IT Provider Improves Efficiency with Self-provisioning

ORBIT gained production efficiencies by using Cisco UCS Director to manage all layers of their FlexPod environment from a single interface.

Executive Summary

- **Customer Name:** ORBIT Gesellschaft für Applikations- und Informationssysteme mbH
- **Industry:** IT solutions
- **Location:** Bonn, Germany
- **Number of Employees:** 145
- **Website:** www.orbit.de

Challenge

- Unify infrastructure management across physical, virtual, and bare-metal layers
- Automate provisioning of virtual machines with self-service portal for developers
- Manage and track resource usage to accurately invoice clients

Solution

- Implemented Cisco UCS Director to manage all layers of FlexPod environment from single interface
- Deployed converged FlexPod infrastructrure to support vms

Results

- Reduced server and service provisioning time from days to hours
- Gained visibility into process workflow
- Saved several days a month in labor

Challenge

Founded in 1985, ORBIT is a leader in providing IT consultancy and project management services for companies in Germany. As a certified Cisco partner, ORBIT works closely with customers to provide the best virtualization, network, and data center environments to help customers succeed. Concentrating on long-term relationships and exceptional services, ORBIT runs a relatively small team of 145 highly-skilled professionals who use a targeted but flexible approach to determine what customers need and help them reach their goals.

As business grows and customers' requirements become more complex, ORBIT needs an increasing amount of resources to deploy and manage the virtual machines that developers use to test environments and build customers' solutions. "We run a lean and flexible shop, using internal consultants instead of a permanent IT department," says Mike Majunke, head of infrastructure and platform services at ORBIT. "The problem was that consultants were spending too much time provisioning virtual machines when they could be handling more impactful tasks around the company."

In addition to improving management, ORBIT wanted a better way to track the virtual machines used for individual projects. The company decided to start invoicing clients for resource usage, which made accurate tracking an essential part of accountability. ORBIT also saw tracking as an important way to increase utilization rates by quickly identifying and returning dedicated resources to the overall resource pool once projects are complete.

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>
> – **Mike Majunke**
>   Head of infrastructure and platform services (consulting unit)
>   ORBIT

Looking for ways to streamline management and reduce the load on consultants, ORBIT decided to develop a self-service portal with standard workflows that allow developers to provision virtual machines as needed. To support this new automated provisioning model, ORBIT chose the converged FlexPod infrastructure, which is built around Cisco Unified Computing System™ (UCS®) servers, NetApp storage systems, Cisco Nexus® switches, and VMware.

Without a dedicated IT department, ORBIT needed the virtual environment to be as easy to deploy and manage as possible. While the converged FlexPod environment meets the company's needs for flexibility and scalability in a simplified environment, unifying management across physical, virtual, and bare-metal layers still posed a challenge. Rather than implementing separate management software for each layer, ORBIT chose Cisco® UCS Director as a holistic management solution. "Using Cisco UCS Director, we are unlocking the full potential of our converged FlexPod solution to automate provisioning and management of virtual machines for our developers," says Majunke.

Solution

After considering several options to host the development virtual machines, ORBIT deployed a converged FlexPod infrastructure. Cisco UCS B200 Series Blade Servers provide exceptional performance and density to handle virtual machines when virtualized with VMware vSphere. Cisco Nexus 5500 Series Switches offer broad connectivity support for both the Cisco UCS servers and the NetApp FAS3200 Series Storage Systems. The flexibility of these components gives ORBIT the agility that it needs to scale quickly and support a wide variety of loads in the virtual environment.

By using the FlexPod solution, ORBIT can manage the environment as a single entity rather than as many parts. "Being able to configure the entire FlexPod environment from one interface cuts back on the time required for our IT consultants to deploy and manage our virtual infrastructure," says Majunke.

Cisco UCS Director takes the FlexPod environment one step further with unified management, automation, and orchestration across all layers. Legacy management solutions traditionally cover only specific areas of an environment, such as provisioning virtual machines or configuring physical components. Using Cisco UCS Director to administer all components enables ORBIT to take advantage of the integration that makes the converged infrastructure so beneficial. Since Cisco UCS Director works smoothly with the FlexPod infrastructure, ORBIT could use existing clusters without needing to change workflows or configurations.

Using the workflows and automation available in Cisco UCS Director, ORBIT built a self-service portal that enables developers to provision virtual machines for projects. Since the requirements for virtual machines and approvals can vary wildly depending on the type of project and resources needed, ORBIT used Cisco UCS Director to customize workflows and automatically provision resources depending on the type of assignment and developers' needs. Not only does this self-provisioning process deliver consistent infrastructure deployment, but it does so quickly and without increasing load on consultants.

"Cisco UCS Director was very easy to integrate into our existing workflows," says Majunke. With only minimal training from Cisco, ORBIT was able to deploy the management solution in-house with little outside help. "Whenever we had questions, Cisco was always right there to provide technical support and help us get off the ground."

Results

With Cisco UCS Director running on FlexPod, ORBIT gains visibility into the workflow that improves project and resource management. From a single interface, managers can see what projects are ongoing and the amount of resources spent on each project. This insight helps developers and customers gain a better understanding of how much work is being attributed to a project for clearer project budgeting.

The ability to view all projects at once enables managers at ORBIT to grasp overall resource usage and project system capacity. When projects are completed, all virtual machines related to that project can be identified and decommissioned quickly, which frees up resources for other projects.

"By hastening the virtual machine lifecycle, we're able to increase our utilization rates on the FlexPod environment," says Majunke. "We can scale the environment to meet our current needs without over-investing in resources that will sit unused."

Automating the provisioning process for virtual machines helps developers get started on work for customers even faster. Previously, provisioning servers was a manual process that took three days to complete. Using Cisco UCS Director and FlexPod, those servers can be provisioned in less than an hour. ORBIT has also moved beyond internal use with a self-service portal for customers. Using this portal, customers can provision their own servers in a matter of minutes.

Automation also helps ensure more consistent results, leading to more predictable resource usage, while reducing the load on consultants. Rather than manually configuring and attributing resources, consultants can concentrate on more valuable activities that support developers and contribute to better quality service and results for clients.

"We have hundreds of virtual machines running at any time, so there were times where we needed to work nights or weekends just to keep on top of the machines," says Majunke. "By automating provisioning and decommissioning with Cisco UCS Director, we're saving man-hours, up to five days a month. We can now spend more time on customer projects and revenue generation."

The powerful FlexPod architecture contributes to the performance of the virtual machines. Every component of the FlexPod implementation is built with high density to handle virtual environments efficiently. "Applications are running faster on FlexPod, which helps our developers be more productive," says Majunke.

The converged FlexPod solution makes scaling simple when ORBIT needs to increase the overall capacity of its virtual environment. With fewer devices involved, there's no need for complex cabling as required by other types of solutions. More importantly, FlexPod is a pre-validated and integrated system, so ORBIT can eliminate complex configurations and testing processes to scale quickly and efficiently. "Time for testing has nearly been eliminated," says Majunke. "FlexPod enables us to add resources effortlessly."

With FlexPod delivering fast scalability and provisioning, the time needed to deliver services has been reduced from days to hours. Before FlexPod, it could take two days for ORBIT to provision a new database server, but that time has been reduced to hours. Even complex cloud services can be deployed and running smoothly in just weeks.

Product List

FlexPod
- Cisco Unified Computing System (UCS)
- Cisco UCS B200 Series Blade Servers
- NetApp FAS3200 Series Storage Systems
- VMware vSphere

Routing and Switching
- Cisco Nexus 5500 Series Switches

Management
- Cisco UCS Director

"By using FlexPod with Cisco UCS Director, we're combining the stability of known standards with the flexibility of easy customizations in our workflows," says Majunke. "We're boosting management and efficiency, which is what makes this implementation the platform of choice for us."

Next Steps

After successfully opening up the self-service portal for developers, ORBIT is looking at other ways to use the automation available through Cisco UCS Director and FlexPod to reduce IT administrative loads in other areas across the company and also plans to expand the FlexPod environment to add additional capacity and support further growth. ORBIT will also assist its customers in Cisco UCS Director implementation and workflow development projects.

For More Information

To learn more about Cisco UCS Director, please visit: www.cisco.com/go/ucsdirector.
To learn more about FlexPod, please visit: www.cisconetapp.com.