Siemens IT Solutions and Services GmbH Worldwide

THE NUMBERS

- Siemens IT Solutions and Services is present in 40 countries.

IN BRIEF

Objective
Siemens IT Solutions and Services aimed to align IT resources with the strategic business needs of both internal and external customers.

Solution
The company expanded its existing datacenter and desktop virtualization to build Secure Virtual TestCenter pay-per-use, self-service capabilities based on the VMware® vCloud™ Director platform.

Business Impact
- Empower R&D teams to provision their own IT resources, virtual datacenters.
- Shorten development cycles for faster time to market.
- Optimize distribution of responsibility locally and globally.
- Reduce costs: power and cooling 30%; IT administration 25-35%, and floor space down 45%.

Global Solutions, Outsourcing Services Provider Extends Virtualization to Deliver Self-Service Cloud Environment

"VMware vCloud Director enables Siemens IT Solutions and Services to bring out a cloud service offering that combines outstanding self-service features with robust security in a multi-tenant environment."

— Jordan Janeczko, Global Technology Manager for Cloud Computing, Siemens IT Solutions and Services

Global IT systems to drive competitive business value: That is the essence of what Siemens IT Solutions and Services delivers to customers in more than 40 countries around the world. The biggest single customer of Siemens IT Solutions and Services is its founding parent, Siemens AG. Additionally, the 32,000-employee company also serves a wide range of global enterprises in industries like healthcare, energy, financial services, media, telecommunications and the public sector.

Virtualization on the VMware vSphere® platform has been an underlying enabler of Siemens IT Solutions and Services' ability to drive efficiency and agility for its customers' businesses. Now, Siemens IT Solutions and Services has extended the scope of its services portfolio using VMware vCloud Director.

Siemens IT Solutions and Services first launched the Secure Virtual TestCenter, a new service that delivers self-service, pay-per-use compute and storage capacity for end users performing QA testing. The offering helped extend its investment in virtualization to drive end-user agility.

"The VMware platform already has earned our own and our customers' trust." says Jordan Janeczko, Siemens IT Solutions and Services Global Technology Manager for Cloud Computing. "Providing self-service capabilities in cloud environments is the logical next step for meeting the business needs of global enterprises."

Companies are under pressure to reduce development costs and accelerate development life cycles for fast time to market, Janeczko explains. R&D departments increasingly are using new development methodologies and toolsets to design software for full use of cloud environments. Development responsibility often is distributed, creating a need to optimize local and offshore activities.

All these drivers point toward a need many companies will have to build private or hybrid cloud environments. A new study from IDG Research,[1] sponsored by VMware, shows two-thirds of enterprises are adopting or planning to adopt cloud computing, driven primarily by the need to deliver improved business agility.

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[1] This online survey was conducted globally in October and November 2010 among 636 IT decision-makers at enterprise companies in the United States (234), Europe (202) and Asia Pacific (200). Download the survey to get the latest statistics on global cloud adoption trends and valuable insight into how IT organizations are getting started with the cloud: http://www.vmware.com/go/cloudadoption.

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However, before moving to a cloud environment, companies need confidence in security, high performance, service quality and application portability. "We understand our customers' business processes and requirements, such as export regulations if it is acceptable to administer a system offshore when the data resides in Germany," says Ineke Vermeulen, Siemens IT Solutions and Services marketing manager in charge of partner marketing. "When we set up the IT architecture, we're also thinking from the business side: What does this customer really need? Fast time to market? Optimized processes? Global regulatory compliance? We support such business results through agile, secure IT infrastructure."

VMware Platform Chosen for Maturity, Roadmap, Scalability

Siemens IT Solutions and Services virtualized its datacenter infrastructure three years ago. "We made a clear decision to use VMware technology as the mainline platform for our global architecture, both in our own datacenter and as an outsourcer for customer implementations," says Michael Endres, Datacenter Director in the Portfolio Management Group at Siemens IT Solutions and Services. "This decision was based on several factors. VMware technology is mature. The company is the virtualization leader, with the greatest market share. We also like the cooperation we receive from VMware. The company provides a strong roadmap of how its products are evolving."

Siemens IT Solutions and Services makes particular use of the vMotion and Fault Tolerance features of vSphere to ensure efficient use and availability of resources. What's more, VMware solutions include management capabilities for end-to-end integration of storage and other resources. "This saves a lot on costs," Endres says. "VMware solutions also scale globally, which is a must both for our internal use and for our external customers." By leveraging vSphere, Siemens IT Solutions and Services has virtualized mission-critical resources such as the SAP Web application environment) and Microsoft Exchange 2007.

Progressing from Consolidation to Cloud

Siemens IT Solutions and Services' early virtualization initiative three years ago focused predominantly on datacenter consolidation. The company's goals were to cut capital and operational costs, reduce energy consumption, and accelerate provisioning. The company achieved 18:1 virtual machine to physical host consolidation. This eliminated redundant and underutilized equipment, and extended the useful life of remaining datacenter assets. Power and cooling costs fell 30 percent and floor space was reduced 45 percent. Automation lowered IT management and administrative costs between 25 and 35 percent.

"At the beginning, the main focus of introducing virtualization was reduced cost. We consolidated servers to lower capital, energy, and administration expenditures," Endres explains. "Beyond that, having that technology in place and automating manual tasks starts to go in the direction of the cloud."

Siemens IT Solutions and Services employed a VMware Professional Services Organization (PSO) consultant to assist with needed changes in business processes to accommodate the high levels of automation that would come in the cloud environment. A VMware Technical Account Manager (TAM) in Germany assists with day-to-day operational tasks. The TAM also facilitates access to VMware resources for architecting virtualization solutions including the integration of vCloud Director into the datacenter environment.

Secure Virtual TestCenter Transforms R&D Environment

Secure Virtual TestCenter brings unprecedented flexibility, cost-efficiency and agility to cloud-based R&D services. It does so by enabling a number of game-changing shifts: from custom environments to standardized environments; local hosting to central hosting; dedicated environments to shared environments; R&D ownership to IT ownership; and from fixed costs to usage-based chargeback.

Here's how it works. Users log in to the Secure Virtual TestCenter to deploy preconfigured or custom-built services from a virtual datacenter. Provisioning of required server and storage resources is automated and takes less than an hour. Siemens IT Solutions and Services maintains security and control over this multi-tenant environment with policy-based user controls and VMware vShield.

"We've got a service catalog that has preconfigured services that can be used to help software teams develop high quality products," Janeczko explains. "VMware vCloud Director makes users feel like the server systems in the datacenter are right under their desks, delivering secure and flexible test labs. You no longer have to pick up the phone and say, 'I need a new server' or fill out a complex spreadsheet. Resources are available at your fingertips."

For example, one Siemens IT Solutions and Services R&D team logs in to Secure Virtual TestCenter to develop standardized load tests using Apache JMeter. The vCloud API interface for use of vApps integrates the tooling to automate load testing.

"In the past, they had to think about how many servers they would need for a specific load test and they'd have to order or even buy them," Datacenter Director Endres says. "Nowadays, they don't have to care about that anymore. They simply go to a portal and say, 'I want to do a load test for a specific environment.' The rest is fully automatic provisioning. That speeds load testing and ultimately speeds time to market."

Beyond R&D Testing: Rent-a-Datacenter Production Environments

Siemens IT Solutions and Services will employ a new level of abstraction whereby customers can purchase entire virtual datacenter environments in which to deploy services on demand.

Features of this new service will include standardized SLAs and disaster-recovery options for different scenarios; preconfigured IT resource items; preconfigured application environments based on vApps; pay per use, secure multi-tenancy; and seamless transfer from development to production. The model will enable Siemens IT Solutions and Services customers to shift their challenging capital expenditures into predictable and manageable operating expenditure, by aligning cost to usage. Environments can be right-sized to match resource to need without waste.

"Rent-a-datacenter," Janeczko says. "It's the future of the datacenter."

Siemens IT Solutions and Services is establishing a cloud Executive Briefing Center (EBC) to demonstrate virtual environments on demand. The vCloud implementation employs VMware Chargeback to support the pay-per-use model with granular usage data, and VMware vShield ensures that virtual networks created in the cloud are automatically isolated and protected from unauthorized access.

Siemens IT Solutions and Services: Customers' Trusted Partner

A key part of the core value Siemens IT Solutions and Services delivers is the combination of technical expertise and industry knowledge to ensure that each customer's IT roadmap aligns with its strategic business needs. The term "cloud" means many things to many people. The challenge is developing the right cloud environment for the right reasons. That is where Siemens IT Solutions and Services serves as a trusted partner to its customers.

"It's not just technology, it's also how to use that technology," Janeczko says. "Organizations need to take a full business approach to how they set up their IT. We help them along that journey based on the experience we have. We discuss with them what they want to get out of it, what they think their current costs are, where they want to start using cloud computing. We make sure they go through a series of steps where they can evaluate the business needs and identify the optimal virtualization steps. Those are the things that ensure a successful cloud implementation."

Siemens IT Solutions and Services focuses on enterprise customers that have stringent expectations regarding SLAs, uptime and security that cannot be met in the typical public cloud. The company is developing Community Cloud environments for particular industry sectors such as media and energy management. These community clouds enable not just a company but also their partner ecosystem, by streamlining workflow across company boundaries. In each case, Siemens IT Solutions and Services is committed to supporting customers to use cloud technology effectively, and to delivering the enterprise quality that global firms expect.

That is another reason why Siemens IT Solutions and Services chose VMware as its virtualization partner. "We are the best in our business," Janeczko says. "When we collaborate with a partner, we want it to be the best in its own business, like VMware."

Siemens IT Solutions and Services has been able to successfully extend its virtual infrastructure into an intelligent infrastructure-as-a-service environment. Customers are now able to access infrastructure on-demand with significant improvements in time-to-market. And soon, external customers will enjoy the same benefits as they look to Siemens IT Solutions and Services as a trusted VMware service provider partner. By leveraging VMware vCloud solutions, Siemens IT Solutions and Services has created new opportunity for IT and the customers who rely on it.

IMPLEMENTATION OVERVIEW

VMware Products:
VMware vSphere 4.1
vCloud Director 1.0.1
vShield 4.1
vCenter Chargeback 1.6
vFabric 4.5.1.2 (Hyperic)
VMware View 4.6

VMware Services:
PSO
TAM

Applications:
Microsoft Exchange 2007
SAP R/3: ERP, CRM, SCM

Platform
Fujitsu Servers BX600
NetApp Storage FAS6240
Cisco Nexus Switches
Microsoft Windows Server 2008
Red Hat Linux RHEL5
SUSE Linux SLES11

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