



*"The most important benefit is that we have near-instant replication, allowing us to accommodate the exceptionally small downtime window we have for one of our most important apps."*

*— Alan Siu, Director of Information Technology*

## Business Profile

Company Name:  
FutureCare Health and Management Corporation

Headquarters:  
Pasadena, Maryland, USA

Industry:  
Healthcare

Business Environment:

- Operates nursing and rehabilitation centers across the Baltimore and Washington area
- Founded: 1986
- Employees: More than 2,500
- 12 facilities in four locations

Implementation Team:  
FutureCare and Goldstar Software

## Critical Issue

Patient outcomes at FutureCare depend on ready access to electronic health records (EHR). In addition, regulations require that healthcare providers take steps to protect the availability of EHR data and systems. Therefore, FutureCare needs a way to protect its data and applications from downtime due to any cause, including hardware failures, disk crashes and lengthy system maintenance.

## Results

- Near real-time replication.
- Allows for reliable testing of the backup server.
- Minimal day-to-day administration.
- Emails alerts of critical events.
- Provides peace of mind.

## Technologies

Software:

- Double-Take Availability
- Windows Server 2008
- Answers on Demand (AOD Software)
- Pervasive databases

Hardware:

- 2 x Dell PowerEdge R710 (primary and backup)

## Business Challenge

FutureCare uses Answers on Demand, an integrated healthcare application, to manage its EHR and other functions. Answers on Demand runs on a Pervasive database. Pervasive does not include built-in replication functionality. Consequently, FutureCare lacked the ability to protect all of its data in real-time.

Backup tapes are one option for protecting data, but not nearly an adequate one. Backups are typically created nightly, meaning that data added or changed during the day are not on the previous night's backup. What's more, recovering from backup media would take FutureCare three to five hours, assuming an operational server was available. FutureCare—and all healthcare facilities—cannot afford that much downtime.

Even database replication would, alone, still not be sufficient. Replication of this type copies only data. It does not maintain a fully configured, standby server with all of the applications in place and ready to assume responsibility for production operations if necessary.

To ensure the uptime of the systems and data supporting its healthcare services, particularly as it moves to a totally electronic health-records environment, FutureCare needs a high availability (HA) solution that will allow it to continue operations if its primary server becomes unavailable or its database crashes.



## Solution

FutureCare relied on Goldstar Software, experts in Pervasive databases, to recommend the best HA solution to meet its needs. The answer was Double-Take Availability.

Double-Take Availability now replicates the data and applications on FutureCare's primary server to a backup server in near real-time. Because Double-Take Availability is database-independent, it works perfectly with Answers on Demand's Pervasive database.

In the past, recovering a server from backup media would have taken at least three to five hours. Now, if the primary server becomes unavailable, FutureCare will be able to switch users quickly to the hot-standby replica server. Because most—and in the future all—health records are stored and accessed electronically, this elimination of downtime is invaluable.

Even during busy times, there is little lag between the primary and backup servers. FutureCare monitored the replication queues and found that there was never more than two minutes' worth of data in them.

The implementation of Double-Take Availability was fast and easy. The software was installed and replication began within an hour of starting the installation. By the end of the day, the backup server contained a complete replica of the primary server, without any disruption of operations during the replication process.

By far, the greatest benefit that FutureCare receives is the peace of mind that comes from knowing that its data and applications will always be available.

Another important benefit is that Double-Take Availability gives FutureCare the ability to fully test its HA capabilities. In the past, when system recovery depended primarily on offline backup media, this was, to say the least, difficult. That's no longer a problem.

"We can now properly perform a test," said Alan Siu, Director of Information Technology. "Now that I have a complete replicated server, I can pause Double-Take at any time, test my backup server, and feel 100 percent confident that my backups are running. I don't just trust the log to tell me it's working. I can see with my eyes that it's working. This allows us to confidently tell upper-management that we're well protected."

Siu also appreciates that Double-Take Availability utilizes the Microsoft PowerShell scripting language. This gives Siu the option of extending the already extensive administration and monitoring functions of the software.

When asked about the value FutureCare receives from Double-Take Availability, Siu added, "It's a great value in terms of how much we can get out of it versus how much it cost us, but it's like asking people what's the value of the Grand Canyon. It's there. It's big. That's the value."



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