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Real challenges, real solutions, technology for the real world



NAVY RESERVE AT-A-GLANCE

Navy Reserve Forces Command (the Reserve Component of the U.S. Navy) encompasses more than 125,000 Reservists.

Business Challenge

Create a business continuity plan that complied with Department of Homeland Security's Federal Preparedness Circular 65, a disaster recovery regulation.

Recovery Solution

Recovery Management

Payoff

When Hurricane Katrina hit, the Reserve was able to failover immediately to its other backup sites without downtime or data loss.

The Navy Reserve Executes a Flawless Recovery

The Navy Reserve's systems house a broad range of tactical, financial, medical, and logistical information related to the activities and deployment of 125,000 reservists. From payroll to training orders to medical data, the Reserve's IT systems are literally the backbone of the organization's strength. And yet when Hurricane Katrina hit and threatened the numerous mission-critical computer systems based in and around New Orleans, the officers in charge weren't worried. They knew the systems could fail over to a carefully planned backup mode without affecting service delivery to the courageous personnel who counted on those resources daily.

BEST FOREWARNED

In order to understand this mindset, you need to go back to 2002, when the Navy Reserve began laying the groundwork for its continuity of operations plan (COOP). This process—part of the Reserve's effort to achieve compliance with Federal Preparedness Circular 65, a disaster recovery regulation created by the Department of Homeland Security—involved several stages: obtaining funding and commitment from the Reserve's leadership, gathering input from dozens of stakeholders, installing recovery servers, and phasing in the offsite replication of system data that had previously been stored using backup tapes. At that time, information replication was established between the initial COOP site at Fort Worth, Texas, and the data center at the Space and Navy Warfare (SPAWAR) Systems Center in New Orleans at the edge of Lake Pontchartrain. In 2003, the Reserve established a system for replicating information among the two New Orleans facilities—SPAWAR and the Navy Reserve Headquarters Data Center—and the Fort Worth site. In addition, the COOP initiative had to accommodate factors ranging from the inclusion of teleworking capabilities for IT staff to integration with the Department of Defense's Secret Internet Protocol Router Network.

"After the system was established, we practiced recovering or switching the COOP site once a quarter," explains Captain Sam Sumwalt, Deputy Chief of Staff - Information Technology. "Each time we ran the procedure, we'd learn something new about how the networks related or how applications could be accessed in some modes but not in others. The most important thing we learned from our experience was that with any disaster recovery system, you must test it, test it again, and then test it yet again."

BATTENED DOWN HATCHES

On Saturday, August 27, 2005, Katrina changed course, putting New Orleans directly in its path. The IT team decided to switch operations from the Navy Reserve Headquarters data center and the center on Lake Pontchartrain to the COOP Site in Fort Worth. The COOP Plan worked flawlessly and the Fort Worth center became the sole site for the Reserve's computer operations. One of the New Orleans data centers was completely destroyed, and while the second didn't receive direct flooding, it had no power or circuit capability. But despite the catastrophic conditions, users of the Reserve's systems saw no evidence of the disaster.

The decision paid huge dividends, especially given the fact that the overall damages sustained because of Katrina topped the \$80 billion mark.

"Once we made the decision to switch the operation to the Fort Worth facility, there was no hesitation. Everyone did exactly what they had to do, and the procedure went flawlessly. Given the environment we were dealing with, if we hadn't been so well prepared, panic could easily have won out," says Sumwalt.

Katrina made landfall on the morning of August 29. Despite the resulting catastrophic conditions, users of the Reserve's systems saw no evidence of the disaster. "We have thousands of users hitting our site 24 hours a day, worldwide," notes Sumwalt. "When the system doesn't work, our help desk calls go through the roof. But because of our work ahead of time, they didn't."



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