Boerse Stuttgart Moves VDI Environment to Hyperconverged Infrastructure

By using Dell EMC VxRail from Dell Technologies, Boerse Stuttgart improves performance of its VMware Horizon virtual clients and simplifies IT infrastructure management.

Börse Stuttgart | Securities trading | Germany

The Challenge

Because managing the existing server and storage environment was very complex, Boerse Stuttgart was looking for a new base infrastructure for its VDI environment. The goal was not just to make it much easier to manage the systems but also to improve performance for users of the VMware Horizon virtual clients. This led the exchange to work with Dell Technologies partner evoila to introduce a Dell EMC VxRail hyperconverged solution, which combines compute and storage resources in a single system and features a very high level of VMware integration.

The Solution

- 24 Dell EMC VxRail E560F nodes, each with two Intel® Xeon® Gold 6248R processors, 12 x 64 GB RAM, 2 x 400 GB SAS-SSD as cache, and 4 x 1.92 TB SAS-SSD

- Dell EMC ProSupport Plus with "Mission Critical" Option

- Complete VMware integration with vCenter and vSAN

The Results

- Seamless replacement of the existing IT infrastructure and simple migration of the VDI environment

- Easy, centralized management via VMware vCenter

- Easier maintenance and expandability of IT systems

- Reduced workload for the IT team

High system stability

of the complete IT infrastructure
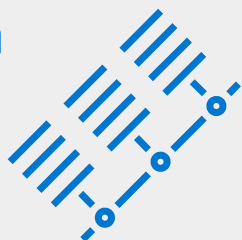
Significant increase

in performance for virtual clients

Infrastructure Silos Complicate IT Management

Boerse Stuttgart is one of the largest and most important securities trading venues in Germany and Europe. It uses a VDI environment to provide centralized, highly secure working environments for its merchants involved in e-commerce. If a crisis situation makes trading at the actual trading location impossible, traders switch to an emergency location so they can get up and running again quickly and access their usual virtual desktop with all the applications they need.

For each trader, the exchange runs two virtual work environments: a main client and a backup client, which run in completely separate data centers. If the main client fails, traders use their backup client to continue working. "This way, we remain fully capable of conducting business, even in the event of an IT systems failure," explains Bernd Walter, Head of IT Systems Technology at Vereinigung Baden-Württembergische Wertpapierbörse e.V., the umbrella organization of Boerse Stuttgart Group.

Up to now, the exchange has been using an infrastructure with separate server and storage systems for its VDI landscape, which was relatively time-consuming to manage. In doing so, different management tools were used for the various systems, and importing firmware updates and software upgrades required extensive compatibility checks and tests. When the infrastructure was expanded, individual server and storage systems also had to be retrofitted, wired, and configured. So as the end of support for the infrastructure was approaching, the exchange decided to switch to an HCI solution.

> "*The level of performance we're getting out of the VxRail systems and how much management has been simplified is really impressive.*"
>
> Bernd Walter, Head of IT Systems Technology, Vereinigung Baden-Württembergische Wertpapierbörse e.V.

(Source: Boerse Stuttgart)

Fast and Seamless VxRail Implementation

HCI combines perfectly matched server and storage components in one system and offers a comprehensively integrated software stack. As a result, the systems are easy to update and manage, while maintaining a high degree of automation, and are not very prone to error. The exchange evaluated solutions from several vendors and ultimately chose Dell EMC VxRail from Dell Technologies, whose VMware integration was particularly compelling, and which proved to be the best performer in the benchmarks. By relying on VMware Horizon as the platform

for deploying virtual desktops and applications, the exchange was able to unify the management of its infrastructure and VDI environment.

Boerse Stuttgart, together with Dell Technologies partner evoila, introduced 24 VxRail E560F nodes – twelve at each data center location. "Within 36 hours, the new platform was in place," Walter reports. "After that, we had to make some adjustments, but we basically established a completely new infrastructure at two sites within two or three days." In the next step, Boerse Stuttgart and evoila migrated the approximately 500 virtual clients. This also went quickly and smoothly thanks to the quality support VMware provided. "Just three weeks into the project, we were able to start dismantling the old infra-structure – that has to be a record," Walter says. Johannes Hiemer, CEO of evoila, adds: "Our goal is to deliver in days, not months. The difference in working with us is quality, which goes hand in hand with our speed. We offer an automated, turnkey hybrid cloud solution – right out of the box."

Performance Increases, Administrative Effort Decreases

With VxRail, Boerse Stuttgart now has a modern IT infrastruc-ture that provides virtual clients with a high level of performance. "Performance for end users has increased significantly, and we haven't even fully utilized the systems yet. The level of per-formance we get out of them is really impressive," says Walter.

> " *VxRail is a one-stop solution with hardware and software, and unified, centralized management is included.* "

Bernd Walter, Head of IT Systems Technology, Vereinigung Baden-Württembergische Wertpapierbörse e.V.

(Source: Boerse Stuttgart)

If the infrastructure needs to be expanded in the future, the exchange can upgrade additional VxRail nodes with little effort and without having to worry about the compatibility of system components. There are brand new possibilities for the exchange in the meantime. For example, VxRail can also be equipped with Nvidia GPUs to increase graphics performance – an attractive option for the stock exchange, whose traders usually work at workstations with six screens.

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The management of the new infrastructure and the VDI environment is carried out almost exclusively via VMware vCenter Server. Since the IT team at the exchange already had extensive experience with VMware, no training was necessary – employees got their bearings fast and can now manage IT much more quickly and with greater automation than they could using the old infrastructure's various management tools. "VxRail is a one-stop solution with hardware and software, where we get everything from a single source and a single partner, and unified, centralized management is included," Walter concludes with satisfaction.

Partner:

evoila group
engineering IT

As a solution provider for managed services evoila develops customer-oriented solutions for a variety of cloud scenarios from hybrid, public or private to multi cloud, with the intention to build trustful long-term partnerships for maximum customer success. A team of more than 100 engineers of the evoila group guarantees competence in all aspects and makes evoila a reliable partner for every network infrastructure.

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Johannes Hiemer, CEO evoila GmbH
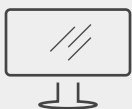
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