



"There is no point buying the right systems and scanning in patient records if the clinicians can't easily access those records when they need to. We didn't want to do a lot of training. We wanted systems that worked for the IT staff, but also worked easily for our clinicians."

David W. Andersen, Information Systems Manager, Arapahoe House

Business Profile

Company Name:
Arapahoe House

Headquarters:
Thornton, Colorado

Industry:
Rehabilitation

Founded:
1975

Business Environment:

- Colorado's largest nonprofit, community based rehabilitation and detoxification center.
- Operates 14 facilities and operates in Colorado public schools.
- Serves more than 21,000 individuals annually.
- 400 people have access to their software applications and data.

Vision Solutions Product:
Double-Take® Availability

Implementation:
Vision Solutions

Critical issue

Arapahoe House needed to be able to electronically share client history information between 14 facilities and also comply with HIPAA regulations relating to security and recoverability. All of these objectives had to be achieved with limited resources.

Results

- Eased the transition from paper based records to electronic records.
- Client records and other sensitive information can be recovered in minutes, if not seconds.
- Facilitated full compliance with HIPAA guidelines for security and recoverability.
- Achieved their objectives with limited funding.

Technologies

- Double-Take Availability
- Microsoft Windows
- MS SQL Server
- Microsoft Exchange Server
- LibertyNet IMS electronic imaging and document management
- 25 servers

Business Challenge

Arapahoe House administrators needed to streamline processes between the agency's 14 facilities. The agency created and maintained paper records on each of its clients and programs. However, many times clients were either moved or readmitted into another Arapahoe House facility, creating the need for record sharing. Unfortunately, there was no efficient way for facilities to transfer existing records, ultimately doubling the time and paperwork involved in readmitting a client.

At the time, each individual facility used a low speed circuit to access the Internet, but these connections proved unreliable. Furthermore, newly enacted HIPAA regulations required all healthcare organizations to guarantee the confidentiality and recoverability of all electronic health information.

Realizing the need to connect the agency's multiple facilities, along with meeting government regulatory requirements, administrators decided to convert all client records and paper documents to an electronic system. The ultimate goal was to have every client's record available on this electronic system so employees at any of the 14 facilities could use keywords to pull up all past and present clients' histories.

Making a transition from paper to electronic records posed a major problem for the IT staff: How would the agency make sure records were protected in the event of a system failure? The non-profit agency faced several challenges: It needed a more reliable network system; It needed a highly-available solution to protect its sensitive electronic records; and it needed to carry out this large-scale project on a small budget.



Solution

Initially, the Arapahoe House IT team replaced the existing low speed circuits with a wide area network (WAN) using a Qwest DS3 link at the main location in Thornton, with DS1s connecting to each of the 13 remote sites. Next, they deployed a new electronic imaging and document management system from LibertyNet IMS, creating the basis for “paperless” operations.

After the network and electronic systems were in place, the team had to decide how to backup and protect the agency’s electronic information. At the time, Arapahoe House’s only backup method was saving data on LTO magnetic storage tapes, which failed to address the issues of real-time backup and recovery.

Administrators began looking at failover solutions, including Double-Take Availability from Vision Solutions, plus another alternative. Comparing the two products, they found the alternative product was too expensive and would not support a many-to-one failover. Double-Take Availability, on the other hand, proved to be an affordable solution for Arapahoe House. It provided a many-to-one failover and also offered other synchronization and replication capabilities that the organization wanted.

As part of Vision Solutions’ Professional Services program, a certified engineer visited the agency’s main site in Thornton to set up a new server environment and install Double-Take Availability on each of the servers.

Arapahoe House’s existing server environment contained two Microsoft SQL servers, a Microsoft Exchange Mail Server and a Dell file server. Two additional Dell 4600 PowerEdge servers were on hand but not in use. The IT team had recently replaced these two servers and couldn’t find another use for them. Instead of having to throw out these perfectly functional servers, the vendor’s service professional incorporated them into the agency’s new server backup environment as remote target servers. They were placed at the remote backup site and were used to store replicated information from the source servers.

After mapping out the servers and locations, the vendor’s onsite professional helped the agency’s IT staff install and configure Double-Take Availability on each server. The Microsoft Exchange Mail Server, located in Thornton, was set up as a one-to-one failover, linking to one of the target servers at the remote site. The Microsoft SQL servers and Dell file server were set up as a many-to-one failover, with all three servers linking to the second target server at the remote site.

To test the system, they took the source servers down one at a time and tested the system’s ability to failover to the target servers at the remote site. Double-Take Availability successfully backed up and recovered the system data to the remote servers, making the IT team confident in moving forward with transferring paper documents to the new electronic record system.

Double-Take Availability proved to be an extremely reliable and cost-effective solution. It now provides data replication and failover capabilities to Arapahoe House’s remote servers; in the event of a system failure or natural disaster, client records and other sensitive information can be recovered in minutes, if not seconds.



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 High Availability
  Disaster Recovery
  Systems and Data Management
 