



T-MOBILE CZECH REPUBLIC REDUCES COSTS AND INCREASES CUSTOMER SATISFACTION WITH HYPER-CONVERGED INFRASTRUCTURE POWERED BY VMWARE vSAN



INDUSTRY

TELECOMMUNICATIONS, CLOUD, ICT AND MANAGED SERVICES PROVIDER

LOCATION

HEADQUARTERS:
PRAGUE, CZECH REPUBLIC

KEY CHALLENGES

Reduce costs, simplify management and increase agility

SOLUTION

VMware vSAN

T-Mobile Czech Republic, a member of the international telecommunications group Deutsche Telekom, celebrated its 20th year in operation in the Czech market in 2016. As an integrated operator, T-Mobile offers comprehensive information and communications (ICT) solutions to companies, organizations and individuals via a high-speed network and state-of-the-art technology innovations. With six million mobile customers, T-Mobile is the number-one operator in the Czech mobile market.

A long-time VMware partner, T-Mobile Czech Republic relied upon VMware solutions for internal IT needs, and in 2012 deployed VMware's virtualization technology for its public cloud offering.

The Challenge

Prior to deploying vSAN, T-Mobile experienced significant challenges with its physical storage. Dissimilar, non-scalable and bulky hardware created a level of complexity, cost, and maintenance demands that burdened the organization and hindered its ability to remain flexible and meet the rapidly evolving needs of their customers.

"We were relying on physical servers, SAN/LAN networking, and external storage," explains Daniel Bajkai, Customer Solutions Designer. *"Our customers wanted a storage solution that was simple and could grow on demand, and we needed a solution that could add capacity and performance as needs increased."*

In addition to improving its ability to reduce complexity and simplify management, T-Mobile also saw an opportunity to attract new customers with a software-defined approach to storage that would allow private clouds to leverage the efficiency and performance of hyper-converged technology.

The Solution

T-Mobile deployed VMware vSAN to enable storage management from VMware's central management interface, vCenter. This unlocked the benefits of vSAN software-defined storage features without requiring an additional install, or deploying additional virtual machines (VMs) to manage storage. vCenter is used to manage T-Mobile IaaS and PaaS services and provide visibility into servers, switches and storage.

“WITH VSAN WE’VE REDUCED COMPLEXITY, SIMPLIFIED MANAGEMENT AND ENABLED OUR ABILITY TO GROW MODULAR STORAGE ON DEMAND – THAT’S GOOD FOR BOTH US AND OUR CUSTOMERS. AS SOON AS A CUSTOMER SEES THAT FEWER PHYSICAL COMPONENTS ARE NEEDED, IT BECOMES CLEAR THAT THE SOLUTION REQUIRES REDUCED ADMINISTRATION, LESS SPACE, AND LESS ENERGY. ALL THAT CONVERTS INTO LOWER COSTS.”

VÁCLAV MOLÍK,
HEAD OF CUSTOMER SOLUTIONS DESIGN

BUSINESS BENEFITS

- Reduced complexity
- Ability to grow storage on demand
- Improved ease of management
- Increased customer satisfaction

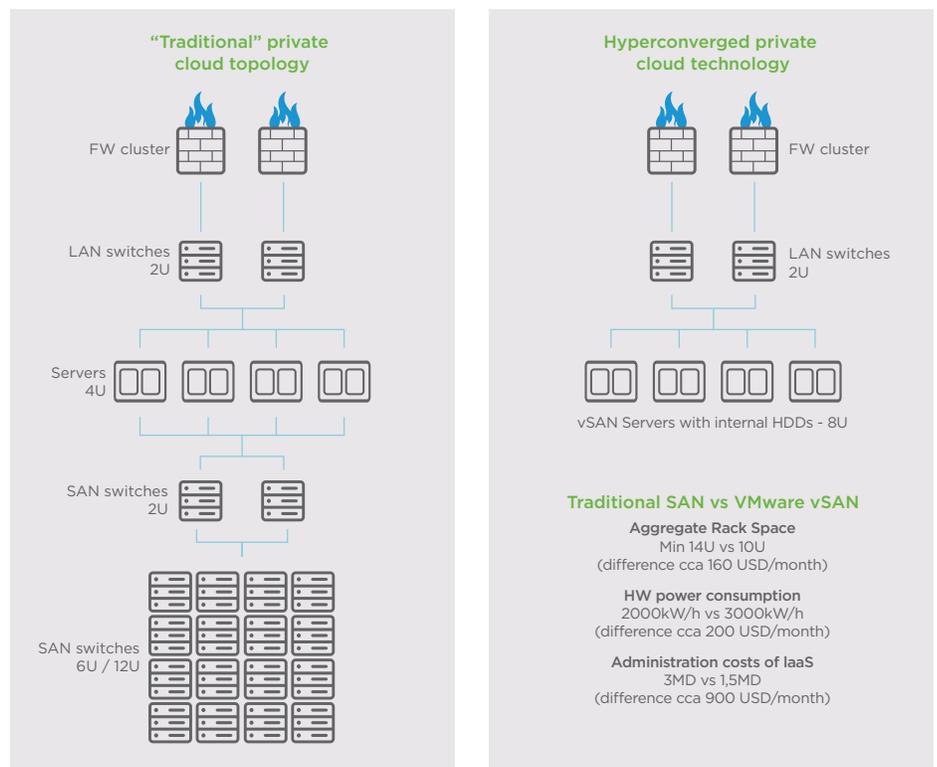
VMWARE FOOTPRINT

- VMware vSAN
- VMware vSphereENT+
- VMware vCloud Director

“Our operations team uses the vCenter dashboard for their daily tasks and controls. In the case of a component outage, the servers, switches, and storage send alarms to our NOC, who immediately contacts the ICT operations team to solve the problems,” notes Václav Molík, Head of Customer Solutions Design. “vSAN enabled the seamless extension of virtualization to storage, creating a hyper-converged solution that works with our existing tools, skillsets, software solutions and hardware platforms.”

Today, T-Mobile leverages vSphere ENT+ with vSAN in its private clouds where customers require dedicated resources.

“When customers outsource their on-premise IT to T-Mobile we are either putting them onto T-Mobile’s Public cloud (vSphereENT+) or Dedicated/Private cloud running vSphereENT+ and vSAN,” says Daniel Bajkai. “Today all of our vSAN implementations are hybrid, with 2U servers and 3 disk groups per server. Also we have an installation where a vSAN hybrid cluster is used as a Disaster Recovery solution for the primary site. However, after the latest vSAN functionality improvements, the time has come to offer and build All-Flash environments as well.”



As a Cloud Provider, T-Mobile is using VMware Cloud Provider Program subscription licensing. The fact that vSAN is built into the vSphere kernel also implicitly means that there is no need for additional RAM resources to be allocated and licensed for “controller” VMs that would require tens of GB of additional RAM per server - as required of other HCI solutions.

Business Results and Benefits

T-Mobile immediately saw a decrease in costs with vSAN versus traditional storage. By shifting infrastructure to low-cost, high-volume server economics, and simplifying management with one integrated software stack, T-Mobile was able to achieve reduced rack space, reduced hardware power consumption and reduced administration costs.

In addition, the increased data protection that T-Mobile can now provide to customers is also a welcome benefit. vSAN offers the industry's first native HCI security solution with data-at-rest encryption. Built right into vSAN, vSAN avoids the limited options and pricing premium of self-encrypting drives (SEDs).

“With even a “simple” vSAN - hybrid and not stretched cluster - the data is protected in a way that can be put somewhere in between one external SAN storage with two controllers and two external SAN storages with synchronous replication. [With the parameter “failures to tolerate” this property of vSAN can be tweaked to provide even greater protection,](#)” says Daniel Bajkai.

vSAN delivers flash-optimized, secure storage with the industry's first native HCI encryption solution—at a fraction of the cost of traditional, purpose-built storage and less-efficient HCI solutions.

Looking Ahead

As T-Mobile Czech Republic looks ahead, vSAN and VMware solutions are key enablers of continued growth. In addition to exploring the deployment of NSX to complement its Security-as-a-Service offering, the ability to provide All-Flash vSAN with deduplication and compression is also an attractive option.

“As a large service provider with our own data centers, it's important that we stay up-to-date on the design and operations of VMware solutions, which is why we are active in workshops and labs to keep our team's skills at the leading edge,” concludes Daniel Bajkai. [“We are committed to looking ahead and evolving to meet customer needs, and vSAN will continue to be an important foundation for our software-defined infrastructure and the next-generation services we will provide.”](#)

