Land Information New Zealand End User Computing Case Study

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Overview

This Tech Research Asia end user case study analyses the results of the adoption of virtual desktop infrastructure (VDI) by Land Information New Zealand (LINZ) to support its end user computing strategy. This strategy includes the establishment of a three-tier IT service model. This case study also investigates the reasons why LINZ adopted the technology, the goals it was striving to achieve, and the outcomes it has realised. This case study also provides advice to technology leaders considering their own workplace strategy.

Key Findings

- VDI and the use of three wireless LANs has allowed LINZ to establish a flexible strategy that enables it to both comply with its security obligations while supporting employee preferences in terms of devices and ways of working.

- Adopting VDI is not about reducing costs. However, the process of evaluating needs, technologies and alternatives to the traditional desktop management model will provide granular insight into costs that will be useful for ongoing management and future investments.

Recommendations

For Technology and Service Buyers:

- Establish a long-term vision for your workplace with the input of a broad cross-section of stakeholders in the organisation. Evaluate flexible office approaches such as activity based working for your future needs as it offers a broad range of proven business benefits.

- Make sure your workplace strategy harmonises and optimises the physical spaces you use, the processes and practices in place, the supporting technology, and the broader culture of the organisation. A greater level of success is evident with organisations that take a holistic view of the workplace.

The Dashboard

Company Information:
Name: Land Information New Zealand

Size: 500+

Industry: Public Sector

Countries: New Zealand

Project snapshot: Adoption of virtual desktop infrastructure to support an end user computing strategy that included establishing multi-tier services and BYOD.

Results:

10/10

LINZ rated the use of VDI as 10 out of 10 when it came to cost management, risk management, talent management, CSR, and innovation.

Future: LINZ is now striving to leverage its VDI environment to adopt new applications and offer services quicker than in the past.

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The When, Who and What

Land Information New Zealand (LINZ) is a medium-size public sector organisation that provides services related to land titles, geodetic and cadastral survey systems, topographic information, and hydrographic information. It also manages Crown property. LINZ undertook an end user computing project that saw it establish a multi-tiered end user service strategy that included both choose your own device (CYOD) and bring your own device (BYOD) along with an extensive enterprise mobility strategy. To enable the desired service model and device strategy, LINZ adopted virtual desktop infrastructure (VDI) from Citrix.

The Why

There were two big catalysts for the changes LINZ implemented in its IT environment:

1) A cyber security strategy adopted by the NZ government in 2011. As with all New Zealand government agencies, LINZ had to comply with the provisions of the new strategy. The challenge for the IT department is that these provisions would have broken a lot of the way the LINZ employees work day-to-day and therefore had a significant impact on the services the organisation provides. The question for the IT department was how it could satisfy the compliance obligations for securing the environment whilst still enabling the work to occur without impediment.

2) End user devices were previously owned by each business group. At the time of evaluating their end user computing strategy, LINZ had varying levels of device management and fragmented procurement cycles. They also had a high number of end-of-life desktops that needed to be upgraded. This stimulated the question – *"how can we do this better?"*

The How

LINZ has adopted three tiers of service level that the organisations' employees can choose from in order to receive support from the IT department. The three levels are:

- **Gold:** End user devices are fully supported and owned by the IT department. They are locked down and if employees need any assistance IT fixes it in accordance with traditional approaches. This is the least popular tier of service.

- **Silver:** This is effectively a CYOD service level where devices are chosen by employees from an approved catalogues of devices (contained in a web store front) but owned by LINZ. Through the process the employee chooses the service level and if it is silver they acknowledge the device is self-supported with no guarantees from the IT department. They do have one support staff in a "walk up service" who is available to help when needed, but there are no SLAs involved and no service calls – staff have to walk up to this support desk for help. If they know how to help they will, if they can't, they can't. Additionally, emloyees can use the funds provided by LINZ and add some of their own if they want a more expensive device. Procurement timing, however, is still conducted at business unit management discretion.

- **Bronze:** This is a full BYOD level of service with employees bringing and owning their own devices. LINZ doesn't provide the device or own it. They will help employees though if possible through the "walk-up" service desk.

LINZ has also established three wireless networks to support each service tier. The corporate wireless network is only accessible by gold level devices. Then there is a mobility network where

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silver and bronze devices connect. Internet access is via the LINZ internet proxy for silver level devices. For bronze level devices network connectivity is out through the internet back to the LINZ data centre when access to virtual desktops is required. The third network is a guest network.

LINZ says 20% of staff have a tablet or laptop and are working remotely or mobile within one of the organisations' three offices. The biggest use case, however, is using a thin client at a desk. Other technology the organisation has deployed, and services it consumed include:
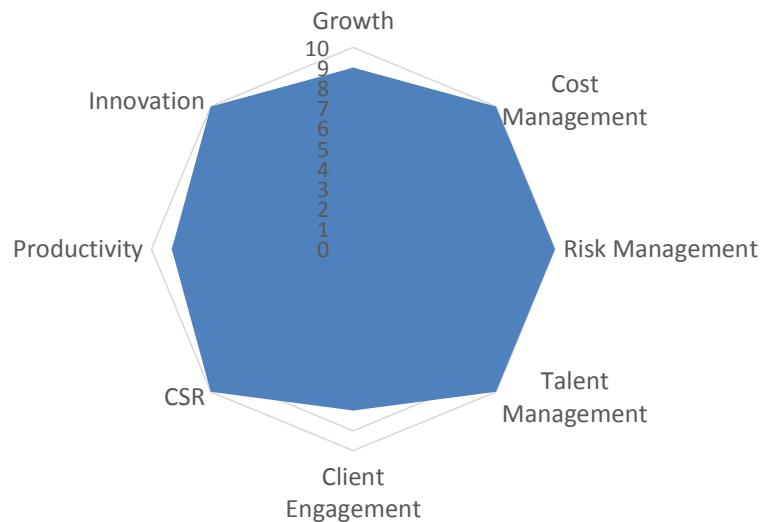
- **VDI:** The VDI infrastructure is underpinned by Citrix XenApp 6.5 technology using a customised landing page and Provisioning Virtual Services (PVS). The latter enables versioning of changes and management of updates to the VDI farm. Two factor authentication is provided by SafeNet for external access to LINZ VDI. Thin client devices are HP models using HP device manager for automated updates. The backend infrastructure is 100% virtual provided by Datacom Cloud Services. The VDI solution was delivered and is maintained by Datacom.

- **Windows 7:** LINZ has available a managed Windows 7 build (provided through the Gold service level) that is used on the corporate network where it is not applicable to use VDI. Examples include applications requiring physical dongles, or applications that are graphically or CPU intense. Users can also access published applications through VDI avoiding the need for a complex Windows 7 build.

- **Consultancy:** Citrix consultancy services were engaged mid-project to complete a design and technology assessment and again after the implementation and bedding in period had been completed to do an implementation and maturity assessment along with assisting with remediation.

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The Outcomes

The results in chart 1 shows the level of contribution LINZ manager of IT operations, Quin Carver, believes the end user computing strategy has made to a common set of business goals. LINZ was asked to provide a rating on a scale of 1 to 10 (where 10 is an outstanding contribution, and 1 is a very low contribution). Each business goal is listed below along with the score and reasoning where provided by LINZ.

Chart 1 – LINZ's estimated outcomes from its End User Computing Strategy

Source: Tech Research Asia, 2014

- **Growth – 9.** LINZ believes its ability to grow has improved in that they can scale more easily with the use of VDI.

- **Cost management – 10.** LINZ IT department contends that it achieved a high level of transparency of its costs and therefore an ability to control it that it did not have in the past. The thinking that went with the deployment of the project forced them to be more granular in the analysis of their costs. However, it is likely this rating would be the same if they had taken other alternative approaches to traditional desktop management.

- **Risk Management – 10.** The project reduced risk in that it forced LINZ to enforce and close security risks they had with the old end user computing model. Having the end user device infrastructure tied to physical buildings is no longer a challenge or a hindrance to business continuity – if there is a natural disaster they can continue operating remotely.

- **Talent Management – 10.** Post-project feedback collated by LINZ IT department is that staff are happy to be able to choose the technology they use and this has a positive impact on their engagement with the work and broader organisation.

- **Client Engagement – 8.** LINZ believes it had no major change in client engagement as a result of the VDI deployment. But this is viewed as a good result in that the project was successful because clients experienced no disruption during what was a major technology refresh.

- **CSR – 10.** LINZ believes VDI allows them to be more inclusive in its recruitment and employment practices. For example, individuals – such as those on maternity or on long-term injury leave – can work from home and staff can have access to the full suite of services where ever they are.

- **Productivity – 9.** Key functions and application performance compared to the old platform has improved considerably and become more consistent according to internal testing.

- **Innovation – 10.** LINZ acknowledges that it has had no additional innovation at the moment. But they contend they have created a platform that allows them to be so in future: No longer is IT a barrier or an excuse to pursuing new ideas.

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LINZ's Carver also noted that the organisation had achieved a range of other results including:

- Faster staff log on times by up to 99 seconds (Christchurch reduction from 150 to 9 Seconds). Most applications are also showing positive improvements – for example opening Outlook is 39% faster and the CRM is on average 15% faster.

- A 24% reduction in power use with thin clients compared to the previous desktops. The Wellington office over 4 months comparing 2012 and 2013 showed a decrease of electricity cost of NZ$12,400 per annum.

- Historical VPN remote access support costs have been reduced by more than half.

- Potential cost avoidance of up to $836K over 6 years as a result of moving away from the traditional desktop management model.

- The organisation now has greater clarity of which applications are in use and the frequency of use, especially high cost applications (such as Adobe Photoshop).

The Next Steps for LINZ

In the end user environment the near-term for LINZ is focussed on further driving efficiency gains in terms of adopting new applications and offering services quicker through VDI. Outside of this LINZ has plans for its major line of business applications to be redeveloped.

Recommendations

For Technology and Service Buyers looking to adopt a flexible working strategy:

- **Take stock and assess your current culture and performance trajectory:** Conduct a utilisation study and undertake stakeholder interviews or surveys including front line employees. Ensure this is done independently to ensure data captured is valid and provides reliable insights. Consider employing a third party to help with this step, but make sure skills and knowledge transfer is built into any agreements.

- **Define your vision for your ideal environment and culture through multi-party collaboration**: Input from both front-line workers and the executive branch will help ensure the vision is representative. Tour current high performance workplaces to understand what is possible. Seek out the expertise of vendors and partners that have adopted themselves and have multiple reference customers. Focus on the value you expect to gain from making a change like deploying VDI and not on cost reductions as this will not be a key outcome for most.

- **Evaluate enabling technologies:** The process of piloting VDI will create an opportunity to understand your environment in great detail. Use this to generate ongoing business and IT metrics. Tech Research Asia believes any big change to the end user computing environment should be used to create long-term data capture around the interplay between employees, technologies and efforts to achieve goals. This will alleviate some of the guess work around employee needs/best practice and reduce time used in proof of concepts for any future end user computing projects.

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Additional Resources

We encourage you to read extensively to better inform your decisions and maintain an open knowledge policy to support this recommendation. To receive any of the below research please contact [Tech Research Asia](#).

- *"Intelligent Foundations: Containerised Data Centres in the Asia Pacific." By Trevor Clarke. 2013.*
- *"The Australian Data Centre and Cloud Computing Strategy Summit Report", By Trevor Clarke 2014*
- *"Allianz Infrastructure Optimisation Case Study", Tim Dillon 2014.*
- *"The activity based working checklist for CxOs and IT leaders." By Trevor Clarke. 2014.*
- *"How to build a business case for flexible working and your ABW office." By Trevor Clarke. 2014.*
- *"10 innovative ideas for your flexible working office." By Trevor Clarke. 2014.*
- *"Activity Based Working: The New World of Work." By TRA. 2014.*
- *"Activity Based Working: The Future of Work in Australia". By Trevor Clarke. 2013.*
- *"Work 3.0: Strategies for a High Performance Workplace." By TRA. 2014.*
- *"Work 3.0: High Performance Customer Engagement." By TRA. 2014.*
- *"BlueWork: The American Express Workplace Strategy". By Trevor Clarke. 2014.*
- *"The Corrs Chambers Westgarth Workplace and Technology Strategy". Trevor Clarke 2014.*
- *"The New Zealand Smart Home Opportunity", Trevor Clarke 2014.*
- *"The Smarter Connected NZ Town", Trevor Clarke 2014*
- *"Co-working New Zealand". Trevor Clarke 2014.*
- *"Japan: The ANA Workplace and Technology Strategy," Trevor Clarke 2014 (forthcoming)*
- *"ASB North Wharf Activity Based Working Case Study". By Trevor Clarke. 2014.*
- *"Japan: One of Them Activity Based Working Case Study." By Trevor Clarke. 2014.*
- *"Making the most of the flexible work movement." By TRA. 2014.*
- *"Bankwest Activity Based Working Case Study". By Trevor Clarke. 2013.*
- *"Aon Australia Virtual Desktop Infrastructure Case Study". By Trevor Clarke. 2013.*
- *"Fortescue Metals Group Virtual Desktop Infrastructure Case Study". By Trevor Clarke. 2013*
- *"LINZ end user computing case study".* By Trevor Clarke. 2014
- *"The Australian Future of Work CxO, IT and Sales Survey". By Trevor Clarke. 2013*
- *"Mobility in 2015: Australia". By Trevor Clarke. 2013*
- *"The Australian Government Mobility Survey". By Trevor Clarke and Tim Dillon. 2013.*
- *"The Impact of Activity Based Working on Office Printing and Future Opportunities", By Trevor Clarke. 2013.*
- *"The Australian Office Print Services Market and the Channel, 2013-2017", By Trevor Clarke. Published March 2013.*
- *"Australian Federal Government Agencies and MPS: Market Analysis 2013". By Trevor Clarke. Published May 2013.*

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