Cloud Computing

June 2012

Conducted by Horizon Research Limited

for

IBM New Zealand

EXECUTIVE SUMMARY

This report summarises the results of a Horizon Research survey of people who said they were responsible for in-house IT management in their organisations. The survey was conducted for IBM.

According to respondents, Cloud will increase user access to IT and increase demand for IT services.

A majority think that it will change expectations of IT departments, but most think it also offers the opportunity for IT departments to lead innovation in their organisations. This would require investment in technology, people and resources; new and enhanced skills; and greater evidence of success (such as return on investment).

They also believed that there would be much less reliance on traditional IT skills, a view held strongly by those in larger organisations. Skills in demand were expected to be mostly related to architecture - applications, storage and data and enterprise architects – and, overall, it was perceived that the advent of Cloud computing would result in a shift in the skill sets required rather than an increase or decrease in the number of jobs in the industry.

Indications from respondents in larger organisations are that they believe that there will be fewer jobs overall, while respondents from small companies appear to believe that there will be more.

Vendors are likely to be a primary source of advice on enhancing team and individual skills and becoming "Cloud ready". Online forums, professional organisations, industry analysts and external friends and peers are all likely to have a prominent part in advice but in-house HR departments and IT recruitment organisations are unlikely to have a significant role.

Because the number of respondents is small, caution is necessary in interpreting the results or quoting absolute percentages. All cross-question analysis, including that by area or by organisation size, is indicative.

Key findings:

Impact on IT professionals, IT departments and architecture:
- More scope for leading innovation
- More strategic relationships with IT providers
- More adoption of non-IT-related skills, particularly in larger organisations.
- A little less specialisation overall, but larger organisations are more likely to expect less specialisation
- Less reliance on traditional IT skills, particularly with larger companies
- 59% think Cloud will change the expectations of what IT will be delivered by the IT department.
- 47% think the IT department is ready to meet the changed expectations, but where Cloud is not being used, the level is 33%.

Main benefits of Cloud:
- All benefits listed were rated as beneficial.
- The most important benefit overall was increased user access to IT, although this was in 4th place amongst large organisations (1,000 employees or more).
- Reduced time to develop and deploy new business applications was rated lower than other benefits, except by large organisations.

IT skills:
- Architecture skills – applications architects, storage and data architects and enterprise architects - are seen to be the skills that will be most in demand.

Seeking advice:
- Vendors are likely to be a primary source of advice on enhancing tam and individual skills and becoming "Cloud ready".
- Online forums, professional organisations and external friends and peers are all likely to have a prominent part in advice.

Changes to allow more focus on innovation:
- 86% believe investment in technology, people and resources is necessary
- 85% believe new and/or enhanced skills will be necessary
- 80% believe that greater visibility of success (e.g. return on investment) is necessary

IT services demand:
- 44% think there will more demand for IT services.
- 38% think there will be the same demand
- 13% think there will be less demand

Impact on job volumes:
- 37% overall thought there would be no difference to the number of jobs.
- 30% overall think there will be more jobs, 26% think there will be fewer jobs.
- 44% of respondents in larger organisations think that there will be fewer jobs.

REPORT

1. Impact on IT professionals, IT departments and architecture

### 1.1   Changes to the role of IT professionals

Asked how Cloud adoption will change the role of in-house IT professionals, nearly three quarters of respondents agreed that it would provide more scope for IT departments to lead innovation in their organisations. Two thirds of them also believed that there would be more strategic relationships with IT providers and that it would lead to greater adoption of non-IT-related skills – a result reinforced by the three quarters of respondents who believed that there would be less reliance on traditional IT skills.

Respondents were evenly split on whether there would be more or less specialisation.
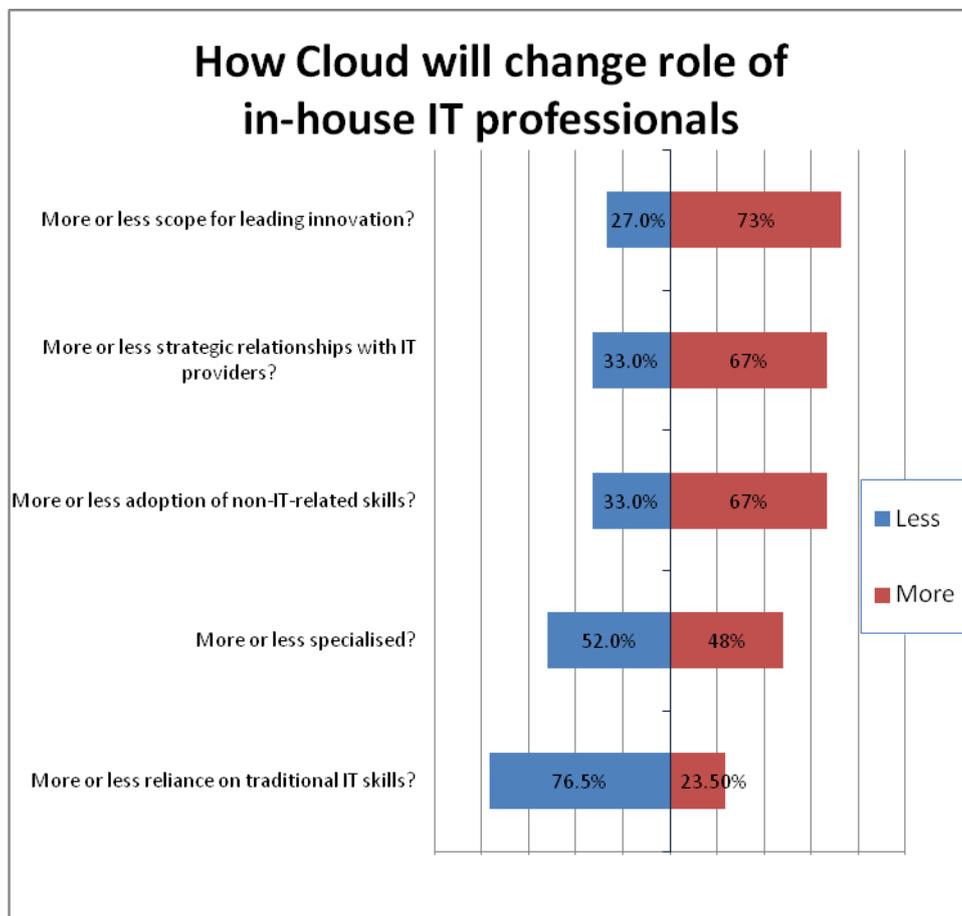
There are apparent differences in view depending on the size of the organisation. This is illustrated in the following chart, which shows the "More" ratings by organisation size. Again, percentages must be regarded as indicative because of the sample size, but only 14% of those in larger organisations (in comparison with 24% overall) thought there would be more reliance on traditional IT skills; 86% thought there would be less.

Similarly, respondents from large organisations were more likely to expect that there will be less specialisation, and more adoption of non-it related skills.
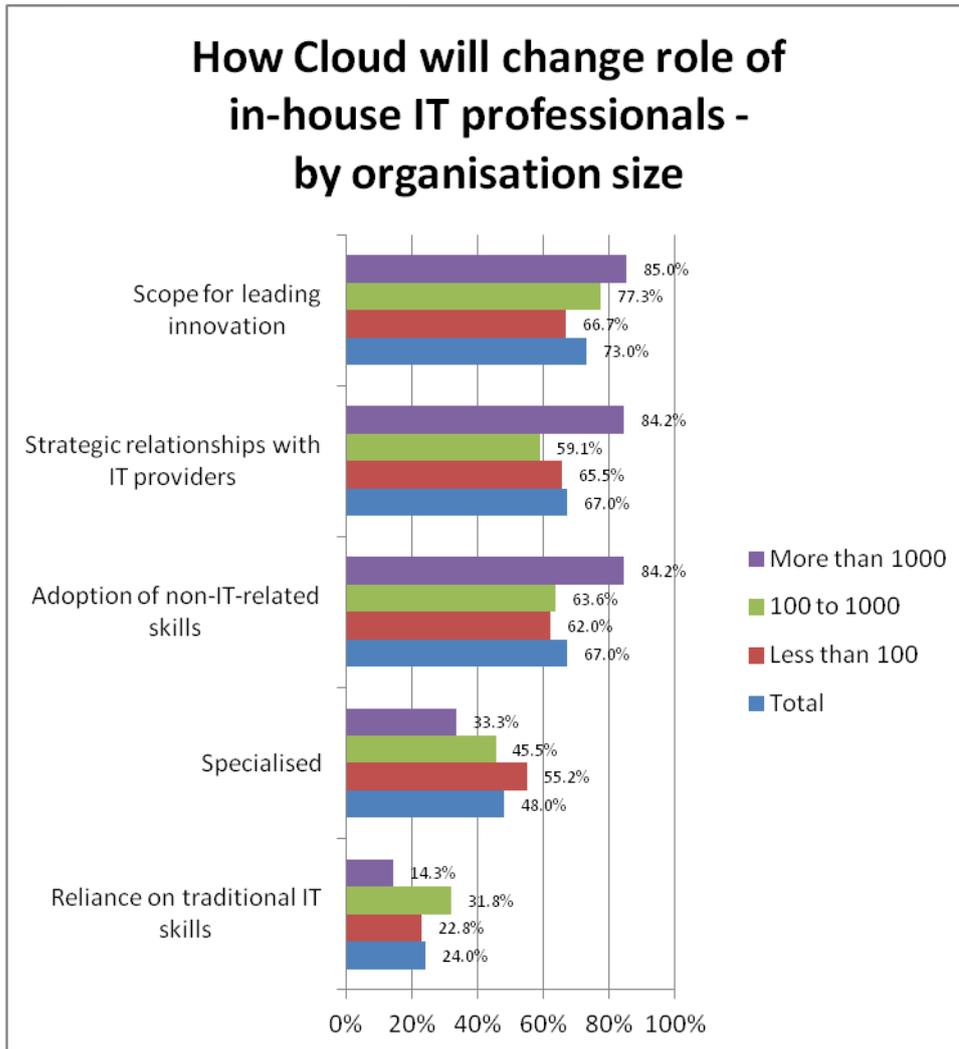
Respondents were asked whether they thought Cloud would change the expectations within their organisation of what IT will be delivered by the IT department. 59% overall thought that there would be a change, but there was a marked difference between those with plans to implement within five years and those whose implementation was more than five years away, or who did not know when implementation might be:

- around 70% to 80% of those implementing Cloud in the next one to five years thought that there would be changed expectations
- 75% of those intending implementation more than five years away, or who did not know when they might implement Cloud did not think that there would be changed expectations within their organisation of what IT will be delivered by the IT department

Results for respondents from larger organisations indicate that larger organisations are expecting more change in expectations than mid-size or smaller organisations.

1.3   IT department readiness

47% of respondents overall thought that their IT department was ready to meet changed expectations of what will be delivered by the IT department resulting from Cloud implementation. All respondents were asked this question and where respondents' organisations were already using Cloud, the level of preparedness was assessed above the overall average. Those whose organisations were not currently using Cloud were evenly split between those who thought their IT department was ready, those who thought that it was not ready, and those who were not sure.

1.4   Impact on IT architecture

More respondents thought that Cloud would reduce complexity in an organisation's IT architecture. This perception was consistently higher than "increase complexity" across those respondents whose organisations had implemented Cloud and those whose organisations had not. Note that 30% of respondents whose organisations had no Cloud implementation were not sure of the impact on IT architecture complexity.

A small majority of respondents in organisations with more than 100 staff believed that Cloud would reduce architecture complexity.

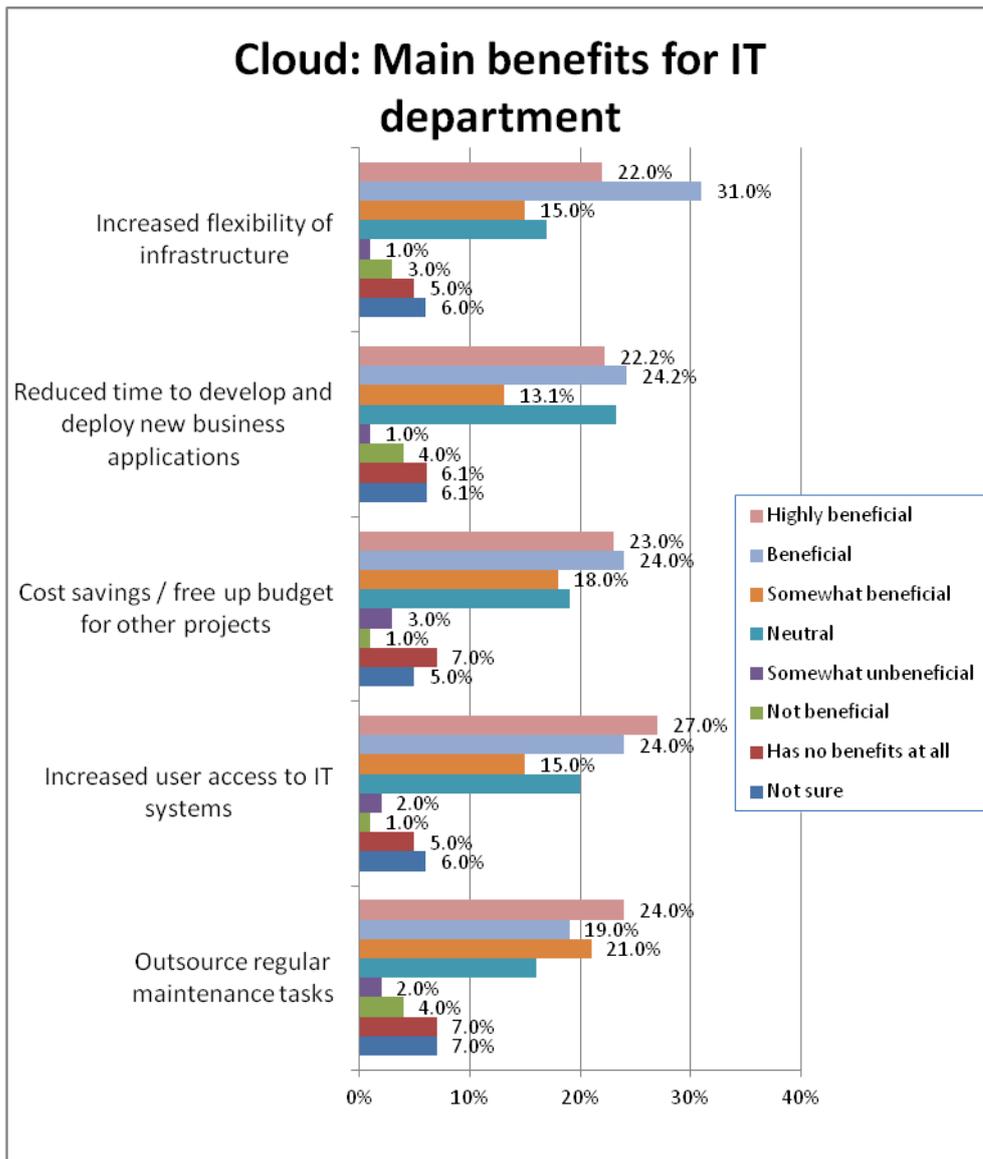| Changes to complexity of an organisation's IT architecture from Cloud	Total
Increase complexity	34.0%
Reduce complexity	45.0%
Not sure	21.0%

2. Main benefits of Cloud

Respondents were given a list of five potential benefits of Cloud computing and asked to rate how beneficial they thought each would be.

All were overall rated as beneficial. "Reduced time to develop and deploy new business applications", while seen as a benefit, was rated a little lower overall than the other benefits, all of which were rated as beneficial by around two thirds of respondents.

Even though marginally more respondents thought that "Increased flexibility of infrastructure" was beneficial, the most important benefit on average overall for all respondents was "Increased user access to IT systems", which also scored the highest "Highly beneficial" rating.

However, indications are that large organisations perceive most benefit from infrastructure flexibility. They also rate reduced time to develop and deploy business applications and costs savings more highly than mid-sized or smaller organisations.

Cloud: Main benefits for IT department

Increased flexibility of infrastructure
- 22.0%
- 31.0%
- 15.0%
- 1.0%
- 3.0%
- 5.0%
- 6.0%

Reduced time to develop and deploy new business applications
- 22.2%
- 24.2%
- 13.1%
- 1.0%
- 4.0%
- 6.1%
- 6.1%

Cost savings / free up budget for other projects
- 23.0%
- 24.0%
- 18.0%
- 3.0%
- 1.0%
- 7.0%
- 5.0%

Increased user access to IT systems
- 27.0%
- 24.0%
- 15.0%
- 2.0%
- 1.0%
- 5.0%
- 6.0%

Outsource regular maintenance tasks
- 24.0%
- 19.0%
- 21.0%
- 2.0%
- 4.0%
- 7.0%
- 7.0%

Legend:
- Highly beneficial
- Beneficial
- Somewhat beneficial
- Neutral
- Somewhat unbeneficial
- Not beneficial
- Has no benefits at all
- Not sure

0% 10% 20% 30% 40%

3. IT skills

Respondents were asked which of a list of IT skills they believed would be <u>most</u> in demand in-house in 2 to 3 years.

54% mentioned skills related to architecture: applications, systems and storage and the alignment of business and IT through enterprise architecture.

The level of selection of each skill is:

Applications architects: **20.2%**

Storage and data architects: **20.2%**

Enterprise architecture: **14.1%**

Software engineers   **14.1%**

Systems administrators 2.0   **9.1%**

Financial analysts   **8.1%**

Capacity Planners   **6.1%**

Other   **8.1%**
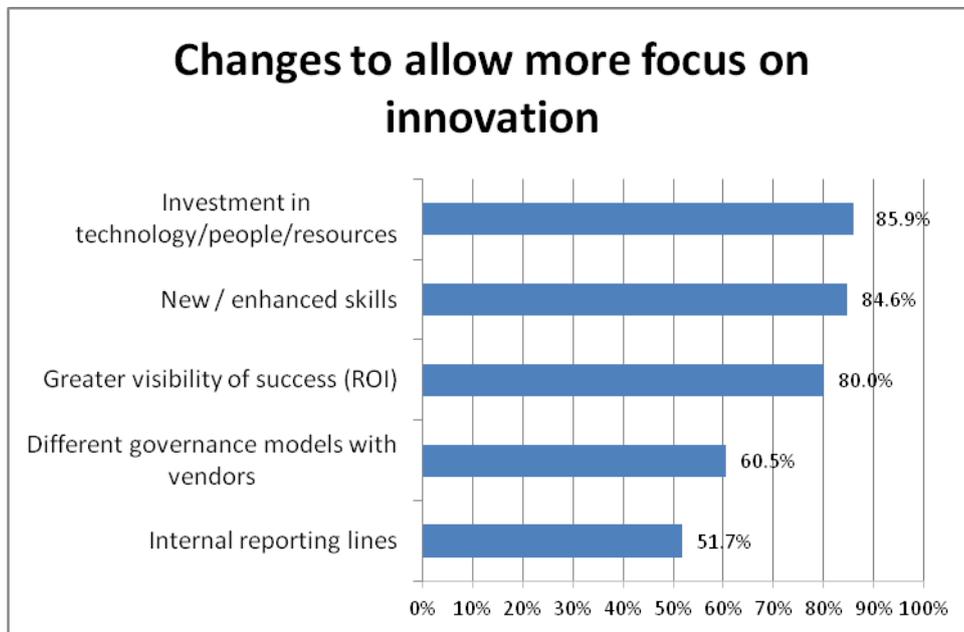
4. Seeking advice

It is most likely that organisations will seek advice on enhancing their personal skills or their team's skills and becoming 'Cloud ready' from vendors and online forums, professional organisations, industry analysts and external friends or peers. IT recruiters and respondents own HR department are the least likely to be sought for advice.

Where seek advice	Total
Vendor information	21.6%
Online forums	16.7%
Professional organisations, e.g. NZ Institute of IT Professionals (Computer Society, ACE Training, etc.)	13.7%
Friends and peers outside my company	12.7%
Industry analysts	10.8%
IT recruiters	5.9%
My company's own HR department	4.9%
Other	2.9%
Does not apply	15.7%

5. Changes to allow more focus on innovation

Respondents were given a list and asked which of them they believed needed to change to enable IT staff to focus more on innovation rather than managing / maintaining systems. The results are charted below, showing three key things being selected by 80-% or more of respondents.

Changes to allow more focus on innovation

|	
Investment in technology/people/resources	85.9%
New / enhanced skills	84.6%
Greater visibility of success (ROI)	80.0%
Different governance models with vendors	60.5%
Internal reporting lines	51.7%

New or enhanced skills, greater visibility of success and difference governance models with vendors appear to be more important in larger organisations than in medium size or smaller organisations.

6. IT services demand

Respondents were asked whether they believed that the lower cost and easier access of Cloud computing would lead to more or less demand for IT services.

While 44% thought that there would be more demand, 38% opted for the status quo. Only 13% thought there would be less demand. There was little difference between organisations of different size.

IT services demand created by Cloud
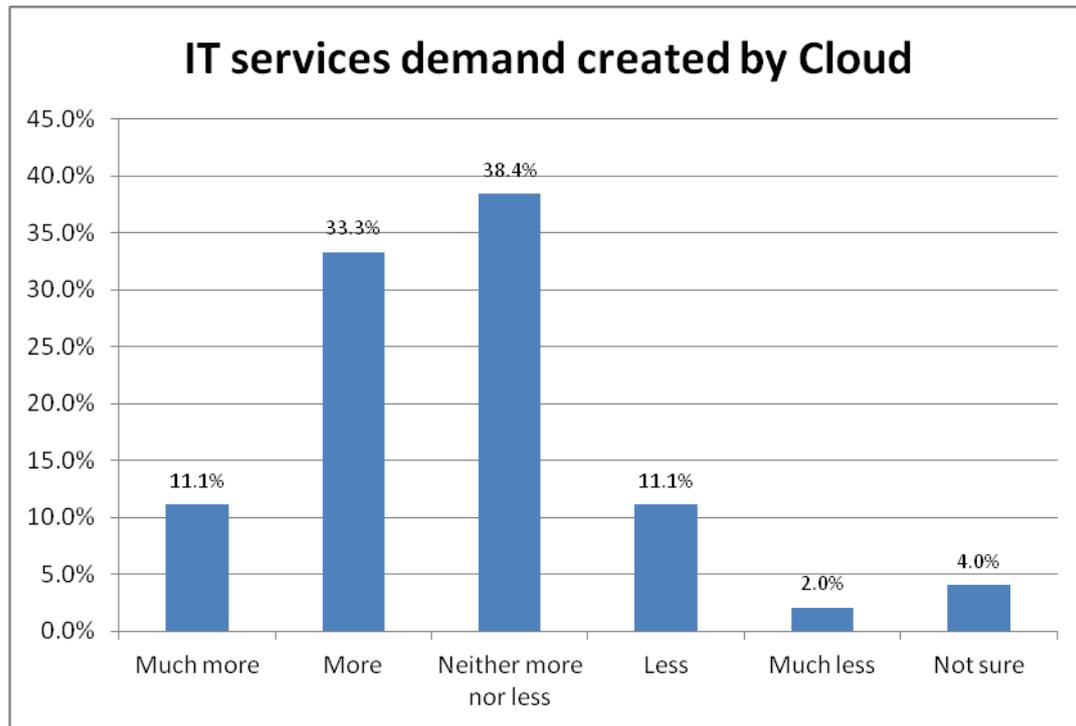
7. Impact on job volumes

Respondents were asked whether they believed the growth of cloud computing would create more or fewer jobs in the IT industry overall

37% thought that there would be no difference. Amongst the remaining respondents, opinion was split almost evenly between those who thought there would be more jobs and those who thought there would be fewer.

Note that 44% of respondents from larger organisations thought that there would be fewer jobs, as shown in the following chart:

Jobs created by Cloud - by organisation size
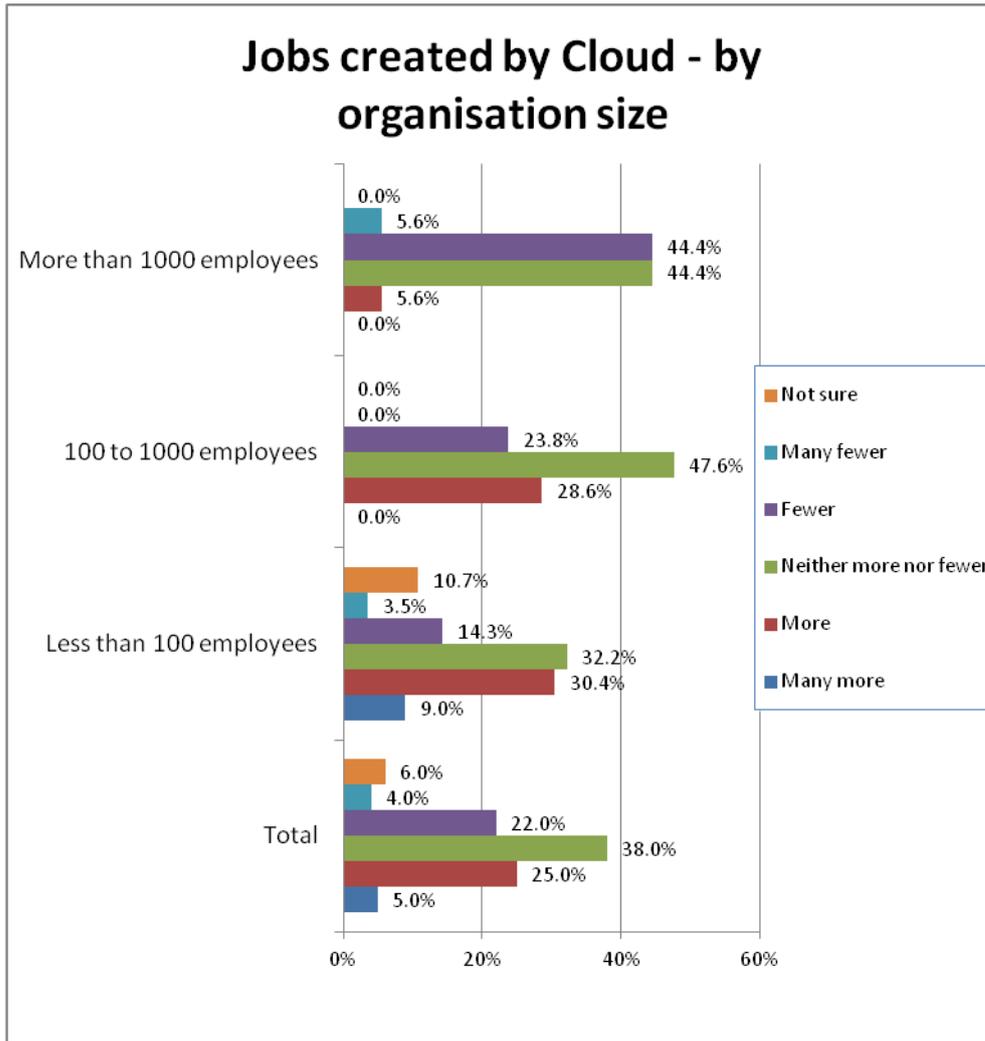
APPENDIX 1 – SAMPLE

Sample

This survey is of 119 respondents who are members of Horizon Research's HorizonPoll panel and non-panel members who were independently identified as being IT managers in their organisations. No weighting was done of this sample.

For the total sample the maximum margin of error at a 95% confidence level is ±9.0% overall.

Note: Because the number of respondents is small, caution is necessary in interpreting the results or quoting absolute percentages. All cross-question analysis, including that by area or by company size, can only be regarded as indicative.

Dates

Interviewing was undertaken between June 6 and June 21, 2012.

Organisation size

Where analysis by organisation has been done, three groups have been used:

- Less than 100 employees ("smaller organisations")
- 100 to 999 employees ("mid-sized organisations")
- More than 1,000 employees ("larger organisations")

The survey sample had the following organisation size breakdown:

Number of employees	Total
Less than 100	57.9%
100 to 249	10.5%
250 to 499	9.6%
500 to 999	1.8%
1,000 to 4,999	14.0%
5,000 to 9,999	3.5%
10,000 or more	2.6%

Location of IT department

Respondents said that their organisation's IT department was located in:

IT department location	Total
Auckland	46.4%
Wellington	15.2%
Christchurch	11.6%
Dunedin	2.7%
Hamilton	0.9%
Tauranga	2.7%
Elsewhere in New Zealand	20.5%

Analysis

All analysis shown in this report is taken from the unweighted data.