



## KEY HIGHLIGHTS

INDUSTRY: HEALTH



## CHALLENGE

Replace disparate hardware in often hostile environments with a centralized infrastructure delivering high availability and scalability to support sensitive health data

## SOLUTION

VMware virtualization software delivered a flexible, highly available environment able to scale to meet demand

## VMWARE VIRTUAL INFRASTRUCTURE AT WORK

VMware Infrastructure 3 Enterprise, featuring:

- ESX Server
- Virtual Machine Manager

## DEPLOYMENT ENVIRONMENT

- 13 Dell P1955 blade servers featuring 1.6GHz dual core Intel Xeon processors and 16GB RAM
- Dell 4TB storage area network
- Guest operating system: Microsoft Windows XP
- Applications running in virtual machines include: Microsoft Office 2003, medical records and patient recall systems

*"VMware virtualization software has provided us with high availability and dynamic allocation of resources, ensuring critically important health records are managed securely."*

David Murtagh, IT Project Manager  
Aboriginal Medical Service Alliance Northern Territory

## Aboriginal Medical Service Alliance NT

The Aboriginal Medical Service Alliance Northern Territory (AMSANT) is a peak body supporting Aboriginal Community Controlled Health Services (ACCHS). Funded by government and philanthropists, AMSANT provides advocacy and support services to 26 full and associate members and works to improve Aboriginal health.

ACCHS faced a lack of reliable network connectivity in remote areas and extreme environmental conditions such as floods and electrical storms. One AMSANT member had to operate for two weeks without a server after a power surge, while another based in the town of Katherine has at times shifted its hardware to higher ground to avoid floods.

In 2007, AMSANT obtained funding from the Department of Health and Ageing's *Managed Health Network Program* to manage community health services online. Patient data is stored at a managed data center in Sydney and accessed over the Internet by staff at health providers' clinics. "Many Aboriginal Health Services struggle to manage the security and desktop infrastructure required to support complex patient care requirements," said David Murtagh, IT Project Manager, AMSANT. "The Sydney center manages applications and databases using secure, highly available and cost-effective VMware server virtualization technologies."

Beginning in May 2007, a nine-month pilot was run across 100 clinicians, including several Aboriginal health workers. This is scheduled to be extended to nearly 300 clinicians by the end of 2008. Remote area IT systems delivery specialists, Convergence E-Business, conducted key architecture and management tasks for the project and have project managed the implementation. AMSANT has deployed seven virtual machines and expects to grow this to 50 or 60 on 13 blade servers by mid to late 2008.

## Results

- Guaranteed four-hour virtual server restoration, as opposed to the week or longer required to obtain physical hardware
- Cut local infrastructure costs for individual AMSANT members by as much as A\$100,000 in some cases
- Reduced costs exacerbated by events such as power surges and moving servers away from flooded regions
- Facilitated organization-wide access to full e-health records and enhanced AMSANT and ACCHS participation in Australian Government E-Health initiatives