# VMware Leverage NSX Advanced Load Balancer for Desktop Virtualization Services

#### AT A GLANCE

The primary objective of this service is design and implement an Application Delivery Controller (ADC) solution based on NSX ALB limited to the minimum design and configuration required to load balance VMware Horizon at a single site or dual site depending on which service is selected.

The service is conducted jointly with your team members to enhance the learning experience during the deployment.

## **KEY BENEFITS**

- Deploy a best practice-based, foundational VMware NSX ALB implementation
- Develop key skills to be able to support a load balancer for desktop virtualization environments
- Improve operational efficiency and network provisioning time, and increase network security

#### Overview

The VMware Leverage NSX Advanced Load Balancer (ALB) for Horizon services entail a rapid installation, configuration, and high-level deployment validation of a reference design for VMware NSX ALB for a single or dual sites desktop virtualization deployment.

The single site variation service takes a validated architecture with a predefined design and deliverables to provide single local server load balancing for the Horizon application. The two-site variant also includes configuration of Global Server Load Balancing services.

This service is ideal for organizations who need to quickly deploy a VMware NSX ALB load balancing solution for VMware Horizon Deployments and can work with remote team members.

Part Number / SKU	Service Description
CON-ALB-SST-DPY	Leverage NSX ALB on Horizon single site (REMOTE ONLY)
CON-ALB-DST-DPY	Leverage NSX ALB on Horizon dual sites (REMOTE ONLY)

# **Project Scope**

The scope of the service includes the following:

# CON-ALB-SST-DPY

Leverage NSX Advanced Load Balancer on Horizon single site (REMOTE ONLY)

<u>Design</u> and implement an Application Delivery Controller (ADC) solution based on NSX

ALB limited to the minimum design and configuration required to load balance VMware Horizon at a single site.

Specification	Parameters	Description
Number of Horizon sites	Up to one (1)	Number of Horizon sites. One (1) NSX ALB Controller Cluster, two (2) NSX ALB Service Engines and required virtual services will be implemented per site based on Solution Guide.



Design workshop Lead customer design workshop to design and document the Customer environment and deployment details. Ansible playbooks Ansible playbook templates customization customization to fit Customer environment to deploy NSX ALB and required Horizon virtual services. Knowledge transfer Conduct knowledge transfer session on workshop NSX ALB infrastructure, NSX ALB troubleshooting, and load balancing Horizon applications.

OR

# CON-ALB-DST-DPY

Leverage NSX Advanced Load Balancer on Horizon dual sites (REMOTE ONLY) Design and implementation of an Application Delivery Controller (ADC) solution based on NSX ALB. This solution will be designed and implemented in accordance with VMware NSX ALB best practices and Customer environmental requirements and be delivered through a series of working sessions. This solution is strictly limited to the minimum design and configuration required to load balance VMware Horizon at up to two (2) sites, with GSLB deployed across the sites to load balance requests globally. VMware Horizon is required to be installed prior to or during the VMware NSX ALB deployment to ensure the functionality of Horizon through the NSX ALB solution.

Specification	Parameters	Description
Number of Horizon sites	Up to two (2)	Number of Horizon sites. One (1) NSX ALB Controller Cluster, two (2) NSX ALB Server Load Balancing (SLB) Service Engines and required virtual services will be implemented per site based on Solution Guide.
Global Server Load Balancing		Implementation of Global Server Load Balancing (GSLB) services for Horizon load balancing between sites. Includes the deployment of one (1) NSX ALB GSLB Service Engine.
Design workshop		Lead customer design workshop to design and document the Customer environment and deployment details.
Ansible playbooks customization		Ansible playbook templates customization to fit Customer environment to deploy NSX ALB and required Horizon virtual services.
Knowledge transfer workshop		Conduct knowledge transfer session on NSX ALB infrastructure, NSX ALB troubleshooting, and load balancing Horizon applications.



## **Outcomes**

Customer will be able to accomplish the following outcomes after the project:

- Plan and extend load balancing deployments to support a single or two-site desktop virtualization environment depending on which service is ordered.
- Improve operational efficiency
- Improve utilization of assets
- Improved insight into application component communication
- Map role and skill set definitions to support the IT transformation

# **Estimated Schedule**

VMware estimates that the duration of this project will not exceed two (2) weeks. VMware consulting services will be performed according to a schedule agreed to by both parties. Typically, consulting services are performed during normal business hours and workdays (weekdays and non-holidays).

# **Project Activities**

The activities for this engagement are organized in phases as shown in the following table.

ACTIVITIES	WEEK 1
Phase 1: Initiate	
Phase 2: Plan	
Phase 3.1: Execute: Design	
Phase 3.2: Execute: Implement	
Phase 3.3: Execute: Knowledge Transfer	
Phase 4: Close	

# Phase 1: Initiate

The VMware Project Manager hosts one (1) project initiation call with key Customer and VMware stakeholders. Topics to be discussed include the following:

- Project business drivers, scope, and objectives.
- Project deadlines, estimated timelines, scheduling, and logistics.
- Identification of key Customer team members with whom VMware will work to perform the tasks defined in this SOW.
- 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 following are the objectives of the meeting:

- Introducing the VMware team, roles, and responsibilities.
- Describing the project goals, phases, and key dates.
- Agreeing on communication and reporting process and creating a communications plan.
- Validating the project expectations and clarifying roles and responsibilities
- Confirming prerequisites are met as detailed in the solution checklist for specified solutions.
- Presenting 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

- Communications plan
- One (1) project kickoff meeting
- Project Plan
- Solution checklist
- Solution overview presentation

#### Phase 3: Execute

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

- Implement
- Knowledge Transfer

# Phase 3.1: Execute: Design

VMware leads the Customer project team in a series of workshops to develop a design. VMware does the following:

Conducts up to twelve (12) hours of design workshops.

Documents the design for the specified VMware solutions in the solution design document(s).

#### Deliverables

Solution design document

Up to twelve (12) hours of design workshops

Phase 3.2: Execute: Implement



VMware implements the solution according to the VMware solution specification. VMware does the following:

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

#### Deliverables

Ansible playbook

#### Phase 3.3: Execute: Knowledge Transfer

VMware conducts knowledge transfer sessions covering the design, implementation, and operational considerations relating to the scope of this project. VMware does the following:

- Conducts up to three (3) hours of knowledge transfer sessions for appropriate Customer representatives.
- Provides an adoption guide document(s) containing operational guidance for the 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

- · Adoption guide document
- Knowledge transfer workshop presentation
- Up to three (3) hours of knowledge transfer sessions

# Phase 4: Close

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

# Deliverables

- Engagement summary presentation
- One (1) closure meeting



# Out of Scope

The following are the out of scope items for this project.

#### General

- Installation and configuration of 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.
- Management of 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.
- Installation or configuration of VMware products not included in the scope of this document.
- Installation and configuration of third-party software or other technical services that are not applicable to VMware components.
- Configuration of 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.

#### **Prerequisites Checklist**

Customer is responsible for executing all items discussed in the Service Checklist prior to arrival of VMware consultants on site.

The participation of the following Customer stakeholders is required for the Service to be performed:

- · Desktop operations leads
- VMware operations team leads
- Network Operations team leads
- Network Architecture team leads

The following technical prerequisites are required to enable VMware to perform this Service:

- Horizon servers (Connections servers, security server, Composer server, TrueSSO server) are installed and basic configuration set. Defined minimum: Horizon 7.x.
- Service account with permissions in vCenter.
- NTP must be setup and time verified to be correct.
- DNS must be configured and tested for forward, reverse, short and long name resolution
- Virtualized CPU capacity (GHz). Defined minimum: Enough CPU capacity must be available to deploy three (3) NSX ALB Controller Nodes and 2 Service Engines per site.
- Virtualized storage capacity (GB). Defined minimum: Enough storage capacity must be available to deploy three (3) NSX ALB Controller Nodes and 2 Service Engines per site.



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 Virtualized RAM capacity (GB). Defined minimum: Enough memory capacity must be available to deploy three (3) NSX ALB Controller Nodes and 2 Service Engines per site.

# Intended audience

VMware recommends customer stakeholders to have fundamental knowledge and training on NSX ALB platform.

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