



## CASE STUDY

# Acendas Travel Doubles VM Boot Performance With Hybrid Disk

Faced with rapidly growing data and a need to support a complex, virtualized infrastructure, Acendas Travel decided to upgrade its storage to meet projected five-year needs. The right answer for performance, cost, and reliability was a Quantum QXS hybrid storage array that combines conventional hard drives with solid-state drives (SSDs).



FEATURED PRODUCTS

### QXS Hybrid Storage



The QXS system had all the features and performance that we were looking for, saved us money over alternatives. The support from Quantum has been very, very good. We expect the new system to have the same exceptional reliability that we have seen from the platform over the last six years.

**James Thompson**

Network support administrator, Acendas



In 'boot storm' situations—where we need to spin up a large number of VMs quickly—the new QXS system is more than twice as fast as our old disk array.

**James Thompson** – Network support administrator, Acendas



#### SOLUTION OVERVIEW

- QXSTM-448 hybrid storage array, 70TB hard drive, 1.6TB SSD
- Quantum Q-Tier software

#### KEY BENEFITS

- Hybrid storage provides the performance of an all-flash array at a fraction of the cost.
- Dual-redundant design eliminates single points of failure to provide long-term, high-reliability operation.
- Systems extend an existing platform with decades-long history of reliability and performance.
- Real-time software analyzes loading to provide optimal allocation of resources for the fastest performance.
- Responsive, experienced service organization provides fast, effective support.

Acendas has remained successful for over 30 years in the hyper-competitive and fast-changing travel management business by providing highly differentiated services to a very demanding audience. "We specialize in meeting corporate travel needs for business travelers and in providing planning for meetings and incentives," explains James Thompson, the network support administrator with the responsibility for designing and maintaining the company's network operations center.

#### COMBINING PERSONALIZED SERVICE AND TRAVEL MANAGEMENT SAVINGS

"We've been successful for several reasons. We give every traveler personal attention—when they call us, they always talk to a real person—someone who is empowered to help them in every way we can think of." That level of highly personalized service is offered throughout the travel process, from making initial arrangements to changing plans during a trip. "Everybody I know who has spent much time travelling as part of their work eventually

has had to deal with making changes when a flight is canceled or a connection gets missed. We know that there's nothing more frustrating than needing help and getting directed to an online site, so Acendas makes sure that it never happens."

Acendas also provides its customer organizations with important value-added services. "We offer corporate travel departments a unique level of support that includes business analytics to help them be more successful," says Thompson. It includes giving clients access to advanced data analysis tools and advice that helps them manage travel costs more effectively and improve their corporate bottom line. "If we see that there's a pattern of booking rooms at a particular hotel chain, and we know that another equivalent set of properties provides more value, we help our customers by pointing out alternatives."

#### LEVERAGING ADVANCED TECHNOLOGY: A STRATEGIC DECISION

A key part of the Acendas strategy is embracing new technology to provide faster responses and a higher level of value-added service for clients while keeping the company's own costs under control. Acendas was an early adopter of virtualization technology—and today, virtualizes over 95% of its servers. "We use everybody," Thompson explains, "because Citrix, VMware, and Hyper-V each provides value in certain situations and applications. That makes our systems very effective, but it also means a pretty complex IT infrastructure."

Disk resources are a key part of the company's strategy to improve response times and productivity. "We have used the same disk platform here for almost six years because it has provided us with very competitive pricing, extremely high reliability, and good support whenever we have needed it. But the disk systems were beginning to have a hard time keeping up with the demands of the virtualized infrastructure and the huge increase in data. We were running out of space, and began to see lags in performance, especially when we were accessing many VMs at the same time, or when we had to reboot VMs."

#### THE DECISION TO UPGRADE STORAGE

The team decided to make a major investment in a new storage system that could meet its projected needs over the next five years. At the same time, the team wanted to increase performance by upgrading the disk systems to use new hybrid storage technology. Hybrid disk arrays combine conventional hard drives with flash to increase performance for I/O-intensive operations, like those associated with virtualization, while keeping costs lower than all-SSD or all-flash storage. The team looked at tiered offerings from several suppliers and was surprised at the range of pricing.

#### LEVERAGING HYBRID STORAGE TO INCREASE PERFORMANCE AND CONTROL COSTS

"We saw quotes with a huge price range, and after looking at the kinds of tasks we typically support, it was not clear at all to us what kind of value we would see from the higher cost options," says Thompson. "After doing proof-of-concept tests as part of our due diligence, we elected to stay with our existing platform, but upgrade to the Quantum QXS-4 Series hybrid storage with Q-Tier software."

"Our system, which is 70TB in all, only uses 1.6TB of flash. But it gives us extremely fast performance, and we estimate that we saved roughly 25% over what other, higher priced alternatives would have cost us."

**James Thompson,**  
Network support administrator, Acendas

#### ABOUT ACENDAS

Founded in 1982, Acendas is a travel management company providing tailored solutions, comprehensive recommendations, and strategic improvements for its customers. The company specializes in corporate travel management, meetings and incentives, vacations, and delivering the latest technology and unparalleled expertise and service to its clients. Acendas has achieved significant growth over the past 30 years due to its solid reputation in the travel industry. It is recognized as a one of the top 25 travel management companies in the country.





The QXS Series combines flash and conventional hard disks to boost performance and keep costs low by using intelligent Q-Tier software to automatically decide which files need to be placed on different storage tiers for optimal performance. Q-Tier software scans and scores the data every five seconds as a background operation. Using that information, it moves (or keeps) the most active data sets and tasks to flash storage in real time. Typical Quantum configurations use less than 5% of the total storage as flash. The system is also built on a dual-redundant design that eliminates all single points of failure to provide a long-term, high-reliability operation.

Thompson explains, “Our system, which is 70TB in all, only uses 1.6TB of flash. But it gives us extremely fast performance, and we estimate that we saved roughly 25% over what other, higher priced alternatives would have cost us.”

“The QXS performance has been great,” Thompson adds. “In ‘boot storm’ situations—where we need to spin up a large number of VMs quickly—the new QXS system is more than twice as fast as our old disk array. I see the same kinds of gains when I boot up a single VM, too.”

“The QXS system had all the features and performance that we were looking for, saved us money over alternatives. The support from Quantum has been very, very good. We expect the new system to have the same exceptional reliability that we have seen from the platform over the last six years.”

#### ABOUT QUANTUM

Quantum is a leading expert in scale-out 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](http://www.quantum.com/customerstories).

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