

Technical Product Specification

PRIMEFLEX for VMware vSAN - Extension for SAP HANA®



The fast track to your hyper-converged IT infrastructure now also certified for SAP HANA®.

The next generation of IT infrastructures: Hyper-converged Infrastructures

Hyper-converged infrastructures (HCI) unlock the benefits of decoupling compute, storage, and networking capabilities from underlying hardware by virtualization to build-up a dynamic software-defined data center. It dramatically simplifies the management of the complete platform, accelerates daily operation, and provides high and predictable performance by architecture. It lowers TCO not only with operational savings but also reducing CAPEX as it is based on reliable, standard x86 servers with newest, affordable flash technology - without the need for separate storage hardware. This guarantees highest performance with elastic scalability: start small and grow as you need.

PRIMEFLEX for VMware vSAN

PRIMEFLEX for VMware vSAN is an Integrated System from Fujitsu to simplify the deployment of a VMware based hyperconverged infrastructure. The integrated system combines benchmark-leading Fujitsu standard x86 PRIMERGY servers and software-defined server and storage virtualization technology from VMware to setup a high-performance, highly reliable and cost-efficient virtual infrastructure.

Unlocking the benefits of HCI for SAP HANA Environments

The SAP HANA HCI certification of PRIMEFLEX for VMware vSAN allows to use the advantages of HCI for SAP HANA. There is no longer the need to have SAP HANA running on a separated hardware with different operational concept compared to the SAP applications. Now it is possible to run SAP landscapes of any kind, from SAP Business Suite up to newest SAP S/4HANA or BW/4HANA including SAP HANA® data bases virtualized on one common platform with uniform operation for all deployments. This common platform allows a mix of the operating systems Linux as well as Windows – just as supported by SAP. And beside the SAP environment also other workloads can be run on the same platform

As a complement, Fujitsu Technology Consulting, Implementation and Advisory Services for PRIMEFLEX for VMware vSAN with focus on SAP Environments deliver fast provisioning of the solution, seamless integration into the data center and therefore reduce implementation risks.

The result is an optimized and standardized SAP environment to respond faster to growing business needs in terms of accelerated SAP projects and simplified daily operations on a highly available infrastructure – an ideal foundation for hybrid IT and innovative SAP architectures.



Features and benefits

(add. to PRIMEFLEX for VMware vSAN) Main Features

Main features	Benefits
SAP HANA certified HCI infrastructure	<ul style="list-style-type: none"> • Common management of SAP applications including SAP HANA databases on the same infrastructure platform - no need for separated SAP HANA infrastructures outside • Virtualized SAP HANA Scale-Up instances on 2 or 4 socket servers allowing highest flexibility and scaling: from 1 to 4 SAP HANA instances with 128 GB up to 12 TB per vSAN node • Large range of vSAN nodes in one cluster possible: from 3 to 64 vSAN nodes supported • Consolidates the disk drives of all vSAN cluster nodes into a shared data store. This allows an elastic, non-disruptive growth by simple adding new nodes to increase compute power and storage capacity jointly - without the need for separated, external NAS or SAN storage
Modern infrastructure optimized for SAP needs	<ul style="list-style-type: none"> • Reduced time to market and lower risk with validated design for SAP environments • Simplified daily operation of SAP landscapes including SAP HANA • Flexible to be extended for future demands
Industrialized, end-to-end services for end-to-end data center implementation and integration	<ul style="list-style-type: none"> • Non-disruptive, high-quality integration into the existing environment

Technical details

Configuration

General specification

The support of SAP HANA on PRIMEFLEX for VMware vSAN by Fujitsu and SAP requires specific configurations and support contracts. These requirements are described in the PRIMEFLEX for VMware vSAN - SAP HANA Support Matrix. Changes which are not explicitly allowed in the support matrix will have as consequence that no support by Fujitsu and SAP can be granted.

See also SAP Note 2779971 - Running SAP HANA on a hyperconverged infrastructure from Fujitsu (<https://launchpad.support.sap.com/#/notes/2779971>, SAP account needed)

Within one vSAN cluster, all cluster nodes are recommended to have the same characteristics (number of CPUs, memory, IO-cards)

The following specifications and requirements apply only for vSAN nodes that are used to SAP HANA. For all other SAP applications, the corresponding SAP notes for using SAP on VMware vSAN must be observed

Hardware Components supported for SAP HANA

vSAN Ready Node	<ul style="list-style-type: none"> • Profil name: vSAN Configs for SAP HANA • Server model: SAP_HAN_VSAN_3X_RX2540_M6 (PRIMERGY RX2540 M6) • CPUs (total/HANA): 2/2 - serves up to 4 SAP HANA VMs • CPU range: Xeon SP (Ice Lake) gold, platinum, minimum 8 Cores/VM • Memore per node: 256, 512, 768, 1.024, 1536, 2048, 2304*, 4096* *: RAM sizes and number of vCPUs corresponding to sizing result OLAP workload is limited to Class M for 3 TB (2S). Class L is limited to 1.5 TB (2S).
vSAN Ready Node	<ul style="list-style-type: none"> • Profil name: vSAN Configs for SAP HANA • Server model: SAP_HAN_VSAN_3X_RX4770_M6 (PRIMERGY RX4770 M6) • CPUs (total/HANA): 4/4 - serves up to 4 SAP HANA VMs • CPU range: Xeon SP (Cooper Lake) gold, platinum, minimum 8 Cores/VM • Memore per node: 384, 768, 1.152, 1.536, 2.304, 3.072, 4.608, 6.144 , 12288* GB *: RAM sizes and number of vCPUs corresponding to sizing result OLAP workload is limited to Class M for 3 TB (2S) and 6 TB (4S). Class L is limited to 1.5 TB (2S) or 3 TB (4S).
Cluster Range	3-64 vSAN nodes per cluster, all nodes with same characteristics (number of CPUs, memory, IO-cards)

Software Components supported for SAP HANA		
HCI Software	• RX2540 M6:	VMware vSAN 7.0u3 Advanced
	• RX4770 M6:	VMware vSAN 7.0u2 / 7.0u3 Advanced
Hypervisor	• RX2540 M6:	VMware vSphere 7.0u3 EPL
	• RX4770 M6:	VMware vSphere 7.0u2/u3 EPL
Guest Operating Systems	• RX2540 M6/	SUSE SLES for SAP Applications 15 SP2/SP3
	RX4770 M6:	Red Hat Enterprise Linux for SAP Solutions 8.2 / 8.4
SAP HANA	SAP HANA DB 2.0 SPS01-SPS05, 1.0 SPS12	

Technical details

Licensing, Support, Service

Licensing

Licenses used with PRIMEFLEX for VMware vSAN for running SAP HANA:

- VMware – Licenses for vSphere and vSAN are required and contained in vSAN Ready Node configuration
- SAP Software licenses are not included; need to be ordered in addition:

Warranty

Warranty conditions from the multiple products apply as released by the respective vendors.

Support service

Installation Service

Mandatory Installation Services are offered for configuration, sizing, and implementation.

Ordering

PRIMEFLEX for VMware vSAN may be obtained from your local Fujitsu sales representative / regional office

NOTE: This FactSheet is valid only for SAP HANA deployments on PRIMEFLEX for VMware vSAN

Delivery / shipment

PRIMEFLEX for VMware vSAN configurations (vSAN Ready Nodes) are delivered as pre-assembled, pre-configured, and pre-tested hardware components build in a rack, or packed in separate boxes to insert the components in a given rack provided by the customer. SAP HANA deployments (max. 5) are typically done on-site at customer side.

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Fujitsu platform solutions

In addition to PRIMEFLEX for VMware vSAN, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures
With the Fujitsu Business-Centric Data Center approach, Fujitsu offers a full portfolio of IT products, solutions, and services, ranging from clients to data center solutions, managed infrastructure, and infrastructure-as-a-service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing products:

[Fujitsu Server : Fujitsu Global](#)

- PRIMERGY: Industry standard server
 - SPARC Enterprise: UNIX server
 - PRIMEQUEST: Mission-critical x86 server
 - ETERNUS: Storage system Software
- www.fujitsu.com/software/

More information

To learn more about PRIMEFLEX for VMware vSAN, please contact your Fujitsu business partner, Fujitsu sales representative, or visit our website.
<http://www.fujitsu.com/primeflex/vmware-vcf.html/>

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global knowhow, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at:
www.fujitsu.com/global/about/environment/

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Website: www.fujitsu.com/global 2023-02-08 WW EN

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