

Fortescue Metals Group

VDI Case Study

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Overview

This Tech Research Asia end user case study analyses the adoption of a Citrix virtual desktop infrastructure (VDI) solution and associated technologies by Australian Iron Ore giant, Fortescue Metals Group (FMG). It provides the overview of the project, the reasons the company chose Citrix over other options and the outcomes it has achieved since setting up the environment.

Key Findings

- VDI is appropriate for flexible working strategies and remote workforces. It is a key enabler for FMG's New World of Work (NWOW) program, which includes activity based working (ABW) and remote access by field operations
- Growth, risk management, talent management and client engagement efforts were the top beneficiaries of the VDI solution.
- Better before cheaper is an appropriate mindset for VDI deployments: FMG was able to quickly and securely address demands for BYOD through its VDI approach, in the process allowing IT to focus on higher value-generating activities than device choice like application and information delivery

Recommendations

For Technology and Service Buyers:

- 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.
- 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.

For Technology and Service Providers:

- Focus on BC/DR and anywhere, anytime computing with VDI opportunities, not BYOD or cost comparisons

The Dashboard

Company Information:

Name: Fortescue Metals Group Limited

Size: 2500+

Industry: Mining – Iron Ore

Country of project: Australia

Project snapshot: Adoption of a Citrix Virtual Desktop Infrastructure (VDI) Solution

Results:

* FMG transformed its end user environment to realise its NWOW vision within 12 weeks through a combination of cloud services, modern infrastructure and VDI.

* VDI has securely underpinned the company's remote field access, ABW, BYOD and mobile working strategies while allowing the delivery of a consistent desktop experience on almost any device.

10/10

FMG CIO Vito Forte rated VDI as providing an exceptional contribution to organisational growth goals

Future: FMG is planning to migrate remote sites and engineering workstations to the VDI environment while piloting XenMobile MDM and preparing for Windows 8.

The Who, When, and What

Established in East Perth, Western Australia in 2003, Fortescue Metals Group (FMG) has grown to be the world's fourth largest iron ore producer and one of Australia's 25 largest publically listed companies. FMG operates two mines, a 300km railway network and a deep water, multi-user port in the iron ore rich region of the Pilbara in Western Australia. In the 2012 financial year, FMG recorded revenues of US\$6.7 billion and profits of US\$1.6 billion with more than 60 customers in China and the great Asian region along with 2500 employees. The company is striving to expand its production of iron ore from 55 million tonnes in 2012 to 155 million tonnes per annum by developing additional mining operations.

In June-July 2011 FMG embarked on an ICT program called new world of work (NWOW) to deal with the challenges of a shortage of desk real estate, employees wanting to bring their own devices to work (aka BYOD) and application license tracking, version standardisation and administration overhead. The NWOW program was part of a broader strategy which has seen FMG transform its ICT environment in the past 24 months. It involved the adoption of activity based working (ABW) along with the deployment of virtual desktop infrastructure (VDI) and associated technologies, which are the focus of this case study.

The How

As part of its NWOW strategy FMG adopted the increasingly popular ABW work style and created an end user environment to support remote access for the large number of staff and operations in remote areas of Australia. They also wanted to generate a BYOD capability so employees could choose their own devices.

Over a 12-week period in 2011, FMG worked with Citrix Professional Services, HP and Microsoft to make the NWOW vision a reality. As part of the joint project, HP provided new infrastructure to enable a hybrid cloud while Microsoft provided Office 365.

Working with Citrix Professional Services, FMG also decided to centralize and virtualize its applications to a single data centre for on-demand delivery. As a result virtual applications and desktops can be accessed from anywhere and 'nearly' all devices (it is still working on Windows 8 phones). To achieve this result the company deployed a range of technologies, including:

- Citrix XenApp and XenDesktop – for delivering applications and desktops on demand
- Citrix Provisioning Services
- Citrix Netscaler – for remote access to services
- Citrix ShareFile – or secure data sharing with external contractors and consultants
- Microsoft Hyper-V – as the hypervisor of choice
- Microsoft App-V – to handle application co-existence to reduce XenApp farm footprint
- Microsoft System Centre Configuration Manager (SCCM) - for provisioning FMG's managed operating environment (MOE)

The Why

FMG's NWO program not only introduced ABW it also offered a work from home and BYOD option for its 2500 employees. As a result the company needed to underpin these flexible work policies with technologies that were scalable and were able to reduce administration costs. The company also needed to ensure applications were provisioned faster throughout the organisation compared to traditional methods of desktop and application delivery to make sure the end user experience was optimised.

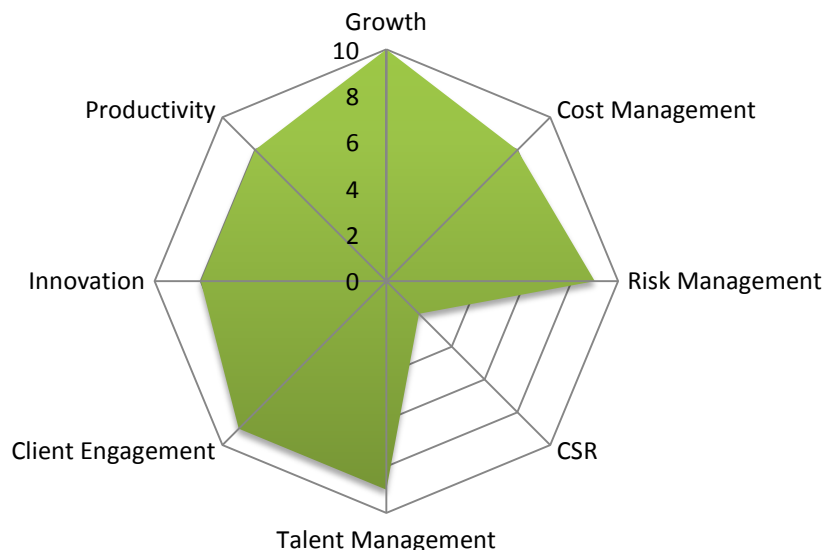
FMG decided to adopt VDI as it gave the company an ability to deliver a consistent desktop experience to anyone, anywhere on any device – which is a big challenge for any company that has a distributed workforce, let alone employees operating in the remote mining areas of Western Australia.

Additionally, the use of VDI was expected to remove any concerns and management headaches the IT department had about device choice as employees would be allowed to choose any device they like to use at work. As a result, FMG believes the VDI solutions allows the IT team to focus on delivering applications and information, which are higher value-generating activities than managing which devices employees have access to.

FMG chose Citrix because it had a relationship with the vendor, an ability to integrate with things like App-V and other components, along with confidence in the performance of the VDI solution across a wide area network.

The Outcomes

Chart 1 – Fortescue Metal Group's estimated outcomes from the use of VDI



Source: Tech Research Asia, 2013

The results in chart 1 show FMG's CIO's views on the business outcomes it has achieved as a result of using the Citrix VDI approach. FMG's CIO Vito Forte was asked to rate the contribution the VDI strategy made to the company's efforts to achieve eight common

goals on a scale of 10 (with 10 being an excellent contribution) and provide reasons for the ratings.

- **Growth –10.** It created a level of dynamism and flexibility in the environment so FMG could scale up and down as needed. It reduced the level of effort required to manage the environment, which was becoming increasingly difficult due to pressures from BYO and mobility requests.
- **Cost management – 8.** The VDI program wasn't about cost savings. Instead FMG looked at delivering a better service, which subsequently helped reduce costs. In other words, the company took a "better before cheaper" approach.
- **Risk Management – 9.** Because the company is able to deal with BYO and the security implications of this trend.
- **CSR – 2.** FMG did not see a big impact on CSR efforts from the VDI project.
- **Talent Management –9** The VDI solution provided an immediate BYOD capability, which was key to meeting end user expectations.
- **Customer/Client engagement – 9.** Employees are able to be mobile and the activity based working environment has provided flexibility for staff to engage more effectively.
- **Innovation and Productivity – Both 8.** FMG have used the environment to deliver applications to remote geology teams, which had previously struggled with managing their data. Remote access was a big efficiency improver for staff to access apps in the field. The solution essentially allows employees to work the way they want to work.

The Next Steps for Fortescue Metals Group

FMG is now looking to migrate its remote sites that are currently connected by satellite links to the VDI environment to reduce operation costs while maintaining the best possible user experience. The company also intends to centralise its engineering workstations to the data centre for on-demand delivery, pilot XenMobile for mobile device management (MDM), and commence supporting Windows 8.

TRA's Take

The real focus for any VDI project should be on value creation not cost reduction as this FMG case study shows. Tech Research Asia has observed the efforts of many vendors and end user proponents of VDI to link the technology to a better total cost of ownership (TCO) driver for some time. To date, however, the most successful VDI deployments and pilots have been those that have a driver that looks to create value or assists in achieving other goals, especially around BC/DR and securely enabling employees. It is also a must-consider technology for ABW environments and flexible workspaces strategies.

Recommendations

For Technology and Service Buyers:

- 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. FMG's use of VDI is a good example of taking a "better before cheaper" attitude and delivering measurable benefits in the end user environment. The lesson ultimately is that VDI should be considered by those looking to generate value around anywhere, anytime computing or for BC/DR needs – not by those looking to reduce costs.
- 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.

For Technology and Service Providers:

- VDI and all end user computing efforts should ultimately be about generating better outcomes for the organisation. In particular the focus of any deployment should be about assisting the IT department to exceed its clients' (aka the employees) expectations about the technology they use to achieve their goals. An undue focus on TCO is unlikely to deliver value.
- Develop a framework of eminently usable and sharable end user computing metrics that extend beyond basic TCO and ROI calculators. Ensure that these metrics are able to be verified by independent parties and can enable clients to evaluate themselves against their peers

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