



KEY HIGHLIGHTS

INDUSTRY: GOVERNMENT


iTComm
SERVICES

CHALLENGE

Reduce the load on a 40kVA UPS nearing capacity, improve low hardware utilization and support the expanded computing needs of a merged organization

SOLUTION

VMware virtualization reduces cooling and power requirements, provides a robust, dynamic platform to support the new Townsville City Council and enhances server CPU utilization

VMWARE VIRTUAL INFRASTRUCTURE AT WORK

VMware Infrastructure 3 Enterprise, featuring:

- ESX Server
- VMotion
- High Availability
- DRS

DEPLOYMENT ENVIRONMENT

- ESX Server running on three IBM System x3755 servers, each featuring four 2.8GHz AMD dual-core Opteron processors and 32GB memory (to be replicated in DR facility)
- Sun StorEdge 9985 SAN (to be replicated in DR facility)
- Guest operating systems: Microsoft Windows 2003, Microsoft Windows 2000
- Applications running in virtual machines include: McAfee ePolicy, MailMarshal email content security, Crystal Reports business intelligence, intranet, print servers, ESRI ArcGIS

"VMware has allowed us to stabilize our data center power requirements and provided a robust, scalable platform to support our merger with Thuringowa City Council."

Stuart McDonald, Service Delivery Coordinator
iTComm Services, Townsville City Council

Townsville City Council

Townsville City Council provides local government services such as planning, parks administration and waste and refuse management to a city of 160,000 in northern Queensland. The council is scheduled to merge with the neighboring Thuringowa City Council and North Queensland Water after local government elections on 15 March 2008 to form a new overarching council.

In late 2006, the council's IT unit, iTComm Services, had to come up with low-cost and innovative options to reduce the strain on the 40 KVA UPS supporting the council's primary data center.

"Townsville is growing at such a rapid rate and placing such demands on our business that the UPS we thought would last five to seven years reached capacity in just two years," said Stuart McDonald, Service Delivery Coordinator, iTComm Services, Townsville City Council. "It would have cost us A\$60,000 to A\$80,000 to replace."

VMware partner Data#3 found 60 of the 100 servers operated by the council could be transitioned to a virtual environment. With Data#3's help, iTComm Services reduced its physical server numbers to 50, with another 40 virtual machines hosted on three IBM System x3755 servers. A large proportion of the remaining 50 physical machines, which run key business management applications, are scheduled for migration under iTComm's four-year asset management program. The applications themselves are also being transitioned in line with iTComm's policy framework. The council will move its intranet to the virtual environment within the next few months.

Results

- Cut server delivery times from 10 days to 30 minutes
- Reduced data center power requirements and retained existing UPS, saving up to A\$80,000 in replacement costs. If virtualization was not an option, the council would have needed to install an 80KVA UPS
- Enabled hardware and ESX operating system to be patched without having to take down any servers
- Replaced 30 physical servers with 30 virtual machines operating on three servers with additional consolidation planned. Server consolidation is currently 13:1, but is expected to reach 20:1
- Improved CPU utilization from an average of 6% to 20% and a roadmap is in place to reach 60-80%
- Eliminated one rack immediately with another one planned to be removed within the next 3 months

VMware, Inc. 3145 Porter Drive Palo Alto CA 94304 USA Tel 650-475-5000 Fax 650-475-5001

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