VMware vSAN

Specific Program Documentation ("SPD")

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Program Name: *VMware vSAN*

1. DEFINITIONS.

All terms defined in the Broadcom Software Glossary located at legaldocs.broadcom.com apply to this SPD unless specified herein.

"**Cluster**" is a software grouping of Servers running vSphere and/or vSAN for the purpose of resource sharing.

"**Core**" means a single physical computational unit of the Processor.

"**iSCSI Support**" means using the vSAN datastore as an iSCSI target to present storage to a Server not in the Cluster running vSAN.

"**Instance**" means a single installation of the Software on a physical server or Virtual Machine.

"**Internally Developed Application**" means: i) a computer applications that Customer has created or developed and (ii) a third-party computer application(s) that is ancillary to Customer's application-based service, and (b) cannot be accessed directly by end users of Customer's application-based service.

"**Processor**" means a single, physical chip that houses at least one Core that can execute computer programs.

"**Rack**" means a frame or enclosure for mounting or containing a number of compute servers (or blades) and optionally a number of networking equipment, storage devices (e.g., JBODs), power and cooling modules.

"**Server**" means a hardware system capable of running the server software. A hardware partition or blade is considered a separate hardware system.

"**Stretched Cluster**" means a deployment model in which a single compute and/or Cluster with three or more Servers spans more than one Rack and uses a vSAN Witness Appliance to maintain availability to users in the event of a Rack or site failure.

"**TiB**" means a unit of physical storage capacity that is equal to 2^40 bytes.

"**Virtual Machine**" means a software container that can run its own operating system and execute applications like a physical machine.

"vSAN Witness Appliance" means preconfigured virtual machine that runs ESXi and is distributed as an open virtualization appliance file and is used to help support specific vSAN deployments.

2.   USE RIGHTS AND LIMITATIONS.

License Metrics

- VMware vSAN ("vSAN") is subscription software licensed on a per TiB license metric.
- Customer must license all raw physical storage that is claimed by vSAN on all the Servers in the vSAN Cluster.
- Customer may use vSAN in Clusters for up to the number of TiBs for which Customer has paid the applicable license fees.
- Customer may use its license to vSAN as a Migration License (as defined in the Agreement) by using vSAN's embedded evaluation mode feature for a maximum period of what vSAN's said feature then allows.

Use Rights and Limitations

- vSAN can only be used as i) an add-on to VMware vSphere Foundation, add-on to VMware Cloud Foundation, add-on to VMware vSphere Foundation for VDI or ii) with respect to legacy vSphere and VCF products for which the Customer has a valid Support and Subscription agreement with Broadcom (for clarity, the right to use under (ii) will cease and cannot be renewed upon the expiration or termination of the said Support and Subscription agreement).

- **vSAN Cluster Expansion or Renewal Exception.** If the number of total vSAN subscriptions purchased for the hosts added to, or renewed in, the vSAN Cluster using license entitlements from legacy offers licensed on a per CPU or per Core license metric are greater than, or equal to, the total number of Processors in the vSAN Cluster, Customer has permission to use any excess entitlements from the vSAN subscription purchase to apply to the entire vSAN Cluster, consisting of existing and new or renewed hosts, for the sole reason to enable vSAN Cluster expansion or renewal. At the time that the legacy offers' Support and Subscription agreement expire), Customer must purchase vSAN subscriptions and apply the license entitlements for the hosts in the vSAN Cluster that were previously using the license entitlements from the legacy offers.

- **License Portability Entitlement.** Except for licenses obtained through a Value-Added OEM or through a Broadcom cloud provider program (e.g. VMware Cloud Service Provider, Metal-as-a-Service), a customer may use or deploy the Software on any Cloud Services, provided that the customer is using vSAN as an add-on to VMware Cloud Foundation.

- **vSAN Witness Appliance.** Customers may deploy the vSAN Witness Appliance on any of the following subscription offers: VMware Cloud Foundation, VMware vSphere Foundation, or VMware vSphere Standard.

- **iSCSI Support.** Customer may only use the iSCSI Support feature in vSAN with physical, non-virtualized Servers. The iSCSI Support feature supports Microsoft clustering with shared disks. Initiators can be either from virtual machines or physical servers. For guest initiators in virtual machines, those virtual machines can be residing on:
      - The same vSAN Cluster that provides this iSCSI Support feature; or
      - An external vSAN or vSphere Cluster.
  The iSCSI Support is limited to a maximum of 128 sessions per Server, a maximum of 128 targets per Cluster, and a maximum of 1024 logical unit numbers (LUNs) per cluster. The vSAN Stretched Clusters using iSCSI target service are not supported. raw device mapping (RDMs) for Microsoft Windows Server Failover Clustering (WSFC) using iSCSI target service is not officially supported on vSAN.

- **Support Services.** Software includes Support Services that may only be used for the Software, and its components, licensed hereunder and may not be used for any other software, including former offers of components of Software that Customer may have licensed separately.

3.   THIRD PARTY INFORMATION AND TERMS.

Any required third-party software license terms are incorporated by this reference and are set forth in online documentation at techdocs.broadcom.com or legaldocs.broadcom.com.