



CASE STUDY

The Satellite Operations Center of Airbus Defence and Space Fixes VM Backup Woes with Veeam and Quantum DXi

When traditional VM backup couldn't keep up, Airbus Defence and Space's Toulouse Satellite Operations Center quickly looked for something better. The answer was a combined solution from Veeam and Quantum: It boosted performance, reduced impact on operations, and provided more granular recovery—all at a price less than one-half of the competition.



FEATURED PRODUCTS

DXi Deduplication Appliance and Veeam Backup & Replication



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SOLUTION OVERVIEW

- Quantum DXi4700 deduplication appliance (27 TB capacity)
- Veeam Backup and Replication software

KEY BENEFITS

- Total ownership costs that are only one-half to one-third that of competitors reduce expenses
- High-performance backup protects data while minimizing impact on operations
- VM-specific approach to backup allows all VMs, as well as all the telemetry data, to be protected
- DXi's highly effective deduplication rates reduce disk capacity requirements by nearly 90%, allowing more backups to be retained in less space
- Veeam's Active Directory support provides fast, reliable, object-level recovery of data and individual VMs
- Seamless integration between Veeam software and DXi® appliances provides single-interface management of the entire backup and recovery process
- Close cooperation between Veeam and Quantum provides responsive, coordinated activity on both technical and commercial levels, simplifying purchase, installation, and support

Airbus Defence and Space is a world leader in designing, manufacturing, stationing, and managing communication satellites for a wide range of international clients. The company's Toulouse Satellite Operations Center (TSOC) plays several key roles in the program. Its spacecraft operations engineers take control of satellites from the time they leave the launch vehicle until they are safely positioned in orbit; and the facility provides monitoring for each satellite, constantly downloading and analyzing telemetry data as well as working with clients to control and manage their spaceborne hardware.

Monitoring and managing more than 60 satellites for scores of customers relies on iron-clad storage and protection of terabytes of irreplaceable data—a task that the company's widespread use of virtualization made more complex.

"Until recently, we had been using VMware's Data Recovery capability," explains Pascal Garcia, TSOC Infrastructure and System Engineer, "and it was a weak point for us."

ALWAYS-ON CRITICAL SATELLITE DATA AND VMs NEED BETTER PROTECTION

The team had difficulty completing backups—in fact, several of the system's virtual machines were not backed up at all. The team also did not like the fact that the VMware backup stored its data on the same SAN used for the production of the legacy virtualization infrastructure.

As part of the deployment of a new infrastructure based on a Nutanix hyperconverged environment: "We felt that especially the critical telemetry data needed another, true backup location that would keep it better protected in case there were any issues with our primary environment," says Garcia.

Not only is the telemetry data crucial to the TSOC mission, but it is transmitted non-stop 24 hours a day, so there is never a quiet time to carry out traditional backup.

"Even though we perform telemetry backup at night, the data download is an always-on activity, so we needed to make sure that we could complete the backup and have as little effect on the telemetry collection process as possible," says Garcia. The team also wanted a system that could back up all of the VMs and provide quick and reliable recovery of both data and individual VMs.

LOOKING AT OPTIONS LEADS TO A CLEAR WINNER—AT LESS THAN HALF THE COST OF THE COMPETITION

The team looked at several different alternative systems designed specifically to operate in virtualized environments, including one from Rubrik and another that combined solutions from Veeam and Quantum.

"I was initially a little reluctant to consider a solution that involved two different vendors," Garcia says, "but the Veeam-Quantum

combination was far and away the best option that we saw—both in terms of technology and economics—thanks to the advanced support for Active Directory restore and the Veeam's agents' availability for our legacy systems."

"By putting together Veeam software and the DXi appliances, our total ownership costs were one-half to one-third of the alternative," Garcia explains, "and the coordination between Veeam and Quantum has been flawless, both on technical and commercial matters. The two companies answered our questions together and presented a unified pricing proposal. They both have experienced local team members and everything came together easily, both before and after the sale."

VEEAM AND QUANTUM DXi WORK TOGETHER SEAMLESSLY TO SOLVE BACKUP ISSUES

The new solution meets all of the TSOC requirements. "The Veeam-DXi backup is fast—the updated backup of all the telemetry data is done in only 16 minutes, and it happens so smoothly that it's hard to see any impact on operations at all," Garcia explains. "We now

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back up all of our VMs and—thanks to Veeam’s Active Directory support—we get fast, object-level recovery of both data and any single VM directly from the DXi.”

TSOC has been impressed at the overall deduplication rates. “Even with telemetry data, the DXi is giving us data reduction rates of nearly 90%, which means we use less disk space and can retain more backups,” Garcia says. “And Veeam and DXi work together very impressively—when we want to manage or recover data from the DXi we can do everything directly from the Veeam interface.”

The DXi’s capacity-on-demand scalability was also an advantage, giving the TSOC team the ability to add capacity easily in the future when the development of new satellite families will increase the amount of data managed.

ABOUT AIRBUS

Airbus is a global leader in aeronautics, space and related services. In 2017 it generated revenues of €59 billion and employed a workforce of around 129,000. Airbus offers the industry’s most comprehensive range of passenger airliners from 100 to more than 600 seats. It is the leading European provider of military aircraft. And its Defence and Space division is one of the world’s leading space companies, designing, launching, and managing a broad range of hardware and services for scientific, governmental, and commercial uses. The Toulouse Satellite Operations Center supports the company’s program for communication satellites, controlling them as they move into orbit, downloading and analyzing telemetry data, and helping clients manage them throughout their life-cycle.

ABOUT QUANTUM

Quantum technology and services help customers capture, create, and share digital content—and preserve and protect it for decades at the lowest cost. Quantum’s platforms provide the fastest performance for high-resolution video, images, and industrial IoT, with solutions built for every stage of the data lifecycle, from high-performance ingest to real-time collaboration and analysis and low-cost archiving. Every day the world’s leading entertainment companies, sports franchises, research scientists, government agencies, enterprises, and cloud providers are making the world happier, safer, and smarter on Quantum. See how at www.quantum.com.

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