Southeast Louisiana Veterans Hospital

QuickView

Organization:
Southeast Louisiana Veterans Hospital

Industry:
Medical

Application:
Image Storage

Integrator:
Hewlett-Packard

Solution:
Plasmon G-Series Library and UDO Archive Appliance

ROI:
> 95% patient data recovery after Katrina

The Southeast Louisiana Veterans Health Care System (formerly the VA Medical Center, New Orleans) and its outpatient clinics located throughout southeast Louisiana are committed to providing high-quality, compassionate and safe health care to the more than 220,000 veterans who live in the 23-parish region served by the Medical Center. The 354-bed acute care facility and its Lindy C. Boggs Transitional Care Unit located in New Orleans were affected by flooding following Hurricane Katrina in August 2005.

Situation

Among the challenges facing New Orleans in the aftermath of Hurricane Katrina was the significant destruction and disruption of health care services. Hurricane Katrina, which made landfall near the Louisiana-Mississippi border on the morning of August 29, 2005, and the subsequent flooding caused by the failure of the New Orleans levee system, resulted in one of the largest natural disasters to hit the United States.

Plasmon UDO stands up to Category 5 Hurricane, when other storage technologies fail.

Among other things, the hurricane resulted in the sudden closure of several hospitals, including the Southeast Louisiana Veterans Health Care System (formerly known as the VA Medical Center, New Orleans) and its outpatient clinics, which suffered extensive damage. The hospital provided health care to the more than 220,000 veterans who live in the 23-parish region served by the Medical Center. The closure of this hospital severely damaged the availability of health services for veterans in the New Orleans area. Loss of its 206 beds, its doctors and its services impacts the overall healthcare infrastructure of New Orleans as well.

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>
> **Kenneth Allen**
> Health Systems Specialist
> South Central Health Care

Business Challenge

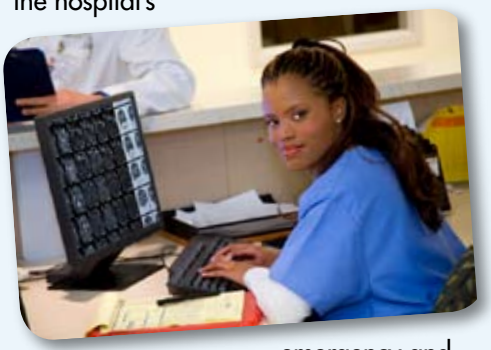
"This has been a year-long process that began with trying to determine the technical status of the hospital," said Kenneth Allen, Systems Specialist. "We had to determine what information was retrievable among the absolute chaos of the first week after Katrina," said Allen.

As a result of the flooding caused by Katrina, all medical records from the hospital were destroyed or severely damaged. The only recoverable data found was stored on optical disks from Plasmon, DISC and Phillips and stored in the empty hull of the New Orleans hospital. While the optical disks were not immediately exposed to flood waters, the high humidity from stagnant waters two floors below caused significant concern over the reliability of the optical disks containing sensitive patient data.

The goal for Kenneth Allen, health systems specialist for South Central Health Care System, and for his team, was to recover as much data as possible and to develop a new disaster recovery plan that would prevent a catastrophe of this magnitude in the future.

The hospital's medical-records storage area was composed of a SAN with two clustered servers, five image Gateway servers, a RAID system and a Plasmon G638 archive library. This equipment was housed on the second floor of the main hospital building and was the main SAN that stored all patient records.

Once on-site, the hospital recovery team discovered that water had entered the basement of the building, knocking out all utilities — electrical, plumbing, and communications — and straining the hospital's



emergency and non-emergency systems. After the system safeguarding the computer network exhausted its battery power, the electronic medical patient records also became unusable. The backup power had only lasted a few hours and with the entire area's communication and transportation in disarray the medical center's IT staff could neither access nor drive to the hospital to perform a safe shutdown of the system.

Moreover, the extensive RAID disk drives of the SAN and the servers had been physically removed in an effort to prevent the theft of sensitive patient records. Due to building damage, on-site security had broken into the computer room and had physically removed the RAID drives from the room. Unfortunately, driven by haste, they pulled the discs from the drives and put them into unmarked boxes that no one was ever able to find. All the RAID data was lost.

"Had the RAID drives remained in place, and if power and network connectivity had been quickly restored, then this tragedy wouldn't have been so bad," said Kenneth Allen. "However, with the loss of the RAID drives, the lack of a complete series of backup tapes and the uncertainty of reliable utilities, normal 'disaster recovery' plans would have been futile."

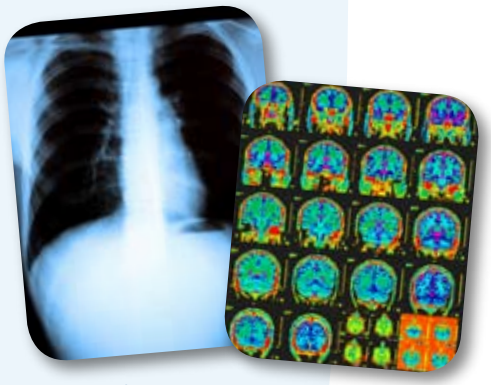
Solution

Allen and his team retrieved the optical disks with the stored patient records and images, including media from the Plasmon library for recovery efforts. The team brought the 1100 disks, which represented approximately 6.2 terabytes of data, to its facility in North Little Rock, Arkansas for recovery. There they built a new SAN exclusively for the purpose of recovering patient data.

"The media had been exposed to extremely high temperatures and humidity from brackish standing water, they were covered in debris and dust for more than a month," said Allen. "We were able to recover all of the patient images off of the Plasmon libraries. We had just started to migrate to ultra density optical (UDO) for an archive solution when the hurricane hit. We are now primarily using the Plasmon Archive Appliance for its long-erm recoverability."

This was a community effort with many commercial companies pitching in to help without asking for anything in return. Generous work to clean, reload and restore as many disks as possible was undertaken by Sony, Plasmon, Kodak and EMC.

Although the New Orleans hospital building itself is no longer available for patient care, Veterans continue to receive some diagnostic services from a myriad of outpatient clinics in the surrounding area. Clinicians working in these outpatient clinics have been able to access restored patient data since February of 2006 through the VA's VistA Remote Image View process. There are plans to build a new hospital in the New Orleans area, and when it is opened for patient use, patient records, past, present and future will await the hospital staff to continue to fulfill the VA's pledge to "Serve Those Who Have Served."



A year after the tragedy, the Southeast Louisiana Veterans Health Care System has restored 99.5% of its pre-Katrina patient data.

"Our disaster recovery plan for the hospital was backup tape and RAID," said Allen. "The backup tapes were never found in the debris and the RAID System was lost. When people start thinking about disaster recovery plans, they need to determine the levels of disaster and then think about the solution. Since this disaster, we have begun a migration to Plasmon's archive appliance solution to meet our policies and regulations for record retention."

Plasmon offers the only enterprise-class active archive solution that ensures data permanence, authenticity, access, longevity, and removability, at the low total cost of ownership that businesses demand. The no-compromise archive solution.

Plasmon is ISO 9001 certified.

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