

Hyperscaler increases performance, lowers costs for intelligent infrastructure

QTS (QTS Data Centers) chooses Dell Technologies to help it power software-defined data centers and industry-first software-defined orchestration platform that enables anytime, anywhere access to data center metrics and real-time analytics.



Business needs

QTS is a leading provider of data center solutions, with a footprint of over seven million square feet spanning 28 QTS Mega Data Center locations throughout North America and Europe. As QTS expands the footprint and capabilities of their software-defined data centers, including its Service Delivery Platform (SDP) Self-Service Data Center Management Platform, it requires an optimized infrastructure to support anytime access to critical infrastructure metrics for performance, access, power and temperature.

Business results

- \$1,000,000 saved in operational costs over 3 years.
- \$500,000 saved in capital expenses using AMD processors.
- 50% application performance improvement.

Customer profile



Data Center Infrastructure Solutions
United States and Europe



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Jason Van Hattum

Principal Cloud Engineer,
QTS Data Centers

Solutions at a glance

- [Dell EMC vSAN Ready Nodes R7515 powered by AMD® EPYC™ processors](#)
- [Dell EMC OpenManage Enterprise integrated with VMware® vCenter®](#)

QTS offers hybrid and hyperscale data center infrastructure colocation built on their unique intelligent infrastructure platform. A core element of the intelligent infrastructure is the QTS value-added SDP service, the industry's first software-defined orchestration platform.

“SDP is an intelligent, fully automated service delivery platform our customers use to self-manage and optimize their data center environments more effectively,” says Reda Saidi, Director, Product Development at QTS Data Centers. He adds, “Our approach to data transparency is unique. We provide every customer with data sets relevant to their environment as we see them ourselves — in real time.”

Composed of a suite of AI-enabled digital 3D mapping and computer vision apps, SDP provides 20/20 vision into the most crucial areas of a customer's data center environment with preemptive insights and intelligent predictions for efficiencies and optimization. At the heart of SDP is the QTS Data Center Infrastructure Management (DCIM) system.

“It's one of the most mission-critical systems that we have and maintain,” says Jason Van Hattum, Principal Cloud Engineer at QTS. “All of our customers rely on it. All of our employees rely on it. It manages the security, the badge access, video surveillance goes through DCIM, as well as power and cooling for the data center.”

Jason goes on to explain, “One of the critical components of DCIM is Microsoft® SQL Server® databases, which are virtualized. QTS saved money by going from dual-socket Intel® to single-socket AMD servers without compromising on core count or clock frequency.”

Better performance and lower costs drive greater value for their customers. QTS is always seeking to lower costs, save on space, improve performance and manage its data centers in a more sustainable way. When the QTS server infrastructure was causing performance issues for certain workloads, Jason found that vendor lock-in with the existing Nutanix® solution did not allow QTS to swap out the processor to improve performance.



“Dell EMC vSAN Ready Nodes offered an AMD single-socket solution, which helped us lower our costs without compromising performance. We're able to save over a million dollars in operational expenses over 3 years going from our previous hyperconverged vendor to vSAN Ready Nodes. In hardware capital expenses alone, going from dual-socket Intel to single-socket AMD, we're saving over \$500,000.”

J.J. McDaniel

Senior Cloud Architect,
QTS Data Centers

When it came time to refresh servers, the team at QTS started looking for a new solution.

It was important to the team to select a solution providing adaptive compute, capable of delivering rapid digital transformation, and optimized for the latest technology advances for their customers. According to Jason, the team was looking for “something that was going to give us that performance, but not break the bank.... We needed to get out of that boxed-in environment and let us buy anything that fit the role that we needed, which is why we landed on Dell EMC architecture, powered by AMD EPYC processors.”

After considerable research, QTS decided on Dell EMC vSAN Ready Nodes, built on Dell EMC PowerEdge R7515 servers powered by AMD EPYC processors. “The beauty of Dell vSAN Ready Nodes is that they’re already certified as a complete solution from a vendor that we already know and trust,” says J.J. McDaniel, Senior Cloud Architect at QTS.

“Dell EMC vSAN Ready Nodes offered a PowerEdge single-socket solution, which helped us lower our costs without compromising performance,” says J.J. “We’re able to save over a million dollars in operational expenses in three years going from our previous hyperconverged vendor to vSAN Ready Nodes. In hardware capital expenses alone, going from dual-socket Intel to single-socket AMD, we’re saving over \$500,000.”

In addition, “With the Dell EMC vSAN Ready Nodes all-flash solution, we were able to gain considerable performance improvements as well as less downtime,” according to Jason. “We have seen a performance improvement of up to 50%.”

Simplified management

With Dell EMC vSAN Ready Nodes, the QTS team can manage the infrastructure with Dell EMC OpenManage integrated with VMware vCenter Server. This ability simplifies management via integration and automation features that enable the team to perform full lifecycle management with a familiar user interface.



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“With the deployment of vSAN Ready Nodes, we leverage vCenter and it gives us a single pane of glass, allows our operations team to see it all from one point of view. We don’t have multiple products that we’re trying to look at to get the information we need to respond to major incidents or to respond to performance issues that our applications are running into,” explains J.J.

“It truly is a single pane of glass for us, which saves our engineers time and effort,” adds Jason. “Ultimately, it saves us money and saves our company money.”

A valuable partnership

“This project was very unique, in that our DCIM solution had multiple software components across multiple data centers,” explains Jason. “We weren’t really able to test this in a lab. We spent a lot of time in research — talking with Dell, talking with AMD — and eventually did take somewhat of a leap of faith and trust in Dell and in AMD that the solution would work for us.”

“As far as value-add working with Dell Technologies, it all comes down to relationships and partnerships. We’ve had a really good relationship with our sales reps, the value for the solution, having an all-vendor stack, everything just integrating and working together out of the box has been a huge win for all of us,” concludes J.J.

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