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Ron Sattan, IT Manager, Hatch Mott MacDonald

Business Profile

Company Name:
Hatch Mott MacDonald

Headquarters:
Millburn, New Jersey

Industry:
Full Service Engineering Firm

Founded:
1936

Business Environment:
• 36 Offices in North America
• Annual sales are estimated at \$343,500,000
• Employs 1,800 people

Vision Solutions Product:
Double-Take® Availability

Critical issue

Data is the most important asset at HMM. As an engineering firm, dependable access to that data—including designs, blueprints and correspondence—plays an integral role in delivering projects on time and within budget. In addition, the company needs to know that its data is safe, in order to comply with various government regulations and self-imposed business practices.

Results

- Full server recovery from a system failure or disaster is immediate.
- Backups for the entire enterprise are centrally managed.
- The risk of data loss has been eliminated.

Technologies

- Double-Take Availability
- Microsoft Windows
- Ultrabac Disaster Recovery Software

Business Challenge

Hatch Mott MacDonald is an award winning full service engineering firm. Its extensive record includes major accomplishments in the fields of transportation, tunnels, water conveyance, wastewater, environmental, gas pipelines, buildings and utilities.

Because of the importance HMM places on access to its data, the company has had a comprehensive protection and backup plan in place for over 15 years. The original solution relied on each local office backing up its own data to tape devices – which worked well when there was less data to protect and fewer locations to be monitored. But eventually, the approach became outdated as the company grew. With 36 offices in North America, the five-person IT staff largely relied on local and often less-technical employees in each office to change tapes. Without proper expertise or accountability to the IT department, human error was a genuine concern.

Even if tape backup was executed flawlessly, recovering data in the event of an emergency was a complicated process. In one situation, a hardware malfunction in the Houston office made the server unusable and required a complete rebuild from the last full backup. Without having IT staff in Houston able to accomplish this task, the server had to be packaged and shipped to one of the company’s main regional offices in Pensacola, Florida. “We were actually fortunate in this case,” said Ron Sattan, HMMs IT Manager in North America. “The Houston server only services a few users, and the IT staff in Pensacola was available over the weekend to complete the job. Still, it took nearly three days.”

In 2004, Hurricane Ivan was the first major disaster to strike a HMM location when it hit Florida and knocked out power to the Pensacola area for days. With Pensacola being a major regional office for HMM, it housed the mail server for multiple offices in the region. As a result of the power being out and the server being down, the entire region was without email. As a temporary solution, HMM reconfigured its network and physically relocated the mail server to the Tallahassee location which was unaffected by the storm.



Although Ivan presented challenges, which the dedicated IT staff was able to overcome, the storm helped Hatch Mott MacDonald realize that its current disaster recovery plan was not sufficient. HMM's IT staff began to reassess their options and develop a more comprehensive plan using the lessons learned from Ivan and other less severe disruptions to service.

Solution

EHMM worked with Dell® and Vision Solutions to create a plan and build a solution to meet their needs by using Double-Take Availability from Vision Solutions. The plan was resilient at many different levels and focused on the creation of a secure centralized backup facility that would house replicated data from all of the company's North American offices. This facility gave HMM the ability to fail over local data or mail servers in case of a disaster at any of the company's North American offices. To handle the large amount of data that would have to be stored at the central location, HMM installed a SAN with enough capacity to store all of the data from the remote servers, and two receiving servers to distribute the Double-Take Availability workload. This provided the necessary redundancy to ensure that if one or more production data servers should fail, the data would be immediately available over the WAN link.

Alternatively, this strategy allowed HMM to restore a server and have it delivered to a location affected by a disaster. At a local level, HMM uses Ultrabac Disaster Recovery software to create "restore images" of each local server that could be used to bring up a failed local server to operational level, and then allow Double-Take Availability to recover any missing data.

Once deployed, the plan was tested in a live setting with users online, and successfully failed over and failed back. "Our test was as real as it gets, and we were able to execute without any disruption to the users that were online," said Sattan. "Double-Take Availability worked flawlessly."

When Hurricane Katrina hit the gulf coast in September 2005, the Mobile, Alabama, office was forced to close for a week, and HMM was ready. The storm displaced workers and would have separated them from the data that they needed to do their jobs, if HMM had not recently updated its disaster recovery plan.

With the new system, users were immediately able to access data at the centralized backup site after their office had closed. From anywhere with an internet connection, employees could log-in through a VPN and access data as if they were working normally from the Mobile office. "If the old plan had been in place, this would have been a much longer and costly process," recalled Sattan. "Without Double-Take Availability, we definitely wouldn't have been as comfortable having to close the Mobile office, and would not have recovered so quickly."



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- ◆ High Availability
- ◆ Disaster Recovery
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