



Cloud in Australia

Based on a survey of almost 200 Australian CIOs and ICT Managers

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Research conducted by Connection Research, a market analyst group that specialises in the intersection of ICT and sustainable technologies. www.connectionresearch.com.au



Foreword

Welcome to this issue of Insights Quarterly "Cloud in Australia". This series examines the Australian ICT market, through the eyes of the people who actually manage and deliver these technologies – the CIOs. For this issue we surveyed 179 of them across Australia.

This survey focused on the highly topical issue of Cloud Computing which to many people represents the biggest change in ICT in the last twenty years. It is the coming together of many disparate trends into an important new concept – one so important that it changes the way people think about ICT and the way people do ICT.

IQ Volume 2 reports that Australian CIOs are embracing the realities of cloud computing. The move is on in such areas as CRM and email. Cloud has arrived, and will continue to grow in functionality and in popularity. And those that have started using the cloud for some applications are more likely to consider it for others – cloud computing is infectious.

Cloud computing, though still in its infancy, is the future of ICT. Many in the industry have talked for many years about the idea of the "information utility", where generic computing power is available on demand like water or electricity. With cloud computing, that day is much closer.



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Cloud computing is the new paradigm

Introduction

Cloud Computing is the new paradigm in ICT. It brings together a range of different technologies and business practices that have been maturing for some time:

- **Broadband Communications:** Cloud applications transfer significant amounts of data backwards and forwards over the Internet. Cloud was simply not possible until enough users had sufficient bandwidth.
- **Software as a Service:** There has been a continued trend, which has accelerated in recent years, towards the provision of full applications functionality from web-based applications. Such applications are now reaching the same level of functionality as in-house applications.
- **Outsourcing:** Another long term trend in ICT and in business generally, is the move towards “sticking to your knitting” and having external organisations perform many functions that were formerly conducted in-house. This is usually done to save money, or at least to have greater control over expenditure.
- **The move to mobile computing.** End users are increasingly untethered, and accessing corporate applications from a range of different devices. Cloud computing is well suited to mobile computing.

These and other trends have combined to make cloud computing the hottest topic in the ICT industry today. This report is based on data collected in Connection Research’s CIO Trends survey. The survey, of 179 Australian CIOs and ICT managers, was conducted online in March 2012.

It is one of a series of surveys, commissioned by Fujitsu and Microsoft’s ANZ CTOs and conducted quarterly by Connection Research, which gauge respondent’s attitudes towards a range of ICT and business trends and new technologies. The data shows attitudes and actions in a wide range of areas, and also allows key issues to be tracked over time.

This report contains responses to the cloud computing questions in that survey (supplemented with references to cloud related questions in the prior survey).

A summary of Key Findings follows.



Cloud is For Everyone!

Cloud computing is not the preserve of large or small ICT users, or those from a particular industry sector. Cloud computing is for everyone. Smaller organisations use it to reduce their capital expenditure on new ICT equipment, large organisations use it to lower the operational costs of ICT, all organisations like its flexibility and scalability.

There is a very good reason why cloud computing has such widespread appeal. It requires virtually no upfront investment, and it now offers sufficient functionality, security and maturity to be a viable alternative to conventional processing. The survey results show that many organisations are embracing cloud computing wholeheartedly, and even those that are not are exploring its possibilities.

// Cloud computing requires virtually no upfront investment, and it now offers sufficient functionality, security and maturity to be a viable alternative to conventional processing. //

Craig Baty Executive GM, Chief Technology & Innovation Officer, Fujitsu ANZ



CIOs Believe Cloud Has Many Advantages

CIOs see many advantages in cloud computing. All point in the same direction – the ability to have greater control over the ICT function, by scaling it up or down as appropriate, by reducing both capital expenditure and operational costs, and generally achieving greater flexibility.

CIOs and IT managers know cloud computing is important. There is some cynicism about it – it is in many cases seen to be overhyped – but not as much hype as there is about many other new technologies.

// CIOs and IT managers see many advantages in cloud computing and that it is important. //

Greg Stone Chief Technology Officer, Microsoft Australia

BI&ERP**The Move to Cloud is Gathering Steam**

Cloud is happening, and gathering momentum. A large number of organisations have budgeted for cloud or are already investing heavily, with many piloting cloud as well in the next 12 months. The cloud is increasingly being regarded as being ready for core business systems like ERP and BI, but for many applications, such as email and messaging, migration is well underway.

//The cloud is increasingly being regarded as being ready for core business systems like ERP and BI. //

Craig Baty Executive GM, Chief Technology & Innovation Officer, Fujitsu ANZ

**Cloud is Still Difficult to Define**

The surveyed CIOs do not share a standard definition of cloud computing, but CIOs know what it means. Some say it is web-based outsourcing, some say it is external hosting, some use more technical definitions, but practically all agree it has many advantages.

//CIOs surveyed do not share a standard definition of cloud...but practically all believe it has many advantages. //

Greg Stone Chief Technology Officer, Microsoft Australia

**Price is Not Key for Cloud Provider Selection**

Although cost savings and increasing productivity are listed as main drivers for CIOs to move to the cloud, when it comes to selecting a cloud platform/provider "Price" ranks very lowly on the selection criteria list.

Other factors like "security of data", "support from the supplier", and "privacy" rank much higher on the list of platform deciding factors, in fact the only factor ranking lower than price was "pay per use".

//When its comes to selecting a cloud platform / provider 'price' ranks very lowly on the list. //

Craig Baty Executive GM, Chief Technology & Innovation Officer, Fujitsu ANZ



Cloud still means many things to many people

How do CIO's Define Cloud Computing?

Respondents were asked the open-ended question "What does cloud computing mean to you?" There were a wide variety of responses, with comments such as "hosting" and "outsourcing" featuring prominently. Many mentioned the ability to access applications and data over the internet, and a few drew parallels with bureau computing in an earlier era.

The word "services" figured strongly, as the "tag cloud" below shows. So did the word "infrastructure" – CIOs see the cloud as a replacement for or an augmentation of their existing ICT systems.



// Cloud means hosted services where you pay for what you use. It is the ability to add power or take power away depending on consumption. //

Surveyed CIO



Cloud is overhyped but it is still important

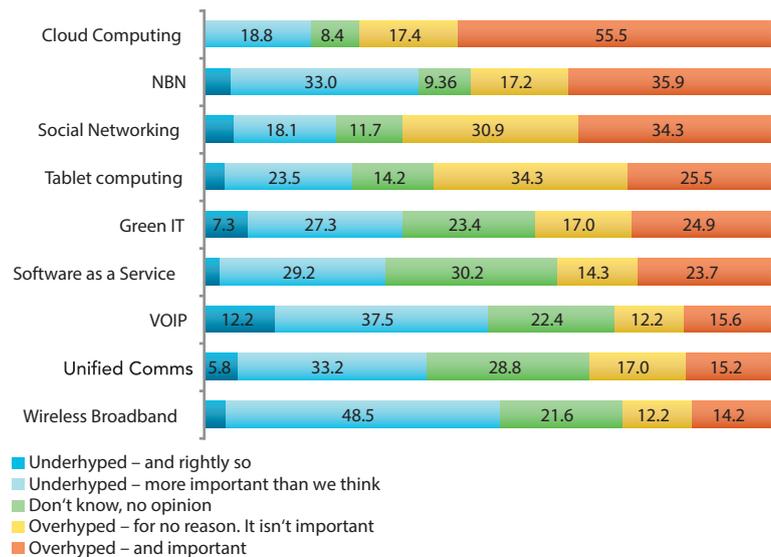
Is Cloud Still Overhyped?

Respondents were asked if various technologies are overhyped. Most believe cloud computing is overhyped, but justifiably – it is important! Fewer believe other technologies to be overhyped, and in many cases most believe the hype is not justified.

More than half (55.5%) of the respondents say cloud is overhyped, but that the hype is justified. Only 17.4% say the hype is not justified. With social networking, by contrast, nearly as many say the hype is not justified as say it is justified.

“Everything will or should be cloud based”
– Surveyed CIO

Technology Hype-o-meter



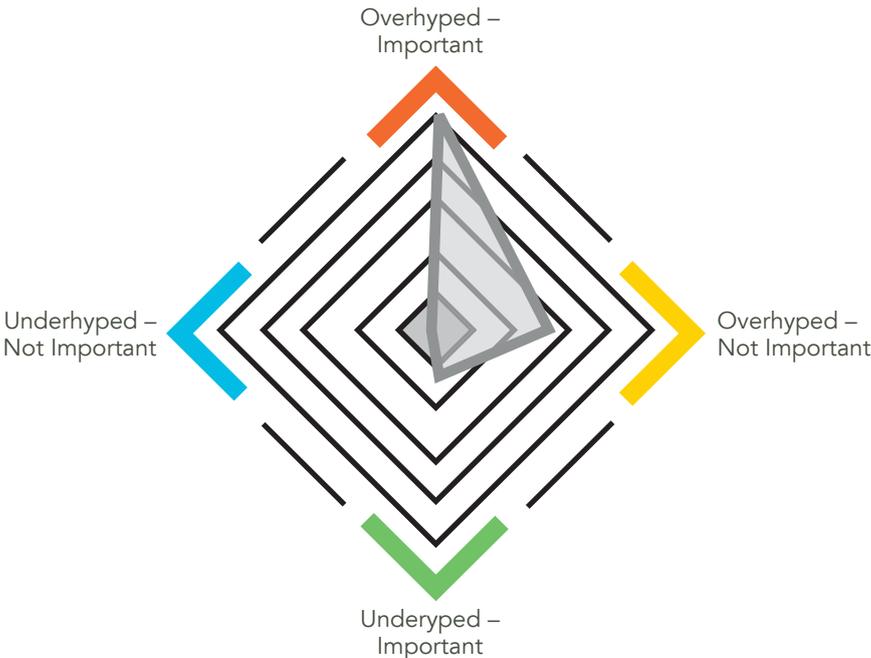
The Hype-o-Meter-What's Hot & What's Not?

Respondents were asked to rate a number of technologies or business trends in terms of whether they believe them to be overhyped or underhyped, and whether they are important or not.

On the following page the overall results are expressed as a four point radar (“spider”) diagram for each technology. The thinner the shape the more important CIOs believe the technology or business trend to be. The higher the shape the more the technology is believed to be overhyped.

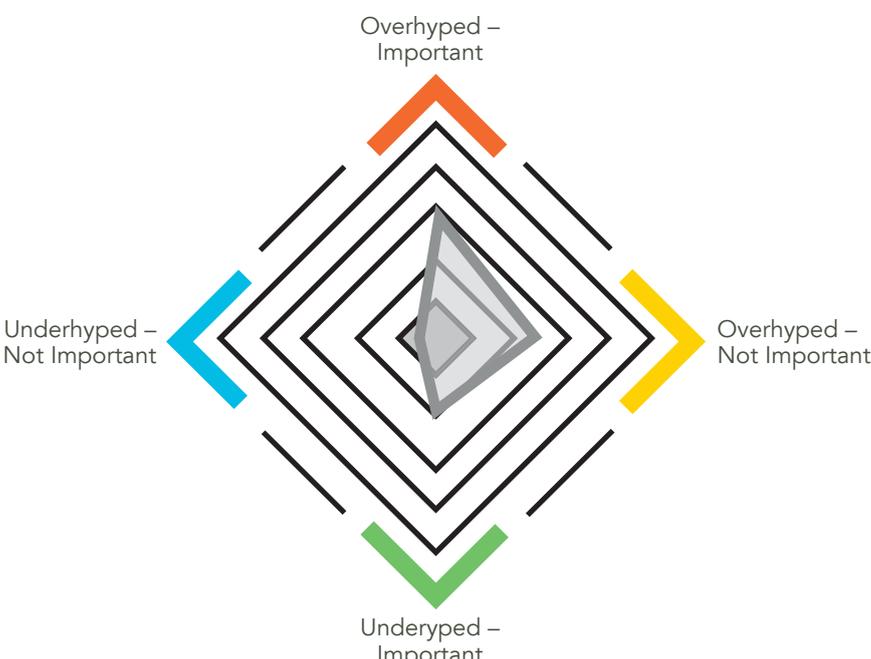
The Hype-O-Meter shows that CIOs generally accept or reject a new technology or business trend based on its merits. They evaluate technology or business trends in terms of business and ICT objectives, which evolve over time but which do not change nearly so quickly.

The next section establishes the context of Cloud and Software-As-A-Service (SAAS) business trends by looking at the importance of these objectives.



Hype-o-Meter for Cloud

CIOs and IT managers know cloud computing is important. There is some cynicism about the technology, but not as much as there is about many other new technologies.



Hype-o-Meter for SAAS

Software as a Service (SaaS) has shown a significant increase since the last survey in the proportion of CIOs that regard it as overhyped. The technology has been around a while, but more recently it has become identified with cloud computing, which is still breaking through the hype barrier.

>50%

Most CIOs budgeting for Cloud in the next 12 months

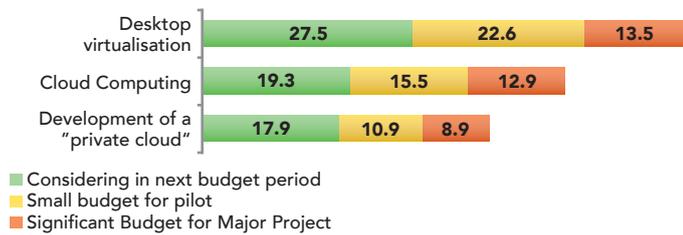
What about CIO Budgets For Cloud and Related?

Respondents were asked what they would allocate their budgets to over the next 12 month period, in terms of spending less, more or just staying at the same level. Three of the technologies we asked about were Virtualisation, Cloud Computing, or development of a "private cloud".

The survey extract below shows that 36.1% of respondents had allocated a budget for Desktop Virtualisation, with another 27.5% considering it in the next 12 months. Almost 30% had allocated a budget for cloud computing with another 20% considering it in the next budget period, and almost 20% had allocated funds for the development of a private cloud, with another 18% considering for the next budget period. CIOs do not just believe that cloud is important (even if they are sick of hearing about it!), they are actively investing in cloud and related technologies.

The many perceived advantages of cloud computing all point in the same direction – the ability to have greater control over the IT function.

Budget Allocation for Cloud and Related Projects

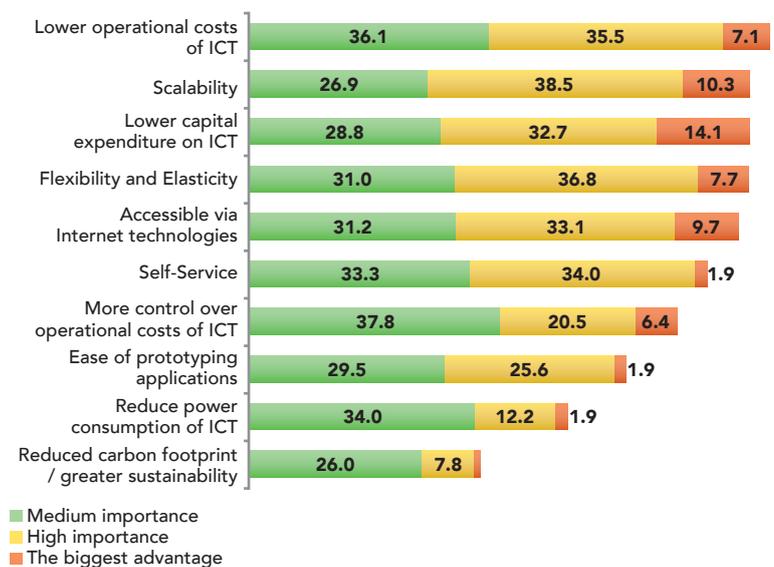


What are the Key Drivers for Moving to the Cloud?

In our first IQ Survey of Key ICT Trends and Priorities in mid 2011, respondents were given a list of ten generally accepted advantages of cloud computing, and asked how important each of them is to their organisation. The biggest advantages have to do with cost – reducing the operational costs of ICT, and lowering capital expenditure – 7.1% rate this the most important feature of cloud computing, with 14.2% rating the lowering of capital expenditure on ICT as the biggest advantage.

"Cloud means the ability to have flexible ICT capacity off-site with on demand capability that can handle the organisation's ICT demands when required" – Surveyed CIO

Advantages of Cloud Computing?





Achieving greater ICT flexibility is key

What about Scalability, Flexibility, CAPEX vs OPEX?

The many perceived advantages of cloud computing all point in the same direction – the ability to have greater control over the IT function, by scaling it up or down as appropriate, by reducing both capital expenditure and operational costs, and generally achieving greater flexibility.

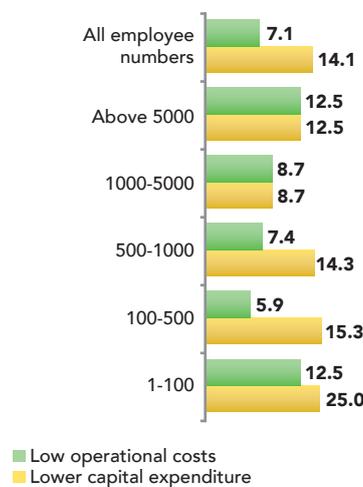
Scalability and flexibility also rate very highly. Scalability is considered to be of high importance by more than one third of respondents, and more than 10% believe it to be the biggest advantage. Flexibility and elasticity also rate highly, with self-service and Internet accessibility also important.

Reduced power consumption and a reduction in carbon footprint and greater sustainability are seen as the least advantageous aspects of cloud computing. They may be important side-effects of cloud computing, but they are not the reason CIOs are adopting it.

When a comparison of the relative importance of lowering operational costs versus lowering capital cost is examined by size of organisation, it emerges that lower capital expenditure tends to be more important for smaller organisations, while lowering operational costs is relatively more important for larger organisations. Capital costs hurt more in smaller organisations.

“Cloud offers us the opportunity to restructure data and its availability. Eventually it means the opportunity to have no data centre”
– Surveyed CIO

Importance of cloud computing’s effect of operational costs versus capital expenditure - By employee numbers





Email and Messaging most common in next 12 months

What is Being Migrated to the Cloud?

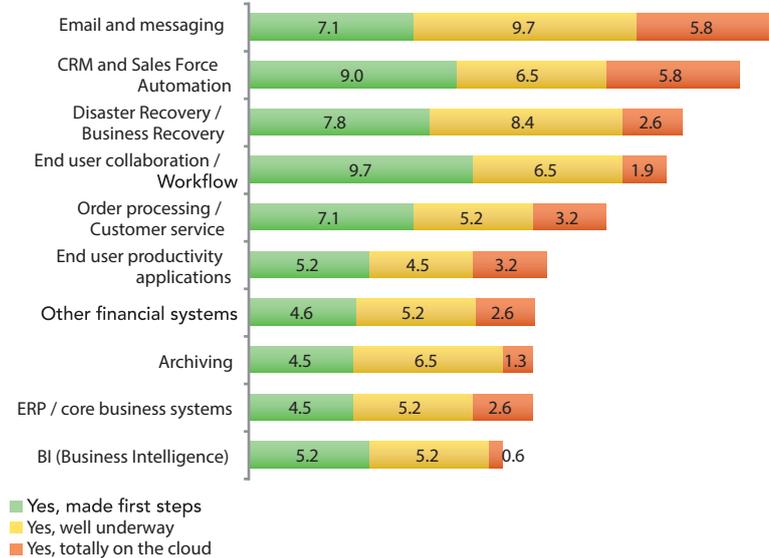
Respondents were asked if they are using cloud computing for any applications in their organisation. Email and messaging is the most common cloud application, with 5.8% totally on the cloud and 9.7% having an implementation well underway. Overall, nearly one quarter (22.6%) of respondents are some way towards moving email and messaging to the cloud.

Nearly as many have their Customer Relationship Management and Sales Force Automation totally on the cloud, an indication of the popularity of applications such as Salesforce.com. Disaster Recovery/Business Continuity and End User Collaboration/Workflow are also popular cloud applications, with nearly 20% of organisations moving towards the cloud.

Cloud computing is least likely to be already used for Business Intelligence, with less than 1% of respondents totally on the cloud however 11.0% have made some steps in this direction. 12.3% have already migrated ERP or their core business systems to the cloud, showing the robustness of recent offerings.

Organisations with a taste for cloud computing are keen for more. When the migration plans of those who have already moved many of their applications to the cloud are examined, a slightly different picture emerges – core systems are next.

Cloud migration- most common applications



Organisations with a taste for cloud computing are keen for more. When the migration plans of those who have already moved many of their applications to the cloud are examined, a slightly different picture emerges.

The applications most likely to be next moved to the cloud are end user productivity applications such as word processing and spreadsheets, followed by archiving and disaster recovery applications. ERP and business intelligence systems are much higher on this list, indicating that organisations with cloud experience are much more likely to consider moving their core business systems to the cloud.

Cloud priorities for organisations with prior cloud experience

| Priority | Application |
|----------|-----------------------------------------|
| 1 | End user productivity applications |
| 2 | Archiving |
| 3 | Disaster Recovery / Business Continuity |
| 4 | Email and messaging |
| 5 | ERP / core business systems |

| Priority | Application |
|----------|-------------------------------------|
| 6 | Business Intelligence |
| 7 | Other financial systems |
| 8 | End user collaboration / workflow |
| 9 | CRM and Sales Force Automation |
| 10 | Order processing / customer service |



Security is most important factor

How do CIO's Select a Cloud Platform?

In this current survey, we added to the questions about advantages of the cloud, by asking the respondents what factors are the most important in actually selecting a cloud platform.

The most important factor in selecting a cloud platform are support from the supplier and the related issues of security and privacy. Half of all CIOs say security is the most important factor, and virtually all say it is very important. The reputation of the supplier is also very important – that is a factor in peace of mind about both support and security.

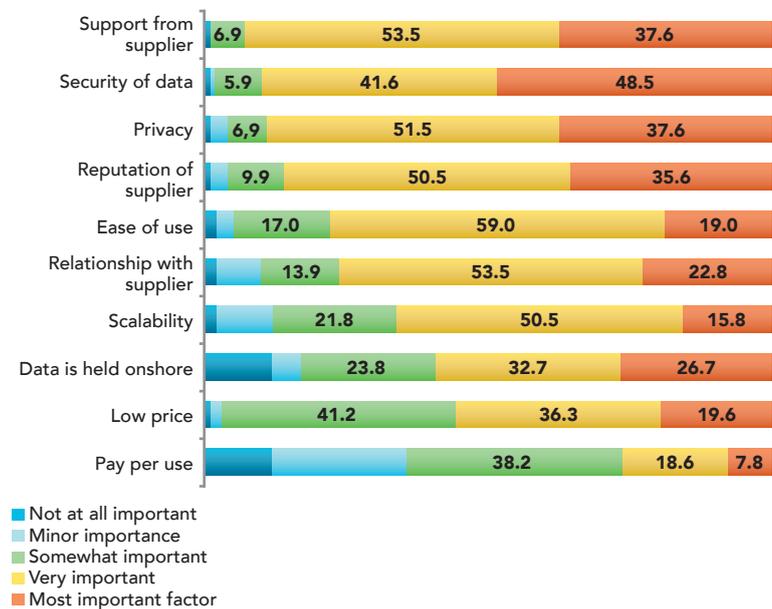
This is to be expected. What is more significant is what they do NOT rate so importantly. Pay per use is at the bottom of the list, for example. The ability of cloud to act as an “information utility”, turned off and on at will, with metered payments for that use, is comparatively unimportant when it comes to selecting a platform – most likely because this is now seen as a “standard” cloud feature.

Although price (lowering cost) is often cited as a key advantage of cloud computing, surprisingly it ranked ninth in a list of ten “importance of selection” criteria!

Potentially negative factors such as concerns about support and security are more important than positive factors such as ease of use and lower price.

“Getting someone else to worry about infrastructure, applications and upgrades”
– Surveyed CIO

Importance of Factors in Selecting Cloud Computing Platform



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What is the meaning of Cloud?

The Meaning of Cloud Computing

Respondents were asked to answer an open-ended question: "What does the term 'Cloud Computing' Mean to You?"

Many say the main aspect of cloud computing is its ability to store, share and transfer data over many servers, so it is not being stored in any one place at any one time.

Some believe it will mean having no need for a data centre. A common comment is that cloud is essentially externally hosted applications or infrastructure, and that virtual storage will be a large part of cloud computing. Very few respondents believe cloud computing to be unimportant.

Meanings

Below are a selection of the open ended responses to the question:

- " A different type of virtualisation"
- " A set of infrastructure, possibly remote to my location, hosting and delivering my applications"
- " Accessing software or applications via the internet just like buying utility services"
- " Applications hosted on the internet and delivered on a service basis"
- " Computing resources that are delivered from a source that is not dedicated to that purpose"
- " Computing and communications services outside my organisation but considered part of my operational and critical infrastructure"
- " Data centre over the internet"
- " Generic IT services provided by a third party elsewhere on demand"
- " Getting somebody else to worry about infrastructure, applications and upgrades"
- " Having your resources (hardware, software) offsite from the company premises, maintained and managed by the third party provider, but still maintaining ownership of the company data"
- " Lower capital expenditure and increased flexibility"
- " Order, provisioning, delivery and billing of IT services on a monthly (or other basis). Such services can include infrastructure, platforms, applications or even data or a combination of all these elements"
- " Outsourcing of the organisation's systems, reducing in-house dependency"
- " IT services, storage, products or collaboration systems supplied through internet access"
- " It is the computer bureau of many years ago reincarnated!"
- " More bang for your buck. Opex vs Capex. Lower TCO. Faster response to changing end-user demands. Better DR. Less reliance on in-house staff"
- " Software as a service on externally hosted gear"

Although the definitions vary widely, CIOs know what it means to them and are planning for Cloud implementation accordingly.

Conclusions

Cloud Computing represents the biggest change in ICT in the last twenty years – one so important that it changes the way people think about ICT and the way people deliver and use ICT.

Cloud Computing is the new paradigm in ICT. It brings together a range of different technologies and business practices that have been maturing for some time:

- Broadband Communications
- Software as a Service
- Outsourcing
- The move to mobile computing
- And new commercial models for acquiring ICT resources

These and other trends have combined to make cloud computing the hottest topic in the ICT industry today.

The results of this survey show that:

Although the definition of cloud is still somewhat 'cloudy', and the level of 'hype' is high, Australian CIOs are embracing the realities of cloud computing.

Supplier selection criteria are maturing and price is no longer the key criteria - Security, supplier support, privacy and reputation outrank price as deciding factors.

Those that have started using the cloud for some applications are more likely to consider it for others – cloud computing is infectious.

Scalability and Flexibility of offerings are balanced against the need for reduced Capex or Opex.

CIOs are actively moving applications into the cloud or have very near term plans for doing so, or at least conducting pilots.

The move is on in such areas as CRM and email.

Cloud has arrived, and will continue to grow in functionality and in popularity.

Cloud computing, though still in its infancy, is the future of ICT. Many in the industry have talked for many years about the idea of the "information utility", where generic computing power is available on demand like water or electricity. With cloud computing, that day is much closer.

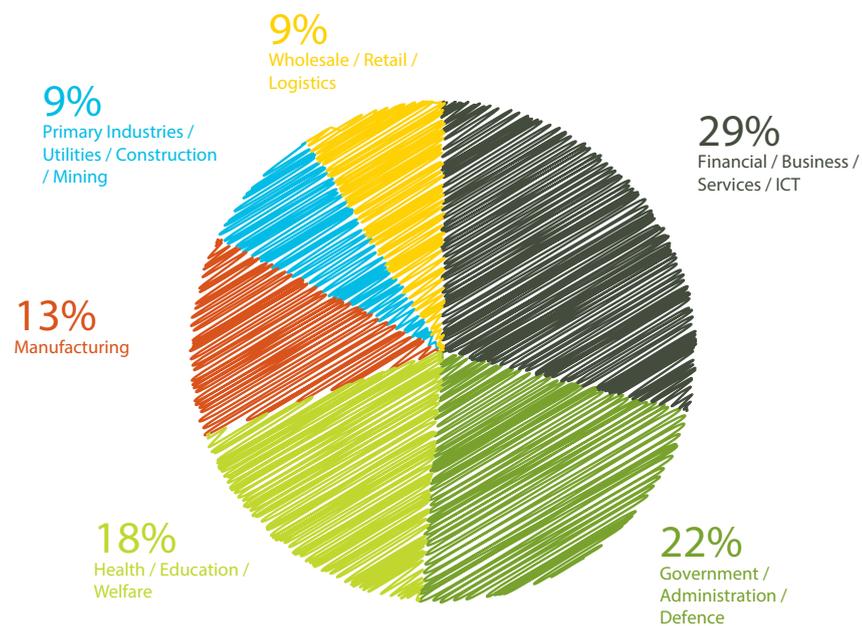
Appendix: Respondent Base

The survey was conducted by Connection Research through an online survey of 179 Australian CIOs and IT managers. The survey was conducted in March 2012. Respondents came from a wide range of industry sectors and sizes of organisation.

By Industry Sector

The largest represented industry sector is Financial / Business / Services / ICT with 29% of respondents from this industry.

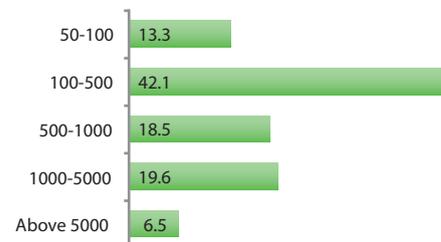
Government Administration/ Defence is the next largest with 22%, Health/ Education/ Welfare with 18%, Manufacturing at 13% and the rest at 9% each.



By Number of Employees

More than half (42.1%) of respondents come from organisations with 100-500 employees. 2.9% Organisations with 500-5,000 employees represent 38.1% of respondents.

Employees



Acknowledgement and How to Contact Us

To find out more about this issue of Insights Quarterly

To watch the video, download this report as a PDF or get a PowerPoint presenting these findings, visit www.insightsquarterly.com.au

For further information email info@insightsquarterly.com

Fujitsu and Microsoft would like to thank the many people and organisations involved in the production of this report. We would particularly like to thank the CIOs and senior IT managers who responded to the survey upon which it is based. We appreciate the many time constraints they face, and without their assistance the exercise would not have been possible. We would also like to thank our research partners Connection Research for providing research expertise, and for analysing and interpreting the results.

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About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Over 170,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. Fujitsu Limited (TSE:6702) reported consolidated revenues of 4.5 trillion yen (US\$54 billion) for the fiscal year ended March 31, 2012. For more information, please see <http://www.fujitsu.com.au>

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About Connection Research

Connection Research is a market research and consultancy company specialising in the analysis of sustainability and ICT issues. Services are provided in Consumer and Community Sustainability, IT Sustainability, Building Industry and Trades and Carbon and Compliance. Connection Research undertakes primary research (surveys of users, trades people, suppliers, practitioners), conducts market modelling analyses and consultancy in these fields.

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