

VMware Network Virtualization Deploy Service

AT A GLANCE

The primary objective of this service is a rapid installation, configuration, and high-level validation (deployment) of a reference design for virtualized networking infrastructure using VMware NSX® Data Center for vSphere®.

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

KEY BENEFITS

- Learn the fundamentals of a network virtualization solution
- Deploy a best practice-based, foundational VMware NSX implementation
- Improve operational efficiency and network provisioning time, and increase network security

Overview

The VMware Network Virtualization Deploy Service entails a rapid installation, configuration, and high-level validation (deployment) of a reference design for virtualized networking infrastructure using VMware NSX® Data Center for vSphere®.

This service takes a validated architecture with a predefined design and deliverables to provide a prescribed foundation for virtualized networking infrastructure, enabling you to accelerate time to value. The service includes technical validation of platform prerequisites, the deployment of network virtualization technology based on NSX Data Center for vSphere, validation of NSX Data Center for vSphere functionality, and a knowledge transfer session.

The reference NSX Data Center for vSphere design was developed to support virtualized networking. The installation and configuration is conducted jointly with your team members to enhance the learning experience during the deployment.

Project Scope

This section defines the project scope, expected hours, project activities, and deliverables for one (1) data center containing the following components:

- Up to one (1) VMware NSX Manager™ instance.
- Up to two (2) VMware NSX Edge™ instances to provide:
 - Dynamic routing (OSPF or BGP) both internal to the NSX for vSphere environment and to external physical routers.
 - Equal-cost multi-path (ECMP) routing.
- Up to four (4) logical switch instances.
- Up to one (1) distributed logical router instance.
- Up to fifteen (15) sample firewall rules to support infrastructure service delivery configured for the distributed firewall only.
- Up to eight (8) security groups defined and configured.
- Up to one (1) example of micro-segmentation configured on the same logical subnet:
 - VMware provided workload of maximum two (2) virtual machines and two (2) communication flows between them to be allowed or blocked individually.

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	WEEK 2
Phase 1: Planning		
Phase 2: Kickoff		
Phase 3: Assess		
Phase 4: Deploy		
Phase 5: Knowledge Transfer		
Phase 6: Conclusion		

Phase 1: Planning

After the statement of work (SOW) is signed and the purchase order is received, VMware will conduct a pre-engagement planning call with you to initiate the project. A representative from each area of your project team must attend the planning call.

Topics to be discussed include the following:

- Project scope and objectives, phases, timelines, scheduling, logistics, issue tracking, and escalations.
- Identifying key customer project team members to work with the VMware team to accomplish the tasks defined in this data sheet.
- Identifying and agreeing to key customer activity completion dates (if any).
- Agreeing on communication and reporting processes.
- Reviewing the engagement prerequisites. The customer must complete the prerequisites specified in the Service Checklist and Configuration Workbook documents before VMware consultants arrive on site. As part of this task, the customer will provide VMware with a firm date of completion for the environment prerequisites and deliverables.

Note: Confirmation and scheduling of VMware resources will not occur until all Service Checklist and Configuration Workbook requirements have been completed by the customer and validated by VMware.

- Availability of appropriate facilities including work locations, site access (badging), system access (credentials), meeting rooms, whiteboards, projectors, special access needs, or any other pertinent information required for VMware to start the engagement.
- Validate the project expectations and clarifying roles and responsibilities.
- Review project change control process and communications plan for escalations and scope changes.
- Provide a project plan document to the customer project team and present the high-level architecture detail of the validated design.

Deliverables

- Pre-engagement call(s)
- Validated Service Checklist and Configuration Workbook documents.

A final checklist call will be scheduled with the customer at least one (1) full week prior to the projected start date of the project. Topics to be covered include:

- Confirmation of receipt for the customer-completed Service Checklist and Configuration Workbook.
- Confirmation of the appropriately configured environment to support the service.
- Confirmation of the availability of all customer resources to support the project.
- Confirmation of the consultant(s) travel logistics and onsite arrival times.

Successful completion of the final checklist call will enable both organizations to execute the service with maximum efficacy.

Phase 2: Kickoff

The VMware team will lead a remote project kickoff meeting with the customer project sponsors and stakeholders the week prior to commencement of onsite activities. The goals of the call are to review expectations about the purpose of the engagement, the delivery approach, timelines, the amount of time and effort required from the participants, and the expected activities and deliverables. Expected representation of customer roles include stakeholders, project management, lead architects for virtualization/security/networking, and administration and engineering representatives from each of the aforementioned customer disciplines. The following are the objectives of the meeting:

- Introduce the VMware team, roles, and responsibilities.
- Introduce customer team, roles, and responsibilities.
- Describe the project goals, phases and key dates.
- Explain the expected project results and deliverables.
- Explain the required resources and durations for customer resources to support the project.
- Present design specifications and architecture in a Solution Overview presentation.

Deliverables

- Engagement kickoff meeting
- Kickoff presentation
- Solution Overview presentation

Phase 3: Assess

The VMware team will conduct a technical validation of the customer environment to verify compliance with the completed Service Checklist and Configuration Workbook documents.

Any gaps that impact the deployment will be identified for customer resolution. Any impacts to the project as a result of incomplete items from the Service Checklist and Configuration Workbook must be mutually agreed to in writing.

Phase 4: Deploy

VMware will deploy and validate the environment as defined in the Reference Architecture and Configuration Workbook documents. VMware will accomplish the following objectives:

- Install and configure NSX Data Center for vSphere according to the design(s) and the scope of this data sheet.
- Update the configuration details of each service component in the Configuration Workbook document.
- Execute high-level NSX Data Center for vSphere functional testing to verify that functionality meets the specified pre-existing design criteria.

Deliverables

- Installation, configuration, and high-level validation of NSX for vSphere.
- Reference Architecture document.
- Updated Configuration Workbook document.

Phase 5: Knowledge Transfer

The VMware team will conduct a knowledge transfer session for up to two (2) days covering the following:

- Recap design overview.
- Deployed NSX Data Center for vSphere infrastructure components.
- Configured distributed firewall rules.
- Backup, restore, and upgrade process for the NSX Manager.
- Best practices for micro-segmentation and network virtualization.
- Concepts for VPN functionalities and load-balancing.
- Next steps.

Note: The knowledge transfer phase is not a substitute for VMware training courses, such as the Install, Configure, and Manage, or Operational Readiness.

Deliverables

- Knowledge transfer session.

Phase 6: Conclusion

To close the engagement, the VMware team provides the following.

- A final set of completed project documents as defined in the Deliverables sections.
- A recap of project challenges and successes, exploring and defining further opportunities, and discussing next steps.

Deliverables

Deliverables for this service are listed under each phase in the Project Activities section.

Out of Scope

The following are out of scope for this service:

- NSX technologies not specifically mentioned in this data sheet. Examples include:
 - Bridging
 - VPN
 - Load balancing

- Activity or flow monitoring
 - Service composer and all underlying operations
 - Identity or Layer 3 Edge firewall
 - VMware vShield Endpoint™
- Configuration of the VMware products beyond the prescribed design provided by this service.
 - Remediation work and delays associated with any deficiencies or inaccuracies resulting from the content, completeness, accuracy, and consistency of any data, materials, or information supplied by the customer (including the Service Checklist and Configuration Workbook documents).
 - Third-party tool licensing, planning, designing, installation, configuration, validation, troubleshooting, or integration services.
 - Integration with third-party systems, applications, or other VMware solutions unless explicitly stated in this data sheet.
 - Certification of the platform against regulatory compliance, internal customer standards, or any standard other than passing the functional validation of the project.
 - Documenting or performing any migration activities (such as physical to virtual or virtual to virtual migration).
 - Deployment of any additional components outside the technical scope stated in this data sheet.
 - Application coding or API scripting.
 - Analyzing customer workloads for use with an NSX Data Center for vSphere environment.
 - Customizing any of the NSX software infrastructure components.
 - Configuring, tuning, or troubleshooting of the customer's server, storage, or network environment.
 - Resolving physical or underlying network or storage connectivity issues.
 - Designing physical or underlying network to support NSX for vSphere.
 - Operationalizing the NSX Data Center for vSphere production environment. For the scope of this data sheet, operationalizing refers to operational handover activities such as development of run books, procedural documentation, enabling optics/management system integration, and the like.
 - Customer training outside of the defined knowledge transfer session previously described.
 - Any work, services, or technologies other than those described in the Project Scope and Project Activities sections.

Prerequisites

The customer must comply with the following prerequisites for this service, and with the additional prerequisites documents:

- The procurement of VMware licenses covering the products listed in the Overview section and defined in the Service Checklist and Configuration Workbook documents.
- Physical hardware, including servers, storage, and networking, must have been procured, installed, configured, and confirmed to be operational.
- The required compute capacity available to support the implementation and all components available and configured as defined in the Service Checklist and Configuration Workbook documents.

Network Virtualization

Customer will have the required hardware and software installed and configured according to VMware best practices and as required and communicated in the Service Checklist and Configuration Workbook documents. This includes customer providing a pre-configured, underlying VMware vSphere environment that must meet the following parameters:

- No existing production workloads.
- Two (2) VMware vCenter™ Server™ instances deployed to VMware best practices:
 - One (1) vCenter Server instance for the management environment.
 - One (1) vCenter Server instance for the payload environment.
- VMware ESXi™ hosts deployed to VMware best practices in the following configurations:
 - A minimum of two (2) and a maximum of eight (8) ESXi hosts available for management cluster to maintain control / data plane separation.
 - A minimum of two (2) and a maximum of sixteen (16) ESXi hosts available for the payload cluster.
 - A minimum of three (3) and a maximum of four (4) ESXi hosts available for the edge cluster.

Role Descriptions

VMware Project Team

The VMware team will be comprised of multiple roles and might vary in the level of effort. VMware will utilize the following resources to deliver the consulting services outlined in this data sheet.

Project Manager

VMware will assign a Project Manager to the engagement when the project starts. The Project Manager identifies personnel resources, project structure, project plan tools, communication plan, and overall project management techniques to be used to manage the engagement. The Project Manager also sets objectives for duration, cost, and provider commitment. Working with the customer project manager, the VMware Project Manager does the following:

- Provides overall customer relationship and project management.
- Establishes the communication plan and directs formal communication and coordination with Customer Project Manager.
- Handles planning and pre-engagement preparation.
- Identifies the project team, roles and responsibilities, and assignment dates.
- Maintains the project timeline, including deliverables, activities, duration, and task owners.
- Reports project status and holds weekly update meetings.
- Schedules resources.
- Oversees logistics, including security, remote access, and facility access.
- Provides escalation triage and maintains risk register.
- Identifies final deliverables.
- Provides final versions of all project documents.

Senior Consultant

- Deploys and configures the VMware components that are part of the scope according to the pre-defined design.
- Runs validation activities on the installed environment.
- Prepares the final project documents for delivery to the client during the Conclusion phase.

The VMware technical resources are all VMware Certified Professionals and have significant technical expertise with VMware products.

Customer Project Team

The customer will provide a Project Manager knowledgeable in pertinent internal customer processes and able to collaborate with the VMware Project Manager as specified in this data sheet.

Customer's Project Manager must have the authority to make project decisions and represent customer in all matters related to this data sheet. Customer's Project Manager will provide a single consolidated response to any review, approval, change, or decision request.

Customer will support and provide representation at project review meetings at a mutually agreed to time and location to discuss the project status, issues, new requirements and overall project satisfaction. These meetings may also cover performance status updates, schedule updates, pending changes, open issues, and action items.

Customer will actively participate in this engagement, and individuals with relevant domain, business, and/or technical expertise will be available as required. These participants are the acknowledged spokespersons for the areas they represent, and the VMware team requires regular and timely access to them. If participants are unable to attend a scheduled meeting, then the Customer Project Manager becomes the final authority on all items of discussion.

Responsibilities

VMware Responsibilities

VMware will coordinate the activities of all VMware resources and provide the customer with VMware resources that have the skills and expertise necessary to execute the requirements and services set forth in this data sheet.

Assumptions and Customer Responsibilities

This section describes the responsibilities of Customer to VMware with regard to this project.

- The customer will have a fully installed and configured infrastructure as required and communicated in the Service Checklist and Configuration Workbook documents. Any additional time required of VMware consultants to perform the duties of this data sheet as a result of customer's lack of completion of these checklist items will be considered billable time payable by the customer.
- Any change to the scope of work explicitly described in this data sheet, and any associated additional fees, must be mutually agreed to in writing.
- Customer will provide access to facilities and computer systems as required for VMware to perform the tasks outlined in this data sheet.
- Customer will provide a suitable environment for knowledge transfer session(s), such as conference facilities and overhead projector.

- For engagement activities that occur at customer work locations, VMware expects customer to make reasonable facilities accommodations for the VMware project team at these locations. These accommodations include a desk/cubicle, voice telephone, Internet connection (for Web browser access), permission to operate mobile telephone within customer work locations, and shared access to laser printer, copier, fax, and conference room facilities.
- Customer is responsible for, and assumes any risk associated with any problems resulting from the content, completeness, accuracy, and consistency of any data, materials and information supplied by the customer including the Service Checklist and the Configuration Workbook documents.
- Customer is responsible for obtaining licenses and support for all VMware products used in connection with this data sheet. Product support must be available when VMware consultants first arrive on site.
- All documentation provided by VMware will be in VMware standard format in Microsoft Word, PowerPoint, Excel, and Project.
- Customer is responsible for the design and implementation of all infrastructure necessary to support the installation, configuration and high-level validation of VMware NSX Data Center for vSphere including vSphere, physical infrastructure, migration of workloads to the new environment, requisite physical network architecture and implementation changes, and virtual machine workloads for production.

Terms and Conditions

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Pricing for this service includes travel and other expenses. For detailed pricing, contact your local VMware representative.

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