



CASE STUDY

Radio Frequency Systems Gains 90% Data Reduction and 50% Availability Improvement With Veeam and Quantum

As the cable and antenna industries have changed over the past century, Radio Frequency Systems (RFS) has been there driving the changes. RFS has innovated cable, antenna, and cellular solutions for more than 110 years—including the first seam-welded, corrugated coaxial cable—under separate companies that came together in 1983 as the RFS Group.



FEATURED PRODUCTS

DXi®-Series Deduplication and Veeam Backup Software



“After looking around, we realized this was a good solution, maintenance-free, which was a very big point for us.”

Falko Schudlach
IT Infrastructure Administrator, RFS



We got a smart solution for storing much more data for less money than others, one that's easy to manage, and that requires no daily work at all. There's nothing for us to do anymore...We just put this in and it works. *It just works*, which is nice.

Falko Schmudlach - IT Infrastructure Administrator, RFS



SOLUTION OVERVIEW

- Quantum DXi4701 Deduplication Appliance
- Veeam Backup & Replication

KEY BENEFITS

- Huge time savings—IT team spends less than 5 minutes a day on system maintenance
- Reduces backup application costs versus traditional backup applications
- Reduces backup windows and improves utilization rates of production VMs, saving 25TB with a data reduction rate of 90%
- Improves recovery time and point objective (RTPO) for Tier-1 applications by leveraging technology built for virtual environments
- Minimizes network bandwidth usage when replicating across sites or to the cloud

RFS has about 1,800 employees working in seven factories and research and development centers in five countries, so it relies on a robust virtual environment to reduce hardware costs and energy usage. The Hanover, Germany, facility alone backs up about 8 terabytes of CIFS data and VMware storage, an amount that's growing by 10% to 20% each year, according to Falko Schmudlach, the facility's IT infrastructure administrator. About 85% of its infrastructure is virtualized with a goal of hitting 95%—and with this virtualization comes the need for a reliable backup solution to protect the data in its infrastructure.

REPLACING A SYSTEM THAT FELL A LITTLE SHORT

The Hanover facility has two server rooms, both of which run VMware ESX hosts. The company has a detailed, redundant system to protect its data: All VMs at the first location are backed up to disk at the second location and vice versa. A copy of the backup is stored on DXi and in the second server room on tape.

Also, a weekly replication made by Veeam of the virtual machine is stored at the second location.

SEEKING TIME SAVINGS AND A SMALLER DATA CENTER FOOTPRINT

Two years ago, looking to save time and decrease disk space, Hanover IT began searching for a new redundant backup solution to replace a scripted solution for VMware ESX farm backup for its virtual environment. In the past, they used the VMware build in backup, but with this feature they had many issues of inconsistent backups. Later, they used a self-scripted backup, but without any flexibility like now. The solution needed to be relatively inexpensive while also incorporating the latest technologies. And it needed to be easy to manage so Falko and his colleague could go about other tasks while maintaining computers and systems for more than 300 employees.

After much research, RFS switched to Veeam Backup and Replication for its ESX farm, gaining convenience and reliability. This

solution gave the Hanover facility fast and flexible recovery while bringing backup and replication together into a single solution.

"The Veeam solution was easy to install, is easy to manage, and requires minimal time for daily maintenance," Falko says. He estimates he spends about five minutes a day maintaining the system.

But from a hardware perspective, they were still relying on a legacy backup storage unit that was sputtering along, and Falko wanted to replace it to create an even more robust solution.

QUANTUM/VEEAM SOLUTION BRINGS IT ALL TOGETHER

RFS Hanover IT saw the Quantum DXi4701 at the CeBIT conference in Hanover. Falko had read reports about it and was impressed with Quantum's variable-length deduplication technology being able to deliver up to 30:1 data deduplication rates and its ability to expand storage capacity on demand. Plus, it would work well with the Veeam solution that he'd found to be effective for RFS's needs.

The DXi4700 line of deduplication appliances—powered by StorNext® 5, a streaming file system and policy-based tiering software—are designed to accelerate storage workflows for remote sites with extensibility to the cloud.

After talking with its long-time technology consultants, RFS selected the Quantum DXi4701 as its redundant backup appliance to replace the Scalar® tape library. The consultant sent representatives to implement the system, and

the Quantum DXi4701 was integrated into RFS's existing system in just a few hours.

"We attached the device and mounted it directly to the Veeam backup and recovery, and the files replicated there automatically," Falko says.

The DXi storage can scale up to 135TB via capacity-on-demand expansions to address RFS's future backup needs, and is the only appliance offering Path-to-Tape (PTT) that can move older backups to tape.

"We got a smart solution for storing much more data for less money than others, one that's easy to manage, and that requires no daily work at all," Falko says.

"There's nothing for us to do anymore. Just one backup, but we haven't had to do anything on the machines. We just put this in and it works. *It just works*, which is nice."

A 90% DATA REDUCTION AND HALF THE DATA BACKUP TIME

Since early 2015, when RFS tied Veeam Backup and Replication with Quantum's tiered storage solution, the facility has reduced backup application costs, reduced backup windows, and improved utilization rates of production VMs.

Falko says the new solution has saved 25TB with a data deduplication ratio of 9:1. And the backup-to-tape window has been reduced from eight hours a day down to four.

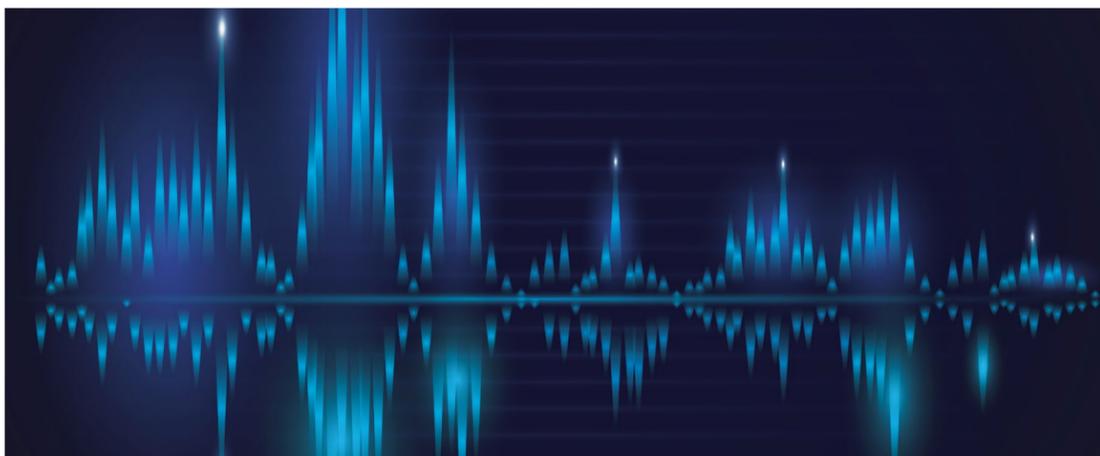
"It's been a very good product with good support," he says. "We've had no worries about it."

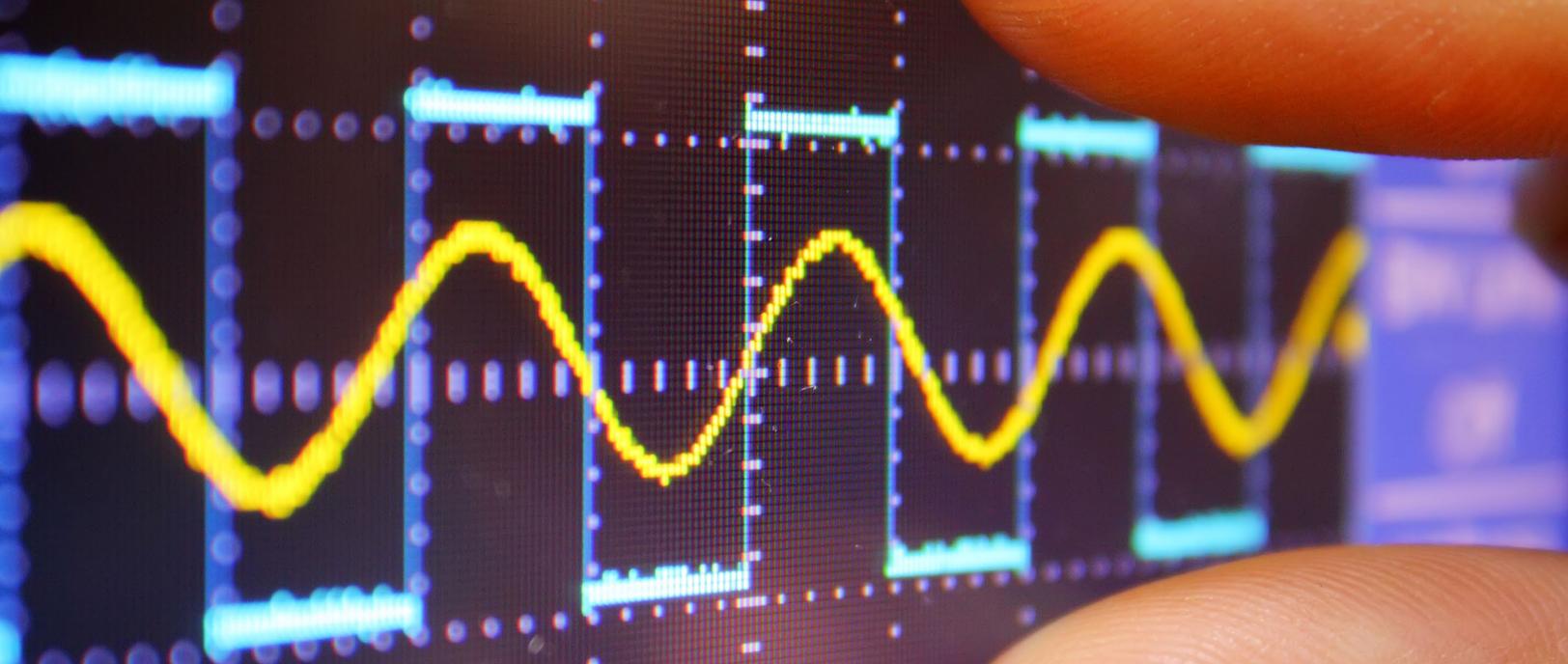
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Falko Schmudlach, IT Infrastructure Administrator, RFS

ABOUT VEEAM

Veeam enables the Always-On Business by providing solutions that deliver Availability for the Modern Data Center, which provides recovery time and point objectives (RTPO) of <15 minutes for all applications and data. Veeam addresses the challenges of keeping a business up and running at all times with solutions that provide high-speed recovery, data loss avoidance, verified protection, leveraged data, and complete visibility.





'FIRE AND FORGET IT'

"After looking around, we realized this was a good solution, maintenance-free, which was a very big point for us. We're just two IT guys supporting more than 300 users," Falko says. "Now we can just kind of forget about the system. We've spent hardly any time on maintenance and monitoring."

Hanover IT will implement another DXi unit for a second location in 2016.

"It gives us much more freedom and flexibility," he says. "We don't have to worry about the system. It's a simple matter of tagging the automatic backup in Veeam, and like 'fire and forget,' the system is backed up with redundancy."



ABOUT RADIO FREQUENCY SYSTEMS

With over 1,800 employees in seven factories and research and development centers in five countries, Radio Frequency Systems (RFS) is a global designer and manufacturer of cable, antenna, and tower systems, plus active and passive RF conditioning modules, providing total-package solutions for outdoor and indoor wireless infrastructure.

RFS serves OEMs, distributors, system integrators, operators and installers in the broadcast, wireless communications, land-mobile, and microwave market sectors. As an ISO-compliant organization with manufacturing and customer service facilities that span the globe, RFS offers cutting-edge engineering capabilities, superior field support, and innovative product design.

ABOUT QUANTUM

Quantum is a leading expert in scale-out tiered storage, archive, and data protection, providing solutions for capturing, sharing, and preserving digital assets over the entire data lifecycle. From small businesses to major enterprises, more than 100,000 customers have trusted Quantum to address their most demanding data workflow challenges. Quantum's end-to-end, tiered storage foundation enables customers to maximize the value of their data by making it accessible whenever and wherever needed, retaining it indefinitely and reducing total cost and complexity. See how at www.quantum.com/customerstories.