

Optimizing workflows for cinema and TV visual effects.

How **benuts** deployed Lenovo ThinkSystem SR550 servers—powered by 2nd Gen Intel® Xeon® Scalable processors—and Lenovo Storage D3284 solutions to enable teams to handle more client projects in parallel, shortening time to market.

Lenovo Infrastructure Solutions
for The Data-Centered



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Background

benuts is a leading European creator of visual effects for cinema, television, and multimedia. Based in Belgium, the company is a creative hub for producers, animators, illustrators, videographers, graphic artists, designers, and art directors. This multi-award-winning team works across multiple sites to deliver unique creative solutions to an international client base.


Over the past four years, benuts has doubled in size and opened new offices across the three regions of Belgium to meet increasing client expectations around speed and quality. At the same time, the company has stepped up to the technical challenges of moving from HD to 4K video as standard—and is already working on 8K projects for some clients.

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Challenge

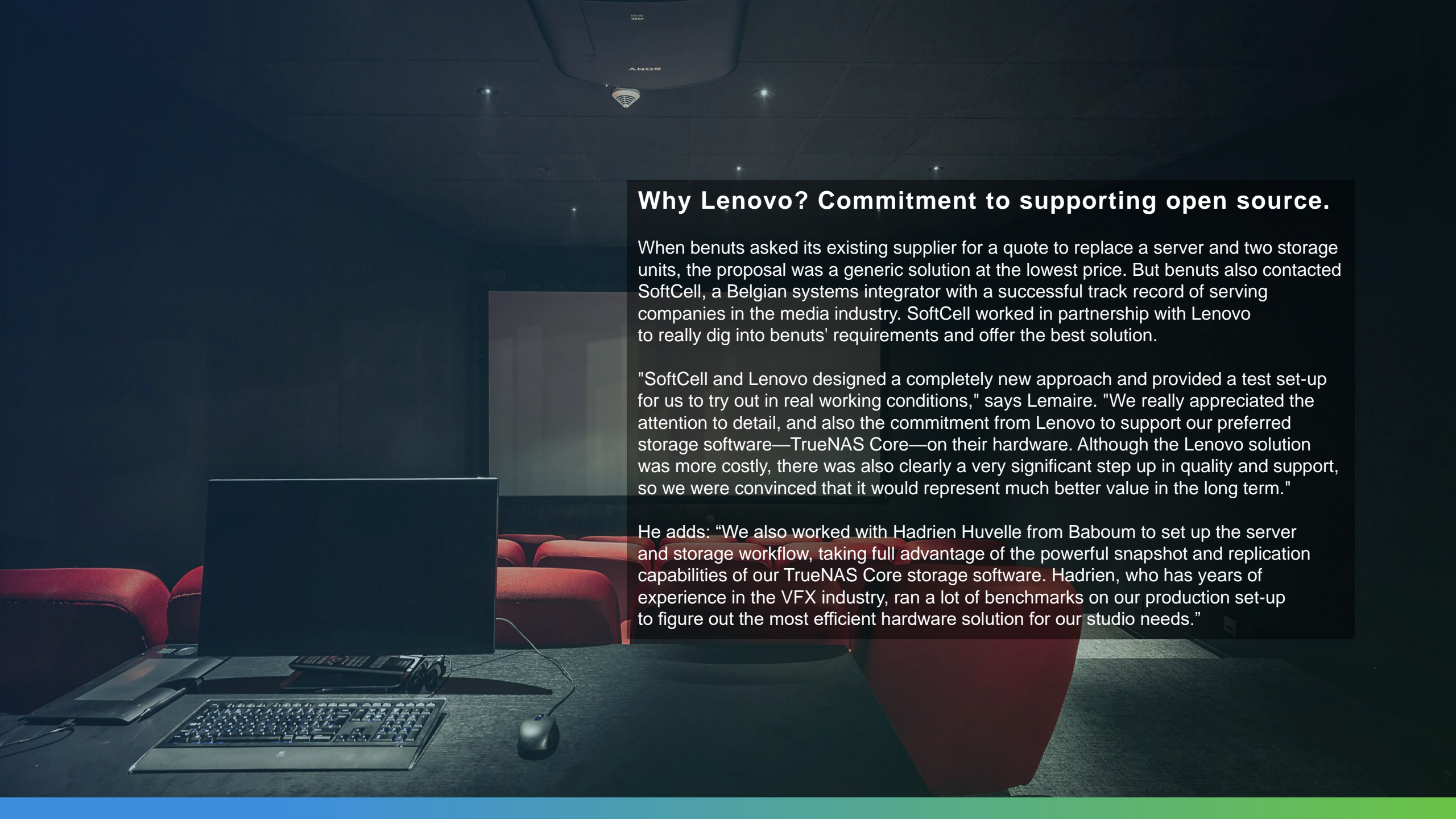
As benuts adds offices and hires new employees, its storage demands are rising. More significantly, the company must manage the growth in both quality and resolution of its digital output—the step from HD to 4K quadruples the number of pixels rendered for each frame. And the fact that many clients now demand video at 60 frames per second rather than 24 or 30 puts further pressure on both the capacity and performance of the storage infrastructure.

Kevin Lemaire, CTO at benuts, explains: "Our digital artists manipulate numerous large files—including photos, videos, and 3D models—to create visual effects, and they need rapid access to those files. We are always working to tight deadlines from our clients, and we have to juggle competing demands on our infrastructure. That meant a lot of effort and meetings between teams to balance the load and avoid having one project disrupt another's timelines. We have a large render farm for processing the final output, and we weren't able to use its machines simultaneously because that would have overwhelmed the storage infrastructure."



"When the company first started, it was easy for designers and artists to work around each other. But with our rapid growth came the need to optimize resources by adopting a truly industrialized approach to information technology."

Kevin Lemaire
CTO, benuts



Why Lenovo? Commitment to supporting open source.

When benuts asked its existing supplier for a quote to replace a server and two storage units, the proposal was a generic solution at the lowest price. But benuts also contacted SoftCell, a Belgian systems integrator with a successful track record of serving companies in the media industry. SoftCell worked in partnership with Lenovo to really dig into benuts' requirements and offer the best solution.

"SoftCell and Lenovo designed a completely new approach and provided a test set-up for us to try out in real working conditions," says Lemaire. "We really appreciated the attention to detail, and also the commitment from Lenovo to support our preferred storage software—TrueNAS Core—on their hardware. Although the Lenovo solution was more costly, there was also clearly a very significant step up in quality and support, so we were convinced that it would represent much better value in the long term."

He adds: "We also worked with Hadrien Huvelle from Baboum to set up the server and storage workflow, taking full advantage of the powerful snapshot and replication capabilities of our TrueNAS Core storage software. Hadrien, who has years of experience in the VFX industry, ran a lot of benchmarks on our production set-up to figure out the most efficient hardware solution for our studio needs."

Adopting an enterprise-class solution.

The previous storage infrastructure at benuts had grown over time as requirements increased, and consisted of six CentOS Linux servers from a variety of vendors. The company wanted to standardize this environment and also to improve the efficiency of storage management by adopting TrueNAS Core (formerly FreeNAS), an open source platform based on the ZFS file system and volume manager.

"We have a small IT team, and we wanted to save time and effort by standardizing our storage hardware," says Lemaire. "Before, the components and configuration varied from machine to machine in the storage landscape, making management more complicated. We saw that TrueNAS Core would make our lives much easier in terms of things like replicating data volumes and performing snapshots, and we wanted to find a high-quality storage server to run it on."

Working with SoftCell and Lenovo, benuts deployed three Lenovo ThinkSystem SR550 servers with 2nd Gen Intel® Xeon® Scalable processors to run the TrueNAS Core cluster together with a Lenovo Storage D3284 direct-attach storage expansion enclosure. The company has since added a second D3284 enclosure to double its storage capacity.

"The combination of TrueNAS Core software and Lenovo hardware gives us tremendous flexibility," says Lemaire. "We have also been delighted with the delivery and service from SoftCell, who always respond rapidly and effectively to our demands. We don't usually have the luxury of unused capacity on stand-by, and SoftCell helps us to ramp up capacity very quickly to meet the requirements of new client projects."



“The engineering quality of the Lenovo hardware, in combination with the high quality of support and the backing of SoftCell as the partner, means that the solution offers excellent long-term value.”

Kevin Lemaire
CTO, benuts

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Results

benuts now has a centralized, standardized infrastructure for data storage, replacing what was a fragmented and disparate environment. With three servers at the front end versus six previously, the IT team spends less time on server management, and the powerful 2nd Gen Intel® Xeon® Scalable processors make light work of storage-related tasks such as image compression.

"Our IT team remains small, even now that there are 70 people in the company. Going from six to three servers has halved the team's workload. Previously, components varied across our server and storage infrastructure. With the Lenovo solution, there are the same components in each server and the same disks in each storage array, so we don't have to hold stock of spares for lots of different types of hardware."

The two Lenovo Storage D3284 solutions hold up to 84 hot-swap SAS hard drives, for a total possible capacity of 840 TB in each 5U enclosure, while 1 TB of RAM for caching in each unit helps drive ultra-high performance.

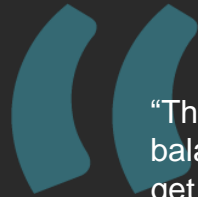
"We deployed our first D3284 initially as a backup solution, and immediately saw that it was faster than our production environment," says Lemaire. "That gave us the confidence to invest in the second D3284, as did the excellent service and support from both SoftCell and Lenovo."

The main impact of improved storage performance is seen in the increased parallelization of projects at benuts. Where previously project teams needed to meet for discussions on resource usage, the company can now run multiple major projects simultaneously without disruption. The Lenovo storage landscape is able to serve all machines in the render farm at the same time, helping teams get their output faster.

"Thanks to the Lenovo storage solution, our project teams can now work more independently and without having to worry about technology constraints," says Lemaire. "We make time savings all along the chain of production, and that makes it easier to meet the demanding deadlines that our clients set for us. With our Lenovo storage in place, we can work faster and more efficiently on multiple VFX projects at the same time."



- ✔ **Enables parallelization of VFX projects, cutting time to market**
- ✔ **Reduces time and effort associated with server and storage management**
- ✔ **Provides stable, high-speed, scalable storage to support growing business**



“Thanks to the storage solution from SoftCell and Lenovo, we no longer have concerns about balancing the demands of different projects or scheduling the use of resources. All users can get the files they need without delay and without impact on other projects. Ultimately, our clients benefit from a responsive service that delivers high-quality VFX output.”

Kevin Lemaire
CTO, benuts

What will you do with Lenovo smarter infrastructure solutions?

The Data-Centered tackle VFX projects at high speed with Lenovo smarter infrastructure solutions, powered by Intel® Xeon® Scalable processors.

[Explore Lenovo Smarter Infrastructure Solutions](#)



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