

# Hostworks Turns to Virtualized Infrastructure to Provide Pay-as-you-use Resources to Customers



## HOSTWORKS

*“VMware virtualization has enabled us to deliver a robust, resilient infrastructure to support digital media delivery, adopt a pay-as-you-use utility computing model; and undertake comprehensive reporting.”*

— Adrian Britton  
Head of Product  
Hostworks

### KEY HIGHLIGHTS

#### Results

- Provided a flexible, dynamic infrastructure to support key clients such as Jetstar and SBS
- Enabled customers to access and pay for resources as required
- Shortened customer application test and development times
- Ensured Hostworks could provide detailed reporting
- Enabled ‘single pane of glass’ management of customer infrastructures

## Hostworks

VMware vSphere 4 Enables Hostworks to Deliver an Elastic Computing Model that Supports Peaks and Troughs in Demand

### Hostworks Evaluates Ways of Meeting Customer Demand

Founded in 1999, Hostworks provides web hosting, demand management, high-transaction web sites and video streaming services to more than 70 Australian organizations.

Acquired by Broadcast Australia in March 2008, Hostworks has around 60-80 operational and administration staff, and focuses specifically on providing business-critical online services to some of the region’s most demanding online, enterprise and media organizations. Its customers include ABC, Carsales, Network TEN, ninemsn, Prime, realestate.com.au, Ticketek and Seek.

Hostworks operates from more than four datacenters, including a purpose-built primary facility in Adelaide. To provide services to customers, the business operates several hundred virtual and physical servers. These include Dell, HP and Sun servers linked to storage devices from multiple vendors.

In 2005, Hostworks started evaluating ways of meeting customer demand for a more flexible, cost-effective infrastructure to deliver services. While its physical servers had met business requirements, more advanced infrastructure solutions were becoming available.

“We identified VMware® as a market leader in providing the virtualization hypervisor, while the portfolio of VMware infrastructure products gave us a strong management capability and visibility of services going forward,” said Adrian Britton, Head of Product, Hostworks. “We first went live with the VMware ESX hypervisor in 2005.”

### Regular VMware Upgrades Provide New Functionality

As VMware added new features and functionality to its datacenter virtualization products, Hostworks undertook staged migrations in consultation with customers. As at May 2010, this process was being replicated in a six-month upgrade to VMware vSphere 4.

“Our reasons for migrating to VMware vSphere 4 included the product’s more comprehensive, real-time view of capacity and resource usage, enhanced development and testing functionality, and support for an increased number of hardware configurations,” said Britton.

## MEETING THE CHALLENGE

**Challenge:** Build an infrastructure that could cater to customer demands for more flexible, cost-effective and resilient services

**Solution:** VMware infrastructure virtualization supports a pay-as-you-use model for customer access to computing resources, comprehensive reporting, and high availability

## VMware Supports Hostworks' Utility Computing Model

Hostworks has based its elastic computing model on VMware's ability to allow businesses to deploy resources as required. The hosting provider has removed the need to deploy several physical servers to support a sophisticated online presence. Instead, customers can access computing resources from Hostworks' virtualized infrastructure as and when required. This infrastructure and associated management software cost-effectively supports peaks and troughs in consumer demand. It also reduces the need for capital expenditure and expedites test and development, minimizing the risk involved in deploying new applications.

The resilience and performance of the VMware infrastructure has enabled Hostworks to support a number of complex media websites, including broadcaster SBS's dedicated FIFA World Cup site. The site is expected to lure 1 million unique visitors and 40 million page impressions for the duration of the tournament, which starts on 11 June 2010. Delivering strong performance regardless of load on the site is one of the broadcaster's key aims. SBS' online technical director, Matt Costain, said: "As the biggest sporting event in the world, the World Cup is the most complex undertaking SBS has ever had. We're expecting it to be the largest online event in Australia.

"If the Australian team is successful at this year's World Cup, it will result in an unprecedented load on our website and we intend to give each visitor a consistently high-quality online experience."

Another customer to have outsourced the hosting of critical website components to Hostworks is low-fares airline Jetstar, which attracts more than 100,000 unique visitors to its site each day.

In 2009, the carrier's head of distribution and ecommerce, Jamie Perry, said the Hostworks platform gave the airline the ability to plan for growth. "Through the new Hostworks contract, we are in a virtualized environment," Perry said. "If we need more capacity than we currently have, virtualization means it's a straightforward process to bring it on. Hostworks has the specialists on board to make it happen."

## Responsiveness Trumps that of Physical Infrastructure

By deploying VMware virtualization, Hostworks is able to run multiple virtual machines on a single server. Each virtual machine can run its own operating system and application, ensuring the server's resources are utilized more efficiently. Hostworks can now provision virtual machines in minutes rather than waiting days or weeks to procure new physical hardware. In one recent instance, the hosting provider provisioned up 60 virtual machines across 12 physical servers in two days. Should demand justify it, Hostworks can provision even more virtual servers in a shorter time.

**VMWARE VIRTUAL  
INFRASTRUCTURE AT WORK**

- VMware vSphere 4
- ESX on multiple types and configurations of server hardware linked to several different storage systems
- Applications: Business-critical websites and enterprise applications that experience peaks and troughs in demand and require video and audio streaming capabilities

VMware's management tools have enabled Hostworks to centralize management of the physical and virtual servers it uses to deliver online services to customers. By using 'single pane of glass' management capabilities to monitor the infrastructure components and deploy new virtual machines, administrators can view the status of the entire environment and make adjustments to ensure it is working as efficiently as possible.

The tools can also ensure applications in virtual machines can continue to run regardless of the status of the operating system or underlying hardware configuration. This provides an additional layer of redundancy to businesses that have invested considerable resources in developing and marketing their web presence. Hostworks uses an 'N+' model to ensure at least one physical server remains available in the event that any others within a virtualization cluster fail.

VMware's software allows Hostworks customers to quickly test a range of system configurations, enabling robust quality assurance before a new application is released into production.

Hostworks' investment in these and other automation tools have enabled the business to provide detailed performance reporting to its customers. "This reassures them that the infrastructure is delivering video, audio and complex online applications reliably and quickly," said Britton.

