

## Energy company is back to work within an hour.

Restoring DCs is quick and easy with Recovery Manager for AD.

One of Quest's customers is a U.S. energy company with 10,000 employees nationwide. An IT staff of 650 supports an extensive infrastructure with 36 domain controllers (DCs), many virtualized, that run 400 corporate applications and thousands of departmental applications. Windows Server 2008 and Active Directory (AD) play a critical role in the company's IT infrastructure.

That energy company wasn't really in the market for a backup and recovery solution when it acquired Recovery Manager for Active Directory; the tool was simply part of a package of products the company purchased from Quest. But the company was very glad it had the tool when disaster struck, and Recovery Manager saved the day.

### **A SIMPLE TYPO AND A FLAW IN ERROR HANDLING THAT THE INTERFACE FAILS TO CATCH BRINGS DOWN AN ENTIRE AD DOMAIN**

The problem began — as so many AD recovery situations do — with a simple

typo. Early one morning, an IT staff member inadvertently set an invalid bitmask in an IPv6 subnet definition in Microsoft Sites and Services — and the interface allowed the change due to a flaw in its validation and error handling.

As soon as the bitmask change was committed on the DC where it occurred, that DC immediately became nonresponsive. "Within 15 minutes, every one of the 36 domain controllers in the domain was nonresponsive," recalled the principal IT engineer at the energy company. "The domain was effectively down."

### **LOSING AD CAN CRIPPLE A BUSINESS**

The impact on the business was both immediate and severe; IT started receiving phone calls within 10 minutes. "Employees who were logged in to their machines and had active sessions connected to certain server resources were able to remain connected because of cached credentials," said the IT engineer. "But people who tried to connect fresh or who rebooted

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*Principal IT engineer at the energy company*

### **CUSTOMER PROFILE**

<b>Company</b>	Name withheld
<b>Industry</b>	Energy
<b>Country</b>	United States
<b>Employees</b>	10,000

### **CHALLENGE**

An IT staff member at a large U.S. energy company accidentally set an invalid bitmask in an IPv6 subnet definition. That simple mistake and a flaw in error handling that the interface fails to catch brought down the entire domain within 15 minutes.

### **SOLUTION**

The company used Recovery Manager for Active Directory to restore two key DCs, getting the company back up and running within an hour.

### **BENEFITS**

- Enabled restoration of the domain to working condition within an hour, and full restoration of nearly all 36 DCs in the domain overnight
- Averted potentially days or weeks of downtime and millions of dollars in revenue losses
- Enabled everyday restores of accidentally deleted objects in minutes rather than hours
- Delivered peace of mind that restores will be quick, easy and reliable

### **SOLUTIONS AT A GLANCE**

- Microsoft Platform Management

### **PRODUCTS & SERVICES**

#### **SERVICES**

Technical support

#### **SOFTWARE**

Recovery Manager for AD

their PCs were basically dead in the water. They couldn't print, they couldn't get to their file servers and they couldn't run any applications that were authenticated by AD. Nobody could come in through remote access either."

Within an hour, the company had declared the problem a "major incident." Calls to Microsoft were escalated during the day, but failed to solve the problem. At the end of the day, after the customer offices that had been limping along all day had closed, the company decided it needed to restore the entire domain back to the previous day.

### **BACK TO BUSINESS WITHIN AN HOUR**

That's where Recovery Manager for Active Directory came into play. The energy company engineer was able to boot one of the DCs in Directory Services Restore Mode and start the restore. With a Quest support engineer providing guidance by phone, the IT team was able to authoritatively restore the first DC within about 45 minutes. Then, they restored another DC non-authoritatively.

"Less than an hour after we started Recovery Manager, the domain was, for all intents and purposes, back up and running," recalled the energy company engineer. "We might have been experiencing slower performance than normal, but nobody was broken at that point."

By the next morning, most of the remaining 34 DCs had been restored as well. "When employees started coming in and logging in to their PCs that morning, as far as the vast majority of them were concerned, everything was back to normal," noted the IT engineer.

### **NATIVE TOOLS COULD HAVE TAKEN DAYS — OR EVEN WEEKS**

The energy company did have system state backups of its two downtown controllers on tape that they could have used to do a manual authoritative restore. "But a native restore definitely would have taken a lot longer and required a lot more thinking through," explained the IT engineer.

"We would have had to authoritatively restore the first domain controller and then reload every DC from scratch, including the operating system and everything else that needs to go on a DC. Then, we would have had to re-promote each DC and clean up all the metadata out of Active Directory and let it replicate as if it was a brand-new domain controller coming in to the domain. It would have been very, very messy, and we would have been cleaning things up for days, if not weeks, trying to get back to a normal state."

### **A QUICK RESTORE PREVENTS DAYS OF DOWNTIME AND POSSIBLY MILLIONS OF DOLLARS OF LOST REVENUE**

How much would that downtime have cost the energy company compared to the one hour Recovery Manager needed to get them up and running? The IT engineer could not even venture a guess, but estimated that the company's daily revenue is over \$30 million.

### **PEACE OF MIND EVERY DAY**

The energy company values Recovery Manager not just for disaster situations like this; the product gives them confidence that they can restore an object any time it's needed, far faster than would be possible with native tools.

For example, when an employee accidentally deleted all the members of a group, IT staff were able to use Recovery Manager to restore the group object and its membership back to the preceding day in just five minutes. With native tools, the recovery would have taken hours instead of minutes, and might not have resulted in correct group membership.

Knowing that mistakes can be rectified quickly and easily, the engineer says, is the true value of Recovery Manager. "I definitely would recommend the tool to anyone. Recovery Manager gives you peace of mind. You are able to sleep at night because you know that if something gets deleted or something fails, you're going to be able to get it back — and you don't have to worry about how long it's going to take."

### **ABOUT QUEST**

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