Bechtle slashes server deployment times to underpin business growth

HPE Synergy delivers speed and agility to leading IT service provider

Private cloud and IT services provider, Bechtle Hosting and Operations, wanted to upgrade its customer offering and streamline its internal platform management and provisioning. Automated processes and composable computing were the answer and they were delivered by HPE Synergy.
“Implementing HPE Synergy has removed obstacles to our growth. We were limited by space and we were limited by the time needed to deploy new servers but all that has gone. Now we can just grow and grow with no limits. We allocate space in the Bechtle data center, we buy new frames, put them in and then deploy new servers.”

– Stephan Dangl, team lead for servers, storage and virtualization, Bechtle Hosting & Operations GmbH

It’s a Hewlett Packard Enterprise channel partner and BHO operates from three inter-connected data centers in Frankfurt, Friedrichshafen and Rüsselsheim. Its principal offering is the Bechtle Private Cloud, based on the VMware® cloud computing management tool, vCloud Director. Additional cloud services include backup, replication and S3 target while optional services on top of IaaS offer fully managed virtual machines, application and firewall management and 24x7 service desk and incident management.

“Bechtle Hosting and Operations is the central service unit that manages remote services for our three locations,” says Christian Heckmann, manager of BHO’s service portfolio. “We built this platform to give our customers a way to easily use our cloud services. They don’t have to invest in a lot of hardware or licence costs because they pay for the services they use by the hour.”

BHO was running its hosting operations from the Friedrichshafen data center on traditional HPE ProLiant DL360 servers but that set-up was unwieldy to manage and did not meet the Tier 3 data center classification BHO wanted for its customers.

Different areas were only divided by a fireproof wall but were in the same building with no geographical redundancy. It was decided to upgrade the offering with rented space at the ultra-modern e-shelter server hosting facility in Frankfurt.

“When we did this, we also thought about how we wanted to drive our service in future,” explains Stephan Dangl, team lead for servers, storage and virtualization at BHO. “The data center in Frankfurt does not have any BHO personnel on-site so what we needed was infrastructure that could just be unpacked and installed without any IT knowledge. We wanted the ability to send in a new compute model and tell the hands-on people there to unpack it and put it into the appropriate slot. We would then do everything remotely to get away from the previous situation where our server deployment was all manual.”

Previously, it could take BHO nine hours to deploy a new server with rack installation and cabling was slow and error prone. Integrated Lights-Out (iLO) setup, firmware upgrades, documentation ESXi installation and configuration were all manual and many different departments were involved, leading to wasted wait time.
Solution

Composable infrastructure
Delivering compute, network and storage as a single composable infrastructure with integrated management of fluid resource pools, HPE Synergy is software-defined from the bottom up and allows users to program infrastructure as code. After hands-on demonstrations, it became evident that composable infrastructure would answer BHO’s challenges. Also, BHO already had experience with HPE OneView, an integrated management appliance that transforms HPE Synergy into an intelligent software-defined infrastructure.

BHO has implemented HPE Synergy 12000 frames in each of two data center locations. Those frames contain HPE Synergy 480 Gen9 Compute Modules to run customers’ virtual machines and compute modules for the management platform. There is one HPE Synergy D3940 Storage Module at each site. They run a VMware vSAN and are only used for the management platform.

Each site has redundant HPE Synergy Composers, powered by HPE OneView management software, and BHO has also implemented redundant HPE Synergy Image Streamers at each site. Image Streamer works with the composers to drive rapid system deployment and updates.

BHO is also taking advantage of some of the HPE OneView Integrations. Independent Software Vendors in the HPE Composable Infrastructure Partner Ecosystem have worked with HPE to create a number of packaged integrations with their own software. They make use of the HPE OneView Unified API and are designed to accelerate time-to-value by reducing the time spent managing environments. They also enable HPE Synergy and HPE OneView users to stick with their familiar automation tool but still use the advantages of HPE OneView to drive the underlying infrastructure. BHO is using the HPE OneView integration with VMware vCenter to monitor hardware.

BHO uses the Microsoft® task automation and configuration management framework, PowerShell, and the RESTful API integrated resource model which interacts with HPE OneView to remove the need to repeatedly enter and maintain the same configuration data.

Benefit

Reduced cost and increased efficiency
Deployment speed is first and foremost in BHO’s list of HPE Synergy benefits. The previous time of nine hours to deploy a single server has now been reduced to 55 minutes.

“This speed enables us to deploy as fast as we sell, and we don’t need to over-provision with a lot of servers. We can just deploy them as we need them,” says Dangl.
Customer at a glance

Hardware
- HPE Synergy 12000 Frames
- HPE Synergy 480 Gen9 Compute Modules
- HPE Synergy Storage Modules
- HPE Composer
- HPE Synergy Image Streamer management appliance

Software
- HPE OneView

HPE Pointnext services
- HPE Foundation Care

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The unpacking and installation is done by on-site staff at the data center, automatic deployment of iLO, firmware and ESXi is done through HPE OneView and Image Streamer and hardware is constantly monitored with HPE OneView and vCenter. Documentation is always available in HPE OneView and all teams now work from a single management pane. The company also has fully automatic VMware ESXi server deployment at its Frankfurt and Rüsselsheim data centers and self-service VM deployment for customers via VMware vCloud Directory.

Heckmann adds: “The other main benefit will be in the future. At the moment we only run a VMware platform but it’s quite possible that we will start providing other services such as OpenStack® or maybe Microsoft Hyper-V because we will not have vendor lock-in.”

“HPE Synergy also scales very well because we don’t need to buy top of the rack switches. Three frames are one building block and we connect it with four network ports at the moment delivering 160GBit/s which is more than enough. This network infrastructure will be sufficient for a long-time, so we can just deploy new building blocks without buying new network hardware and this will save cost.”

Although BHO is in the early days of its HPE Synergy journey, it also anticipates further cost savings achieved by running unmanned data centers, eliminating over-provisioning and underused servers. This highly scalable solution also delivers headroom for business growth.

Heckmann concludes: “We expect that using HPE Synergy will enable us to increase our business. We are already starting to on-board new customers to this new platform and we can already see the benefits in daily use.”

Learn more at hpe.com/synergy