Argentina says its move to cloud computing for various applications isn’t just allowing it to provision information systems more quickly, but is freeing its IT group to focus on more-productive activities.
- Adidas China has started using a cloud-based service that helps it gain better control over its retail environment and manage production to more seamlessly meet peaks and troughs of demand.
- **CFOs uniformly anticipate that cloud computing will allow them to reduce their capital budget for IT initiatives, but differ in their views of the significance of this for their companies.**
 - Some CFOs, especially at larger companies, anticipate that the impact on their balance sheets will not be dramatic, unless they are in technology-intensive industries such as financial services.
 - Smaller organizations may benefit more from shifting from a traditional, capex-intensive IT provisioning model to an opex-oriented cloud computing model, to the extent that IT expenditures represent a bigger proportion of their business expenses. As MindTree Ltd. CFO Rostow Ramanan notes, less costly cloud computing initiatives should allow him to squeeze more projects out of his IT budget.
 - CFOs say that cloud computing may allow them to get by with fewer IT staff, as well as shift staff to more value-added activities. But they also recognize that cloud computing will require new skill sets on the part of both IT and finance professionals, with a greater emphasis on vendor management and less on traditional, purely technical skills.

“Cloud computing is a pay-as-you-use model that brings you the best technology for your needs at any given point in time,” says the CFO of a Singapore-based company.

I. A considered approach to cloud computing

More, better, faster information. Closer connections to vendors and customers. Increased visibility into key performance indicators. Greater flexibility to match resources to changing business needs. All at less cost and with greater speed.

CFOs know exactly what they want from information technology. Today they have a new option for getting it: cloud computing, which delivers computing power, data storage, and applications as a service over the Internet rather than as a product housed within a company's four walls. According to some CFOs, it has the potential to be the most revolutionary development in information technology since the advent of the Internet itself.

"It's almost like business process outsourcing [BPO] when that started," says a finance executive in Asia's banking industry. "With BPO, people started offshoring activities to locations that at one time had been quite unthinkable, and then it became the rage—a real game-changer in terms of what kinds of cost you could save in delivering a service. There is an appreciation that the cloud could be the next big thing."

Particularly in the banking industry, this executive says, there's a belief by many that competitive advantage in the years ahead will be driven not by product innovations but by technology—technology that can change the life of the customer or the way the bank itself does business. To the extent cloud computing can keep banks on the cutting edge with faster, easier, and less-expensive IT deployments, it could prove invaluable in that effort.

Yet others contend it is simply another iteration in the ongoing evolution of technology. "Cloud is nothing new," according to the treasurer of the Singapore unit of a global manufacturing company. "If you've been using any email account provided by any one of the service providers out there, you've been doing cloud computing for years."

Although divided on the question of whether cloud computing will dramatically change the way they use technology—or the way they account for it on their balance sheets—few CFOs, even among the skeptics, are ignoring it. Many say their companies have already dipped their toes into the cloud computing waters, or are at least studying its potential.

Optimistic—but uncertain

Often cautious by nature, CFOs are still intrigued by the possibility that cloud computing might actually deliver on its biggest promises: smaller capex budgets, faster and more-flexible deployment of new IT systems and services, and the ability to rapidly scale IT capacity up or down—all turning companies into more-nimble competitors.

Some are confident it will work. "Cloud will lower operating costs significantly," asserts a finance executive in Asia's banking industry.

"I am a strong proponent," adds S.V. Padmanabhan, senior vice president-finance of the Singapore-based integrated supply chain management foods company, Olam International. "Cloud computing is a pay-as-you-use model that brings you the best technology for your needs at any given point in time."

"Any time you can increase functionality, ease of use, mobility, and those types of things—which is what cloud computing can do—I have to believe that it's a game-changer," agrees Tom Bartlett, CFO of American Tower Corp., a U.S.-based lessor of antenna space on communications towers.

Still, given that cloud computing is barely in its adolescence at best, many CFOs are taking a more tempered view of its potential. On the one hand, it is something companies "absolutely must consider seriously," concedes Jack de Kreij, CFO and a member of the executive board at Royal Vopak, a Netherlands-based bulk liquid storage provider for the global oil and chemical industries. On the other hand, Mr. de Kreij can't shake the memory of past outsourcing arrangements that failed to deliver on their promised savings. With cloud computing, "you see potential efficiency and cost benefits, which are obvious," he says. "And, of course, there's the opportunity not to have to make capex investments. But I find it difficult still, at this stage, to have a well-educated opinion on whether this is going to be a game-changer for our company."

"I think it's too early to see for certain how much of an economic impact it will have," seconds Forbes Alexander, CFO of U.S.-based electronics manufacturer Jabil Circuit. "But my sense is that it will have some favorable impact, not just through the income statement but also on the balance sheet, since we wouldn't have the same investment in hardware."

Jeral D'Souza, CFO of Cargill Asia, a unit of U.S.-based foods company Cargill Inc., is more cautious still. "I think it's another piece of technology," he says. "We have to assess how we can best use it. I'm still trying to get more familiar with what the opportunities are for us."

Experience to date: not much

Identifying those opportunities and assessing how realistic they are is a challenge in part because cloud computing is still a fairly recent phenomenon. Although the underlying concept was foreshadowed as far back as the 1960s, it wasn't until the 1990s that companies began selling software as a service, an early iteration of the concept. Salesforce.com, which debuted out of its creators' small apartment in 1999, was an early example when it started delivering an enterprise application—customer relationship management software—via the Internet. It wasn't until the 2000s that Amazon and Google started making processing power and data storage available to third parties on an as-needed basis, helping to popularize the concept of cloud computing as it is known today.

Given that short history, it's hard to find case studies documenting long-term success with cloud computing. "It's difficult for anybody to give you a track record," laments Derrick Noe, CFO of REpower Systems in Germany. "Or, if they have a track record, it's typically not very meaningful." The inability to trade notes with other users could be a deal-breaker for some companies, at least for the moment. "I'm not sure I'll ever be a first mover or even an early mover on new IT," Mr. Noe confesses. "I'd rather see it proven, and then we'll deal with it."

Testing the waters

Not many CFOs are willing to take an all-or-nothing approach to cloud computing, preferring instead a partial or hybrid approach where they select discrete (often tactical or administrative) functions to move into the cloud and then plug them back into core management systems. Mr. de Kreij at Royal Vopak suggests starting in a "greenfield" functional area so that you don't have to contend with legacy systems. "You start doing certain things on a pilot basis, maybe with smaller applications and smaller hardware situations, just to gain a better understanding," he explains.

"I think it will be a game-changer. But does that mean everyone will go there? No," says William Horton, CFO of Pure Fishing, a fishing-tackle manufacturer and subsidiary of U.S.-based Jarden Corp. "Our core infrastructure, our ERP system, is not going to go to a cloud. But we're starting to look at other areas, whether it be web portals or supplier portals or HR systems. We're in the early stages of evaluating how cloud might impact our business. I see it growing, certainly."

Even some self-described late adopters are already moving various pieces of their information systems to the cloud, convinced that the technology's potential is too attractive to ignore.

"We are not the most modern company in the world on information and communication technology," concedes Peter van Zwieten, finance manager for Ballast Nedam, a Dutch construction company. "We always let hype pass us by. But we are using cloud computing where it's necessary, and where we think that it is beneficial for our processes." Right now, he says, that's in the area of building information modeling, or BIM, which is software technology used by the company's design and engineering personnel to produce digital prototypes of buildings. "You need some early adopters in your company," Mr. van Zwieten says. "Sometimes we know that there is waste, but it's all part of the learning curve."

Carsten Krogsgaard Thomsen, CFO of DONG Energy in Denmark, says his company has begun to use cloud computing in limited ways, though he suspects that it may prove a bigger cost-saver for smaller companies than large ones like his. (Last year, DONG generated \$9.7 billion in sales.) "Cloud computing makes it easier to get flexible and scalable solutions that don't require big, upfront investments," Mr. Thomsen explains. "You pay for it as you use it, and that's a big advantage for smaller companies. At a bigger company, maybe you can save a little on costs by using cloud computing, but I suspect it is not really going to be something very important in the grand scheme of things."

To be sure, that's not a universally held notion. "Game-changer or not, we consider [cloud computing] a chance to reduce costs and control IT in an easier way," says Massimo Campioli, director of administration and finance for professional Italian soccer club A.C. Milan.

The CFO of a European energy company notes, "Cloud computing makes it easier to get flexible and scalable solutions that don't require big, upfront investments."

Exploring New Models for Enterprise IT

Some finance executives believe cloud computing should make it easier to allocate IT costs, providing finance with better control over spending.

Rupesh Kolwalkar, CFO of Ambit, a financial services firm in India, and Philipp Neuhaus, CFO of German-based hygiene services company CWS-boco International, both argue that cloud computing should also make it easier for the finance function to allocate IT costs to specific customers, contracts, or internal users. As a result, Mr. Neuhaus says, those users will be more careful about making sure they ask only for what they really need. Right now, he says, they don't appreciate the costs associated with their IT requests, because costs are simply allocated to different business units based on their sales. Mr. Kolwalkar explains that cloud-based solutions will bring IT costs a step closer to activity-based costing or pricing (on the revenue side) and eliminate or reduce the "common infrastructure" spend.

Not quite ready for prime time?

Still, some CFOs argue that whatever cloud computing's potential, few companies are in a position to take full advantage of it today, either because they aren't convinced of its benefits, are worried about associated security challenges, or believe that vendors haven't yet demonstrated the ability to fulfill all of their IT needs. (See sidebar, "Taiyo Yuden turns to the cloud for its 'failover' IT system.")

For example, as a trial for Invenio Holdings (a subsidiary of Olam International), the company has been looking for a cloud vendor to operate an emergency, off-site, backup IT system, but hasn't made significant progress on finding a solution. "The idea is good. The logic is good. It is bound to succeed," says Olam's Mr. Padmanabhan. "But we shall see."

"I don't think the world is ready for it yet," says David Drillock, vice president and CFO of Cytec Industries, a U.S.-based chemicals company. Cytec is using cloud computing in a small way right now, running its travel and expense management system on third-party servers and saving money as a result. "However, I think that as people get more and more comfortable with that sort of thing, and the level of security it offers, more and more they'll say, 'Why not go to cloud computing?'" Mr. Drillock says. "It's a wave that hasn't been fully exploited yet, but I think it has legs."

Taiyo Yuden turns to the cloud for its "failover" IT system

Joseph Wilkinson, CFO and vice president of operations for Taiyo Yuden (USA) in Solana Beach, California, says he debated for a long time about how best to create a backup IT system for his company in the event its primary system was knocked out of commission by a fire, earthquake, or other natural disaster.

"The duplicate system offsite was on the table for the longest time," he recalls. "I kept thinking about it and thinking about it, and kept coming to the conclusion that it was too much of a cost and didn't make any sense. But once we started looking at hosting it on the cloud, it turned out to be a good fit." Under that model, he says, Taiyo Yuden will transmit data every 15 minutes to the operator of the failover system, which will be running it on its own servers.

Although Taiyo Yuden will pay about \$4,000 monthly for this service, Mr. Wilkinson estimates that going with the cloud vendor allowed the company to forgo a capital investment of \$90,000 to \$100,000, plus recurring maintenance, testing, and other fees on the order of \$8,000 to \$9,000 a month. And, he notes, the monthly fee to the cloud provider will be offset to some extent by Taiyo Yuden not having to pay its own IT team to maintain the system.

Still, Mr. Wilkinson says the upfront savings weren't the biggest benefit of going the cloud route. "I'd say the biggest benefit was the scalability it offered—the ability to take advantage of the most current technologies and not have to continually invest in that," he says. "We've handed that over to the experts."

For all that, Mr. Wilkinson is not sure cloud computing will be the solution to all phases of his company's IT operations. He's concerned, he says, about "data integrity and security, and having to rely on an outside organization for critical items." In fact, he says, Taiyo Yuden looked at moving all of its IT functions in the U.S. to the cloud a while back, but for now has decided against it.

The CFO of a U.S. manufacturer explains why his company moved its backup IT system to the cloud: "I'd say the biggest benefit was the scalability it offered—the ability to take advantage of the most current technologies and not have to continually invest in that."

II. A closer examination of risks

CFOs are keenly aware that migrating their information systems to the cloud will carry some risk. Almost all worry about the obvious issues: loss of direct control over their IT systems, the security and privacy of their data, the possibility of becoming dependent on a single vendor, and needing a limited or costly exit strategy.

For example, points out the treasurer of an Asian manufacturing company, while outsourcing has worked well for many companies, “others have realized that once you outsource [a function] to somebody else, you give up flexibility. If you’re running it yourself, you can go in and make changes.” If you’ve outsourced and want to make changes, however, then you’re in the position of having to negotiate cost and timing. “I know of some companies that, in hindsight, found the operating penalty in terms of loss of flexibility far outweighed the financial savings,” he concludes.

Some also worry about whether cloud computing might make it easier for business units to engage in shadow IT spending, while still others fret that the capability is so new, they just may not know everything that should worry them.

“I’m worried about the ‘camel nose’ effect,” says Royal Vopak’s Mr. de Kreij. “If you see only the nose of a camel, you think it’s a small animal without realizing there’s a huge body following the nose. Because it’s still so new, we have to ask ourselves if we’re seeing only the camel nose of cloud computing right now. What surprises in the future might we not have thought about? The use of ‘shadow’ cloud applications is especially interesting from a control viewpoint given the potential exposure of using and publishing uncontrolled data and information.”

Security

While CFOs agree on the importance of data security, they and their IT counterparts vary in their confidence that cloud vendors can provide it. Some are skeptical and want to see hard evidence of vendor capabilities, even as they recognize their own responsibility for effectively monitoring vendor security protocols.

“Nobody is going to put a lot of mission-critical information out there if it can get broken into,” warns Cytec’s Mr. Drilllock. “All of these companies jockeying to sell cloud computing services are really going to have to make sure their clients’ information remains secure.”

“We would certainly put confidentiality and security at the top of the list,” agrees Matthew Flanigan, CFO, senior vice president, and director of Leggett & Platt, a U.S.-based manufacturer. “We pride ourselves on being innovative and working closely with our customers on their own innovations, so it’s critical that we feel really good about whatever repository we’re using for that information. Otherwise, we won’t put it out there.”

Dieter John, CFO of helicopter manufacturer Eurocopter Group in France, says that while he finds cloud computing personally interesting, he can’t imagine migrating his company’s core IT systems to the cloud any time soon, largely because of the security constraints it faces in its military business, where it must meet stiff confidentiality standards. “All core data must stay on central servers inside the company,” he says. “This is absolutely mandatory for us.”

Concerns about data security extend to protecting data privacy not only as a matter of business necessity, but also as a matter of legal necessity—especially in parts of the world where governments have weighed in on the issue. “As a global corporation, you have to be cognizant of the laws in every country where you operate,” says Jabil Circuit’s Mr. Alexander. “In parts of Western Europe, it is illegal to share personal and private information. How does a law account for you putting it off in a cloud somewhere? I don’t know enough about that, but I suspect it’s not just as easy as flipping a switch and putting everything out on a cloud. We’re in the early stages of figuring all this out.”

“In Germany, there’s also the issue of the involvement of unions and workers’ councils under German labor laws,” adds Mr. Neuhaus of CWS-boco. “So we really have to watch out; probably it is not possible to move everything to the cloud due to legal constraints.”

At the same time, Mr. Alexander suspects that cloud computing could actually offer a risk-management plus. “I’m assuming someone like a Google, with their scale, can develop the best processes and attract the brightest employees in the world, just because of pure scale,” he says. “Like most other corporations, we spend a significant amount of money on security every year, but it’s not our core business. We are in the business of manufacturing.”

The CFO of an electronics manufacturer warns, “As a global corporation, you have to be cognizant of the laws in every country where you operate. In parts of Western Europe, it is illegal to share personal and private information...[so] I suspect it’s not just as easy as flipping a switch and putting everything out on a cloud. We’re in the early stages of figuring all this out.”

The CIO and former finance executive at a large Australian firm notes that it will be important for companies to have an exit strategy in place from the outset of working with a new cloud vendor.

Vendor and contract concerns

As with any outsourcing endeavor, CFOs say vendor selection will be a critical issue when contemplating a move to cloud computing. Alan Semple, Group CFO for John Wood Group, a U.K.-based energy company, says that when it comes time to evaluate cloud providers, he'll want to look at a number of areas, including the vendor's financial health; its development plans; the reliability of its systems and infrastructure; the speed at which its systems operate; its disaster recovery and security plans; and the ease of communicating between the vendor's cloud and his own company's existing IT systems.

DONG Energy's Mr. Thomsen adds, "You want to be sure that whoever provides the cloud computing is financially strong and very solid, so that you can be sure they are also there next month. Also, security of data is a must when using cloud computing."

"When it comes time to renegotiate your next contract," observes Pure Fishing's Mr. Horton, "vendors will know they have their hooks in you. It could become very hard to leverage your size and scale if they know that moving off of their particular solution could be a challenge." For that reason, says Shaun Hughes, now the CIO and formerly a finance executive for Elders Ltd. (an Australian agribusiness and real estate company), it will be important for companies to have an exit strategy in place from the outset of working with a new vendor, so that switching to a new one, if necessary, won't be overly costly or traumatic to the business.

Finally—as with any service provider—the quality of the service can be a deciding factor. Peter van Bommel, CFO of ASM International in the Netherlands, has been disappointed by his company's earliest foray into cloud computing. ASM moved some of its applications onto third-party servers with the hope of bringing down costs, he says, only to find that the expected savings didn't materialize. The company has since brought the applications back in-house. "Maybe the service provider we chose was not seeing us as a very important customer," he says now. "In any event, we didn't get the attention that we wanted, so ultimately it was cheaper for us to do it in-house."

Shadow IT

Even under existing IT models, CFOs and CIOs alike worry about shadow IT spending—spending by business units or functional leaders on IT systems that have not been vetted by the company's IT organization. CFOs aren't sure whether cloud computing will exacerbate or minimize this problem. (See sidebar, "Confessions of a shadow IT spender.")

"We'll only move in that direction [toward cloud computing] if we feel that clarity will be retained on IT spending and we won't have any renegade spending," says Leggett & Platt's Mr. Flanigan. "I would imagine that would become a bit more of a challenge with cloud computing, but who knows?"

"I think it will make shadow IT a bigger problem just because a local manager can go out and issue a purchase order to use, for example, software-as-a-service," says Richard Heyse, vice president and CFO of U.S.-based WESCO International, a distributor of electrical products and industrial supplies.

Joseph Wilkinson, CFO and vice president of operations for Taiyo Yuden (USA), agrees. (His company is the U.S. subsidiary of electronic components manufacturer Taiyo Yuden Co. Ltd. of Japan.) "I think it's going to require more review and more explanation of policy by the company to remind people that everything that goes on their company PC should be approved by the IT group," Mr. Wilkinson says. "I think it will be more of an issue just because there is so much more available to the business units as a consumer. Maybe someone reads about something in the newspaper that they want to try: online backup, or some new marketing tool. It's easy. The problem is, has the provider been checked out? Does it offer the proper data security? Our company's confidential information is important, as is our confidential customer information. So I'm always worried about that and how well it's managed."

Mr. Heyse says his firm has been very clear with employees that shadow IT is unacceptable. "We've had one or two instances of people installing software-as-a-service locally," he notes, "but we've got pretty good cost controls around our IT expenses, so when that happens, we get on it very quickly."

"[Cloud capabilities] allow us to take better control of the execution of our retail environment," says the CFO in an Asian unit of a global footwear company.

“You want to be sure that whoever provides the cloud computing is financially strong and very solid, so that you can be sure they are also there next month,” advises the CFO of a European company.

Confessions of a shadow IT spender

One finance executive based in Asia confesses that his own treasury team uses some software applications hosted on the supplier’s servers. It’s effectively a cloud application for which he didn’t go through the usual IT channels. It’s not an ideal situation, this executive concedes, but neither is it wholly unjustified.

“The argument in favor of it is that you avoid the massive development, testing, and deployment time involved with going through traditional IT channels,” he says. “You simply sign up and use the service. It’s relatively quick and easy to do. You get what you want and need, and it’s quicker, more flexible, and at first sight cheaper, because you’re signing up for a service. You know how much you’re paying and you don’t get involved in all of the hidden costs of using your own IT department.”

“The bad news,” the executive admits, “is that I’m not fully integrated with the rest of the corporate environment.”

Taken to the extreme, he acknowledges, shadow IT spending can leave companies using technology that hasn’t been sufficiently researched and may not be sufficiently robust.

“Above all, you move away from the dream of having a single integrated database where everybody is using the same data, albeit for different purposes and different applications,” he says. “You are back to a situation where everybody’s got their own database and is working on their own data. These systems are not talking to each other and not being reconciled. If somebody’s running their accounts receivable on one of these cloud applications, for example, he can be telling you he’s been doing great on collecting his receivables. But maybe you’re only seeing half of the receivables in the cloud-based application, because the rest didn’t get transmitted into your application. Or, you can have the collections coming in and being recorded in this cloud-based application, but the data is not making its way through to accounting or treasury, so nobody knows the cash is there.”

“The point I’m making,” the finance executive concludes, “is that you lose the integration of data, which is one of the key advances that have been brought about by enterprise resource planning systems. The danger is that you can end up with pandemonium and mayhem.”

III. Using the cloud for business benefit

While some companies continue to explore whether cloud computing will deliver measurable benefits for their organizations at a theoretical level, others are already giving it a whirl—and like what they’re seeing. Footwear maker Adidas, for example, is using a cloud-based service in China that lets store managers there upload photos of window displays for quick review by marketing executives. “It allows us to take better control of the execution of our retail environment,” says Adidas China CFO Erick Haskell.

In Mexico, CFO Selene Avalos says that Urbi Desarrollos Urbanos, one of the country’s largest housing developers, is the first Mexican company to use a newly developed cloud platform for a variety of applications, including a home-sales system that links its home developers and their customers. This approach, says Ms. Avalos, has saved the company money on IT infrastructure and made it easier and faster to connect with its business partners.

Cytec’s Mr. Drillock says that after running its travel and entertainment expense reporting system on the cloud for about four years, his company has not only saved money but also enjoyed the benefits of continually updated technology. For example, he says, Cytec gets to take advantage of updates requested by other users, automatically, without any work on the part of Cytec’s IT team. Moving to the cloud also has made his own users more cost-conscious, he suspects, since those who request changes unique to the company must explicitly pay for them. That, he believes, helps to drive unnecessary complexity out of the system.

Meanwhile, the diversified Mexican conglomerate Alfa has begun building its own private cloud to experiment with the medium’s potential. So far, it’s limited the experiment to sharing certain software and infrastructure among different companies within its portfolio. That has modestly reduced the amount of money needed to fulfill the company’s IT needs, says Alfa CFO Ramon Leal, but more importantly, it has allowed the company to meet those needs with greater speed and flexibility. “I think we can react more quickly to the needs of our business in terms of the availability of computing resources,” he says. “And, obviously, that’s a great advantage. We see our IT budget being less aggressive going forward because of the scalability that cloud is going to provide to our company.”

In Germany, CWS-boco has been using salesforce.com, the cloud-based customer relationship management service, for a couple of years now, says Mr. Neuhaus. Initially, it focused on using the software to steer sales personnel to sales opportunities. More recently, the company has begun using the cloud

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capabilities to make it easier for sales personnel to respond to customer complaints, too. While direct cost savings have been negligible to date—some of the money saved on infrastructure has been diverted to monthly payments to salesforce.com, and there have been costs associated with linking salesforce.com to CWS-boco's back-office systems—Mr. Neuhaus expects the move will pay off over the long haul, especially through the benefits in regard to increased customer loyalty and satisfaction.

More importantly, moving to the cloud has been a winner from a business perspective. "With this service, we don't have to care about IT infrastructure and hardware anymore," he says. "Plus, our sales force can access it on demand quite easily from everywhere they are, even when they are traveling. It's fast. It's made everything much more flexible."

Pursuing value-added management

In addition to managing costs better and allowing for faster and more-flexible deployment of IT systems, say some CFOs, cloud computing will free their IT teams to spend less time on technology drudge work and more time helping to drive better business performance. Vijaykumar Talreja, director of information technology at Ambit, says outsourcing some of its IT systems to the cloud should allow him to spend more time figuring out how technology can improve his company's business and less time maintaining those IT systems internally.

Gustavo Aguirre, the CIO of private health insurer Grupo OSDE in Argentina, agrees. "As a long-term strategy, I personally think we're going to move everything we can to cloud computing—especially things that are not directly related to our business," he says. "It lets us stop handling administrative chores having to do with maintaining technology and lets us focus on how to build our business." (See sidebar, "Grupo OSDE moves to the cloud.")

Abhishek Jain, associate general manager in acquisitions and alliances for France's Schneider Electric in India, likens the advent of cloud computing to the introduction of government-funded highway construction. "Nobody builds the road for themselves anymore," he says. "It's going to be exactly similar in IT, where the cloud infrastructure is going to be built by external vendors and companies will not need to build infrastructure for themselves. They can just plug into the cloud and use it."

One ramification of that model, Mr. Jain adds, is that companies should ultimately find it easier to integrate the IT systems of companies they purchase into their own systems. "You will just migrate everything to a single supplier or consortium of suppliers," he says. "It should be very fast."

The CIO of a Latin American health insurer says that moving to the cloud "lets us stop handling administrative chores...and lets us focus on how to build our business."

Grupo OSDE moves to the cloud

While some companies are dipping their toes into the cloud computing pool and others are continuing to watch from afar, Grupo OSDE in Argentina is plunging in. The private health insurer started by using Google's cloud services for corporate email and calendar applications, and now plans to embrace other cloud-based tools in the not-too-distant future.

IT departments responsible for operating large enterprise-wide IT systems not only have to make sure those systems are working every day, notes CIO Gustavo Aguirre, but they also have to periodically migrate them to bigger or more advanced pieces of hardware or newer software. "That's tough, and as time moves forward, those migrations come more and more rapidly," Mr. Aguirre says. "That makes me lose focus."

With the scalability offered by cloud computing, he continues, "if I have to grow, I can just ask for more capacity. I don't have to think, 'This piece of technology won't be able to handle it, so what do I do?'"

Grupo OSDE is now preparing to put the IT systems used by its laboratories in the cloud, Mr. Aguirre says, because the company can't make changes to those systems quickly enough today. "Right now it takes me six months to get hardware, and it's a year before we've finishing testing out a software product," he says. "By then it's too late. I need to be able to test it next week."

Mr. Aguirre says Grupo OSDE is also creating its own internal cloud for some of its software applications. "Instead of using one large server, we'll use many small servers strung together so it's easier to expand—and we'll have 100% availability," he says. "We're trying that out."

"Cloud computing is going to untie the IT department's hands to concentrate more on the business," Mr. Aguirre sums up. "If it works as it should, IT will be able to stop doing a lot of things that have no value."

IV. Budgets and balance sheets

Just as CFOs remain mixed on their assessment of how broadly cloud computing will catch on, they also remain uncertain of the impact it will have on corporate balance sheets and income statements—and, as a consequence, IT spending. While acknowledging that cloud computing could reduce capex by eliminating some technology investments and moving more expenses to the operating budget, few believe, for now, that this will have a material impact on the decisions they make about when and where to invest in enterprise technology. This is especially true at large corporations, particularly outside the financial services and technology sectors, where IT assets represent a very small fraction of total assets on the balance sheet.

“Will it take 10, 20 percent off the total cost of running certain software?” asks Mr. Semple of Wood Group in the U.K. “I don’t know. Will it take 80 or 90 percent off the cost? I think that’s a lot less likely. I don’t see it as something that will materially change the shape of Wood Group’s P&L.”

Indeed, some companies have taken a look at cloud computing and concluded that the necessary savings just aren’t there. “When we looked at a couple of projects involving software as a solution, and looked at the lifecycle costs, they were much higher [for cloud],” says WESCO’s Mr. Heyse. “It was not competitive with what we’re doing in-house.” To be fair, Mr. Heyse says, his firm boasts a crackerjack IT team whose work and costs benchmark favorably against WESCO’s peers. And, he concedes, the calculus for the cloud could be different for smaller projects than for enterprise systems.

Ambit, by contrast, sees a significant impact on the balance sheet by moving from a capex-centric to an opex-based IT model. The financial services company recently embraced the cloud—in this case, by switching to a cloud-based corporate messaging solution for activities such as email, push email, voice, and video chat. The company is convinced this will produce substantial upfront savings because the cost of replacing on-premise infrastructure would have been high. (See sidebar, “Legacy systems: a drag on change?”)

Ambit’s Mr. Kolwalkar says the cloud solutions also should allow the company to easily adjust its IT assets in lockstep with business needs, which should enable further savings in the future, without worrying too much about technology obsolescence. “With an on-premise solution, you are saddled with fixed costs that you can’t do anything about,” he notes. “With cloud, it gives you the facility to upscale and downscale at will, keeping a good balance with benefits of those costs.”

Ambit’s CIO, Mr. Talreja, confirms that, when choosing between an on-premise and cloud-based solution for its corporate messaging infrastructure, “it was a no-brainer to move to the cloud. The costs for the on-premise solution were very significant because of the infrastructure and management costs. Moving to a cloud-based model, where you don’t have to worry about buying new hardware and having to run it, or licensing costs, was an absolute winner.”

Legacy systems: a drag on change?

Many CFOs say they would take into account their investment in legacy systems before adopting a new technology, such as cloud computing, and writing down those earlier investments. But they differ on how much weight they would give this in their decision-making.

“It may not make sense to just wake up one day and say, ‘Well, I’m going to ditch the investment I made last year on internal infrastructure and go to cloud computing,’” says Alan Semple, Group CFO for the U.K.’s John Wood Group. “You’ve got to have a measured path through all this. To make an investment in something completely different, you’ve got to get the return to justify it.”

Yet focusing too much on protecting one’s investment in legacy IT, warns Jack de Kreij, CFO of Royal Vopak in the Netherlands, could put companies at risk of missing the bigger picture. Trying to squeeze the last dollar out of legacy systems, for example, might lead a CFO to overlook the fact that online real-time access to the company’s inventory data has become critical to its vendors and customers. “Due to their long periods of service, legacy systems often have accrued significant complexity,” he says. “In many companies, this complexity is an inhibitor for change, especially in a world that changes ever more rapidly.” According to Mr. de Kreij, new, more “fit for purpose” applications typically deliver new functionality faster and at lower cost, and cloud services tend to focus on this specific market, he notes.

In practice, expect most CFOs to use a fair degree of common sense in walking the line between getting the most out of their companies’ existing technology investments and driving the company forward.

“We’d write it off if the facts supported doing it,” says American Tower CFO Tom Bartlett. “If an historical IT investment outgrew its usefulness and was replaced by a new value-creating, game-changing technology, the decision would be quite easy.”

“We don’t worry about wasting our technology if it’s obsolete,” adds Guillermo Calcagno, CFO of COTO C.I.C.S.A., a grocery chain in Argentina. “If you get to that point, it’s already wasted.”

Elders Ltd. takes to the cloud—in private

Few companies are embracing the cloud more enthusiastically than Elders Ltd., an Australian agribusiness and real estate company. Several months ago, it began using a cloud-based customer relationship management tool that allows it to list properties for sale by its real estate operation on multiple websites and track the performance of its individual sales personnel. “It’s not our technology, it’s not our system,” says Elders CIO and former finance executive Shaun Hughes. “It’s a really good, best-of-breed product run in the cloud, and we spent a fairly long period of time assessing it and evaluating it. The motivation? It gave us speed-to-market and flexibility.”

At many companies, stand-alone or “vertical” applications like that are, for now, the only cloud applications in use. But Elders is pushing the cloud envelope further via a core transformational project it calls Project Connect. The company is installing a new ERP system that will be hosted on a private cloud managed by a different infrastructure provider. “As each module or release is put into production, it will be run on the infrastructure in the provider’s data centers in Sydney,” Mr. Hughes says. In the meantime, Elders has also contracted with the infrastructure provider to manage Elders’s legacy IT systems while the ERP system is being implemented in the cloud.

Mr. Hughes says the company chose to host its ERP system on a private cloud largely because it thought that doing so would allow for greater data security than a public cloud. It chose the cloud model in general, he says, because it believes it will be more cost-efficient than operating the ERP system internally on its own infrastructure.

“Historically, what you’d probably do in rolling out an ERP system is work out the size of the environment that you need for the future,” he explains. “Then you might have to buy that environment in chunks bigger than you actually needed upfront. Moving to a cloud gave us the ability to incrementally and economically increase the size of our IT environment in small amounts consistent with our rollout plan. We didn’t have to buy a big box. The scalability inherent in the cloud delivery model is better.”

Similarly, Rostow Ramanan, CFO of MindTree Ltd., an IT consulting company in India, says cloud computing could allow his company to undertake more IT initiatives. He explains that his company’s IT budget is calculated as a percentage of revenues, profitability, and a few additional factors. “To the extent cloud computing saves costs or improves profitability,” he says, “it can allow us to implement more projects.” The company is in the process of piloting some cloud projects internally, he says, to assess the potential of the approach. “Conceptually there does exist a business case for some cost savings,” he notes, “but it is not realized yet; we are only midway on our pilot.”

Implications for staffing

Cloud computing could also have an impact on IT staffing, both in terms of the number of IT workers companies require—some CFOs expect to need fewer—and the skill sets that those who stay on will need. Ambit, for example, recently renegotiated with its IT outsourcing partner to downscale the number of people assigned to its account because of its recent shift to a cloud-based messaging service.

CFOs also anticipate that IT workers will need a broader set of skills if their companies embrace cloud computing, including commercial rather than technical skills that will enable them to function more as a vendor manager than a technology consultant.

“You still need to own the budget, you still need to own security, you still need to own policies, and you still need to own the relationships with your business units,” says Elders’s Mr. Hughes. “But you’re also moving to a management approach that is more outcomes-focused and less technology-focused.” In fact, Mr. Hughes recently hired a new service-delivery manager to run his company’s day-to-day relationship with the infrastructure provider that will be hosting Elders’s new ERP system on a private cloud. (See sidebar, “Elders Ltd. takes to the cloud—in private.”)

Outside of the IT function, American Tower’s Mr. Bartlett suspects that cloud computing will impact the staffing needs of the finance function, too. “I’m sure it’s going to add more complexity to our risk-management profile,” he says. “Our finance people are going to have to step up in terms of their education levels and their understanding of it.”

V. Concluding thoughts

Ultimately, many CFOs suggest, companies won't be able to afford to completely ignore cloud computing's potential, even if they start out on a small scale. Companies need to do that, Royal Vopak's Mr. de Kreij notes, to gain a better understanding of the technology and what it can deliver. "Otherwise," he says, "it's just an academic exercise."

While a few CFOs already hail cloud computing as the ultimate model for corporate IT systems, most surveyed for this report say they are more likely to embrace a hybrid IT model for the foreseeable future, with some information systems remaining in-house and others migrating to the cloud.

"I don't think cloud computing will replace existing systems," says Olam International's Mr. Padmanabhan, a self-professed fan of cloud. "They will co-exist. It's more of an evolution."

"It's going to evolve toward the cloud, but over time," agrees Schneider Electric's Mr. Jain. "It's not feasible for every company to overnight throw away their existing infrastructure."

The hybrid approach will allow companies to explore the capabilities of cloud computing while learning to minimize its risks. The private cloud—using a networked, Internet-based platform to house just a single company's own internal systems—is gaining in popularity, especially among larger companies, as a way of reaping some of the benefits of cloud computing while minimizing the operational and security risks.

Finance executives hope that this approach will provide them with better, faster, and more-reliable information, aligning their companies more closely with their vendors and customers and improving their visibility into key performance indicators.

That's what CFOs want. To the extent cloud computing delivers, it may, indeed, prove to be a game-changer.

"You can't just wake up one day and say, 'Well, I'm going to ditch the investment I made last year on internal infrastructure and go to cloud computing,'" says the CFO for an energy company in the U.K. "You've got to have a measured path through all this."

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Sponsor's perspective

A new delivery model for IT, cloud may prove to be a game-changer by allowing enterprises and governments to reduce time to market, speed innovation, and thereby contribute substantially to company growth. For this reason, chief financial officers want to understand how to tap into the power of cloud.

As this research indicates, some CFOs are already trying cloud solutions, with a handful seeing early success. All seem to agree on the importance of partnering with the CIO to develop a plan for how to maximize the benefits from cloud. To best prepare for the journey to cloud, CFOs and CIOs should collaborate to develop a financial roadmap that complements the technology roadmap. As they undertake this endeavor, it will be important to partner with strategic vendors that understand the implications of moving to cloud, as well as how to leverage different cloud delivery models, including public and private, since most customers will operate in a hybrid environment for the foreseeable future. To get started, CFOs will want to consider four key areas.

It is natural that CFOs might first consider the financial implications of moving to a new delivery model for IT. Cloud offers the potential to shift significant capital expense to operating expense, a move that may provide tangible benefit to some companies. For others, as this research indicates, the shift may not have significant enough impact to validate a move to cloud. Beyond the change in expense reporting, CFOs will also want to think about how to measure total cost of ownership (TCO) so they can get an accurate picture of how cloud will impact their financial statement.

Once the financial aspects of cloud are understood, many CFOs then look at the potential risks. Many are concerned about data security, vendor reliability, and compliance as they look to move company data and processes to outside providers. The risks are valid, and careful consideration should be given to each, but, as some participants in this study suggest, the providers with which they partner may have best-in-class security that exceeds even their own in-house security. Further, security considerations may vary depending on the cloud delivery model because private clouds are operated in-house while public clouds are housed off-premises and are often shared among different companies.

A third consideration raised in this study is the impact on IT provisioning. The number of applications available from cloud service providers is growing rapidly, and these services can be quickly and easily procured by anyone in the business—without the intervention of IT. CFOs must consider whether existing policies and procedures are adequate to provide protection against the rise of “shadow IT.” Further, as more and more IT services move to a cloud model, there is the potential to redeploy IT headcount to projects that add more value to the business. CFOs should understand how to take advantage of this shift in resources.

The final, and perhaps most complex, consideration for the CFO considering cloud is how to maximize its business benefits. CFOs in this study generally agree that cloud holds significant promise to deliver agility, speed, and innovation, all of which will help them stay ahead of the competition. However, they also recognize that their understanding of and experience with cloud is, at this time, relatively limited. They require a partner that can help them understand how and when to implement cloud solutions to maximize their return on investment, whether that return is in financial savings or increased business benefit.

HP Financial Services understands the journey that companies will go through as they move to cloud. We can work with CFOs and CIOs to create a roadmap to cloud that will make the most of existing infrastructure and take advantage of the latest technology in order to deliver real value to the business. After all, the move to cloud, especially for large enterprises, will be evolution, not revolution.

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