VMware vSAN Deploy Service

AT A GLANCE

VMware vSAN is a fast, resilient, easy-to-manage software-defined storage platform that delivers flash-optimized, hyper-converged storage for any application at a fraction of the cost of traditional solutions. The VMware vSAN Deploy Service includes the configuration of vSAN, ESXi Hosts, vCenter Server and supporting components, VMware vSPhere High Availability, VMware vMotion, and VMware Distributed Resource Scheduler (DRS).

KEY BENEFITS

- Accelerates responsiveness to changing business demands with simplified infrastructure, automated management, flash optimizations, and granular scaling
- Reduces the total cost of ownership by consolidating core data center functions on x86 hardware and vSphere
- Creates an IT environment that is prepared for future IT needs by delivering a software-defined infrastructure that leverages the latest hardware technologies

SKU

CON-VSAN-DPY

Overview

The VMware vSAN Deploy Service provides a base deployment of VMware vSAN™ and the underlying supporting virtual infrastructure using the capabilities provided by VMware vSphere®. This service includes the configuration of vSAN, VMware ESXi™ hosts, VMware vCenter Server® (and supporting components), VMware vSphere High Availability, VMware vSphere vMotion®, and VMware vSphere® Distributed Resource Scheduler™ (DRS). The project includes the following modules:

ESXi Host Deploy: Deployment of the VMware ESXi™ hosts to support the virtualization solution according to a VMware standard architecture that is implemented and validated in the Customer environment.

vCenter Infrastructure Deploy: Deployment of the Platform Services Controller and VMware vCenter Server infrastructure according to a VMware standard architecture that is implemented and validated in the Customer environment.

vSphere Network Infrastructure Deploy: Deployment of the core network configuration for according to a VMware standard architecture that is implemented and validated in the Customer environment.

vSAN Deploy: Deployment of VMware vSAN for shared storage according to a VMware standard architecture that is implemented and verified in the Customer environment.

High Availability Deploy: Deployment of the VMware vSphere® High Availability (HA) features of vSphere, including vSphere High Availability and Fault Tolerance, according to a VMware standard architecture that is implemented and validated in the Customer environment.

Dynamic Resourcing Deploy: Deployment of the out-of-the-box Dynamic Resourcing technologies including VMware vSphere vMotion, VMware vSphere Distributed Resource Scheduler™ (DRS), and VMware vSphere® Distributed Power Management™ (DPM) according to a VMware standard architecture that is implemented and validated in the Customer environment.

High-level Activities

Implement: Deployment and validation of technology components.

Knowledge Transfer: Knowledge transfer of the design, deployment, and operations procedures.

This project relates to the following products:

- VMware vSphere
- VMware vSAN

Project scope

The scope of the service is defined in this section.

ESXi Host Deploy

SPECIFICATION	PARAMETERS	DESCRIPTION
ESXi hosts deployed	Up to sixteen (16)	ESXi hosts deployed and configured.

vCenter Infrastructure Deploy

SPECIFICATION	PARAMETERS	DESCRIPTION
Physical sites deployed	Up to one (1)	Physical data center locations deployed and configured.
Non-High Availability Platform Services Controllers deployed	Up to one (1)	Platform Service Controller servers deployed and configured with no Platform Services Controller high availability.
vCenter instances deployed	Up to one (1)	vCenter instances deployed and configured.
vSphere Operational Enablement Activities		Additional activities performed in conjunction with this module include:
vSphere Update Manager Workshop	Up to one (1)	Deonstrate how to use vSphere Update Manager to update ESXi hosts with patches.

vSphere Network Infrastructure Deploy

SPECIFICATION	PARAMETERS	DESCRIPTION
vSphere distributed switches	Up to one (1)	vSphere distributed switches created and configured.
Network port groups	Up to four (4)	Network port groups created and configured.
VMkernal network adapters	Up to three (3)	VMkernal network adapters and IP Addresses needed per host.

vSAN Deploy

SPECIFICATION	PARAMETERS	DESCRIPTION
vSAN clusters	Up to one (1)	vSAN enabled clusters deployed.
vSAN Operational Enablement Activities		Additional activities performed in conjunction with this module include:

SPECIFICATION	PARAMETERS	DESCRIPTION
Storage policy workshop	Up to one (1)	Discuss vSAN storage policies and their importance to vSAN operational management. Create a policy suited to the environmental requirements.
Basic vSAN monitoring workshop	Up to one (1)	Discuss basic monitoring of a vSAN cluster. Review out-of-the-box dashboards and metrics for the cluster.
vSAN maintenance mode workshop	Up to one (1)	Discuss performing maintenance on hosts in a vSAN cluster. Review the impact of maintenance mode on hosts and how to properly power cycle a vSAN Cluster.
Hardware, driver and firmware maintenance workshop	Up to one (1)	Discuss hardware, driver and firmware maintenance for a vSAN cluster. Show how to update the compatibility list and discuss considerations for ongoing maintenance of these items.
Hardware failures workshop	Up to one (1)	Discuss different types of hardware failures for a vSAN Cluster. Review disk failures and the impact to a cluster.

High Availability (vSphere HA, Fault Tolerance) Deploy

SPECIFICATION	PARAMETERS	DESCRIPTION
vSphere HA clusters	Up to one (1)	vSphere High Availability enabled clusters configured.
vSphere Operational Enablement Activities		Additional activities performed in conjunction with this module include:
High Availability Failover Workshop	Up to one (1)	Demonstrate vSphere HA failover in the environment.

Dynamic Resourcing (vMotion, DRS, DPM) Deploy

SPECIFICATION	PARAMETERS	DESCRIPTION
vMotion enabled hosts	Up to sixteen (16)	vMotion enabled hosts configured.
vSphere DRS clusters	Up to one (1)	DRS enabled clusters configured.

SPECIFICATION	PARAMETERS	DESCRIPTION
vSphere Operational Enablement Activities		Additional Activities performed in conjunction with this module include:
vMotion Workshop	Up to one (1)	Demonstrate the vSphere vMotion capabilities of the environment.

Out of scope

General

- Installing and configuring custom or third-party applications and operating systems on deployed virtual machines.
- Operating system administration including the operating system itself or any operating system features or components.
- Managing change to virtual machines, operating systems, custom or third- party applications, databases, and administration of general network changes within Customer control.
- Remediation work associated with any problems resulting from the content, completeness, accuracy, and consistency of any data, materials, or information supplied by Customer.
- Installing or configuring VMware products not included in the scope of this document.
- Installing or configuring third-party software or other technical services that are not applicable to VMware components.
- Installing or configuring Customer-signed certificates.
- Configuring VMware products used for the service other than those implemented for the mutually agreed-to use cases.
- Customer solution training other than the defined knowledge transfer session.

ESXi Host Deploy

- Planning or designing a custom virtualization solution.
- Documenting or performing any migration activities, such as physical to virtual or virtual to virtual migration.
- Business continuity / disaster recovery design and deployment beyond the core capabilities of vSphere.
- Analyzing capacity for physical servers.

vCenter Infrastructure Deploy

- Planning or designing a custom virtualization solution.
- Documenting or performing any migration activities, such as physical to virtual or virtual to virtual migration.
- Business continuity / disaster recovery design and deployment beyond the core capabilities of vSphere.
- Analyzing capacity for physical servers.

vSphere Network Infrastructure Deploy

- Planning or designing a custom network infrastructure solution.
- Documenting or performing any migration activities between networks.

- Business continuity / disaster recovery design and deployment beyond the core capabilities of vSphere.
- VMware NSX design.

vSAN Deploy

- Planning or designing a custom vSAN solution.
- Configuring vSAN Stretch Clustering.
- Configuring vSAN two-node clustering, including ROBO.

High Availability Deploy

- Planning or designing a custom High Availability solution.
- Configuring external systems, such as networking and storage, to support vSphere HA.

Dynamic Resourcing Deploy

- Planning or designing a custom dynamic resourcing design.
- Configuring external systems, such as networking and storage, to support vSphere vMotion, vSphere DRS, or vSphere DPM features.

Estimated Schedule

VMware estimates that the duration of this project will not exceed one (1) week. VMware consulting services will operate according to a schedule agreed to by both parties. Typically, consulting services are performed during normal business hours and workdays (weekdays and non-holidays).

ACTIVITIES / WEEK	1	2
Phase 1: Initiate		
Phase 2: Plan		
Phase 3.1: Execute: Implement		
Phase 3.2: Execute: Knowledge Transfer		
Phase 4: Close		

Project Activities

Phase 1: Initiate

The VMware Project Manager hosts one (1) project initiation call with key Customer and VMware stakeholders.

Topics to be discussed include:

- Project business drivers, scope, and objectives.
- Project deadlines, timelines, scheduling, and logistics.
- Identification of key Customer team members who VMware will work with to accomplish the tasks defined in this data sheet.
- Participating team members are confirmed and contact details are exchanged to schedule the project kickoff meeting.

Deliverables

- One (1) project initiation call

Phase 2: Plan

VMware leads one (1) project kickoff meeting with Customer project sponsors and stakeholders to review expectations about the purpose of the engagement, the delivery approach, and estimated timelines.

The objectives of the meeting are:

- Introduce the VMware team, roles, and responsibilities.
- Describe the project goals, phases, and key dates.
- Agree on communication and reporting process and create a communications plan.
- Validate the project expectations and clarify roles and responsibilities.
- Confirm prerequisites are met as detailed in the solution checklist for specified solutions.
- Present the solution overview for specified solutions, including expected project results and deliverables.

The VMware Project Manager and the Customer Project Manager collaborate to develop the project plan.

Deliverables

- Virtual Infrastructure Solution Checklist
- Virtual Infrastructure Solution Overview presentation
- Communications Plan
- One (1) project kickoff meeting
- Project Plan

Phase 3: Execute

The key activities for this phase are organized into the following sub-phases:

- Implement
- Knowledge transfer

Phase 3.1: Implement

VMware implements the solution according to the VMware solution specification.

VMware does the following:

- Implements the specified solution as detailed in the specification workbooks.
- Verifies the implementation and documents the results in the verification workbooks for the specified solutions.

Deliverables

- Virtual Infrastructure Solution Specific Workbook
- Virtual Infrastructure Solution Verfication Workbook

Phase 3.2: Knowledge Transfer

VMware conducts knowledge transfer sessions covering the design, implementation, and operations procedures relating to the scope of this project.

VMware does the following:

- Conducts up to eleven (11) hours of knowledge transfer sessions for appropriate Customer representatives.

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FOR MORE INFORMATION

Contact a VMware Professional Services expert at *vmware.com/company/contact.html*

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This service must be delivered and accepted within the first 12 months of purchase, or the service will be forfeited. Pricing for this service excludes travel and other expenses. For detailed pricing, contact your local VMware representative.

- Provides an Adoption Guide Document(s) that contains operational guidance for specified solutions.

Note: For the avoidance of doubt, the Knowledge transfers herein do not comprise VMware product training or certification courses as offered by the VMware Education unit – (*http://mylearn.vmware.com/mgrreg/index.cfm*).

Deliverables

- Up to eleven (11) hours of knowledge transfer sessions
- Virtual Infrastructure Adoption Guide document
- Virtual Infrastructure Knowledge Transfer Workshop presentation

Phase 4: Close

The VMware Project Manager conducts one (1) closure meeting with the Customer covering project status, next steps, and how to engage further with VMware.

Deliverables

- Engagement summary presentation
- One (1) closure meeting

Appendix - Service Checklist

The Customer is responsible for executing all items discussed in the Service Checklist prior to arrival of the VMware Consultants on site. The participation of the following Customer stakeholders is required for the Service to be performed:

- VMware Operations team leads
- Storage team leads
- Enterprise Architect
- Infrastructure Architect
- Network Architecture team leads

The following prerequisites are required to enable VMware to perform this service:

- Number of hosts required. Defined minimum: 4.
- Number of hosts per cluster. Defined minimum: 4
- ESXi Version. Defined Minimum: vSphere 7.0 or above.
- vCenter Server version. Defined Minimum: vSphere 7.0 or above.
- VMware vSAN version. Defined Minimum: vSAN 7.0 or above.
- DNS must be configured and tested for forward, reverse, short and long name resolution.
- Active Directory required.
- Number of IP addresses required. Defined minimum 3 per host (Management vMotion and vSAN Traffic).
- NTP must be setup and time verified to be correct.
- Number of VLANS configured. Defined minimum: 3 (Management vMotion and vSAN Traffic).
- Hardware must be verified against the VMware compatibility guide.
- Shared Storage must be provisioned. Defined minimum: 1.
- Static IP addressing required.

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