Minara Resources Ensures Robust Desktop Performance Regardless of Location—Even in Extremely Hot, Dusty Conditions

Minara Resources needed to provide its workers with the same desktop experience regardless of location, and implement a platform that could support hardware capable of withstanding severe heat and dust. By implementing VMware Horizon View, the mine operator was able to meet this objective while lowering costs, improving availability and reducing its management task.

Headquartered in Perth, Western Australia and founded in 1994, Minara Resources operates the Murrin Murrin nickel and cobalt mine.

The mine is located about 1,000 kilometres from Perth in Western Australia’s north-eastern goldfields. The project involves more than 1,000 employees and contractors, making it one of the largest single-site employers in the state. The mine workforce typically operates on a fly-in, fly-out basis.

Minara Resources is wholly owned by Glencore International, an Anglo-Swiss commodity trading and mining company based in Switzerland.

The Challenge

Minara Resources needed to provide easy access to desktop environments for its workers and managers regardless of location. This was particularly important for the team members that flew back and forth on charter aircraft between the Murrin Murrin mine and Perth.

Since 2004, Minara Resources had used a basic desktop virtualization service, but this was failing to keep up with business requirements. This service required about 20 physical servers to operate, and could not support applications running on legacy versions of the Microsoft Windows operating system.

This forced Minara Resources to run these applications, which included analytical software used by the company’s labs, on separate servers and make them accessible to users through Microsoft Windows Terminal Services.

The service could not provide workers with a standard desktop experience regardless of location; they had to begin work from scratch each time they logged in. The service also took about 12 hours per week of one administrator’s time to maintain properly. This included rebuilding the servers that ran the service after they crashed, which typically happened about once a month.

In addition, workers regularly lost the tokens that enabled them to access the system securely. Replacing these added to the time and expense of running the system.

Minara Resources also needed to reduce the incidence of desktop hardware failures at the mine’s portable cabins, workshops and office buildings. Temperatures at the mine regularly topped 40 degrees celsius, and the heat...
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Ross Dillon, IT Operations Leader, Minara Resources

VMWARE FOOTPRINT
- VMware Horizon View
- VMware vCenter Site Recovery Manager

APPLICATIONS VIRTUALIZED
- Microsoft Office
- Specialist mining applications

PLATFORM
- Samsung NC240 thin clients
- HP blade servers
- NetApp storage system
- Cisco networking
- Microsoft Windows Server 2008, Microsoft Windows 7

VMware case study

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The Solution
To minimise its costs, allow its IT team to focus on business projects and boost overall productivity, Minara Resources reviewed its desktop strategies. The organisation trialled a range of virtualization platforms and settled on VMware Horizon View™. “The VMware® product had a superior feature set and we were particularly impressed with the fact ThinApp allowed us to easily run legacy applications and operating systems concurrently with our more recent systems,” said Ross Dillon, IT Operations Leader at Minara Resources. “We also found the VMware product considerably easier to manage than other desktop virtualization systems.”

Minara Resources’ internal IT team then ran a pilot of the new desktop virtualization system, initially to a group that included 50 remote users. The pilot ran from June to September 2012, and Dillon was extremely happy with the results. “Given our experience with our previous desktop virtualization platform, achieving high levels of internal customer satisfaction was our primary measure of success,” he said. “All the feedback we received from the pilot was very positive, and convinced us to undertake a wider rollout of VMware Horizon View.”

Business Results & Benefits
Implementing the new desktop virtualization system has delivered a range of benefits to Minara Resources, including allowing many of the mine’s managers and workers to access their individual desktop environments from anywhere in the world. About 600 staff use VMware Horizon View, while about 40 team members do so using light, resilient iPads issued by the business. “I have not had one of these tablets broken as yet – some of them aren’t pretty after usage in tough conditions, but they still work,” said Dillon.

The Minara Resources virtual desktops allow users to access a range of corporate applications, including the Microsoft Office suite and Adobe Acrobat. VMware Horizon View with VMware ThinApp also enables the organisation to deliver legacy applications to those users who need them, regardless of the operating system.

The VMware Horizon View environment is also delivering better performance than its predecessor, with users reporting improvements of around 30 per cent. This translates to a better user experience and greater confidence in the organisation’s desktop virtualization platform.

Minara Resources has also reduced the number of servers needed to run desktop virtualization from 20 to six—four for production and two for testing and development. In addition, it has replaced the fat client personal computers with cheaper, yet more robust, zero client terminals. “Overall, we have been able to save about AUD$50,000 in desktop and physical server costs,” said Dillon. “We have also reduced our desktop management time by at least 50 per cent.”

As at late November 2012, none of 30 zero client terminals used to run the View desktops had failed—contrasting starkly with the company’s experience running standard personal computers. Dillon puts this down to the terminals’ lack of moving parts that could succumb quickly to corrosion, dust or heat. Deploying VMware View has also enabled Minara Resources to dispense with Telstra IP WAN connections which cost AUD$2,000 per month.

Improving its desktop capabilities is not the only driver for Minara Resources’ investment in VMware technologies. The organisation is also using VMware vCenter Site Recovery Manager™ to automate disaster recovery for its Windows servers and Oracle E-Business Suite enterprise resource planning system. It is also at the proof-of-concept stage of extending this to its Oracle Hyperion performance management system.

The VMware product has enabled the business to set a recovery point objective of four hours, and a recovery time objective of six hours for some of its most critical systems.