ProSiebenSat.1 goes live with Nutanix, Citrix and NVIDIA

For content production, the group relies on a high-performance VDI solution that combines hyperconverged infrastructure and virtual graphics power.

About ProSiebenSat.1:

Industry: Media & Entertainment
Employees: approx. 7,000
Turnover: 4.16 billion Euros (2022)
Geo: Germany / Europe
Website: https://www.prosiebensat1.com/
Applications

- Citrix Virtual Apps and Desktops

- Avid MediaCentral

- Avid Media Composer

- Adobe Creative Cloud

> **Products:**
> ◦ AHV Virtualization
>
> ◦ Nutanix Cloud Infrastructure (NCI)
>
> ◦ Prism

Ready to get Hands-On?

(**Take a Test Drive**)

Business Benefits

ProSiebenSat.1 has been using Nutanix technology to run server applications for its broadcast operations in an efficient and resilient manner for years. To make content production even more flexible, the group was looking for a solution that could deliver sophisticated creative software with high performance via the data center.

Key Benefits

More flexibility	Top performance	Seamless integration
Key digital media production applications are now available everywhere	Cutters and editors benefit from uncompromised graphics performance when remotely accessing their desktops	The technologies from Nutanix, Citrix, and NVIDIA work together in a perfect way. This minimizes the cost of operation and support

❝ **With project 'Remote Cut' we are opening up completely new possibilities for our cutters and editors. Thanks to**

technologies from Nutanix, Citrix, and NVIDIA, they can now edit HD video quickly and with agility from anywhere. Even creating stories in 4K quality is technically possible with the new platform.

"

– Christoph Keßler,
Senior System Engineer, ProSiebenSat.1 Tech Solutions

Challenge

ProSiebenSat.1 Media SE is one of the leading providers of entertainment and commerce in the German-speaking countries. The group's entertainment offerings are at the core of its strategy. ProSiebenSat.1 Media SE combines its 15 free and pay TV stations—including ProSieben, SAT.1, sixx, kabel eins, SAT.1 Gold and ProSieben MAXX—and its digital streaming platform Joyn with its production, distribution and marketing business. The entertainment business is complemented by the commerce & ventures as well as the dating & video segments.

At its headquarters in Unterföhring, Germany, ProSiebenSat.1 operates a high-performance IT infrastructure with three data centers for the production of its diverse media content and its distribution to various channels and digital platforms. "In a digital media company, huge amounts of data are generated and processed every day," Christoph Keßler, Senior System Engineer at ProSiebenSat.1 Tech Solutions explains. "Editing HD video content alone generates a huge amount of traffic on our network. As a result, certain activities were only possible on our campus for a long time, such as editing TV programs and news reports."

During the coronavirus pandemic, however, the IT team needed to enable remote access to cutter workstations for the first time. From a technological standpoint, this was a challenge at first. The Avid video editing application used specifies a maximum latency of five milliseconds between the client and the back end. Installing the client software on a laptop and then connecting to the central servers via VPN therefore was not an option. In the short term, some ProSiebenSat.1 editors used remote desktop connections to access campus workstations from home. This process, however, was cumbersome and the performance was not satisfactory. The IT team was therefore searching for a simpler and more manageable solution.

Solution

In the past, ProSiebenSat.1 had already had positive experiences with technologies from both Nutanix and Citrix. Much of the virtual server infrastructure—more than 700 virtual machines—has been running on four redundant Nutanix clusters, including VMware vSphere, for several years. The metro cluster functionality between the data centers ensures that critical applications for broadcast operations are available around the clock in a resilient manner.

At the same time, the IT team set up a virtual desktop infrastructure with Citrix Virtual Apps and Desktops on two other Nutanix clusters. This makes desktops and applications available to remote users, such as remote development teams. This environment has grown significantly, especially during the coronavirus pandemic, and is now used by a wide variety of users inside and outside the organization. With Nutanix and Citrix technologies, ProSiebenSat.1 also wanted to move the entire editing suite, including all video editing tools, into the data center. The plan was to combine Nutanix's hyperconverged infrastructure with Citrix's HDX 3D Pro technology and NVIDIA's high performance GPUs. The goal was to deliver the graphics performance editors need to work creatively and independently from anywhere. "We involved a group of editors in the planning and sizing of the new environment from the very beginning," says Christoph Keßler. "This helped us to tailor the cluster's equipment exactly to the needs of the users."

The Nutanix clusters were equipped with NVIDIA A40 GPUs, which are based on NVIDIA's Ampere architecture and have 48GB of GPU memory. Thanks to NVIDIA's vGPU technology, the graphics performance can be distributed across multiple virtual desktops. This gives every editor access to 4GB of GPU memory for fast, HD-quality video editing. Citrix Virtual Apps and Desktops with HDX 3D Pro technology deliver a perfect user experience—even when working remotely.

"The technologies used complement each other perfectly," Keßler concludes. "The Nutanix hyperconverged infrastructure makes building a Citrix VDI environment much easier because we don't have to deal with complex issues like setting up and connecting a SAN. In addition, the Nutanix AHV hypervisor works seamlessly with Citrix Virtual Apps and Desktops and NVIDIA's vGPU technology. This allowed us to quickly implement a solution that met all our requirements."

Customer Outcome

Superior user experience for digital video production
User feedback has been positive from the start, with editors finding working on the virtual desktop environment just as comfortable as the workstations on campus. All the applications they need to do their daily routines are now available on any device, regardless of location.

This includes Avid software for video editing, media and workflow management, and Adobe Creative Cloud applications for special effects. "The Nutanix platform delivers outstanding performance," said Keßler. "In some cases, we have up to 180 VDI sessions running simultaneously on our cluster without any delays or performance degradation." With Citrix HDX 3D Pro technology, ProSiebenSat.1 editors can even temporarily set network compression to "lossless." When editing important details of a movie, they benefit from a lossless on-screen display.

Fast support for new use cases thanks to easy scalability

Once the solution was successfully deployed, ProSiebenSat.1 quickly expanded the new infrastructure. In addition to specialized editors, ProSiebenSat.1's global news journalists were also connected to the environment.

"In order to save time and to be able to report as timely as possible from any location, our news editors edit individual reports themselves," Christoph Keßler explains. "It was the new infrastructure that made this step possible for the first time. We only needed to add a few nodes to our clusters and were able to deploy the additional virtual desktops in a very short time."

In addition to workstations, the internal editing suites at the new media campus in Unterföhring also will increasingly be equipped with VDI workspaces. The company relies on a FlexDesk model that allows users to connect to their digital workplace from any desk. Regardless of the physical device users are utilizing, they have instant access to their personal desktop and can continue working on their current projects. "With additional tools such as FSLogix, we have streamlined the management of user profiles to ensure a consistent user experience when switching between different workstations," says Keßler.

Efficient and largely automated operation

The great interoperability between the Nutanix, Citrix, and NVIDIA technologies not only simplified the implementation, but also made the virtual desktop infrastructure easy to operate. The Nutanix Prism single management interface allows the IT team to monitor the performance and availability of all components at all times. There is, however, little need for intervention: since the change in strategy, the support required has decreased significantly compared to the solution with high-end workstations.

Today, the IT team provides users with maximum availability for smooth production workflows. Even during updates and maintenance on the Nutanix platform, cutters and editors do not have to stop working. Updates are initiated with a single click through Prism and run silently in the background while users continue to work on current media content.

ProSiebenSat.1 wants to make its employees' daily work even easier with self-service options and further automation of operational activities. Going forward, it should be possible to independently request virtual desktops for new employees and deploy them directly on the Nutanix infrastructure. "With their technology and excellent support, Nutanix is helping us to comprehensively automate our IT operations," concludes Christoph Keßler. "This provides us with the critical technical capabilities to create new content every day and reliably deliver it across all channels and platforms."