



▶ SERVER
CONSOLIDATION AT
THE LOCAL OFFICE
OF SCHOTT

DEPLOYED SOLUTION:
DELL

Marie, marketing, DNS



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CUSTOMER PROFILE

Distributor Profile

DNS a.s.
www.dns.cz

Focus: ICT

During its more than fifteen years on the Czech market, DNS has evolved to become a highly successful, confident and financially stable value added distributor.

At DNS we focus on superior customer services and individual approach to every project. Our services cover the entire lifecycle of IT projects from planning to execution. We will help you take your project from design through pre-sales support to its final deployment. You can also count on our expertise in after-sales support, financing, marketing and education services.

SCHOTT CR, s.r.o.
www.schott.com

Focus: Glass industry

For over 125 years, the international technology concern SCHOTT has been producing special materials, components and systems to improve living and working conditions. SCHOTT focuses on home appliance industry, pharmaceutical industry, solar power, electronics, optics as well as automotive industry. With its production facilities and sales offices it serves all important markets around the world. The company employs over 17,000 people in 43 countries and its global revenues exceed two billion euros. One SCHOTT site with 350 employees is based on Valašské Meziříčí. The broad range of its products covers glass door systems for freezing and refrigeration cases and boxes (Food Display division), glass components for white goods doors and control panels (Home Appliance division) and assembly of industrial fiber and LED-based products (Lighting and Imaging division). The second fabrication site with more than 500 employees in Lanškroun focuses on production of covers and components to protect sensitive electronics, primarily for automotive and optoelectronic industries.

SCHOTT
glass made of ideas

PARTNER PROFILE

HCV group a.s.
www.hcvit.cz

Focus: ICT

HCV group a.s. is a Czech privately held company that has been delivering information technology products, services and solutions since 1992. Through systematic long-term expertise development and careful observation of customer needs it has built stable customer and supplier partnerships with a number of major companies. With its four branch offices, HCV group a.s. covers the territory of the Czech Republic and Slovak Republic. Its creed is to fulfill the expectations of its clients with highly professional services.

 **HCV**

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INITIAL SITUATION

The customer's infrastructure comprised of aging servers with insufficient capacity and performance as well as outdated OSes.

SCHOTT's infrastructure comprised of aging servers with insufficient capacity and performance as well as outdated Microsoft Windows Server 2000/2003 operating systems. The legacy solution that ran not only operations but also manufacturing-related systems was highly demanding in terms of administration, maintenance and power too. In addition, the client was struggling with capacity limits of the storage and backups.

In its request for proposal, the customer specified target solutions and requested that these were met in technical and cost proposal using hardware from single or multiple vendors.

The new solution was supposed to provide extended guarantees and support for hardware and software while streamlining administration through efficient workload distribution between distributed systems. The client required ample disk storage capacity for data storage and backup with reduced total cost of infrastructure operations. This obviously necessitated a more power-efficient solution.

The client required sufficient capacity for data storage and backup as well as reduced energy consumption.

ORIGINAL INFRASTRUCTURE

- 1x HP ProLiant ML 350 G4 server
- 4x HP ProLiant DL 380 G5 server
- 1x HP ProLiant DL 360 G3 server
- 1x HP ProLiant DL 360 G5 server
- 1x HP ProLiant DL 370 G3 server
- 1x IBM eServer 306m server
- 1x Dell PowerEdge R 310 server
- 1x HP StorageWorks MSA 20 storage array

MAIN DRAWBACKS OF THE ORIGINAL SOLUTION

- Expiring hardware guarantee
- Expiring operating system support
- High cost of operation sustainability (high cost of extended guarantees for numerous hardware units)
- Difficult, time-consuming and inefficient management of many systems

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- Direct SCSI-cable connects between data storage units and autoloaders, non-transferable hardware
- Insufficient backup capacity
- Insufficient data storage capacity
- High energy consumption

EXPECTED BENEFITS

- Guarantee for another at least five-year period, supported operating systems
- Sufficient disk storage capacity with a view to the future
- Better server load distribution in the virtual environment
- Service and communications redundancy – higher availability
- iSCSI connectivity
- Simpler and more efficient management
- More energy efficient operations and cooling
- Increased backup capacity due to technology changes

PROPOSED SOLUTION

HCV group a.s. proposed infrastructure consolidation solution using dual Dell PowerEdge R720 servers and Dell EqualLogic storage. The significant reduction in the number of servers significantly simplifies network topology and streamlines its management.

VMware vSphere Standard virtualization will ensure high availability of the proposed hardware structure. This concept was proposed to the customer as a proven solution and HCV group a.s. arranged reference visits to their other clients who have already successfully deployed this approach.

Storage capacity was increased from 12 TB to 36 TB. The scalable solution will also enable future expansion without additional reconfiguration or migration costs. LTO-3 backup technology was replaced with much faster LTO-5 in the Dell PowerVault TL2000 that uses iSCSI connectivity.

The proposed solution met the customer's expectations and with its full scalability future-proofed the infrastructure to enable further expansion without additional reconfiguration or migration costs.

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TECHNICAL SPECIFICATIONS OF KEY COMPONENTS

2x Dell PowerEdge R720xd server

- Intel Xeon E5-2650 8C processor
- 32 GB RAM 1333 MHz dual rank, 4x LAN
- PERC H710 controller, 2x 1 TB HDD v RAID1, dual SD module for VMware
- Dual HotPlug power supplies
- iDrac 7 Enterprise for remote management

Dell PowerVault TL2000

- LTO5 technology 1.6/3.2 TB
- SAS Dual Drive – two backup jobs at the same time
- SAS HBA card for the server

Dell EqualLogic PS4100E

- 12x 3TB NearLine SAS
- Redundant controller, redundant power supply

SCHEDULE

The installation and implementation of the new solution took six weeks. At times of physical to virtual server migration, the customer coordinated weekend switching of systems with its manufacturing.

To ensure uninterrupted data migration in full operation, Dell EqualLogic storage array was provided by Dell's value added distributor DNS, a.s.

THE MIGRATION PROCESS

1. Test migration of physical servers to virtual and testing
2. Live migration of physical servers to virtual
3. Application and service testing
4. Backup plan set up

To ensure uninterrupted operations, the six-week installation and implementation was carried out on weekends.

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PROJECT EVALUATION

Having passed a training and preparation at the value-added distributor DNS a.s., HCV group a.s. was certified as Dell Storage Partner. DNS also provided its partner with technical training to ensure successful deployment of virtualized storage in the virtual infrastructure.

Through the server upgrade, HCV group a.s. as a supplying partner brought significant IT cost savings. Reduced administrative overhead streamlined the operations of the client's IT department while higher system and application availability supports business continuity. As a testimony of the solution's room for growth, two additional virtual servers were added just two months after the solution implementation without any additional investments.

MAIN SOLUTION BENEFITS

- Easy scalability
- Failover solution
- Hardware independence
- Efficient and easier administration
- Simplified network topology
- Faster backups and increased storage capacity
- Reduced energy consumption – cost savings

CUSTOMER STATEMENT

"We are happy with the deployed solution as the consolidation reduced the amount of installed hardware, decreasing cooling and power requirements. Redundant components and system virtualization running on uniformly managed infrastructure provided the high availability we required. System management in a single environment saves our administrators time while enabling common management of both of our sites.

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The new hardware has ample capacity and performance for the deployment of additional systems without additional investments, expanding our capabilities and saving costs.

This solution clearly increased the availability of systems and applications while allowing additional extensibility for the future. We can recommend it to other customers who are thinking about consolidating their servers.

The solution design and subsequent implementation occurred as scheduled and to customer satisfaction.

The solution design and subsequent implementation occurred as scheduled and to our satisfaction. The partner was well-versed in the issues of consolidation and readily familiarized with our environment; our operations or manufacturing were not limited in any way during the course of implementation.”

Customer's contact person:

Ing. Libor Stolař
IT Department Head
libor.stolar@schott.com
www.schott.com

DNS a.s.
City Empiria
Na Strži 65/1702
140 00 Praha 4
www.dns.cz
dns@dns.cz