



Hospital cures slow backups and keeps data available for business and patient care

Restores that took hours now take minutes and disaster recovery is a snap with Dell AppAssure, with a 122 percent ROI on the switch Dell AppAssure, with payback in ten months.

Customer profile



Company	Benewah Community Hospital
Industry	Healthcare
Country	United States
Employees	180
Website	www.bchmed.org

Business need

Benewah Community Hospital's small IT staff was struggling with 18-hour tape backups, cumbersome restores, and an uncertain DR process. They wanted to modernize with an affordable solution that would save them disk space through deduplication. With limited resources for new servers, they required a solution that offered bare-metal restore.

Solution

With a Dell AppAssure, the hospital now automatically backs up everything from servers to cash registers on a schedule they've customized. Data is always current and restores take minutes, not hours.

Benefits

- Daily 18-hour manual backups eliminated
- \$14,000 per year cost savings in IT operating costs alone
- Restores in minutes, not hours
- 122% ROI in 10 months



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- Brad Gardner, Information Systems Manager

Benewah Community Hospital (BCH) serves a rural community in St. Maries, Idaho and surrounding counties. A 19-bed critical-access facility, BCH offers a full range of diagnostic and therapeutic services, including 24/7 emergency room, trauma, and cardiac care. With the closest hospital to BCH over an hour's drive away, the ready availability of medical data on site is crucial to prompt, high-quality patient care.

"The key to the whole thing is ease of use. With Dell AppAssure, you can customize how many backups you want, how often."

*Brad Gardner,
Information Systems Manager*

Customer care starts at the IT level," says Brad Gardner, Information Systems Manager at BCH. "It's a broad span of needs, from a patient being able to use his Kindle, to a radiologist being able to read MRIs and CT scans."

BCH shares data with four other area hospitals, improving patient access to care in a four-county region. "The can see all the records, and it's all current," says Gardner; it's a vital safety net, because a small facility like BCH does not have after-hours specialists in every area of practice.

"Our images are hosted offsite," Gardner explains. "We do have a server here if the doctors need to read them instantly, but since we're so small, we don't have a radiologist here after hours." Under these circumstances, BCH pushes the images to a medical facility in Kootenai County, where a radiologist reads the images and sends a report back to the BCH doctors. "If the images can't be pushed, it's a big problem," says Gardner.

When medical images can't move, the patient must move. In one instance, a victim of a trauma had to be flown by medevac from BCH to another facility after the wireless connection between the hospitals failed.

"Everything rides on IT," says Gardner. "It's paramount to our day-to-day operations, and if you take out one piece, the whole system fails."

Pain management

One 'piece' of IT that has caused Gardner and his small staff pain on a daily basis has been backing up the BCH's growing data. In the eight years Gardner has been at the helm, BCH has grown from 8 to 15 servers. These were backed up to tape nightly starting at 6 p.m.—until the amount of data to back up grew to the point that it spanned tapes.

Now, they were backing up night and day. At midnight, the first tape would be full, with no one there to change it. The next morning at eight, IT staff would arrive at work and swap the tape, and backups would continue all day, lasting up to 18 hours. Managing the backups consumed one to two hours of staff time per day. It was a cumbersome process with a negative impact on service.

Technology at work

Hardware

Dell PowerEdge™ 6800 server

Dell PowerEdge SC1430

Software

Dell AppAssure®

Microsoft Exchange Server

Microsoft SQL Server®

VMware®

Microsoft Windows Server® 2008



Banking on uptime

For archiving and disaster recovery, BCH kept tapes in a safety deposit box in a local bank. As their data grew, this practice became less and less efficient. Recovery, says Gardner, was a “nightmare. If somebody lost a Word doc, it might take an hour or two to get the right tape. Go to the bank, get it out of the box—it was just horrible. We had to tell our employees, ‘Look, make sure you don’t delete anything unless you’re absolutely sure you don’t need it.’”

The BCH IT team calculated that it would take two days to recover from a major outage—if they could do so at all; they had no ability to test their backups. The worst never happened, but the worries over it caused a great deal of stress for Gardner and his small team.

“Having a critical failure would affect everyone and drastically reduce the quality of care we could provide,” he says. “It’s hard to think that the IT department could influence how health care is provided and even save lives. That’s why 100 percent uptime on all critical systems is a must.”

Health plan

Having lost faith in the existing backup procedures, Gardner investigated different tape solutions including robotic tape libraries, but found that the costs of these solutions outweighed the benefits. He began searching for a solution with deduplication software functionality that could save him disk space.

Another requirement Gardner had in mind was the capability for bare-metal restore. “We’re a small hospital,” he said, “and we don’t have a lot of money. If you can restore to a server that you have, even though it’s not the latest and the greatest, it will get you up and running.”

Dell AppAssure was the clear winner.

Critical care

Gardner is now able to back up everything at BCH, from laptops to desktops to the hospital’s cash registers. With AppAssure, IT takes daily snapshots of its test server and Internet server, and snaps its SQL servers and a file server every four hours. “When people come to me now, usually we can get their data back within minutes,” says Gardner. “You just go back through the snapshots and find it.” A vast improvement over a process that formerly took an hour or more, and often involved a trip to the bank.

“It’s nice to know that my snapshot takes just seconds, and you know it’s up to date. The key to the whole thing is ease of use. You can customize how many backups you want, how often. To me it makes sense.”

In a test environment, Gardner has performed a bare-metal restore in as little as four hours. And that growing data? BCH is seeing a 45% average compression rate across 3 repositories.

Peace of mind

For DR, BCH is now replicating data to servers on different floors in its facility. A SAN connecting BCH with Kootenai Medical Center is in the works, with plans to replicate the data between facilities using AppAssure. Other future projects include upgrading BCH’s VMware infrastructure, and maintaining a warm standby server. AppAssure is there all the way, and saving BCH needed dollars.

In its current implementation of AppAssure, BCH will save an estimated \$14,000 per year in IT operating costs—testing and validation, restores, and time spent managing offsite tape. Their IT staff is freed to work on other projects. “We no longer have to babysit tape backups and we do not have to worry about the speed at which backups are being performed,” says Gardner. “And if you have to go to a

backup, it’s quick and easy; no sorting of tapes, and the data is always current. It’s an IT person’s dream.”

Gardner estimates that, under their former, tape-based solution, a data outage or failure would have caused a 75% loss of productivity for the BCH employees it impacted. AppAssure virtually eliminates lost productivity due to downtime. Over a year’s time, the potential dollar savings for BCH range from the low thousands for file or folder restores, to \$60,000 and higher for restoring data volumes or recovering from database or site outages.

BCH has achieved a 122 percent ROI on the switch from tape backup systems to Dell AppAssure, with payback in ten months. But the overriding value of the new solution is peace of mind. “I don’t worry about it at night,” says Gardner. “I come in, log in, make sure all is good, and then go about my day.”

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