

THE CIO AS CHIEF INNOVATION OFFICER: HOW CLOUD IS CHANGING THE CIO ROLE

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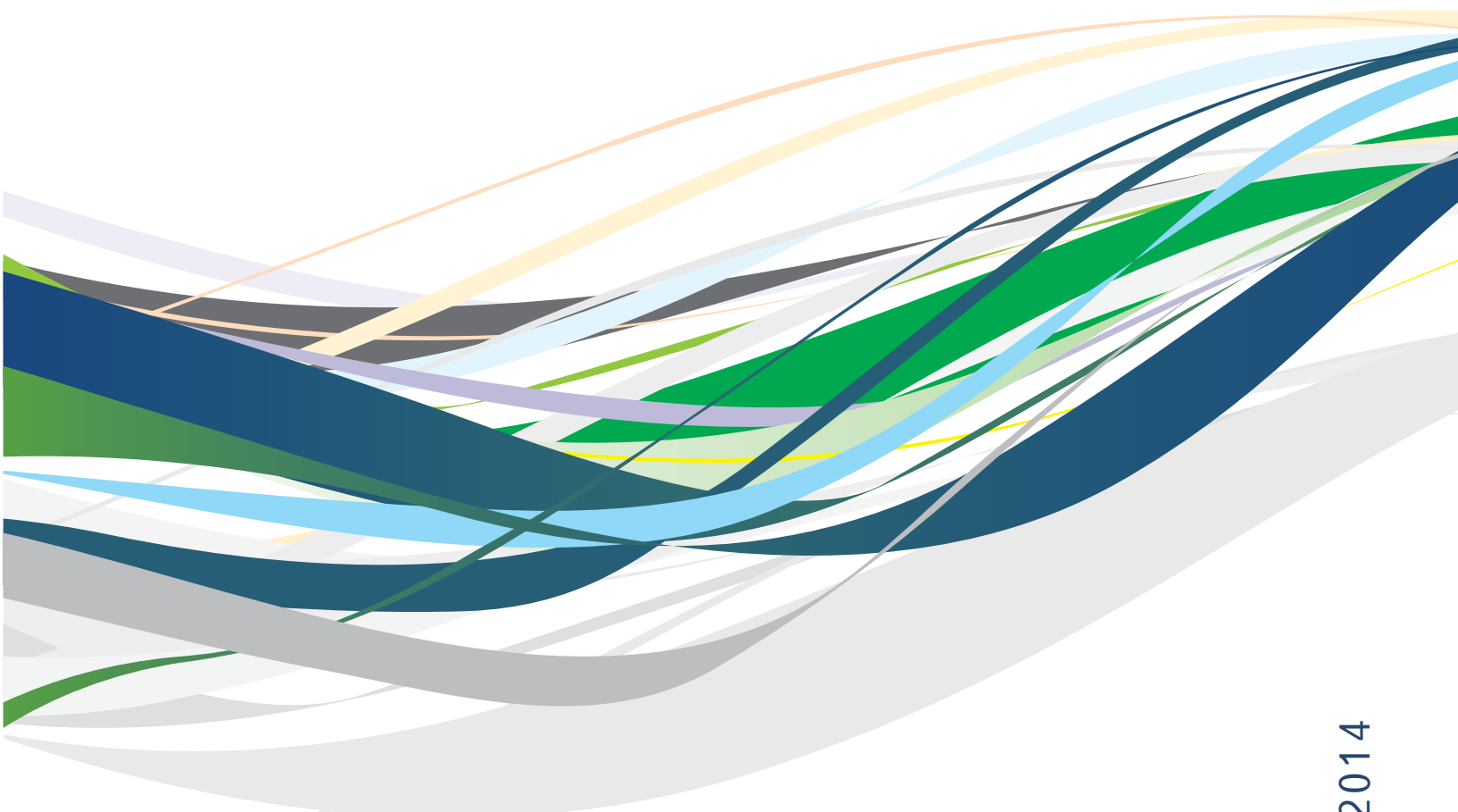


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INTRODUCTION

If you've been a CIO for any length of time, the last few years have probably felt like a roller-coaster ride. Although cloud computing is arguably one of the most exciting things that's happened in the IT space for decades, it is also the catalyst for many a CIO identity crisis. The simple fact is this: the emergence of cloud has fundamentally changed the role of the CIO; obsoleting job descriptions, altering organizational structures and changing the benchmarks of success.

For decades, the CIO was the purchaser of hardware and software; the overseer of its implementation, maintenance and security. He or she was the keeper of the data center, the "person behind the curtain" who was ultimately responsible for making everything work.

Then, the world changed. Cloud computing, the consumerization of IT and businesses' now absolute reliance on technology escalated the demands on nearly every CIO. Everything has to move faster, do more and happen right now. And all of that money we're spending on maintenance? We need to cut that way down, because we have a laundry list of new things that need to get done—yesterday.

According to a recent report by McKinsey & Company, CEOs and line-of-business departments believe their IT shops are too preoccupied with projects that "keep the lights on" instead of focusing on "quick" and "simple" technology initiatives to innovate and grow the business. However, there is often a disconnect between the line of business expectations to use IT quickly and what CIOs can deliver in a very short timeframe, often because so much of the IT investment is pre-budgeted annually, based on longer-term initiatives and maintenance.

In many companies, that perception has business units going rogue, securing their own cloud services with no IT input. The HR department contracts with one cloud provider, customer service with another, while treasury engages with a different accounts payable SaaS vendor. Their budget, their decision—no need to consult with IT.

Yet, it is the CIO who's responsible for migrating the data to these various providers, without additional time and resources to do so. He or she is the one who gets the call when something goes down or if data is

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compromised—no matter where it's running. The difference is, he or she can no longer build a SWAT team, swoop in and save the day. The only option is working with the individual cloud provider and hope that this vendor has the staff and the urgency to rapidly resolve the issue.

Does all of this mean that the rise of cloud has permanently eroded CIO stature? Has it reduced the critical nature of this longstanding technology leadership role? The fact is, quite the opposite is true.

For most companies, digital solutions are driving the supply chain and revenue stream. This means that IT moves front and center in all functions.

CIOs have the opportunity to transform from keeper of the technology into a true Chief of Information, now managing data as a company asset, just as the CFO manages company finances. To do that, the CIO not only has to understand where the data is and which provider is responsible for it but also how the individual business units can use that data. The business knowledge required to drive mission critical processes, the market knowledge required to capture emerging opportunities and the technical knowledge required to bring those elements together all drastically change—and elevate—the job of the person occupying the CIO seat.

This paper explores how CIOs can effectively make that transition, and how the right managed cloud solution can not only put them back in control of this new, multi-sourced environment but arm them with the comprehensive business insight they need to thrive in this changing world.

Chief Innovator, Chief Integrator, Captain of All

First, let's dissect the CIO job description in the brave new world of cloud.

What doesn't change is the need to provide the controls, the management and the operational attributes of critical systems; however, in a multi-sourced cloud environment, this becomes more complex.

Compliance can be a significant challenge, not only because of all the moving parts but because of inconsistencies between vendors. Although some cloud providers claim compliance, it's often limited to the provider's own application domain and does not extend to the other services the provider offers, like data import and export. Testing and monitoring are essential steps.

The right managed cloud provider enables the CIO to unify a disparate cloud IT environment, reduce operational costs and gain the comprehensive business insight needed to fulfill the innovator role.

Integration is critical, but it now requires managing 20, 30, possibly 100s of cloud providers and finding a way to make their data meld for a comprehensive picture of the business and enterprise. The CIO must ensure these integrations work properly and that changes occur across this highly complex network with minimal business impact.

While all of these highly technical responsibilities are extremely important, the biggest change in the CIO role is something far more significant: a transformation from technology head into a Chief Innovation Officer.

Innovation involves knowing where the master data is, who owns it, who can change it and, most significantly, what it means. It's providing the tools, technologies and idea of how to use this data as a competitive weapon.

To thrive in this transformed role, CIOs need both an in-depth understanding of the business, including the most critical business processes, as well as the technology that supports it. If sales are business critical, the CIO must understand the processes in that domain and implement metrics to ensure their availability in the cloud.

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Instead of looming in the background, today's CIO is as entrenched in the business as the CEO, sales, logistics and product marketing. While a seemingly monumental change, it is one that significantly elevates the position and moves it from support to strategic, at last.

The question is, short of acquiring super powers, how can a CIO morph into this new role and regain control of a fragmented IT environment?

It takes a combination of the right managed cloud partner and new internal structures to drive the change.

The Benefits of a Managed Cloud Solution

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The fact is most first-generation cloud providers have an "it's all about me" mentality. Their SaaS application is an island, with its own database, own schedules and a singular focus on its little corner of the IT world. Although

these providers are skilled at online transaction processing—entering data on a screen—aggregating this data to other areas of the business is a challenge, at best. To get a comprehensive view of company data for audits or analysis, the CIO (or some other brave soul), has to find a way to piece together all the disparate data, arriving in different forms, from various vendors.

If you want to scale up or down, that's no problem. But, if your business strategy changes or you simply want to migrate to a new vendor, this isn't so easy. Moving data and reconfiguring it for a new provider is a time-consuming, often costly process that could interrupt business. Ironically, you could be held captive by the niche cloud provider chosen for its agile, “no long-term commitment” model.

On the other hand, managed cloud providers are skilled at integrating the entire ecosystem of the business, regardless of whether the company is 100 percent cloud or a hybrid of cloud, hosted and on-premise solutions. All of the data is migrated to a single master warehouse and integrated using schema mapping techniques.

This comprehensive data formatting and warehousing enables the CIO to become a true arbiter of good practices. If today the company is running Cloud Provider X's CRM application and wants to change that to Cloud Provider Y's next week, the appropriate contained data can be easily exported, without reconfiguration or wait times.

Even more significant is the fact that, with managed cloud, CIOs can access true, meaningful business insights that support the goals of the company. This capability—the power to fully utilize data for business strategy and reporting—is the real game-changer and the thing that moves the CIO to elevated stature. You now have the information your organization needs to devise strategy and grow. You now can move quickly to stay one step ahead of the competition.

Managed cloud also puts CIOs in control of releases and upgrade schedules. The providers IT staff not only handles the upgrades for you, freeing the internal staff for more strategic projects, but enables you to orchestrate these updates on a schedule that makes the most sense for your business. Individual SaaS providers handle updates and patches on their own timeline, without regard for client preference. Managed cloud enables CIOs to look at the entire enterprise, and schedule updates in a way that minimizes disruption.

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Monitoring compliance, managing security and the ability to simply get things done are substantially improved in a managed cloud environment. Not only can these capabilities reduce costs but also improve consistency around controls and audit tracking. More importantly, it moves the CIO to a more strategic position within the business, instead of the one who's constantly putting out fires.

Start Working from the Inside-Out

Before a CIO can select the right managed cloud provider, he or she has to immerse himself or herself in the business—a change that's as much cultural as it is operational. It is imperative to understand the business processes, identify critical applications and contrast what exists with what you want to do. That way you can match provider capabilities to true company needs.

Although managed cloud creates a cohesive IT environment, it takes more than a willing CIO and a skilled provider to change the paradigm. The CIO must establish an open flow of communication between IT and business units, and a means of gaining consensus on priorities, schedules and needs.

Start by establishing an internal governance committee, comprised of senior leadership from each business unit, to effectively calibrate different unit's business requirements with the others.

In most companies, business users don't fully understand the impact of what they do on other areas of the organization. Through the committee, the CIO can not only prioritize but discuss the impact of each requested change on the remainder of the supply chain, so these can be handled in a logical manner.

It's important to note that the purpose of the internal governance committee is not to make system decisions—that's the CIO's domain—but to agree on the priorities; what happens when. This process is not only better for business operations but eliminates the mass "do it all, do it now" syndrome. By involving the stakeholders and explaining cause and effect, you greatly improve relationships and create real top-down change management.

After this committee is in place and your needs and objectives documented, you're ready to engage the right managed cloud provider.

Choosing the Right Managed Cloud Provider

Of course, when you look beyond the PowerPoint presentations, all managed cloud providers are not created equal. It's critical to partner with the company that has the skillsets and expertise you need.

Don't be afraid to interview your managed cloud providers like you would a prospective employee. As CIO, you already have the knowledge of how to operate your systems, so use this knowledge to ensure that your provider has similar operational experience and that they're using industry best practices.

A careful due diligence should include the following:

Ensure you're working with a pro that's up to meeting your company's challenges.

- Ask about the provider's CIO. How long has that person been in place, and how experienced is that CIO in various cloud operations? How about his or her direct reports and staff? Although technology is the enabler, you'll be working with human beings when something goes wrong. Know the real people behind the scenes and make sure your "virtual CIO" is up for the job.
- Find out if the provider runs and maintains their own infrastructure or if they use third-party providers. If the provider uses third parties, find out their business connection to these infrastructure and application providers.
- Ask the same kind of questions you would of your own operational staff, including: How frequently do they patch? How do they monitor and respond to events—and is that monitoring automated? You'll start to see clear differentiators emerge.
- For example, Oracle Managed Cloud Services employs 12.2 online patching, which incorporates a patch edition and run edition in the database and file system. This process enables users to actively use the system while the patch is prepared and applied, with the only downtime occurring during the physical cutover from the patch edition to the run edition, which can be scheduled during off-hours.

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Focus on security and compliance—that's often the true differentiator.

- Define your business requirements for security and, if PCI or HIPPA is a requirement, find out how the provider supports that standard and if they are using the latest release of each.
- Find out if and how the provider supports industry standards, like SAML 2.0, and their plan for keeping these current.
- Ask how the provider secures application-to-application integration (through data or API calls). This information is particularly crucial, since this integration is a primary focus for CIOs and their IT staffs.

Although one breach damages the provider's reputation, it has the potential to have a far greater impact on its customer's business. Do find out about the "what"—the supported security, but also ask about the "how" and the "who"—how is security implemented, how is it organized and who supports it? The same questions you'd ask your own IT shop are not only appropriate but critical when choosing a managed cloud provider.

With proper due diligence, you will identify security services that differentiate one provider from the others. That should make your decision easier and your comfort level higher.

Get to know the support team.

While it may seem counter-intuitive at first, relationships become more important than ever in a managed cloud relationship. Speak directly to that support team, and assess whether they have both the aptitude and desire to truly understand your critical business processes.

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For example, if you are a delivery business with trucks that leave at 2:30 a.m., your critical periods might be the four hours prior, during which orders are filled, vehicles loaded and manifests created. Does your provider have the intimate knowledge and ability to monitor your most critical business systems

and business processes? If something goes wrong and you can no longer pull together an internal SWAT team, the relationship with your managed cloud provider's Senior and Executive staff will prove invaluable in times of crisis.

Talk about governance—and seek out differentiators here.

When you work with a managed cloud provider, you'll receive the same kind of data you do from your IT operations today—number of users, storage, server utilization—all of that is table stakes. Most providers offer some sort of dashboard that is integrated with IT's monitoring framework, as well as mobile options to confirm that all systems are “go.”

What you want to find out is what else your provider offers beyond the basics to help you run your operation.

Oracle, for example, offers Business Transaction Monitoring as part of our solution. We work with you to identify your top five or six most critical business processes, then monitor and report on these in addition to the standard fare. It's extras like these that often make the biggest impact.

After your interviews are complete, look at your options and map provider capabilities to your needs. Typically, the right partner will emerge fairly quickly in the discussion.

Don't Forget to Involve Your Internal IT Staff

As you change your focus as a CIO and migrate to your managed cloud provider, make sure you help your own IT staff evolve into the business mindset. After all, their roles are shifting, too.

In the ‘new normal’ a database architect has to know what that data represents to the business and how to manage and contrast that data. That's not something that can happen overnight or without some guidance.

Some companies immerse IT personnel into the business units for a week, to shadow users to identify ways technology can make them more efficient. One Oracle client offers a program called “A Day in the Life,” in which the IT department participates in conference room pilots to better understand how users interact with technology.

They, like the CIO, have to begin measuring success around critical business processes and transaction monitoring. It's not just about uptime and availability anymore.

Recognize that True Change is Here

No question, technology has changed the way business operates and people work forever. The successful CIO, today and in the future, has to have business DNA, a deep understanding of the data, and the ability to apply technical knowledge to capture business opportunities.

At Oracle, we are committed to helping CIOs evolve their roles by providing comprehensive, transparent managed cloud services, already used by some of the most progressive companies in the world. We provide the monitoring tools and expertise to help you gain visibility into your operation, your data and your virtual world; and fully support your company's goals.

Great things are on the horizon for the CIO who's willing to make a change.

About Oracle

Oracle provides the industry's broadest and most complete portfolio of public, private and hybrid cloud offerings. Oracle Cloud delivers a broad suite of subscription-based, enterprise-grade Application Services, Platform Services, Infrastructure Services and Social Services. Oracle also provides a comprehensive portfolio of cloud products and managed cloud services for IT providers to build and manage clouds. For more information about Oracle (NYSE:ORCL), visit www.oracle.com. For more information about Oracle Managed Cloud Services call 719.757.2065.



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