

## 2V0-41.20

# Professional VMware NSX-T Data Center

### Exam Preparation Guide

Last Updated: Friday, June 19, 2020



#### Exam Details

The Professional VMware NSX-T Data Center exam (2V0-41.20) which leads to VMware Certified Professional – Network Virtualization 2020 certification is a 70-item exam, with a passing score of 300 using a scaled method. Candidates are given an appointment time of 105 minutes, which includes five-minute seating time and adequate time to complete the exam for non-native English speakers. Actual exam time is 100 minutes.

#### Exam Delivery

This is a proctored exam delivered at Pearson VUE testing centers, world-wide. For more information, visit the [Pearson VUE website](#).

#### Certification Information

For details and a complete list of requirements and recommendations for certification attainment, please reference the [VMware Education Services – Certification website](#).

#### Minimally Qualified Candidate

The minimally qualified candidate should have 6 months or more experience installing, configuring, managing, and troubleshooting NSX-T Data Center 3.0 solutions. Candidates should be knowledgeable of the features, functions, and architectures of NSX-T. They should have at least 6 months hands-on experience with Linux and KVM. They should have 1 year of experience working in IT and with VMware vSphere and its command line. The successful candidate will likely hold additional industry-recognized IT certifications or accreditation. The MQC should have all the knowledge contained in the exam sections listed below.

#### Exam Sections

VMware exam blueprint sections are now standardized to the seven sections below, some of which may NOT be included in the final exam blueprint depending on the exam objectives.

Section 1 – Architecture and Technologies

Section 2 – Products and Solutions

Section 3 – Planning and Designing

Section 4 – Installing, Configuring, and Setup

Section 5 – Performance-tuning, Optimization, and Upgrades

Section 6 – Troubleshooting and Repairing

Section 7 – Administrative and Operational Tasks

If a section is missing from the list below, please note it is because the exam has no testable objectives for that section. The objective numbering may be referenced in your score report at the end of your testing event for further preparation should a retake of the exam be necessary.

## Sections Included in the Exam

Section 1 - Architectures and Technologies - **There are no testable objectives for this section**

Section 2 - VMware Products and Solutions

Objective 2.1 Describe the VMware Virtual Cloud Network Vision

Objective 2.2 Outline the Solutions of NSX Portfolio

Objective 2.3 List the Use-cases for NSX-T Data Center

Objective 2.4 Explain the Value Proposition and Features of NSX

Objective 2.5 Identify Physical and Virtual Infrastructure Requirements for NSX-T Data Center

Objective 2.6 Describe NSX-T Data Center Architecture and Component Sub-systems

Objective 2.7 Differentiate the Functionalities of MP, CCP, DP and Consumption Planes

Objective 2.8 Define NSX-T Data Center Terminology

Objective 2.9 Describe the Logical Switching Architecture and Features

Objective 2.10 Describe the Logical Routing Architecture and Features

Objective 2.11 Describe the NSX-T Data Center Network Services

Objective 2.12 Explain the Edge Architecture and Features

Objective 2.13 Explain the NSX-T Data Center Security Architecture and Features

Objective 2.14 Identify the Supported Integration Platforms of NSX-T Data Center (Containers, Public Cloud, Private Cloud, Hybrid Cloud, DevOps tools, 3rd Party etc.)

Section 3 - Planning and Designing - **There are no testable objectives for this section**

## Section 4 - Installing, Configuring, and Setup

- Objective 4.1 Outline the installation and Preparation Workflow of NSX-T Data Center
- Objective 4.2 Deploy and Configure NSX-T Data Center Environment
- Objective 4.3 Configure Hypervisor Networking [vSphere and KVM] for NSX-T Data Center
- Objective 4.4 Configure and Manage Logical Switching Features
- Objective 4.5 Configure and Manage Logical Routing Features
- Objective 4.6 Configure NSX-T Edge Nodes and Edge Cluster
- Objective 4.7 Configure NSX-T Data Center Network Services [Layer-3]
- Objective 4.8 Configure NSX-T Data Center Security Features
- Objective 4.9 Configure Service Insertion with NSX-T Data Center

## Section 5 - Performance-tuning, Optimization, Upgrades - **There are no testable objectives for this section**

## Section 6 - Troubleshooting and Repairing

- Objective 6.1 Identify the default Log File Locations of NSX-T Data Center Components
- Objective 6.2 Compare and Contrast Tools Available for Troubleshooting
- Objective 6.3 Troubleshoot Common NSX-T Data Center Installation/Configuration Issues
- Objective 6.4 Troubleshoot Common NSX-T Data Center Component Issues
- Objective 6.5 Troubleshoot Common Connectivity Issues
- Objective 6.6 Troubleshoot Common Physical Infrastructure Issues

## Section 7 - Administrative and Operational Tasks

- Objective 7.1 List Operations Tasks in a VMware NSX-T Data Center Environment (syslog, backup/restore etc.)
- Objective 7.2 Configure Roles and Permissions for NSX-T Data Center Environment
- Objective 7.3 Generate Log Bundles
- Objective 7.4 Monitor a VMware NSX-T Data Center Implementation

## Sample Questions

Sample questions presented here are examples of the types of questions candidates may encounter and should not be used as a resource for exam preparation.

### Sample Question 1

Which two VMware Cloud Management systems are compatible with NSX-T Data Center capabilities? (Choose two.)

- A. VMware Power CLI
- B. vRealize Automation
- C. vRealize CodeStream
- D. VMware Integrated OpenStack
- E. VMware vSphere

### Sample Question 2

Which three networking features could be configured using the NSX Manager Simplified UI? (Choose three.)

- A. NAT Rules
- B. containers
- C. load balancers
- D. logical routers
- E. segments
- F. logical switches

### Sample Question 3

Which discovery protocol is supported for hypervisor transport nodes?

- A. Link Layer Discovery Protocol
- B. Cisco Discovery Protocol
- C. Neighbor Discovery Protocol
- D. Adobe Real-time CDP

## Sample Question 4

Which two tools could be used to view NSX Policy logs? (Choose two.)

- A. NSX Manager CLI
- B. NSX Manager root privileged mode
- C. ESXI host nsxcli
- D. KVM host nsxcli
- E. Edge CLI

## Sample Question 5

Which CLI command does a NSX administrator use to obtain information about the NSX Manager configuration when troubleshooting a production system?

- A. show configuration
- B. get managers
- C. show interface
- D. get configuration

## Sample Question 6

Refer to the exhibit.

```
2019-01-28T13:45:44.359Z INFO http-nio-127.0.0.1-7440-exec-1 RuleFactoryService - FIREWALL [nsx@6876 comp="nsx-manager" subcomp="manager"] RuleID [1033] allocated.
2019-01-28T13:45:44.359Z INFO http-nio-127.0.0.1-7440-exec-1 RuleFactoryService - FIREWALL [nsx@6876 comp="nsx-manager" subcomp="manager"] Coverted UUID 00000000-0000-0000-0000-000000000409 from ruleId 1033
...
2019-01-28T13:45:44.379Z INFO http-nio-127.0.0.1-7440-exec-1 FirewallPatchServiceImpl - FIREWALL [nsx@6876 comp="nsx-manager" subcomp="manager"] processSinglePatch: CREATE operation 1-1 end for section patch DSSectionRulePatch [sId=d0d2ca5d-2352-4d77-8c89-96d6ca5b47c0, section=FirewallSection [id=FirewallSection/d0d2ca5d-2352-4d77-8c89-96d6ca5b47c0, fTN=LRFIREWALL, ap=false, sT=LAYER3, isD=false, dN=BLOCK SSH TRAFFIC, r=0, oM=STATELESS, rules=0, parent=DSSection [sT=LAYER3, mBy=null, dS=false, appTos=1]], iP=InsertParams [anchorId=null, isBefore=true], sOp=InsertParams [anchorId=null, isBefore=true], rPtchCnt=1, rPatches=[DSRulePatch [rId=-1, rule=FirewallRule [rId=1033, id=FirewallRule/00000000-0000-0000-0000-000000000409, sId=FirewallSection/d0d2ca5d-2352-4d77-8c89-96d6ca5b47c0, isD=false, ap=false, p=2305843009213693951, a=DROP, dN=Block SSH to Web, isL=false, isDis=false, xS=0, ctxP=0, parent=DSRule [ruleId=1033, sEF=false, dEF=false, srcs=0, dests=1, srvc=1, appTos=0, t=, acn=DROP, d=false, l=false, n=null, dir=IN_OUT, pktT=IPV4_IPV6, defR=false, sectionId=FirewallSection/d0d2ca5d-2352-4d77-8c89-96d6ca5b47c0, p=2305843009213693951]]]]]
...
2019-01-28T14:13:33.880Z INFO http-nio-127.0.0.1-7440-exec-8 RealizationRpcClientService - SYSTEM [nsx@6876 comp="nsx-manager" subcomp="manager"] Publishing realization status request to all CCP nodes [entityid=00000000-0000-0000-0000-000000000409, entityType=RULE, barrier=3491, correlation key=073190e7-885d-4e91-973a-2a356bcd639c]
2019-01-28T14:13:33.917Z INFO http-nio-127.0.0.1-7440-exec-8 RealizationStateServiceImpl - SYSTEM [nsx@6876 comp="nsx-manager" subcomp="manager"] The entity with id '00000000-0000-0000-0000-000000000409' and type 'RULE' is realized!
2019-01-28T14:13:33.918Z INFO http-nio-127.0.0.1-7440-exec-8 RealizationStateServiceImpl - SYSTEM [nsx@6876 comp="nsx-manager" subcomp="manager"] RealizationStateService.getEntityRealizedStatus response [id=00000000-0000-0000-0000-000000000409, type=RULE, barrier=3491, overallStatus=SUCCESS]
```

A security administrator has configured a gateway firewall rule to block traffic to all Web servers.

What can the administrator infer about the rule publication after reviewing the log extract?

- A. The user has no permission to create gateway firewall rules.
- B. The rule has been successfully realized in the NSX Manager.
- C. The rule has been successfully realized in the datapath.
- D. There was a communication problem with the Central Control Plane.

Sample Question 7

Which command is used to set the NSX Manager's logging-level to debug mode for troubleshooting?

- A. set service manager logging-level debug
- B. set service nsx-manager logging-level debug
- C. set service manager log-level debug
- D. set service nsx-manager log-level debug

Sample Question 8

Which three protocols could an NSX administrator use to transfer log messages to a remote log server? (Choose three.)

- A. TCP
- B. SSL
- C. UDP
- D. HTTPS
- E. TLS
- F. SSH

### Sample Question 9

A centralized packet analysis tool VM configured to monitor a NSX-T deployment is dropping some of the packets sent to it.

Which three actions could minimize the drops? (Choose three.)

- A. Increase the RX buffer ring size.
- B. Assign more CPU resources to the VM.
- C. Use DPDK to improve packet processing performance.
- D. Ensure the host 10GbE NIC is configured for full duplex.
- E. Increase the TX buffer ring size.
- F. Increase MTU on the VM to 9000.

Answer Key: 1-B,D; 2-A,C,E; 3-A; 4-A,B; 5-B; 6-A,B; 7-C, 8-A,C,E; 9-A,B,C

## Recommended Courses

VMware NSX-T Data Center: Install, Configure, Manage [v3.0]

\*Reference [www.vmware.com](http://www.vmware.com) for most current recommended course/s.

## References

VMware NSX-T Data Center: Install, Configure, Manage [v3.0]

<http://www.vmware.com> - [Section and Objective Topics]

<http://kb.vmware.com> - [Section and Objective Topics]

<https://blogs.vmware.com> - [Section and Objective Topics]

<https://docs.vmware.com> - [Section and Objective Topics]

<https://pubs.vmware.com> – [Section and Objective Topics]

<https://www.vmware.com/techpapers.html> – [Section and Objective Topics]



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