"KEMP provides High Availability for multisite Hybrid Cloud Deployment"

ACP IT Solutions GmbH & Rödl IT Operation GmbH

Customer Success Story

Website
http://www.acp.de/

ACP IT Solutions GmbH
Holzmarkt 1
50676 Cologne
Germany

Website
http://www.roedl.com/

Rödl IT Operation GmbH
Britter Straße 1
66693 Mettlach
Germany

"When various scenarios had been outlined and the pros and cons weighed up, the customer chose geo DNS load balancers from KEMP Technologies. They deliver the necessary functionality at a reasonable cost/benefit ratio"

Running applications in hybrid mode (in the cloud and on premises) involves some considerable challenges, especially when high availability is required. This is where geo load balancing comes into play: it connects data centres seamlessly across different cities, countries and even continents and distributes traffic intelligently.

A family business that deals in ceramic products was facing this scenario early in 2016. This global player with several thousand employees migrated part of its IT infrastructure to the Microsoft Azure Cloud in July 2016 and was already running applications in parallel in an on-premise VMware environment, i.e. at the company's various sites. This hybrid architecture gave the company the necessary flexibility to manage more sensitive applications in-house and to run others cost-efficiently in the cloud.

One of the company's core goals, however, was to ensure high availability across various data centres – with the option of expanding this to provide a faster service on an intercontinental basis. Requests should always be directed to the closest data centre in order to maximise performance; failure of mission-critical systems or services would not only impair performance but might also cause high follow-up costs.

The long-standing service provider Rödl IT Operation GmbH and ACP IT Solutions GmbH therefore presented the most suitable options to their customer at a workshop in February. "When various scenarios had been outlined and the pros and cons weighed up, the customer chose geo DNS load balancers from KEMP Technologies. They deliver the necessary functionality at a reasonable cost/benefit ratio," says Adam Bielak, Collaboration Services team leader at Rödl IT Operation. In addition, they can detect the location of a client computer in real time and thus handle seamless fail-over and fall-back to the geographically closest data centre while maintaining top performance.

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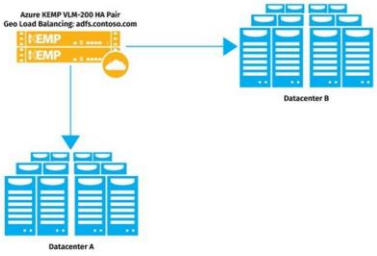

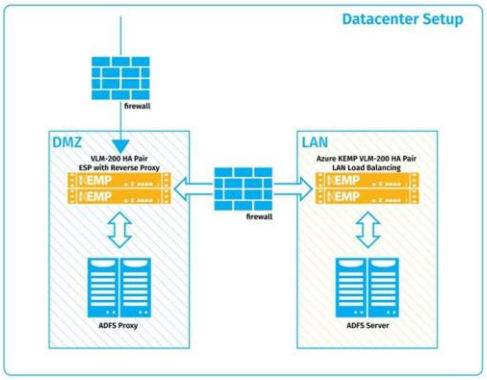

Geo load balancing across multiple sites

This provides optimum support for Web-based applications like Microsoft Exchange. If it does come to a service outage at any time, data traffic is automatically controlled according to defined policies in such a way as to limit the impact. Manual interventions are only needed in rare cases. KEMP’s geo LoadMaster systems detect faults in servers and at data centres, and reroute the traffic accordingly. Monitoring and load balancing are based on layers 3 and 4 of the OSI model (Open Systems Interconnection – Basic Reference Model).

The virtual LoadMasters were implemented in April 2016 under the aegis of IT partner ACP IT Solutions. “After a successful test phase, we were able to put the application live at the end of May. We benefited from having expertise both in the application and in load balancing, specifically with regard to Microsoft Cloud products,” adds Sascha Killeweit, principal consultant at ACP. Since then, the ceramics company has been using two Azure VLM-200 LoadMasters in the cloud for load balancing. The on-premise data centre is based on a common virtualised VMware environment in which both the VLM-200 demilitarised zones (DMZ) and LAN clusters are used.

This architecture makes it possible to chain three levels together, improving performance and security alike. On the first, external layer (the Internet), the LoadMasters in the Azure Cloud decide which data centre they will direct the requests to. At the local data centre, two highly available VLM-200 appliances handle load balancing and reverse proxying in the DMZ. The DMZ is a computer network that provides secure access to the servers connected to it. Reverse proxying is handled by the KEMP Edge Security Pack (ESP), a feature for Internet-based Microsoft applications like Exchange which protects mission-critical IT infrastructures against unauthorised access. To meet the high security requirements at the data centre, the DMZ appliances finally direct the requests to the highly available VLM-200 systems on the LAN. These carry out the actual load balancing within the data centre.

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Products:

- Microsoft Azure
- KEMP VLM-200 for MS Azure
- KEMP VLM-200
- KEMP Edge Security Pack ESP

Benefits:

- Flexibility
- Security
- Cost Efficiency

“The outcome is a hybrid scenario in the form of a homogeneous, easy-to-manage environment at low cost.”

Conclusion: Flexibility, Security, Cost Efficiency

All of the customer’s requirements have been met. Geo load balancing makes sure that availability, performance and security are all high, avoiding outages and the considerable cost they might entail. The customer is in a position to improve its service quality. “In conjunction with Azure, the solution has its particular charm. We make use of the most innovative technology in the Microsoft Cloud and network it with existing on-premise structures. The outcome is a hybrid scenario in the form of a homogeneous, easy-to-manage environment at low cost. And end users can be sure to get the fastest connection with top performance,” Sascha Killeweit points out in conclusion.

Adam Bielak is also satisfied with the proactive approach: “The customer benefits from greater transparency when accessing services and does not even notice which systems or services are being used and that, for example, a data centre is currently in maintenance mode. This is advantageous for the IT department, in particular, as it makes system maintenance more flexible.”

If necessary, the KEMP solution on the basis of Microsoft Azure can be adjusted to new circumstances and be expanded.