What multinationals want: Opportunities in cloud computing

A white paper for Cable&Wireless Worldwide

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Author: David Molony, Evan Kirchheimer

SUMMARY

In a nutshell

This paper looks at the process of cloud service enablement from the telecoms user perspective, with reference to the business case for moving to cloud delivery of ICT services and the challenges of doing so, as well as noting the considerable opportunities that still exist in this market. The review is based on data from a new Ovum survey. We contacted CIOs, telecoms managers and/or IT directors with global and/or regional responsibility for communications services including voice, data and IT at 102 multinational corporations (minimum 10,000 employees worldwide, with 37% employing more than 50,000 people). The survey took place during April and May 2011.

Ovum view

Our survey finds that uptake of cloud services amongst MNCs has grown by more than 60% since Spring 2010 and is gaining pace, especially in private, managed environments. Certain verticals, in particular finance and manufacturing, have a better understanding of what they intend to use cloud services for, which indicates a more developed understanding, and possibly greater experience, of the benefits cloud can bring. Business users' most significant concerns about cloud services are around security and data governance, concerns which Ovum believes can be allayed fairly easily, especially given the increasing availability of managed, secure cloud services. Correspondingly, businesses also rate telecommunications providers highly as credible suppliers on which they can

rely to provide the network safeguards and operational controls to ensure safe management of remote hosted infrastructure and applications. Ovum believes there is a link between increased adoption of cloud services, private network access to such services, and an improvement in the perception of telecommunications providers as credible suppliers of such services.

Key messages

- Cloud computing adoption is picking up pace among large organisations. Cloud service adoption is up 61% from 2010 and 45% of MNCs already use cloud sourcing for at least some elements of key IT services.
- Small and medium-sized enterprises were the initial focus for cloud services, but now large enterprises and multinational corporations (MNCs) have moved significant ICT resources to the cloud, and they are ready to source more applications services from the cloud, provided their service level requirements can be met.
- Ovum's study of 100 MNCs found that between 45% and 51% used cloud sourcing for at least some elements of key IT services. The strongest area of uptake was in data backup and storage, at 51%, with an additional 33% of respondents intending to procure cloud data backup and storage services in the next 24 months. This represents a strong continued uptake trend for cloud services. In a similar study of 117 MNCs in April 2010, more than one year ago, 24% indicated they had invested in some element of cloud services.
- MNCs want cloud-based sourcing or service for speed of provisioning, flexible capacity and demand management benefits they think cloud can bring. A full 76% of survey respondents claimed "matching capacity to user demand" and "scalability of capacity" as expected benefits, with 72% citing increased speed of provisioning as an attraction.
- Business barriers to using cloud computing and communications services remain. 58% of respondents claimed security was a critical barrier to adoption, and this is strongly reinforced by their next most significant concerns: data governance (54%), use of public internet infrastructure (40%), and loss of control (39%).
- Financial services companies and manufacturers were most likely to cite security as a critical barrier (75% and 63%, respectively), and utilities in particular were concerned by perceived data governance drawbacks to cloud, with 67% of utilities respondents citing this as a major barrier.
- While most CIOs routinely cite security and governance as major issues, especially with respect to emerging services or technologies, Ovum believes there is a link

between use of public internet infrastructure and security concerns. As private cloud services evolve, these should allay such concerns.

- Telecommunications providers are emerging as trusted partners for cloud services. Ovum's survey shows that one year ago 37% of enterprise users rated telecommunications providers as credible suppliers for cloud computing, but this has now increased to 49%.

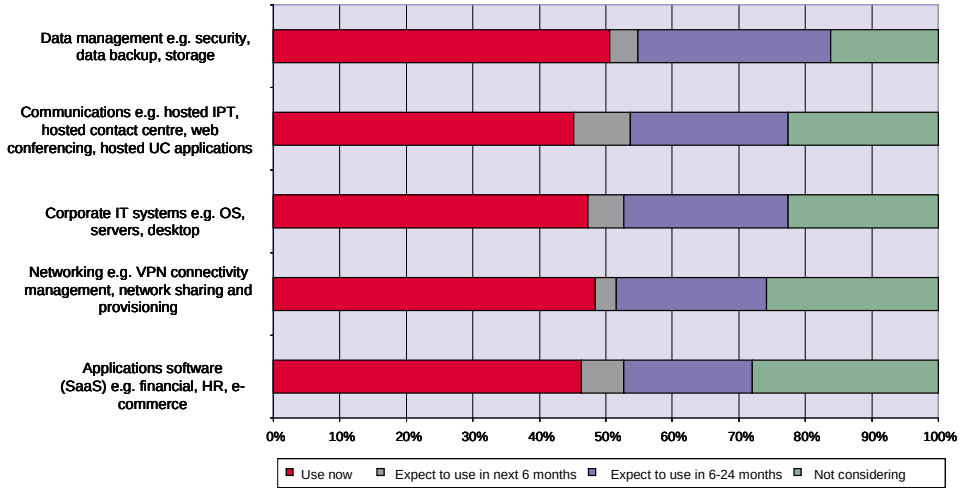
Global MNC survey shows strong demand for secure cloud services

High penetration of cloud, but also strong future opportunity

Overall, more than 45% of global multinational corporations (MNCs) already use at least some elements of cloud computing and cloud communications services, according to the Ovum global survey of 102 multinational corporations across North America, Europe and Asia-Pac (April/May 2011). Already, 55% of users say they have moved elements of data management (backup, security, storage) into the cloud, or are in the process of doing so within six months. And there is significant market opportunity because a further 29.0% say they expect to move data management to the cloud, and only 16.1% say they have no plans to do so.

Figure 1: Cloud uptake and planned investment

Is your organisation using any of the following types of cloud services (hosted by a third party and delivered on demand across the internet), or considering moving to a cloud environment in the future?



Source: Ovum

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Significantly increased adoption of cloud compared to 2010

While the hype surrounding cloud services has been difficult to ignore over the past several years, Ovum's research indicates that stated intentions of CIOs from surveys over previous years have come to fruition: firms are fulfilling on their plans to deploy cloud.

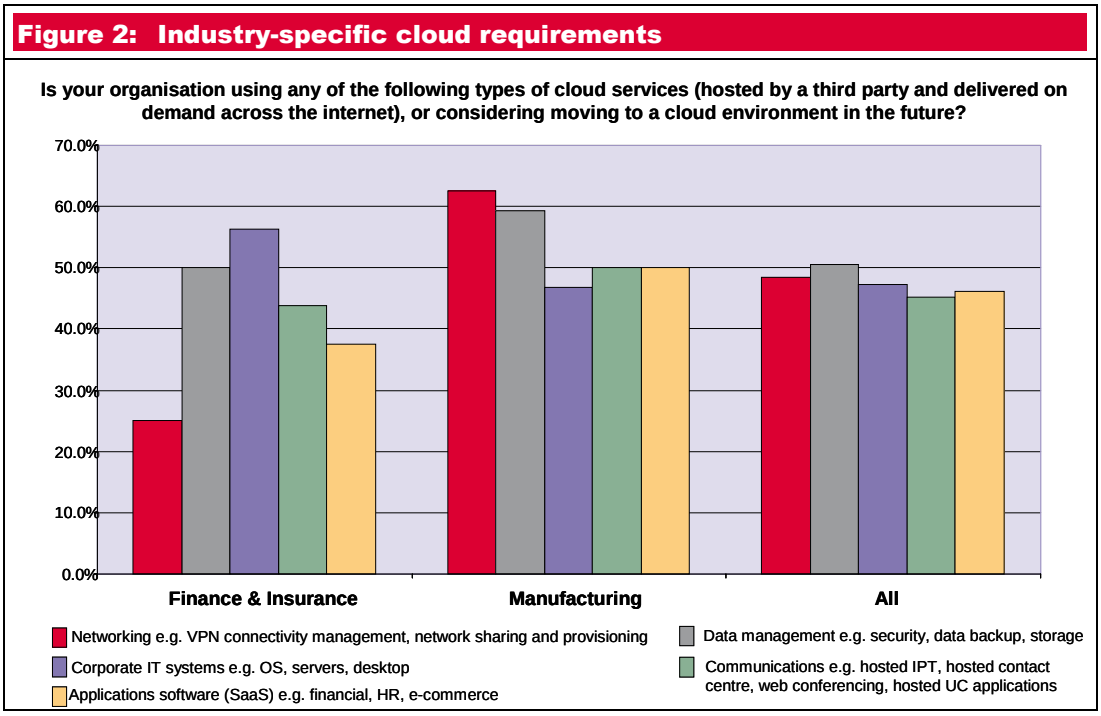
In April 2010 Ovum conducted a survey of 117 MNCs covering enterprise architecture and cloud. Of those surveyed, 24% indicated they had made some form of investment in an element of cloud services, with 45% indicating they would have invested in cloud within six months (i.e. by autumn 2010). This has been achieved, and these findings, in line with our recent survey results above, show a remarkably consistent degree of progress in cloud adoption.

Vertical requirements emerge

One sign of a maturing market is when industry-specific requirements not only begin to emerge, but also begin to be served by vertical-aware providers. One of the most interesting findings of our recent survey was that there was a significant difference in expression of interest in different cloud services industry-by-industry.

Our survey indicates that finance and manufacturing have a better understanding of what they intend to use cloud services for, and possibly greater experience of the benefits cloud can bring. As Figure 2 shows, finance & insurance sees cloud as an opportunity to virtualise and optimise 'the IT of IT' and desktops, and there is less emphasis on the benefits cloud brings to networking. This is unsurprising given that many large financial services institutions have been well-served by networking providers who offer dedicated low-latency networks to such clients, or have even built their own. In contrast, manufacturers, in the face of globalisation, have more acute and disparate networking requirements, and this is likely at the core of their view of cloud as an opportunity to virtualise provisioning and management of such services.

Figure 2: Industry-specific cloud requirements



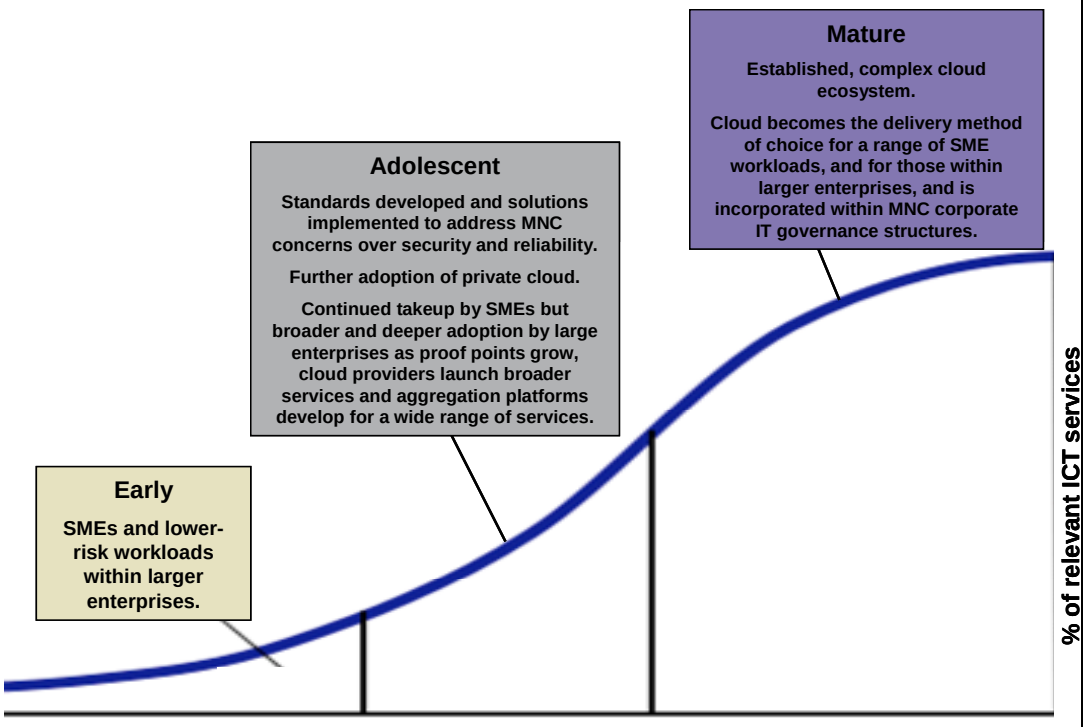
Uptake will evolve over time as the cloud model matures

Despite these encouraging results, providers must be careful not to over-estimate demand for cloud services. In examining the business case, they must set the range of services they are looking to provide and market segments they are looking to target against the barriers to adoption and the competitive landscape they are likely to face.

In the early phase, cloud's biggest potential was believed to be within the SME sector, with large corporate use limited to non-critical business functions and processes, especially with test and development proving particularly popular. Demand for cloud services is developing along the lines of a traditional product lifecycle, but with a longer adoption phase, and therefore extended payback period, as shown in Figure 3.

While some firms, and even some MNCs, are at the mature user adoption phase for cloud services, Ovum believes the majority are currently between the early and adolescent phases, with broader and deeper adoption now contemplated, but dependent on the resolution of security, governance and reliability. Once these concerns are addressed through standardised, tested offers from service providers, more large enterprises will feel comfortable positioning cloud as a preferred procurement option within the framework of an overall corporate IT governance structure and core IT and procurement budgets and policies.

Figure 3: Cloud user adoption phases



Source: Ovum

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Preparing for cloud adoption is not always straightforward

The subscription and pay-as-you-go (PAYG) approaches of cloud services turn enterprise IT asset costs from capex into opex. This has clear benefits, including reduced start-up costs, improved risk management, the ability to add new services from the cloud portfolio, and to quickly scale the use of these services up and down on demand.

But enterprises face significant challenges in adapting to a cloud delivery model. Moving from a licensing contract to a utility pricing model can prove challenging, particularly when enterprises are looking to keep a tight rein on expenses, and where procurement and finance departments prefer the certainty of up-front fixed costs to a forecast of variable costs. The challenge is exacerbated by the fact that many people, from both vendors and user organisations, focus not only on the ease of

provision of cloud services, but also on the ability of cloud service provision to bypass traditional IT structures. This may encourage the creation of a shadow IT infrastructure, which raises further issues of cost control, if cloud procurement takes place at line-of-business, departmental or regional levels, rather than across the organisation as a whole.

In addition to comparing the usage costs between both traditional and cloud models, enterprises should also take into account migration costs (such as recoding, re-architecting, integration, new processes, and training), as well as the costs required to reach satisfactory quality-of-service (QoS) levels. While it is relatively easy to calculate long-term costs, deciphering migration costs is more difficult, as it requires knowledge of internal resources, interdependencies, and complexities that many do not have.

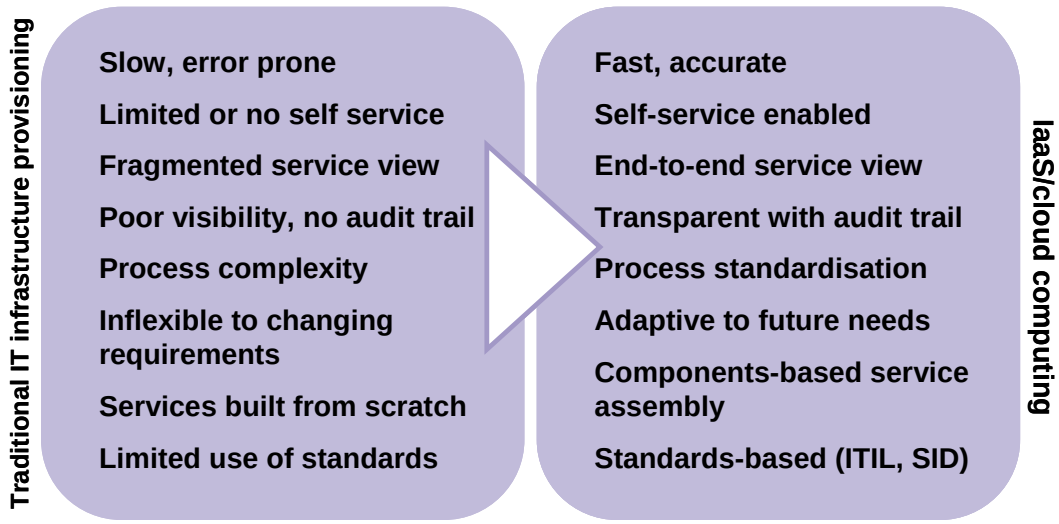
Enterprises should look to their cloud providers for strong consulting and change management support as they increase their procurement of cloud services.

Infrastructure-as-a-Service (IaaS) is a first step and natural evolution for managed hosted services

The market for cloud services cannot be analysed separately from other enterprise services, as it is the ability of providers to bundle cloud services with a range of other ICT services that will ultimately suit the needs of both larger enterprises and SMEs.

IaaS is the natural first step for enterprises to take in the cloud services market, as it fits with many of their traditional requirements and allows them to take advantage of many new flexible services that telecommunications providers and other service providers can offer. As shown in Figure 4, these include speedy provisioning of storage and computing capacity, self-service, flexibility in line with demand requirements, and transparent cost liabilities.

Figure 4: From traditional infrastructure provisioning to IaaS



Source: Ovum

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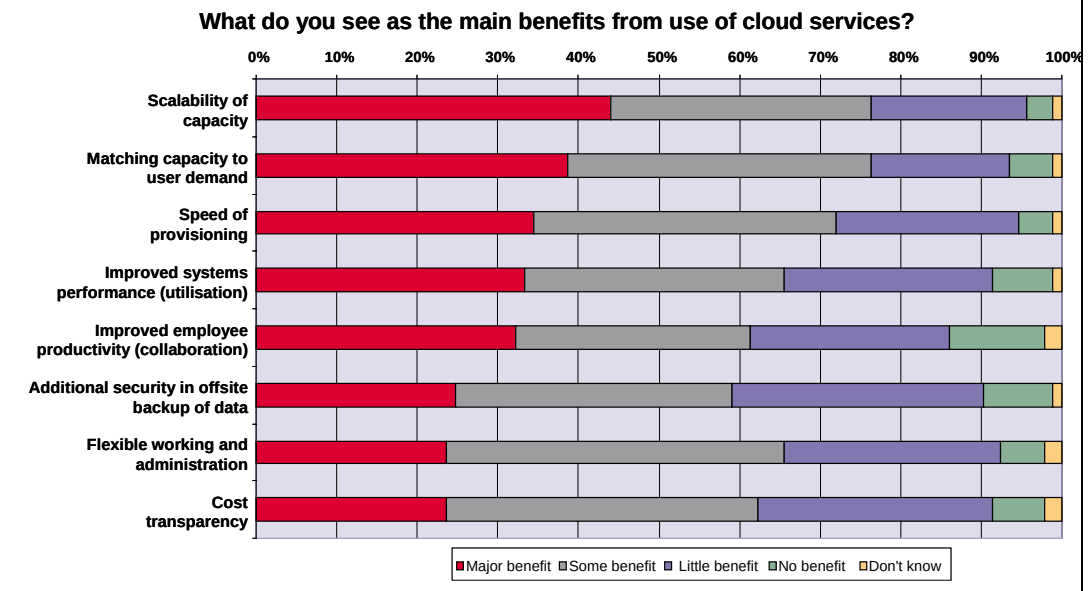
Our survey shows significant recognition of the benefits of cloud

MNC responses to our survey support the evolution model from traditional IT infrastructure provisioning to cloud-based infrastructure services.

As shown in Figure 5, 76% of MNCs surveyed rated scalability of capacity and matching capacity to fluctuating demand as the most beneficial attributes of cloud services. Speed of access to such services came in a close third, but all of the major benefits of cloud computing were recognised by the MNC respondents as such.

The benefits of cloud in industry-specific contexts were also recognised by our respondents. Finance and insurance firms emphasized scalability of capacity (44%) and improved employee productivity (50%), unsurprising in an industry with such highly valuable employee 'capital'. Retail sector respondents cited scalability and matching capacity to demand (both ranked as major benefits by 50% of respondents) as key draws to cloud - again, unsurprising in a sector with such dramatic peaks and troughs in month-to-month and even day-to-day transactions.

Figure 5: Scalability, capacity and speed are key benefits of cloud



Source: Ovum

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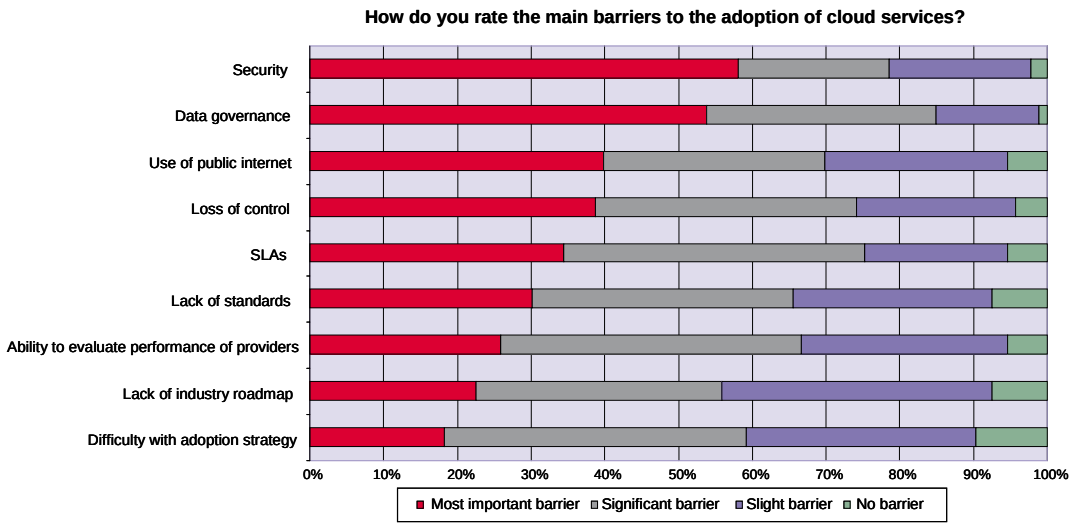
The barriers - security concerns still must be allayed, and likely will be

This is not to say that any MNCs have moved or are even considering moving their entire ICT (infrastructure, applications, service desk) into the cloud. For one thing, there are still significant barriers to adoption of cloud computing and communications services. In our survey, MNC decision makers were asked to rate each of eight possible barriers to adoption as not significant through to highly significant.

Figure 6 reveals that users are most concerned about security and data governance when it comes to considering sourcing their services in the cloud, and less concerned about industry standards, service level agreements (SLAs) or difficulties in formulating their own adoption strategy. Arguably, the latter are the aspects of outsourcing and managed services contracts that MNCs have gained most experience with over the past few years, so it would make sense that they feel more confident. Re-architecting and re-positioning networks and network services for cloud solutions is a much greater challenge however.

Figure 6: Barriers to cloud adoption



Source: Ovum

Global corporate users have over the years consistently rated availability, reliability and security as the key criteria for choosing services and suppliers, so it is not completely surprising that these factors appear in their evaluation of the possible risks or disadvantages in moving to a cloud environment. But the extent of the dominant concerns as they transfer into cloud is striking.

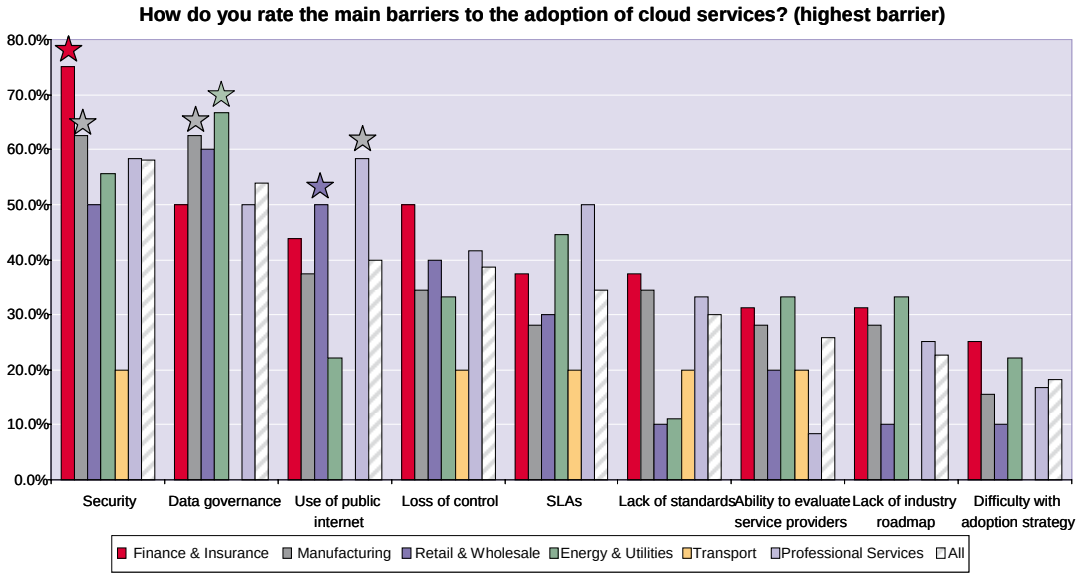
Ovum believes there is a link between concerns over use of the public internet to access cloud services and general security, data governance and loss of control concerns. As more private cloud solutions emerge from leading providers, in which access to cloud services is delivered over secure VPNs, along with SLAs and other accoutrements of a fully managed network service, these security fears should be allayed - just as they have with more mature forms of hosted, managed or even outsourced services.

Industry-specific concerns must be addressed

Across all vertical sectors, 78% of companies rated security and 85% of companies rated data governance significant or major barriers to adoption. Clearly, any cloud-based service provider, or cloud service, must address security first. However, they should also be concerned that so many companies see loss of control, SLAs and potential difficulty in evaluating performance of prospective suppliers all as significant barriers, even if they are not the most important.

If MNCs are consistent in bringing traditional concerns and requirements on managed ICT into cloud services, they also appear consistent within their business sectors, as the next figure shows. Banks and insurance companies overwhelmingly rated security their highest concern (75%).

Figure 7: Barriers - an industry view



Source: Ovum

Other industry-specific findings include the following:

- Related issues of data governance and loss of control were the next most important issues for financial services companies, with 50% or more of them citing these as major barriers.
- Data governance was the major concern for the energy & utilities and retail & wholesale industries, where businesses are built on efficient management of huge volumes of customer records (billing, accounts and sales data).
- Similarly manufacturing, which includes a number of significant pharmaceuticals companies, was most concerned about data governance, and in fact gave it equal rating to security.
- Characteristically, professional services companies, including media, worried most about SLAs, perhaps showing just how much contracts and commercial metrics are in their blood.

The benefits to enterprises of partnering with telecommunications providers for cloud services

Enterprises cannot stand still and watch the market develop without them, or they will face obsolescence as competitors turn cloud services to their advantage. Corporates need to assess their options and position themselves in order to take advantage of cloud services, both with a view to utilising cloud internally to support lowest-cost service delivery for their employee end-users, and also with a view to supporting their own customers and partners, improving interactions with them and potentially developing new channels to them.

Telecommunications providers can help enterprises develop use of cloud computing

As with any new service launch, enterprises must first assess how they can benefit from cloud services, and by implication who in the cloud service delivery chain is best equipped to help them. Telecommunications providers' control of the network over which cloud services are delivered allows them to offer end-to-end SLAs, a key requirement of enterprise grade offerings. It also opens up the network platform for the benefit of the enterprise as end-user, offering, potentially:

- A broader range of enterprise-grade cloud computing solutions
- Combined private IP networking and cloud computing platforms with QoS guarantees and service level management
- An end-to-end platform for delivering UC&C (unified communications and collaboration) applications

Enterprises should look for telecommunications providers to leverage these abilities, and couple them with the tools that enterprises need to track usage and costs, providing security and guarantees around the location of enterprise data in the cloud. As with other areas of procurement and supplier management, the one-throat to choke analogy applies to cloud, and customers could benefit from the ability of telecommunications providers to take control of the end-to-end service.

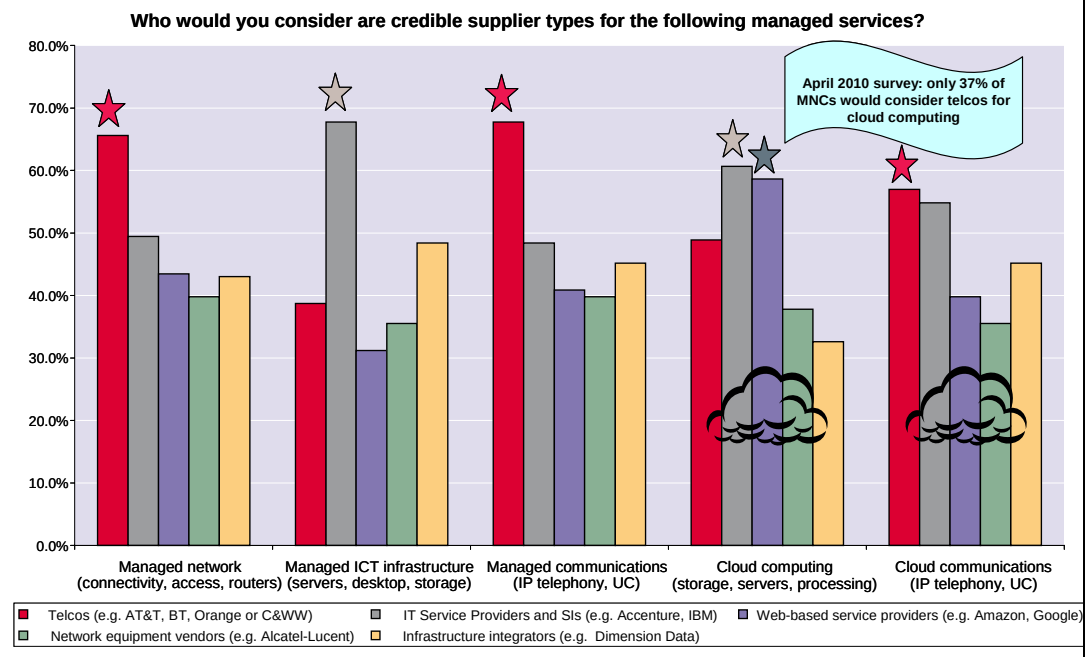
Telecommunications providers rate highly in user credibility test

MNC buyers are looking for end-to-end reliability and availability in ICT, and the opportunity to diversify or even migrate sourcing to a cloud environment has made them think hard about which suppliers have the established facilities, experience and skills that will help support cloud delivery.

In the Ovum global MNC survey, users say they rate telecommunications providers as the most credible suppliers of managed services in three out of five areas - managed networks, managed

communications (for example IP telephony and UC) and cloud communications (PBX and unified communications and collaboration in the cloud).

Figure 8: Telecommunications providers gain cloud credibility



Source: Ovum

Telecommunications providers are catching up strongly in user trust ratings as credible suppliers of cloud computing services (storage, servers and processing power in the cloud). One year ago, in a previous Ovum survey, 37% of enterprise users rated telecommunications providers as credible suppliers for cloud computing. In our new survey, that proportion has risen to 49%.

MNC confidence in telecommunications providers as cloud services providers has grown significantly in the past year as telecommunications providers have presented their roadmaps, added to their cloud services portfolios, and proven their capabilities in the first rollouts to customers. In fact, telecommunications providers get consistently high ratings from users across the range of services, but what is striking is that for purely cloud-based services such as cloud computing and cloud communications, telecommunications providers score confidence ratings approaching those of managed network and managed communications services, areas in which they have a relatively long history. This is in comparison to managed ICT infrastructure, which is traditionally seen as the domain if SIs and IT specialists. This means telecommunications

providers have gained excellent ground in terms of trustworthiness for cloud services - domains in which they are relatively new players.

In our view, the fact that so many respondents cited high levels of trust in telecommunications providers for provision of network management in the cloud is an indication that users are become more aware of the connection between success in cloud and secure, private networks providing access to key cloud services. We expect this trend to stand telecommunications providers in good stead as cloud adoption models mature.

APPENDIX

Methodology

Ovum interviewed CIOs, telecoms managers and/or IT directors with global and/or regional responsibility for communications services (fixed, mobile, voice, data, IT) at 102 multinational corporations during April and May 2011. Interviews included companies from finance & insurance (17%), manufacturing (34%), energy & utilities (10%), retail & wholesale (11%), transport (5%), professional services (13%), other (10%). One third of companies selected were headquartered in Europe, one third in North America and one third in Asia-Pacific. The survey group was weighted toward established major companies e.g. 26% of the total were US-listed corporations, but included a significant number of emerging multinationals in BRIC countries.

Author

David Molony, Principal Analyst, Enterprise

ddm@ovum.com

Evan Kirchheimer, Practice Leader, Enterprise

evan.kirchheimer@ovum.com

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Ovum's research was conducted independently of Cable&Wireless Worldwide and these findings will appear in standard Ovum syndicated services. For more information about Cable&Wireless Worldwide and its cloud services, please contact:

Joanna Bedward

T: +44 7822 825653

E: joanna.bedward@cw.com

W: www.cw.com/cloud

Ovum Consulting

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