



"Vision's EchoStream and EchoCluster are exactly what we needed. They gave us all of the features and functions we wanted. And the fact that I was able to install them myself ... it just blows me away how simple it was. All of the other products we looked were much more complicated and expensive."

Ryan Johns, network engineer, Skagit County Government

Business Profile

Company Name:
Skagit County Government

Headquarters:
Mount Vernon, Washington, USA

Industry:
Government

Business Size:
Skagit County, in the northwest portion of Washington State, covers approximately one million acres and is home to about 117,500 people. The county's public safety system supports approximately 400 users. The system serves all of the county's law enforcement agencies, including the 911 center and the jail.

Business Environment:

- County government.
- The public safety system must be available 24x7.
- The county's mission is to be recognized as a premier county in Washington State for providing professional leadership, operational excellence, timely assistance, and maximum efficiency in service delivery to its customers.

Implementation Team:
Mainline Information Systems and Skagit County Government's Department of Information Services

Vision Solutions Products:

- EchoStream
- EchoCluster

Critical Issue

Skagit County uses public safety software from Spillman Technologies, Inc. Needless to say, the continuous availability of that software and its supporting database is critical. So far, the county has not suffered any major data losses, but its public safety system incurred a couple of days of downtime a few years ago. That downtime spurred the county to look for an affordable, full-featured high availability solution.

Results

- The public safety system and its data are replicated in near real-time to a second system, thereby virtually eliminating the threat of downtime.
- Replication is seamless and requires no user or operator intervention.
- Data backups and data dumps are now run on the replica system, thereby reducing the load on the production system.
- In addition to providing continuous availability, EchoStream gives the county the ability to recover individual files to any point in time when necessary.
- EchoStream and EchoCluster require almost no day-to-day management. The software coordinator checks to ensure that the processes are running, but no other ongoing management is required.
- Installation was simple.

Technologies

- Vision Solutions EchoStream and EchoCluster
- Spillman Technologies' Spillman Public Safety System
- IBM Power 550 (8204) – primary
- IBM Power 520 (8203) – backup

Business Challenge

Skagit County's previous exposure to a serious downtime event led it to search for a high availability solution that would help to ensure that system downtime remained a thing of the past.

The county's data backup procedures presented another challenge that the county wanted to overcome. Because backup jobs had to be run on the production system, application performance on that system suffered when the jobs were executing.

The county had been running Spillman public safety software under HP/UX®. However, when it came time to upgrade its hardware and the Spillman software, the county decided to also review the platform it was using. The Spillman software made this possible because it runs under a number of versions of UNIX®, including AIX® and Solaris®, in addition to HP/UX.

Coincident with the hardware and software upgrade, the county evaluated alternatives that would provide high availability for its public safety system. The county looked at a number of options, but most of them involved UNIX clustering, which was a considerably more complex technology than the county wanted.

Mainline Information Systems, Skagit County's information technology supplier, suggested a better alternative: EchoStream and EchoCluster from Vision Solutions. The choice of EchoStream and EchoCluster, which runs on AIX, was one element in the county's decision to switch to the AIX operating system and IBM hardware.



Solution

Vision's solution combines EchoStream™ for AIX and EchoCluster™ for AIX. EchoStream maintains near real-time replicas of primary AIX servers and EchoCluster allows for immediate, automated failover to those local or remote replicas whenever necessary.

In addition, EchoStream's RightTime CDP™ is a true continuous data protection (CDP) solution that delivers nearly instantaneous recovery of applications and data at the push of a button. Unlike traditional backup solutions, it enables the recovery of data from any point in time, easily and rapidly.

The county contracted Mainline to install EchoStream and EchoCluster on the new IBM hardware but, according to Ryan Johns, network engineer at the Skagit County Government, the installation process was simple.

"After Mainline left, I messed it up," said Johns. "So I thought I'd install it again myself. Based on just the couple of days I spent with Mainline I was able to install and configure EchoStream and EchoCluster myself. I was surprised at how easy it was."

In addition to the peace of mind gained by having a fully redundant server and rapid failover capabilities for its public safety system, the county has realized a number of other benefits. For example, EchoStream's RightTime CDP capabilities allow files to be recovered to any point in time, not just to their current state or to the previous night's backup.

In addition, because the backup system now contains an up-to-date replica of production data, the county is able to create its backup tapes using the replica system, thereby removing the processing load from the production system. This is a significant benefit because even on the county's new, faster hardware, backup jobs place a heavy load on the database and those jobs still run for about two to three hours.

Backup processing isn't the only load that has been shifted off of the production system. The county regularly dumps considerable data to send to other law enforcement agencies, such as the FBI. Those data dumps are now performed on the backup system.

"Increases in the performance on our production server [by offloading some processing to the backup system] is a side-benefit that we hadn't considered before," reported Johns.

EchoStream's TimeView™ feature gives us the ability to create read/write snapshots of production data which has also made testing easier for the county. "Anytime we want, we can have a current, 100 percent full TimeView of our live database. We can then go in there, test it, play with it, make changes, try things, do anything we want and then ... boom ... we can make the TimeView go away; no harm, no foul. So we can test our software without affecting our live data. And it's so easy to do. That's a huge benefit."

Summing up, Johns added, "I'm thrilled with EchoStream and EchoCluster. The solution is worth every penny."



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