

Passaic Valley Sewerage Commissioners Replace CA ArcServe with CommVault Galaxy—Improves Service and Cuts Backup Times and Media Costs by 50%

QUICK FACTS

Industry/Solution:

- Utilities – Municipal Government Sewerage Treatment Agency

Platform/File System:

- Microsoft Windows Server 2003 & 2000
- Microsoft Windows XP

Applications:

- Microsoft Exchange
- Microsoft SQL Server
- Oracle
- Synergen Plant Maintenance Management System

Partner Hardware:

- HP ProLiant servers
- HP workstations and PCs
- HP EVA 6000 storage area network
- HP MSL 600 tape library

Challenges:

- Rapid growth of data storage requirements
- Hard-to-manage backup system with each server having its own tape drive
- Previous backup software "hit a wall"
- Need to protect critical applications, including plant maintenance and laboratory analysis
- Need to support two separate computer networks
- Need to control costs

Solution:

- CommVault Galaxy Backup & Recovery
- AUX Copy

Benefits:

- Simplified, centralized backup is easier to manage
- Reliable backups completed on time
- Reduced backup time by 50% or more
- Reduced administrative time for backup
- Reduced tape media consumption
- Responsive CommVault technical support

Customer Profile

The Passaic Valley Sewerage Commissioners (PVSC) operate one of the country's largest treatment plants. Located in Newark, New Jersey and first opened in 1924, the plant treats the wastewaters of northern New Jersey, serving an area that includes 48 municipalities, 1.3 million people, thousands of businesses, and hundreds of industrial plants. To fulfill its mission to protect local streams and rivers from pollution, the PVSC treatment plant handles an influent flow of 330 million gallons per day, estimated to be about a quarter of the total wastewater generated in all of New Jersey.

Data Management Environment

PVSC has 650 employees, including 18 people in the MIS department at the PVSC data center in Newark. The MIS department support's two separate computer systems: the business/operations system and the process-control system.

The business/operations network supports plant maintenance management, laboratory analysis, financial applications, Oracle and SQL databases, Microsoft Exchange e-mail, and file and print servers. The process-control network runs the processes in the plant – from measuring water flow to opening and closing valves.

The business/operations system infrastructure is comprised of 42 HP ProLiant Intel-based servers running Windows 2000 and Windows 2003, plus an HP storage area network (SAN) and an HP tape library for backup.

The process control system is much simpler, consisting of 15 HP ProLiant servers running Windows 2000 and 2003, twenty HP workstations and PCs running Windows XP, and numerous sensors and programmable logic controllers (PLCs) throughout the plant. The process system backs up to a standalone tape drive.

In 2006, PVSC initiated a phased conversion of their backup process to CommVault Galaxy backup and recovery software. They will complete the conversion of the business network and start conversion of the process control system in 2007.

Data Protection is Mission Critical

Reliable information systems are critical to PVSC's operations. For example, meticulous attention to equipment maintenance is at the heart of keeping the plant running smoothly. One of the most important applications on the business/operations network is the Synergen maintenance management system from SPL WorldGroup, Inc. This system, which runs on an Oracle database, allows maintenance workers to log into kiosks throughout the plant and enter their time and maintenance data versus open service tickets. The information gets logged through to the maintenance system, where it is used to update service histories for every piece of machinery, schedule future maintenance, and order parts.

Another important business/operations application is laboratory analysis. New Jersey has very strict water quality laws, which require sampling every few hours for contaminants such as metals and PCBs. PVSC technicians constantly analyze sludge coming in to the plant through the sewage pipes, and on trucks, barges and trains that drop off sewage from smaller cities that do not have their own treatment plants or do not treat completely. The data collected on PVSC's Industrial Monitoring and Control System (IMCS) laboratory system is the first line of defense against contamination, and making sure that data is protected, backed up, and available are critical MIS responsibilities.

PVSC uses CommVault Galaxy to perform daily incremental backups and weekly full backups of systems on their business/operations computer network. The initial full backup is stored on the tape library. They then make a second full backup using the CommVault Galaxy Aux Copy capability, and send that copy to their off-site disaster recovery system. They also do an end of the month full backup tape that they keep for a year. The total backup is about 2.2 terabytes each week.

Computer Associates ArcServe "Hit a Wall"

Before PVSC installed CommVault Galaxy software, they had used Computer Associates ArcServe backup software for years. "I have been here for ten years," says John Mendillo, Computer Systems Administrator at PVSC. "We were smaller when I started here. Every server backed up to its own tape drive, and ArcServe was adequate. But CA failed us. The software became unstable. Technicians were coming in on a regular

basis. The backups were failing for no reason. We'd open a service ticket, and service would fail to solve the problem. And it got worse as they outsourced service. If someone on our staff can't get a file, I need to have an answer, and I couldn't get an answer from CA."

In January 2006 PVSC upgraded their information storage infrastructure with an HP storage area network (SAN) and tape library, and attached three of their most critical servers to the SAN. CA offered options to support SAN and tape library backups, and PVSC bought the options. "But they crashed on an alarmingly regular basis," reports Mendillo. "CA had not been doing well before this, but they hit a wall when we added the SAN. That was the straw that broke the camel's back. It pushed us over the edge."

Choosing CommVault: The Unified Data Management Approach is "the Best Fit for Us"

Before choosing CommVault, the PVSC MIS team looked at a number of options, including CommVault, Veritas, and HP. "We concluded that CommVault was the best fit for us," says Mendillo. They liked the fact that CommVault Galaxy is part of the CommVault suite of software that can help them perform all aspects of data management -including archiving, protection, recovery, disaster recovery, and storage resource management. They also liked CommVault's architecture, with all products built around the Common Technology Engine shared services. "We thought CommVault looked like a complete software package," says Mendillo, "while the others looked patched together. CommVault software is built all together from the ground up, not pieced together. That's what we liked most about it."

CommVault Delivers a Complete Solution, and Saves Money

PVSC's confidence in CommVault software has been confirmed by their experience. "The number one thing CommVault software does is that it works!" declares Mendillo. "It works every day. We have not had one failure since we installed CommVault. It emails me every day at 2:00 and tells me what it is going to do that night. Is there anything I want to change? One time CommVault caught a problem in that night's backup schedule and notified us. We were able to fix the problem before the backups started, and they ran fine. Next morning I got a status report on what was done overnight. So it closes the loop."

The combination of CommVault software and the new storage infrastructure has cut backup times by at least 50%. Mendillo has found that the CommVault software does things that ArcServe did not do, such as write to two tape drives at once and utilizes tape capacity more fully. Explains Mendillo, "If I had a ten-gigabyte server to back up, ArcServe would use one tape for that backup, and would not put anything else on that tape. So it put ten GB on a 400-GB tape. The CommVault software knows how to use the whole tape, so we save money on tape media and have fewer tapes to manage."

CommVault's Unified Data Management approach provides a single view of all data management resources across the enterprise, including archiving, backup, and recovery operations. Integrated, simplified management results in savings for PVSC. Explains Mendillo, "Our administrators spend less time looking at servers, checking tapes, and checking to make sure that backups got done properly." PVSC has shorter backup time, get backups done in the available time, and avoids user delays and frustration. Mendillo estimates they are saving about an

hour a day times two technicians. And that figure will increase when they complete the transition to CommVault. "That may not sound like a lot," says Mendillo, "but it is significant. Now we have two hours a day that our technicians can spend doing more productive things."

Savings on Tape Media, with More to Come

PVSC has reduced tape media consumption by about 50%, which translates into thousands of dollars a year. They have also simplified tape media purchasing. Before, they had one type of tape in the library, but three different types in the server-attached tape drives. "We were constantly asking, 'What do I need to order now?'" says Mendillo. "We had to stock all three types, so that drove up media costs. Now we have consolidated on just one type, which makes tape buying simpler and cheaper. We plan to further reduce tape consumption by going to more disk-to-disk backups, which CommVault can handle. ArcServe could not handle it."

CommVault Service is "Outstanding"

Mendillo says that CommVault service has been "outstanding." Asked what he means by that, he explains, "After the initial installation, the CommVault technology was light years ahead of where we had been. We needed to get used to a whole different level of performance and functionality. It didn't all click in our heads right away. As a result, we had CommVault support on the phone quite a lot to help us clean up loose ends. We quickly recognized that CommVault support is not outsourced. We would call and someone knowledgeable answered the phone. They called back when they say they would. That's a big benefit: It means we don't have a tech sitting around doing nothing, waiting for a telephone call."

"At first, a lot of our calls were not really technical issues; they were more logistics, management questions. We had one 'real' technical issue. It was a weird problem. For some reason one server kept getting disconnected from the CommVault software. We made one call, and it took about two minutes to resolve the problem. The CommVault support people said, 'We know that problem, and we have a service pack to fix it. We just downloaded it to you.' We got the service pack, plugged it in, and it worked. The CommVault support people called back a couple of hours later to make sure it worked. That's what I mean by outstanding service."

www.commvault.com | 888.746.3849 | E-mail: info@commvault.com

CommVault Worldwide Headquarters • 2 Crescent Place • Oceanport, NJ 07757 • 732-870-4000 • Fax: 732-870-4525

Regional Offices: United States • Europe • Middle East & Africa • Asia-Pacific • Mexico & Latin America • Canada • India • Oceania

