New Zealand
ICT
Tertiary Education & Job Series
June 2012

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Note:
Indicates new/significant change
Insights

Seek ICT NZ Job Adverts in May 2012

- Total job adverts;
  - Slight increase for the month
  - Down 7 per cent on June 2011
  - Up 31 per cent on June 2010
- Monthly change by region;
  - Auckland up 8 per cent
  - Waikato up 25 per cent
  - Wellington down 9.7 per cent
  - Canterbury down 9.5 per cent
- Demand for programmers who can develop mobile apps. ramping up

Australia

- IT Jobs dropped by over a fifth in the last 12 months
NZ Seek Job Adverts
Monthly Change for April - May 2012
ICT Trounces the All Job Advert Index

Source: Seek ICT & NZ Herald (Accessed June 2012)
Seek & Trademe
ICT Job Advert Trends
All NZ

2007 Peak before recession

Source: Seek ICT (Accessed June 2012)
Seek ICT Job Advert
Monthly Trends
2010 - 2012

Source: Seek ICT (Accessed June 2012)
Seek ICT Job Advert Trends
Year to June
2012

<table>
<thead>
<tr>
<th>Month</th>
<th>Auckland</th>
<th>Waikato</th>
<th>Wellington</th>
<th>Canterbury</th>
<th>Total NZ</th>
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<tr>
<td>Jun-11</td>
<td>1644</td>
<td>50</td>
<td>793</td>
<td>220</td>
<td>2786</td>
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<td>May-12</td>
<td>1520</td>
<td>40</td>
<td>878</td>
<td>243</td>
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<td>689</td>
<td>221</td>
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<td>853</td>
<td>218</td>
<td>2768</td>
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<tr>
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<td>1539</td>
<td>61</td>
<td>805</td>
<td>266</td>
<td>2753</td>
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<tr>
<td>Jan-12</td>
<td>1087</td>
<td>32</td>
<td>543</td>
<td>185</td>
<td>1904</td>
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</tbody>
</table>

Source: Seek ICT (Accessed June 2012)
Seek ICT Job Advert Trends
Monthly Change for June 2012

- Auckland
- Waikato
- Wellington
- Canterbury
- Total NZ

Source: Seek ICT (Accessed June 2012)
Seek ICT Job Adverts by Industry Certification
June 2012

Monthly change for:
- **Microsoft:**
  - Waikato increased 175%
  - Canterbury increased 18%
- **Linux:**
  - All NZ increased 7%
  - Auckland increased 11%

<table>
<thead>
<tr>
<th></th>
<th>Auckland</th>
<th>Waikato</th>
<th>Wellington</th>
<th>Canterbury</th>
<th>Total NZ</th>
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<tbody>
<tr>
<td>Microsoft</td>
<td>256</td>
<td>11</td>
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<td>Cisco</td>
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<td>53</td>
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<td>Linux</td>
<td>561</td>
<td>12</td>
<td>186</td>
<td>61</td>
<td>837</td>
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</table>

Source: Seek ICT (Accessed June 2012)
Seek ICT Job Adverts Filtered by Management Certifications
June 2012

Monthly increase for all NZ;
- PMP 15.5%
- 32% for Auckland
- 17% for Wellington
- Prince 18.5%
- 62% for Auckland
- 12% for Wellington
- ITIL increased 12%
  - 18.6% for Auckland
  - 22.6% for Wellington

Source: Seek ICT (Accessed June 2012)
## Selected IT Certifications – Jobs & Salary Ranges

<table>
<thead>
<tr>
<th>IT Certifications</th>
<th>No. of Jobs Currently Advertised by Region</th>
<th>NZ Salary Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PMP® - Project Management Professional</strong></td>
<td></td>
<td>$90k to $110k pa</td>
</tr>
<tr>
<td>Auckland</td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>Wellington</td>
<td>92</td>
<td></td>
</tr>
<tr>
<td>Canterbury</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>ITIL® v3 Foundation</strong></td>
<td></td>
<td>$55k to 65k pa</td>
</tr>
<tr>
<td>Auckland</td>
<td>187</td>
<td></td>
</tr>
<tr>
<td>Wellington</td>
<td>126</td>
<td></td>
</tr>
<tr>
<td>Canterbury</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td><strong>MCITP - Microsoft Certified IT Professional</strong></td>
<td></td>
<td>$50k to $75k pa</td>
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<td>Auckland</td>
<td>22</td>
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</tr>
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<td>Wellington</td>
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<td></td>
</tr>
<tr>
<td>Canterbury</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>MCSA - Microsoft Certified Systems Administrator</strong></td>
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<td>$65k to $85k pa</td>
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<td>Auckland</td>
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<td>Wellington</td>
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<td></td>
</tr>
<tr>
<td>Canterbury</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>MCP - Microsoft Certified Professional</strong></td>
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<td>$50k to $80k pa</td>
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<tr>
<td>Auckland</td>
<td>91</td>
<td></td>
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<tr>
<td>Wellington</td>
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<td></td>
</tr>
<tr>
<td>Canterbury</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>CISSP® - Certified Information Systems Security Professional</strong></td>
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<td>$80k to $100k pa (Estimated)</td>
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<tr>
<td>Auckland</td>
<td>22</td>
<td></td>
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<tr>
<td>Wellington</td>
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<tr>
<td>Canterbury</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Source: [Pay Scale](#) & [Seek ICT](#) (Accessed June 2012)
The largest monthly increases occurred for the Waikato;

- **.NET**.................105%
- **PHP**....................200%
- **C#**.....................700%
- **Java**...................83%

All NZ;

- **.NET**.................8.8%

Wellington

- **.NET**.................23%

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<tbody>
<tr>
<td>.NET</td>
<td>253</td>
<td>6</td>
<td>92</td>
<td>42</td>
<td>397</td>
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<tr>
<td>PHP</td>
<td>449</td>
<td>12</td>
<td>135</td>
<td>48</td>
<td>657</td>
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<tr>
<td>C#</td>
<td>201</td>
<td>7</td>
<td>49</td>
<td>36</td>
<td>299</td>
</tr>
<tr>
<td>Java</td>
<td>478</td>
<td>11</td>
<td>174</td>
<td>42</td>
<td>712</td>
</tr>
</tbody>
</table>

Source: [Seek ICT](http://www.seek.co.nz) (Accessed June 2012)
TIOBE [The Importance of Being Earnest]
Programming Community Index
for June 2012

Ruby (On Rails) makes the top 10

Source: TIOBE (Accessed June 2012)
TIOBE Programming Community Index for June 2012

TIOBE Headline: Haskell is rapidly approaching the top 20

- Next big new programming language - Haskell? [jumped from #35 to #25 this month]
- TIOBE trend graph of Haskell (starting in 2003) shows a constant rise, with peaks in 2006, 2010 and now in 2012


Notes:
1. The TIOBE Programming Community index is an indicator of the popularity of programming languages
2. The index is updated once a month. The ratings are based on the number of skilled engineers world-wide, courses and third party vendors
3. The popular search engines Google, Bing, Yahoo!, Wikipedia, Amazon, YouTube and Baidu are used to calculate the ratings
Programmers/Developers – 10 Skills Needed in the Next 5 Years

1. One of the “Big Three”: .NET, Java, and PHP
2. Rich Internet Applications (RIAs): JavaFX and Silverlight. Flash with its additional functionality in the form of Flex and AIR
3. Web development: JavaScript, CSS, and HTML
4. Web services: REST or SOAP? JSON or XML
5. Soft skills: to meet the increasing visibility of IT within and outside the enterprise. Developers with the requisite soft skills will be highly sought after in the job market
6. One dynamic and/or functional programming language: both Ruby and Python are becoming hot in some sectors, thanks to the Rails framework and Silverlight, respectively
7. Agile methodologies: developers with a proven track record of understanding and succeeding in Agile environments will be in increasingly high demand over the next few years
8. Domain knowledge: developers who understand the problem domain are increasingly being viewed as partners in the definition of projects
9. Development “hygiene”: organisations using bug tracking systems, version control, and other such tools are becoming more common. This is due to the development of new, integrated stacks, like the Microsoft Visual Studio Team System, and the explosion in availability of high quality, open source environments
10. Mobile development: developers who can design web applications to work on mobile devices, RIAs aimed at that market, and applications that run directly on the devices will be in demand

(Acknowledgement: Link referred by Murray Wills, VirtualCIO at Maxsys Ltd
Source: TechRepublic (Accessed June 2012)
Seek ICT Job Adverts by Role
June 2012

Monthly increase:
- Prog/Dev............2 per cent
- Helpdesk..........11 per cent
- Network..........15.5 per cent
- Mobile Apps.......35 per cent

Source: Seek ICT (Accessed June 2012)
Seek ICT Job Advert Trends
IT Architect
June 2012

Note: A growing demand for VmWare qualified applicants;
- All NZ up 12 per cent
- Auckland up 27.5 per cent
- Wellington up 111 per cent

VmWare Certified Professional salary range $63k to $84k

<table>
<thead>
<tr>
<th>Auckland</th>
<th>Wellington</th>
<th>Canterbury</th>
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<th>Total NZ</th>
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<tr>
<td>TOGAF 9</td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>1</td>
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<tr>
<td>VmWare</td>
<td>51</td>
<td>19</td>
<td>5</td>
<td>1</td>
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</table>

Source: Seek ICT (Accessed June 2012)
Seek ICT Job Adverts
Filtered by DBA/Developer
May 2012

Monthly increases;
❖ All NZ - Oracle 5% & SAP 4%
❖ Auckland - Oracle 13.4% & SAP 10%

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<thead>
<tr>
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<th>Waikato</th>
<th>Total NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQL Server</td>
<td>206</td>
<td>64</td>
<td>39</td>
<td>7</td>
<td>323</td>
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<tr>
<td>SAP</td>
<td>642</td>
<td>233</td>
<td>52</td>
<td>14</td>
<td>948</td>
</tr>
<tr>
<td>Oracle</td>
<td>633</td>
<td>274</td>
<td>56</td>
<td>14</td>
<td>987</td>
</tr>
</tbody>
</table>

Source: Seek ICT (Accessed June 2012)
Australia – IT Job Numbers Down

The number of vacancies for IT roles has fallen by 22 per cent over the last 12 months, with this month registering a 1.9 per cent drop.

Source: TechRepublic (Accessed June 2012)
2002: Peak tertiary ICT enrolments coincides with net peak NZ migration to Australia!

Source: NZ Herald & Education Counts (Accessed May 2012)
Employers struggle to fill jobs

Results of annual talent shortage survey (Manpower)

- 48 per cent of NZ employers experiencing difficulty filling job vacancies, up 11 percentage points from last year, and above;
  - Global average of 34 per cent
  - Asia-Pacific average of 45 per cent

- New Zealand is now ranked eighth out of 41 countries for talent shortages

- NZ skills gaps very similar to the rest of the world;
  - Engineers and skilled tradespeople are in demand

- Roll out of the National Broadband Network increases difficulty of finding IT staff

Glut of Talented Unemployed Graduates

- “First up if you are a graduate in IT or engineering you are most likely to get a job opportunity straight out of university,.........”

  (Kathy McCombe, Frog Recruitment, NZ Herald Wed May 30 2012)
News Bytes

Predicted Impact of Cloud Computing on Tech Roles

➢ Tech industry expert predictions;
  ➢ By 2020 the majority of organisations will rely on the cloud for more than half of their IT services
  ➢ Cloud computing will have a dramatic impact on tech roles over the next decade where;
    ➢ much of the virtualised infrastructure that cloud is built upon can be automated allowing for....
    ➢ the number of staff needed to manage and provision individual pieces of IT infrastructure; e.g. networks, storage and servers, to be scaled back
  ➢ By 2020 just 35 per cent of IT resources will be devoted to operating IT infrastructure (currently 70 per cent) (Gartner report New Skills for the New IT).

Source: (TechRepublic Opinion Piece Accessed June 2012)
Conclusion

Skills Gap

- The shortage of skills in NZ reflects global demand, especially for engineers and skilled tradespeople.
- The number of ICT job adverts, long term, continues to trend upwards.
- The demand for IT certification and programmers/developers is strong; i.e. the need for people equipped with specialised IT skills is increasing.
- Forty per cent of the 58,000 unemployed NZers between the ages of 16 to 25 are recently qualified tertiary graduates – “companies (should) establish grad-programmes tailored to finding young individuals that have the right culture fit for the specific organisation.” (McCoombe, NZ Herald, May 30 2012)

Gender Gap

- Addressing the gender imbalance needs a determined effort, especially by women who already have (are in) technology roles (Computerworld June 2012) 
  (Acknowledgement: Link referred by David Hallett, Chief Nerd of Need a Nerd, Hamilton)

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