



S2D SUCCESS STORY AT CGI GERMANY

Global IT services company cuts costs and improves performance with Dell EMC Microsoft Storage Spaces Direct Ready Nodes.



CGI | Information and Technology Services | Germany

Business needs

CGI Germany wanted to renew its legacy storage environment with a software-defined storage solution based on Microsoft Storage Spaces Direct.

Solutions at a glance

- Dell EMC Microsoft® Storage Spaces Direct Ready Nodes
- Dell EMC PowerEdge™ servers with Intel® Xeon® Scalable processors
- Microsoft Storage Spaces Direct software-defined storage

Business results

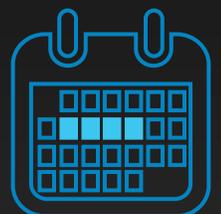
- Reduced storage costs
- Achieved faster storage performance
- Simplified IT management

CGI expects to achieve savings of up to **50%**



With preconfigured Ready Nodes, CGI saved

4 Days



Founded in 1976, CGI is among the largest independent IT and business consulting services companies in the world. With 73,000 professionals across the globe, CGI delivers an end-to-end portfolio of capabilities, from IT and business consulting to systems integration, outsourcing services and intellectual property solutions. CGI operates 23 secure data centers globally in America, Europe and Asia.

CGI strives to give the company's internal, corporate and governmental customers access to leading-edge IT solutions that help contain costs and improve performance. These were among the goals that the IT professionals at CGI Germany had in mind when they put themselves on the path to Microsoft Storage Spaces Direct in preconfigured Ready Nodes from Dell EMC.

Moving to Storage Spaces Direct

CGI Germany's move to Storage Spaces Direct was part of an IT transformation effort focused on renewing the company's existing VMware environment and investing in one of the latest trends in server-industry solutions, a hyper-converged infrastructure solution from Microsoft, according to Dominik Kowolik, a Cloud and Datacenter Senior Consultant with CGI Germany.

"We had an old VMware environment with classic SAN, and during our hardware renewal process we wanted to renew this environment," Dominik says. "We also wanted to invest more in Microsoft solutions because with Windows Server 2016, Microsoft brings a lot of innovative solutions, which can serve as the basis for a future-oriented cloud data center. Especially Storage Spaces Direct, which is a really cool product. We had tested it already in our test environment and we decided to implement it into our production environment."

"...The result was incredible. S2D on Dell EMC was 40 percent faster than those solutions. We are currently migrating all our VM into this environment, and every time I get the same feedback: 'Wow, what did you do with this database, and application? It's running really, really fast now.'"

Dominik Kowolik
Cloud and Datacenter Senior Consultant with CGI Germany

Cool technology aside, cost savings was a big motivator for the move to Storage Spaces Direct and the Microsoft Hyper-V hypervisor, according to Dominik.

"I made many cost calculations for this project and I presented them to my manager. We can save up to 45 to 50 percent of costs when we migrate from ESX to Hyper-V, to Microsoft products," he says. "And my manager said, 'Sure, let's try it. We have had positive experience with Hyper-V and S2D, so why not.' And we decided to buy the Dell EMC S2D solution. Dell EMC was willing to vet and deliver the exact prerequisites CGI had in mind for an HCI storage platform. We are really happy with the solution, and we are proud to have one of the fastest S2D implementations in Germany in our data center."

A software-defined storage system

Microsoft Storage Spaces Direct, known informally as S2D, uses industry-standard servers with local-attached drives to create highly available, highly scalable software-defined storage (SDS) at a fraction of the cost of traditional SAN or NAS arrays. Its converged or hyper-converged architecture simplifies procurement and deployment, while features such as caching, storage tiers and erasure coding, together with hardware innovations such as RDMA networking and NVMe drives, deliver unrivaled efficiency and performance.

Dell EMC Microsoft Storage Spaces Direct Ready Nodes simplify and accelerate the deployment of S2D. The Ready Nodes are optimally configured with the required amount of CPU, memory, network, I/O controllers and storage (SSDs, HDDs or flash devices). They give the IT leaders at CGI Germany the confidence and convenience that comes with preconfigured, tested and certified configurations designed for Storage Spaces Direct and backed by world-class support delivered by Dell EMC, which serves as the single point of contact for entire the Ready Solution.

Storage Spaces Direct Ready Nodes are built on Dell EMC PowerEdge™ servers with Intel® Xeon® Scalable processors. These servers provide the compute power and the storage density that CGI Germany needs to take full advantage of the benefits of Storage Spaces Direct and the advanced capabilities for the software-defined data center in Windows Server 2016.

The software-defined aspects of Storage Spaces Direct were particularly important to Dominik and his colleagues in the Cloud and Datacenter Department at CGI Germany.

“The future of virtual environments is software-defined,” he says. “The classic SAN storage is dying. It is more expensive and we know it. We are observing it in the IT world and understand the value of a virtualization platform using x86 servers with high-performant local disks to run our compute and storage needs at the same time. Microsoft and VMware are leaders of software-defined solutions, and we also want to be a part of the HCI revolution.”

An IT workhorse

The Dell EMC Microsoft Storage Spaces Direct Ready Nodes function as a versatile workhorse that carries the weight of wide range of enterprise workloads, from Microsoft and Linux applications to customer infrastructure monitoring, high SQL workloads and patch-deployment systems.

“We currently have many customers who are interested in this solution, and one also wants to try a virtual SQL always-on-failover solution based on S2D,” Dominik says. “We are currently installing this solution on S2D Ready Nodes. I would say just about every application we have is running on these S2D Ready Nodes.”

As for the performance of the S2D Ready Nodes, Dominik sums things up in a single word: wow.

“It’s a really big difference,” he says. “We tested it versus classic SAN infrastructure and we found that it is up to 70 percent faster. We also have in our data center a hyper-converged solution that was 700 percent more expensive than the Dell EMC S2D, and we also compared the performance. The result was incredible. S2D on Dell EMC was 40 percent faster than those solutions. We are currently migrating all our VM into this environment, and every time I get the same feedback: ‘Wow, what did you do with this database, and application? It’s running really, really fast now.’”

Working with Dell EMC

The IT team at CGI Germany worked closely with Dell EMC professionals throughout the entire process of adopting the S2D Ready Nodes, Dominik says.

“Dell EMC has assisted us from the beginning, from planning the hardware to making recommendations on how we should use it,” he says. “They also called us often to ask us if everything was fine. And after we decided to buy the solution from Dell EMC, they gave us a person to help us implement the system, not just the S2D solution. They helped us configure the hardware, configure the OpenManage Enterprise management solution. They showed us how to manage the system, how to monitor it, how to install new updates and new firmware and stuff like that. They were always here to support us.”

Thanks to the preconfigured Ready Nodes and their tested and certified configurations, deployment went quickly. Usually Dominik spends a day’s time for each sever he deploys. In this case, he installed five nodes, including the full software stack, in just two days.

Dominik and his colleagues also like the fact that with Storage Spaces Direct Ready Nodes, Dell EMC supports the entire solution, including the Storage Spaces Direct Microsoft software.

“We haven’t had any troubles with the system, so haven’t had to call support,” he says. “But it’s good to know that we can call Dell EMC and get both hardware and software support. And we have used Dell EMC support before for other servers, and that was always really, really fast. We were always satisfied with the support.”



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