SERVICE PROVIDER BUILDS PRIVATE CLOUD SERVICES USING VBLOCK™ INFRASTRUCTURE PLATFORMS

ECKD used the Vblock™ 1 solution from Cisco, EMC, and VMware to deliver IaaS and SaaS to churches and public sector customers.

Executive Summary

EDV-Centrum für Kirche und Diakonie (ECKD)
IT Service Provider
Germany
84 Employees; 20 Million Church Members Served

Challenge

- Build secure, multitenant cloud for churches and public sector organizations
- Simplify management
- Increase business agility

Solution

- Vblock 1 solution, consisting of pre-integrated Cisco Unified Computing System (UCS), VMware vSphere 4 software, and EMC CLARiiON CX4 storage
- VCE Seamless Support

Results

- Enabled customers to dynamically scale resources on demand
- Accelerated time to market for new services
- Reduced adapter and cable count by 90 percent

Challenge

EDV-Centrum für Kirche und Diakonie (ECKD) is one of Germany's leading IT providers for churches, and recently expanded to serve public sector clients as well. Based in Offenbach, the company also has subsidiaries in Berlin, Hamburg, Kassel, and Suhl. Major partners include the Evangelical Church in Hessen and Nassau, the Evangelical Church of Kurhessen-Waldeck, the Evangelical Credit Cooperative eG, the North Elbian Evangelical Lutheran Church, and the Evangelical Church of Berlin-Brandenburg-Silesian Upper Lusatia.

"Thanks to Vblock 1, we can now virtualize most applications requiring high availability."

- *Michael Otto*
  Divisional Director of IT Services/Data Center and Registry/Fundraising
  ECKD

Previously, ECKD used another service provider's data center to deliver intranet and hosting solutions to customers. "We continually look for innovative approaches to make our services simpler, more flexible, more cost-effective, and customizable for each customer's requirements," says Michael Otto, divisional director of IT Services/Data Center and Registry/Fundraising for ECKD. In 2010, ECKD decided to build its own energy-efficient data center to "react more quickly, improve the quality of service, and expand our product range," Otto says.

The new data center, located in Kassel, would be used to deliver infrastructure as a service (Iaas) and software as a service (SaaS) for business applications such as Microsoft Exchange, Cisco Unified Communications, and various financial and human resources applications. "Virtualization was the central design theme," says Sven Meyer, data center division manager for ECKD. "Virtualization would increase utilization of compute, network, and storage resources, avoiding energy costs for unused resources."

Solution

ECKD built its service delivery platform using Vblock Infrastructure Platforms from VCE. ECKD's Vblock 1 solution includes a pre-integrated Cisco Unified Computing System (UCS), Cisco Nexus 1000V software switch, Cisco Multilayer Director Switch (MDS) 9516, EMC CLARiiON storage with RSA security, and the VMware vSphere platform.

To assist with data center planning, design, and implementation, ECKD engaged T-Systems. "Vblock Infrastructure Platforms from VCE provide a long-term viable platform for private cloud environments today," says Gottfried Ostendorf, a T-Systems sales manager for church and social welfare.

Security technologies from VCE work together to keep each customer's data private as it moves through ECKD's cloud. For instance, the Cisco Nexus 1000v Switch associates a security policy with each virtual machine as it moves between Cisco UCS server blades. RSA Security protects data stored on the EMC CLARiiON CX4 storage system. And the Cisco ASA Adaptive Security Appliance 5500 protects each customer's traffic as it travels to and from the data center, using firewall, encryption, and authentication technologies.

ECKD takes advantage of the VCE's virtual support center for fast remediation of technical issues. "In terms of Vblock Infrastructure Platforms, Cisco, EMC, and VMware operate like a single company," Ostendorf says. VCE Seamless Support benefits ECKD as well as its customers because they do not have to wait while multiple vendors attempt to determine whose technology is responsible.

Customers use ECKD's managed cloud service for IaaS as well as a variety of SaaS offerings, including Microsoft Exchange, tax reporting, asset management, human resources, fundraising, donations, and Cisco Unified Communications. ECKD grants access to financial software in the cloud through Citrix terminal emulation.

"The Vblock solution lets us manage all cloud infrastructure from end-to-end, down to the level of individual virtual machines."

- *Sven Myer*
  Data Center Division Manager
  ECKD

Results

High Service Levels for Customers

With the management tools in the Vblock 1 system, ECKD staff can dynamically provision compute and storage resources for customers based on changing business needs. Dynamic provisioning saves customers from having to wait while servers and storage are procured, configured, and cabled, and eliminates the high cost of provisioning for peak needs.

ECKD's customers also benefit from the Vblock 1 system's high availability. Previously, customer databases with high availability requirements, such as church registries, had to reside on physical servers. "Thanks to the Vblock 1 solution, we can now virtualize almost all applications requiring high availability," Otto says. If a server blade needs repair, ECKD can quickly move the virtual machines on that blade to another available blade in any Cisco UCS chassis.

Using the Vblock 1 solution, ECKD can also virtualize its Cisco Unified Communications servers, offering VoIP and voicemail in the cloud. This service enables ECKD's customers to take advantage of the latest communications and collaboration tools without the capital outlay and management overhead of hosting their own servers.

Simplified Management

Vblock Infrastructure Platforms accelerated ECKD's move to the cloud by providing pre-tested and pre-integrated compute, networking, storage, and virtualization components. The pre-integrated solution eliminated the time, cost, and risk that ECKD would have incurred to make different vendors' solutions work together.

The Vblock 1 solution simplified ongoing management as well, because EMC Ionix Unified Infrastructure Manager (UIM) provides a single management interface for all components.

"The Vblock 1 solution lets us manage all cloud infrastructure from end to end, down to the level of individual virtual machines," says Myer. Rather than spending hours configuring servers, networking, and storage for each new customer or service, ECKD uses EMC Ionix UIM to create service profiles, and can apply a profile to Cisco UCS server blades with a few clicks.

Cost-Effective Operations

Using the Vblock 1 solution, ECKD reduced the number of server adapters and cables by 90 percent. Instead of each server requiring its own connections to the data network and EMC CLARiiON CX4 storage, all server blades in the Cisco UCS connect to the data network and storage through a single pair of Cisco 6100 Fabric Interconnects.

Vblock Infrastructure Platforms also support ECKD's commitment to "green IT." Any other platform would have required four times the power for the same workload, according to Otto.

Finally, the VMware virtualization technologies included in the Vblock 1 system reduce capital and operational costs. "The more advanced the virtualization, the higher the degree of IT resource utilization," says Myer. "This reduces unused capacity that costs money to operate and requires electricity to cool."

Next Steps

ECKD plans to introduce a customer self-service portal so that customers can increase or decrease resources on demand, without any involvement by ECKD staff. The company is also planning a new service enabling customers to use a web interface to create a virtual web server in the cloud. For example, a community nursing home could quickly create a service allowing nurses to dictate patient notes into a PDA and transfer them to the web server. Reducing time spent completing forms would free time for nurses to assist residents. Many nursing homes cannot justify the cost of purchasing and managing servers for this application, but with ECKD's cloud service, they can pay for only the resources they need.

Product List

Data Center

- Vblock 1
  - Cisco Unified Computing System
  - Cisco Nexus 1000V software switch
  - Cisco MDS Multilayer Director Switch 9516
  - EMC CLARiiON storage with RSA security
  - VMware vSphere
- VCE Seamless Support

ABOUT VCE

VCE, the Virtual Computing Environment Company formed by Cisco and EMC with investments from VMware and Intel, accelerates the adoption of converged infrastructure and cloud-based computing models that dramatically reduce the cost of IT while improving time to market for our customers. VCE, through the Vblock platform, delivers the industry's first completely integrated IT offering with end-to-end vendor accountability. VCE's prepackaged solutions are available through an extensive partner network, and cover horizontal applications, vertical industry offerings, and application development environments, allowing customers to focus on business innovation instead of integrating, validating and managing IT infrastructure.

For more information, go to www.vce.com.