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IP Address Management for the cCell-Cloud-Environment



Project Type:

- Providing IP Address Management for the HP-Cloud new service

Key Benefits:

- High Availability
- Multi-vendor Management
- Scalability

When HP made the decision to bring its cloud solution - HP cCell Services - to the market, there was one issue that was clear from the outset: the need for professional IP address management. In-house, despite wide-spread competencies, there was no tailored product that met the description. This led the project team to begin a search for a suitable solution. The central requirements - alongside the necessary range of functions - were a high degree of reliability, coupled with a solid price/ performance ratio. The search didn't take long: In SOLIDserverTM from EfficientIP HP quickly found the desired performance characteristics.

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Rodion Wentzek, Solution Architect



It is often asked of contemporary data superhighways – what is the use of having the best highways without having professional traffic routing? In order that data doesn't swim helplessly in the ether, connected systems are required, and the companies that implement them need a solution to IP address management (IPAM). More and more, it is possible to find companies whose IPAM solution consists of long, overflowing Excel lists. Such an approach, however, contains significant risks, at the extreme end of which is the failure of company and third-party networks. For Hewlett Packard (HP) this could never be a possibility: from the outset of its cCell-Cloud project, the IT-specialist elected for a strategic approach and the implementation of a professional IPAM solution.

“HP cCell Services represents for users immediate and fully operational IT-services. These are provided via standardized cloud cells - cCells - which can exist either in HP-data centers, or in those of the customer. The cCells are centrally managed via a broker platform”, explains Rodion Wentzek, Solution Architect at HP Software Professional Services (the project). “It's thereby apparent, that a large number of infrastructure components, with a correspondingly high burden on IP address management, must be reliably, and readily, available. System failures are not an option for us - above all in the network sector.”

The case for EfficientIP

The infrastructure of the HP cCell Services consists of a still growing, multi-customer solution; the services provided by a multiplicity of physical and virtual servers. A number of business units at HP were - and still are - involved in the planning, construction, and operation. The requirement profile of the potential IPAM solution was further heightened by the need for the landscape to be designed in a way that was both modular and highly flexible.

Following a wide ranging market-screening, the project team, working together with Rodion Wentzek, decided on the solution from EfficientIP: “We became aware of the company in March 2012. At the beginning of April we asked for a quote. The response was extremely quick and precise, and we made the decision to opt for SOLIDserver in July of the same year. The list of features, a solution-specification, the implementation-concept, and the quoted time-frame all convinced us. The cost side, both for the licensing, and for the support was also a key factor in the decision.” Furthermore, the scalability and the ability to manage a number of overlapping IP-address areas, including large-scale infrastructures, were decisive in HP's choice of EfficientIP.

Immediately after the purchase decision, all parties began work on the implementation of the solution. HP had opted for the software-based version of SOLIDserver, additional hardware was not necessary. The installation itself ran smoothly: three employees from HP and one from EfficientIP was all it took to get the IPAM-solution operational within just two months, with the implementation of a fully automated integration in the cloud environment. The HP team all found the installation and configuration to be particularly straightforward. The introduction also ran smoothly, as throughout the entire installation no further training was required by team members. All those involved found the operation to be simple and self-explanatory. The surface configuration and general functionality are both highly intuitive.



Stable IPAM-operation with the SOLIDserver from EfficientIP

Since September 2012, SOLIDserver has been successfully utilized at HP. The software has proven itself to be reliable with no incidents to date. "It does what it's supposed to do, in the way that it's supposed to do it. That's not as obvious as it might sound in the enterprise-IT-sector", adds Wentzek with a grin. On the security side, HP first needed to make a change because an FTP-access is required for the backup-upload – an unusual approach, but one that the project team nonetheless finds sensible. Usability and failover were twin pillars from the outset in the construction of the cCell-environment- also in the IPAM area. HP and Efficient IP therefore established a failover option with two synchronized virtual machines (VM), where the VMs themselves are likewise clustered.

HP cCell Services uses a high performance infrastructure-stack comprising HP-components. Both the deployed server and the storage and network solution come from HP's own shelves. For the hypervisor, the company went with a proven partner – VMware, currently the market leader in the enterprise sector. The constant availability of HP cCell Services is achieved through the division of the infrastructure across two locations. The two installations are linked transparently to one another and secure operations in the event of failover. To date, HP has established some 1,000 virtual and physical servers

for its cCell Services, a number that is continually on the rise. The infrastructure can be expanded at any time due to the flexible set-up and suitability for clustering – thanks also to the high scalability of the SOLIDserver. With that, the foundations for a further expansion of the cloud-solution are already in place.

Summary and Outlook

In conclusion, the whole IPAM project as regards the cCell construction went incredibly smoothly. Thanks to SOLIDserver from EfficientIP, the environment, complete with the necessary IP management, is reliable and seen by all as a success. Rodion Wentzek is very positive: "the quick transition and the short deadlines were particularly impressive. The IPAM introduction never led to delays; in fact the whole project was extremely well supported. In that respect I need to compliment both my own team and EfficientIP." The praise is justified: The cCell-cloud has not only drawn admirers from within Germany. Companies abroad are also interested in rolling-out the project. The ease with which this professional IPAM concept navigates data safely through the cloud is leading to its becoming something of a role model in the world of IP address management.



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As one of the world's fastest growing DDI vendors, EfficientIP helps organizations drive business efficiency through agile, secure and reliable network infrastructures. Our unified management framework for DNS-DHCP-IPAM (DDI) and network configurations ensures end-to-end visibility, consistency control and advanced automation. Additionally, our unique 360° DNS security solution protects data confidentiality and application access from anywhere at any time. Companies rely on us to help control the risks and reduce the complexity of challenges they face with modern key IT initiatives such as cloud applications, virtualization, and mobility. Institutions across a variety of industries and government sectors worldwide rely on our offerings to assure business continuity, reduce operating costs and increase the management efficiency of their network and security teams.

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