



Individual and Fully Carefree Infrastructure for DATEV eG.

Unified Computing Platform Makes Server Allocation Around 60 Times Faster



Around ten million workers in Germany are familiar with DATEV eG through their monthly payslip. This Nuremberg-based IT service provider and software company always keeps its high-performance data center at the cutting edge of technology. The cooperative has used a comprehensive integration concept to customize the Vblock unified computing platform, provided by the Virtual Computing Environment Company (VCE, founded by Cisco, EMC and VMware), to meet the needs of its existing infrastructure. The new-design D(atev) blocks combine Cisco UCS servers and Nexus Switch, an EMC and VMware vSphere storage system, into a Unified Data Center within a single housing. They expand and update the 19-inch server landscape, dramatically reducing allocation times for ESX servers. The bottom line is that DATEV is also making savings when it comes to operating costs: systems administration and allocation require less attention from personnel, the integrated combination blocks use less electricity and air-conditioning, plus the use of cable materials for networking is also greatly reduced.

Nuremberg-based DATEV eG provides tax advisers, accountants and attorneys, as well as their clients, with support in the form of software and IT services. Operating within a cooperative, the company has around 40,000 members looked after by around 6100 employees. The DATEV range of services includes software for accounting, human resources, business consultation, tax calculations and the organization of both companies and chambers. DATEV (derived from the German "Datenverarbeitung," meaning data processing) was founded in 1966 and is one of Europe's largest information service providers and software companies. There are some impressive figures to back up this claim; the financial accounts of around 2.5 million companies, mainly German SMEs, are set up by a tax adviser or the companies themselves using DATEV software. As such, DATEV represents a German standard in IT-assisted accounting.

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DATEV operates modern data centers at four locations in Nuremberg for members and clients; these data centers are consistently kept up-to-date from a technological perspective. When the first integrated infrastructure blocks emerged on the market in 2010, Heinrich Golücke, Head of IT Infrastructure at DATEV, and his colleagues began to develop an interest in this technology. "What we particularly liked was of course the fact that the required functions, servers, network and storage can be allocated

Background

Headquartered in Nuremberg, DATEV eG offers software solutions and IT services across Europe for tax advisers, accountants and attorneys, as well as their clients. The cooperative has around 40,000 members, and develops and markets programs for accounting, human resources, business consultation, tax calculations and organization.

Challenge

DATEV wanted a modern, easy-to-manage, failsafe, cost-saving and future-proof infrastructure solution that would integrate well within its existing rack server environment.

Solution

DATEV introduced two D(atev) blocks in November 2011. The personalized infrastructure solution is based on a Vblock with Cisco components from the Cisco manufacturing consortium (Cisco Nexus and Unified Computing System), VMware (virtualization framework) and EMC (storage system).

Benefits

- Servers made available 40 to 80 times faster
- Human resource costs reduced by 20%
- Energy cost savings of 30%
- Smaller floor space required in data center
- Easy expansion of a customized infrastructure solution thanks to established integration concept
- A central point of contact for support and maintenance

as an infrastructure block with greater ease and at a lower cost," says Golüke. "People instinctively try to achieve as much as possible with minimum resources. This is why tightening up our allocation process for server services was a major priority for us."

As part of a market analysis, DATEV studied integrated systems from HP, IBM and Fujitsu Germany alongside the Unified Computing System (UCS) from Cisco. After consultations with manufacturers and customers and probing of studies and market information, the solutions were narrowed down to long-standing supplier of rack servers HP and the Unified Computing System. The aim was to introduce a dual-vendor strategy with a second server provider. "At the time, Cisco scored points as the new player in the server market, while also being traditionally strong in the field of networking. From an integration perspective, the VCE alliance with EMC and VMware was also a positive signal in the market." VCE's Vblock infrastructure solution was also persuasive from an economic point of view. This Unified Data Center for virtualization tasks combines the Cisco Unified Computing System, a Cisco Nexus Switch, Unified Storage from EMC and the vSphere platform from VMware.

Intensive Preparation for a Tailored Solution

Before the infrastructure blocks were actually implemented, DATEV began working together with Cisco partner Computacenter in July 2011 to devise an integration schedule. This phase saw the standard configurations of the mini data centers adapted to meet DATEV requirements so that the Vblocks were not designed to their original specifications but as D(atev) blocks. As well as integrating mirrored hard disk systems into the individual DATEV stacks, the company also modified the new data center modules to meet individual management requirements. "In order to maintain uniform systems management, we replaced the supplied systems configuration software with the BMC BladeLogic server automation tool that we were already using," says Jochen Podschadel, Team Leader for Windows Server Systems. Now that DATEV has its own D blocks, the company has a sophisticated platform enabling quick and easy expansion. "This one-off integration of failsafe, cross-site systems within our specific processes really was worth the time and effort," emphasizes Golüke.

With Computacenter support, Golüke's team employed a migration concept to determine precisely which ESX server clusters should be moved to the new UCS Cisco blades. Following successful failover tests and the assumption of computing capacities at the relevant alternate site, DATEV began operating two D blocks in November 2011 as an installation in addition to the existing rack server environment. The first step was to use 32 blade servers for internal applications within the D block infrastructure. The data from the alternate data center is mirrored in the primary site opened in 2011. The D block blade servers are all fully equipped with ESX server featuring vSphere version 4. The central farm for the DATEV eG internal communication network is entirely housed within the new infrastructure. It combines all kinds of servers—from file servers offering up to two terabytes of space to application servers and SQL servers—to form an extremely uniform landscape. Windows and Linux serve as the major operating systems.

Computacenter was the main contractor and sole point of contact for DATEV throughout the entire life span of the project, and most importantly during the crucial integration design stage, channeling all queries to the respective manufacturers. "We felt we were in good hands throughout, even during the commissioning phase of the blocks, with our partners as well as our manufacturers," says Harald Dazian, Head of Server Systems at DATEV eG.



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Server Readiness at the Touch of a Button

The new technology from Cisco and the outstanding integration capability offered by the D block components are already demonstrating the recognized benefits of a service-oriented Unified Data Center. This is especially true for allocation times. "In the past, we had to first obtain the ESX servers, then integrate them within networks and storage systems, test them and finally allocate them. Nowadays, we set up IT resources centrally in the D block, meaning we can allocate ESX servers 40 to 80 times faster than before," explains Dazian. This fast readiness is also a bonus when it comes to availability of the infrastructure.

The block solution is helping DATEV eG to keep operating costs under control, saving around 30% <savings> on energy costs (electricity and air conditioning) for the integrated stacks. The D blocks are also extremely densely packed, which saves precious space in the new data center, so that these 1000 square meters are sufficient room for massive growth in IT in the years to come. The intensive preparation to ensure straightforward integration of the D blocks into the DATEV environment and an easy way to allocate ESX servers has also paid off in another way: the D blocks have caused human resource costs within servers, network and storage to fall by around 20% compared with conventional server architecture. "These savings make it possible for us to manage server growth without the need for new configurations," explains Golüke. No less significant is the reduction of hardware investments, such as the amount of cabling and switchboards required per server, thanks to the networking paths integrated into the blocks.

DATEV's high expectations were also met in terms of service: "When you have a multi-faceted infrastructure such as the D block solution, it is vital to have a central point of contact—or 'one throat to choke'—for support and maintenance. DATEV eG is completely satisfied with Computacenter's role as problem-solver and coordinator for networking, storage and servers," reports Golüke.

D Blocks Continue to Grow

Downtime is an alien concept in the DATEV data center. At present, the IT team is equipping each D-block with 16 new servers. Thanks to the already described, well-grounded plans for integration, the effort required for this expansion is virtually non-existent. In the first production level for the block architecture, DATEV initially sought to gather experience with its complex and diverse range of internal applications. In the meantime, Golüke and his team are already testing the economic and technological feasibility of a brand new application scenario; the idea is to apply an external service called DATEVasp (Application Service Providing) and its corresponding hardware for members and clients to the integrated infrastructure blocks.

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