

Is cloud computing **DISENFRANCHISING THE CIO?**





*Cloud computing is continuing its meteoric rise and has found acceptance within the enterprise. As a partial result IT control and decision-making is moving to the line of business managers. In the middle of it: the CIO. **Clare Coulson** considers what these changes mean for the modern CIO and how he, or she, can remain relevant and gainfully employed in such a rapidly transforming digital business landscape...*

When Neil Armstrong and Buzz Aldrin set foot on the moon 45 years ago it represented a technological leap forward for mankind. More astounding, perhaps, to those of us who wear our phones like a sort of security blanket, the computer on the Apollo 11 space shuttle ran on technology less powerful than the average modern smartphone. We have come a long way, often in leaps and bounds.

One of the most influential and transformative of these leaps, at least in the world of IT, was the arrival of virtualisation and shared tenancy on computers - the enabling seeds of modern cloud computing. With a bit of smart software, data centres the world over could immediately utilise the huge surplus of excess server capacity.

Cloud computing was initially pooh-poohed by box-hugging IT department heads who preferred to play in their own DIY sandpit. It still is in many quarters, but it is becoming increasingly clear that they are swimming against the tide. Frost & Sullivan's State of Cloud Computing 2013 reports for Australia and New Zealand indicate that local organisations are now steadily embracing cloud computing for most if not all of their IT infrastructure and software.

FORECAST: CLOUDY

Frost & Sullivan reports that over 60 percent of Australian organisations currently using cloud-based solutions are planning to increase their cloud budget over the next 12 months. The converted are liking what they see and >>

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Forrester Research - Asia Pacific, 2013.



wanting to buy more. What is more, 24 percent of organisations that currently do not access storage via the cloud are likely to do so in the next 12 months. Similar data was reported for New Zealand.

The report indicates that many organisations had initially used public cloud offerings for test and development activities, but are now migrating a wider range of production workloads and core business systems to the cloud, including ERP, CRM and online services.

A key driver has been a maturing in wider business understanding of cloud computing. Phil Harpur, senior research manager for A/NZ at Frost & Sullivan mentions that the increasing awareness of cloud has seen an increasing number of companies ask the question, 'What can I do with cloud services?', rather than 'What do cloud services prevent me from doing?'. This is opening up a broad range of opportunities for companies to develop their business models to cope with the rapidly changing IT environment. Cloud is progressively seen

as more than just a way of reducing IT costs and IT decision makers are gradually becoming more aware of the other benefits that the cloud offers such as agility and flexibility.

Cloud computing expert Craig Deveson, CEO of Cloud Inc and the first in the world to develop an exclusive partnership with Google with his company Devnet, explains that cloud by itself doesn't save you money. "In fact if you are trying to do things exactly the same it may cost more, but if you re-architect around the cloud it could cost you significantly less or give you significantly greater return on investment for the company. Increasingly

you'll see companies re-architecting their solutions and moving to the cloud for strategic reasons. That's where the real payback is."

Frost & Sullivan showed that overall IT cost reduction was just one of the reasons that organisations are now considering the cloud. Reduced risk of IT disruption from external factors such as natural disasters, greater overall business agility and flexibility, enhanced IT infrastructure efficiency and faster deployment time are all driving adoption of cloud computing. SaaS adoption is also being driven by the Ultra-Fast Broadband (UFB) rollout in New Zealand (and presumably the NBN rollout in Australia although this wasn't highlighted in the Australian report, perhaps deliberately given it's somewhat languid progress), falling broadband prices, rising data cap limits on broadband plans and increasing demands for enterprise mobility.

A significant factor that has emerged over 2013 that is reportedly hastening decisions on cloud hosting has been the establishment of local facilities by big global players Amazon Web Services and Rackspace. Both have ramped up local cloud operations as has long time provider of cloud services, Fujitsu. IBM is reportedly establishing a cloud services infrastructure (as opposed to its large traditional hosting service) and Microsoft (Azure) has stated it will have local facilities...errr...soon.

TECHNOLOGY TOO IMPORTANT

Not every CIO has welcomed the arrival of cloud computing, or indeed the consumerisation of IT in the enterprise. Many remain resistant and, as a result says CIO of Yarra Valley Water Leigh Burrell, "A lot of the control and the decision making is shifting away from the IT department.

"Historically the people in IT were the only ones who actually understood what was going on in information technology and data processing space. For everyone else it was just some form of black art."

Today those outside the IT department also have a good grasp of what is possible with technology

and the myriad options available. What is more, it is easy to procure SaaS services with a few clicks of the button and the company credit card. As a result the recently-published Asia Pacific CIO Budgets and Priorities in 2013 report from Forrester Research showed that chief information officers are losing their grip on enterprise IT budgets with line-of-business managers taking up the slack.

In 2010, 74 percent of enterprise IT budgets was spent by CIOs. Last year that had plunged to 58 percent. According to John Brand, a co-author of the report and Forrester vice principal, the commoditisation of enterprise technology along with the advent of cloud-based infrastructure which is "easily consumed and built for purpose" is driving the shift in terms of who controls the purse strings. Today chief marketing officers, HR directors and line-of-business managers often spend part of their budget on technology specific to their business needs. Two in five survey respondents

said that the business was spending more on technology directly because; "technology is too important for the business not to be involved".

EXECUTIVE REPRESENTATION

So where does this leave the CIO? If line of business managers are procuring IT without consulting the CIO and one of the benefits of cloud computing is that CIOs no longer have to worry about keeping servers fed and watered, is the CIO becoming disenfranchised? Owen McCall, founder and consultant at successfulcio.com and ex-CIO of The Warehouse doesn't think so.

"Our challenge is still the same. The role of the CIO is still the same. It's about understanding how technology can deliver value to the organisation. Be that through business model change, process improvement, or better use of information. The challenge has always been that, it's just that we have not been very good at it.

"If your customers are going around you then

that should be a pretty strong signal that you are doing something wrong and you should seek to fix whatever it is that you are doing wrong rather than blame the customer."

Burrell admits "there are some CIOs I've met in my life who are just glorified IT managers and they really don't want to get away from the technology". He believes however, that a good CIO and their team should be like a Sherpa. "If you think of all the thousands of people now who are climbing Everest, they couldn't do it without the support and logistical expertise of the Sherpas. But it's the climbers getting the glory. I see the role of enterprise IT and therefore the role of the CIO as a heavy lifting support role for the business."

In the context of Burrell's Sherpa analogy, it is relevant to note that Devnet was sold to US-based Cloud Sherpas back in 2011, helping them on their way to a projected US\$200 million revenue this year, and a tag from IDC as a "Major Global Player" among Salesforce.com's partners. >>

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IT used to be a back office function quite separate to the business but today it's a very solid front office and strategic function within pretty much every organisation. This means the days of the IT mechanic are over, says Burrell, making room for a CIO who is a business savvy leader with a slightly stronger understanding of technology than the rest who knows how to extract the right information out of the technical team. "The CIO is the executive team's representative in the IT department."

WHAT IS IN A NAME?

The strategic intent behind the executive CIO role may not have changed, but the ways to achieve the results have had to shift to keep up with the rapidly changing technology landscape. Today technology is intrinsic to business and the burden of technology decision-making should be shared appropriately around the business.

Perhaps 'CIO' meaning 'chief information officer' (and here we also mean CTO - i.e. technology) is a misnomer. Ullrich Loeffler, head of IDC in New Zealand, says that the common message he is hearing through the firm's research is that the actual technical aspects of the CIO role are not really important anymore. Today companies need people who can understand the opportunities proffered by technology and then connect them back to the business needs and respective business units. "One CIO phrased it well. He said CIO should stand for 'change innovation officer,'" explains Loeffler. "It's a very true comparison, in most organisations technology is a change engine."

READY OR NOT

A survey published this January by IT solutions and managed service provider Logicalis has highlighted a disconnect between CIO ambition and reality. Although 73 percent of CIOs reported that they want to spend at least half of their time on strategic activities, in reality more than half of them say they are spending at least 70 percent of their time on day to day management of technology and four out of five report spending the majority of time on what was described as "low

value, non-strategic activity".

IDC predicts that this will change saying that in two years' time over 70 percent of CIOs will transition their primary role from directly managing IT to being an innovation partner. By then 80 percent of the IT budget will also be based on providing a broad portfolio of IT and business services. By 2017 the transfer of 3rd Platform (cloud, big data analytics and social and mobile technologies) investments from IT to line-of-business budgets will require 60 percent of CIOs to focus the IT budget on business innovation and value.

Deveson sees this new incarnation of the CIO emerging and expects them to act more like an internal 'cloud broker' - an IT services facilitator if you like. Frost & Sullivan's report highlights this change, reporting that 31 percent of organisations in Australia are likely to consider enlisting a cloud broker in the next 12 months to facilitate their IT delivery. The primary benefit of the cloud broker will be to offer a single point of contact for all the different cloud vendors.

"They've got to broker together potentially different cloud, SaaS and mobile solutions and also work with the CMO (chief marketing officer) more because that budget is increasing," says Deveson.

TEAM WORK

The upshot is that the CIO's mandate remains the same - to add value to the organisation through the inventive use of technology - however the skills needed in the IT department to execute it are changing as cloud computing and big data make their mark.

For cloud computing to really make a difference business applications need to be completely re-architected for the cloud so they can bring transformational change and a whole new way of doing business.

IDC's Loeffler says, "If you were to fully move to the cloud (although 100 percent cloud is not very likely) then the skills you would require within your team would become completely different, and the CIO becomes like a sourcing manager. And it's

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Leigh Burrell, CIO of Yarra Valley Water

more about the governance and security around it."

IDC predicts that by 2018, adoption of the 3rd Platform IT technologies such as cloud, big data analytics, mobile and social, will redefine 90 percent of IT roles.

"What you are starting to see is whole skill sets leave organisations," McCall reveals. "A client of mine is progressing down the line of infrastructure-as-a-service for all of its hardware and associated managed networks. The people who do the day-to-day server build and maintenance there will have no role within the organisation once the project is complete [the company is working with its vendors to take its redundant staff on]. On the other hand, what they will need in the future, and don't have at the moment, is a bunch of new skills around managing and provisioning environments on a much more rigorous basis."

Burrell says that Yarra Valley Water has a number of constraints on it, such as being government owned and capital orientated, that make moving to the cloud inappropriate at this juncture. He makes no bones, however, that were those constraints lifted he would have absolutely no problem with pushing the hosting of his systems out onto the cloud. "What we need to hold on to though is the understanding of how those systems work, the ability to integrate those systems - which is very difficult in a cloud environment."

SINGLE TRUTH

Organisations have spent many years striving for the holy grail of technology - that one source of business truth. Now, as managers procure discrete SaaS applications that are suitable for their line of business, they are starting to build silos of information again, this time in the cloud. Done without forethought and planning it's potentially a major pitfall so integration of these silos will have to be top of the CIO's agenda for cloud projects to be a success. "That's why CIOs need to broker some of those disparate systems back together so that they can derive organisational benefits. Where they could become very influential is if they suck the data out of those line-of-business systems and put that in to a data warehouse and then you could run company-wide analytics on it," explains Deveson.

The cost savings brought by cloud computing could either be absorbed by the business or ploughed back into the IT department to replace break-fix skills and server mechanics with people skilled in integration, middleware and analytics to deliver increased business value. And since the IT department has a watching brief over the operational departments it is also ideally placed to spot potential cross-functional opportunities as they arrive.

CHANGE OPPORTUNITY

To properly answer the question: 'is the CIO role disenfranchised?', we have to look at what type of CIO is under scrutiny. Burrell put it best when he said: "If a CIO sees themselves as a head of technology then they are going to feel more and more disenfranchised because technology is

spreading out right across the business. But if they see themselves as the Sherpa then I really think it's a fantastic role to be in."

Businesses today, more than ever, need high quality advice on what is happening in the technology landscape and how that can be harnessed to bring value and business model enhancement. CIOs that can work with their executive peers to outline the vision and the strategy for the business and then execute the technology aspects of that vision will become increasingly important. Those that hide behind the task of keeping the lights on and shy away from innovation are likely not long for the role.

Perhaps the alternative suggested from the late Sir Edmund Hillary to Armstrong's "one giant leap for mankind" quote is now more appropriate: "Jesus, here we are!". 

