



Mission-critical installations like the Antelope Valley Hospital (AVH) system demand server availability, data accessibility, data protection, and disaster tolerance. AVH receives that kind of 24/7 functionality by relying on NSI® Software. NSI Software's award-winning Double-Take® successfully and cost-effectively addresses AVH's concerns about data availability and protection, saving the hospital hundreds of thousands of dollars. Double-Take asynchronously replicates data and applications with no delays and no inconvenience to the users. The net result is improved patient care and an improved bottom line.

NSI Software Protects Antelope Valley Hospital

What if a hospital's computer systems were down? Would three procedures be scheduled simultaneously for the same room? Would vital patient history fail to reach caregivers in time to save lives? In health care, system failure is unthinkable.

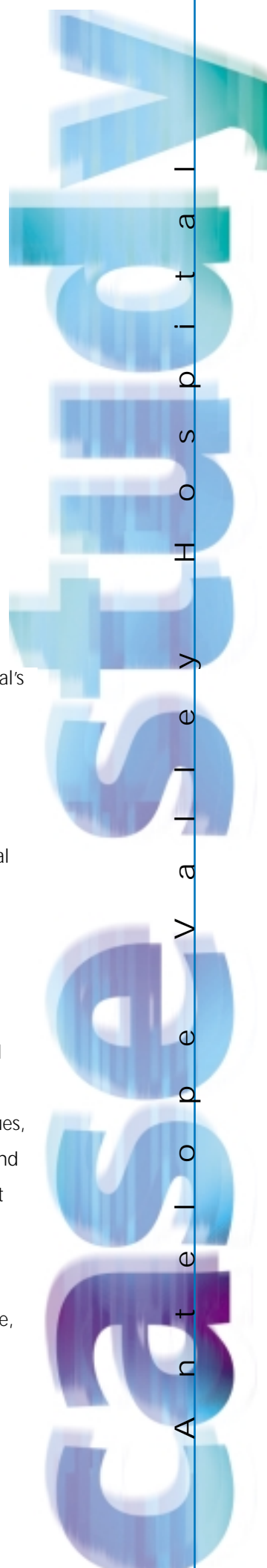
For forty years, community-owned Antelope Valley Hospital has delivered superior acute care and outpatient services to a progressively growing population, now about 300,000 people. With \$150 million in annual revenues, AVH now serves the district with a round-the-clock, 355 bed facility and 9 satellite clinics throughout Antelope Valley. The hospital continues to meet mounting demand in spite of the steadily reduced funding that characterizes the health care industry.

To continue providing the service that has become their hallmark, AVH depends on readily available, accurate information. To guarantee that information is available without fail and cost-effectively, AVH relies on NSI Software.

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NSI Software Case Study

Antelope Valley Hospital

Antelope Valley Hospital
case study

"NSI mastered our strengths, our weaknesses, and articulated our business needs to deliver a cost effective solution in a timely manner. Any other company might have taken another twelve months to implement effectively."

About NSI

NSI Software, together with its partners, delivers award-winning, best-in-class business continuity solutions for enterprise customers deploying business critical applications. NSI's patented technologies reduce downtime, protect data and applications, and keep businesses running across geographically dispersed networks.

Improving the Patient Experience with Technology

Information Systems is the communications lifeline that enables critical aspects of hospital operations, from patient scheduling to email to specialist consultations. Ever-mindful of tightening purse strings, AVH Director of Information Systems Ash Shehata undertook changes to maximize the benefits of technology in rendering services to the hospital community.

"The overarching goal was to deliver better patient care," said Mr. Shehata, "and to do that within budget constraints. We needed to stabilize the environment and enable end-users to place their focus on patients." Streamlining processes, facilitating communication, and assuring access were critical factors for reaching that goal while reducing the cost of health care delivery.

Antelope Valley Hospital Information Systems deployed a scalable computing platform designed around the integrated Microsoft BackOffice Server product and the BackOffice family. Since beginning their shift to state-of-the-art technology, AVH went from 30 to 100 servers, supporting 2000 employees

including over eight hundred clinical staff and nearly four hundred physicians with staff privileges.

The hospital improved productivity by computerizing forms and putting documents online for faster processing and access. Improved technology enhanced collaborative capabilities and facilitated use of critical medical applications. For failover capabilities to meet growing and constant needs, Double-Take gives the hospital the high availability and unparalleled disaster tolerance.

Choosing NSI for Service and Business Benefit

The criteria for choosing disaster recovery software were simple. "We wanted a company that would enable us to replicate data in a fault tolerant environment without forcing us to hire consultants that would break the bank," Mr. Shehata said.

Antelope Valley Hospital's Information Systems presented an extremely complicated shop with a vast network in place, and stringent guidelines. The challenge for NSI was to master it all and implement Double-Take effectively. They met that challenge. NSI was able to understand AVH's business needs and effectively meet them, giving the hospital disaster recovery in a mission critical environment without a second server.

"Supportability was critical," Mr. Shehata said. "We wanted a software vendor that had their act together, that could work through the implementation with us, and NSI did just that."

The Benefits of Double-Take

The hospital has to be assured of server availability, data accessibility, data protection and high-level performance. "Double-Take allows us to operate in a mission-critical environment, getting high availability and redundancy while saving costs," said Mr. Shehata.

case study

Antelope Valley Hospital

Double-Take replication assures complete data integrity at all times. Asynchronous replication allows AVH primary servers to operate at full capacity, copying data in the background, with no obvious affect that the users can perceive. Most important, Double-Take gives AVH superior disaster recovery. In the case of a system failure, operations can resume with no lost data, no delays, and no down time, and, most important, no impact on patient care.

"We had no disaster recovery capability before Double-Take," said Mr. Shehata. "The best we could have hoped for was that back up would have us covered in case of failure. With Double-Take we can get data at point of failure."

Results: Protection, Productivity, and an Improved Patient Experience

Double-Take helped the hospital save hundreds of thousands of dollars while protecting fifty 72-gigabyte drives in a RAID 5 configuration. "We don't have to duplicate hardware because we have a superior software solution," said Mr. Shehata. Double-Take gave AVH flexibility, high availability, redundancy, and saved money.

NSI has brought additional benefits to AVH. In addition to NSI's Double-Take, AVH also uses Balance™ Suite which provides increased fault tolerance and

improved server access to data by allowing multiple Network Interface Cards (NICs) to serve as a virtual single NIC with increased bandwidth and fault tolerance.

We saved nearly half a million dollars with improved technology and Double-Take is responsible for more than 60% of that savings.

The shift to cutting-edge technology made Antelope Valley Hospital one of the most technologically advanced institutions of its kind, bringing them superior productivity and elevating patient care. Double-Take brought the hospital cost-efficient assurance of unfailing access to mission-critical applications, fault tolerance, and disaster recovery.

"We value our relationship with NSI," said Mr. Shehata. "We are excited about the product lines and their ability to come to the table with solutions."

THE BENEFITS THAT AVH GETS FROM Double-Take

- High Availability for mission-critical environment
- Protects file and directory access
- Assures application integration even if hardware or network fails
- Double-Take interoperability enables AVH to continue to take advantage of legacy systems
- Highly scalable
- Improved productivity
- Superior patient service

Double-Take Features & Benefits

High Availability

- Windows NT, Solaris Servers and Failover
- Virtually any application including Exchange, SQL Server and Oracle

Disaster Recovery

- Off-Site/Cross-Site
- Long Distance, WAN speeds
- Shared Bandwidth

Backup Enhancement

- Use existing backup software
- Solves Zero Backup Window
- Serverless, Open-file back-up
- Centralized and continuous

Web Content Replication

- Distributed intranet servers
- Web Servers in IP Balanced Server Farm

Data Distribution

- One to many "fanout"
- Hundreds to thousands of servers

Platform Migration

- Mirror "live" data to new OS version, server or storage hardware
- Consolidation or Relocation
- Fast Failover/Switchover

Change Management

- Test changes on target server
- Software upgrades
- Hardware upgrades

System Requirements

Double-Take requires Windows NT 3.51 or 4.0 Server or Workstation, Terminal Server or Enterprise Edition; Windows 2000 Professional, Advanced or DataCenter Server; or Solaris 2.5.1, 2.6, 7, or 8.

Double-Take Management Console requires Windows 98, Windows NT 4.0, or Windows 2000. As part of the Double-Take Management Framework, NSI Software's GeoCluster™ product complements and extends Microsoft's "shared disk" local cluster solution. It provides geographic protection, along with replication functions, for MS Cluster Service.

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