*"VMware Infrastructure really provides the backbone for the majority of the city's IT infrastructure. By adding VMware vCenter Site Recovery Manager to the mix, we're providing an additional layer of reliability and automation for our mission-critical applications."*

— Alex Musicante
Network Analyst,
City of Pittsburgh

# City of Pittsburgh

Within the City of Pittsburgh local government, the City Information Systems (CIS) department is responsible for supporting more than 3,000 users, ranging from the mayor's office, to the finance department, the police, and emergency response teams, amongst others.

The CIS department had long experienced the benefits of VMware Infrastructure, using it to transform and streamline their IT infrastructure. "We moved our first production system onto VMware Infrastructure without a hitch, and there was no going back," says Alex Musicante, network analyst for City of Pittsburgh. "We've probably migrated more than 80 percent of our systems to the VMware platform, and every new production system is deployed there as well."

This success made it a natural choice to use VMware vCenter Site Recovery Manager to help address the city's disaster recovery and business continuity needs. Site Recovery Manager eliminates complex manual recovery steps and removes the risk and worry from disaster recovery.

"Site Recovery Manager is in place, and the recovery groups and recovery objects have been set up," says Matt Dunlap, a network analyst at City of Pittsburgh. "Our testing of Site Recovery Manager convinced us that Site Recovery Manager 'made the grade' and does a wonderful job of simplifying the recovery process."

## KEY HIGHLIGHTS

**Challenge**

Provide city's IT infrastructure with affordable and reliable disaster recovery capabilities

**Solution**

VMware Infrastructure and VMware vCenter Site Recovery manager reduce the cost and complexity of IT infrastructure and disaster recovery plans, helping to ensure the availability of city services in the event of a disaster.

**VMware at Work**

VMware vCenter Site Recovery Manager

- VMware ESX 3.5
- VMware vCenter Server
- VMware vMotion
- VMware Distributed Resource Scheduler (DRS)
- VMware High Availability (HA)

**Deployment environment**

- HP BL460 blades attached to HP EVA 6000 and HP EVA 6100 SAN
- Guest operating systems: Windows Server 2003, Red Hat
- Virtualized Production Applications: Oracle, domain controllers, web servers, file servers, VPN clients

## Results

- Significant reduction in costs on disaster recovery implementation. "If we had tried to create a similarly comprehensive disaster recovery strategy using physical servers, the price would've been astronomical and the project cost inhibitive for our environment," says Musicante. "And it would have been nowhere near as simple or functional as the VMware solution."
- Reduce disaster recovery times to minutes. "Site Recovery Manager fails over with one click, and it does it fast," says Dunlap. "Without Site Recovery Manager, we'd be facing a much more tedious and time consuming manual process: taking control at the remote site, failing over the LUN, rescanning the VMFS volumes, and manually registering all the virtual machines."
- Increase breadth of disaster recovery coverage. "Since we can fit so many virtual machines onto a single VMware ESX server, we can provide coverage for all our servers," says Musicante. "We don't have to pick and choose which services get slated for disaster recovery, which is a great accomplishment in an era of shrinking city budgets and 'doing more with less.' There's no way we'd be able to provide a comparable level of coverage for physical servers."



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