

# VMware Cloud Foundation 5.2 Administrator

### Exam

# Details (Last Updated: 03/01/2025)

The VMware Cloud Foundation 5.2 Administrator (2V0-11.25) exam, which leads to VMware Certified Professional – VMware Cloud Foundation Administrator certification (VCP-VCF Administrator), is a 60 items English exam (2V0-11.25) and a 70 items Japanese Exam (2V0-11.24) with a passing score of 300 using a scaled method. Candidates are given an appointment time of 135 minutes, which includes adequate time to complete the exam for non-native English speakers.

# **Exam Delivery**

This is a proctored exam delivered through Pearson VUE. For more information, visit the Pearson VUE website.

# **Certification Information**

For details and a complete list of requirements and recommendations for attainment, please reference the <u>VMware Education Services – Certification website</u>.

## Minimally Qualified Candidate

The candidate has the knowledge to install, configure, manage, and perform basic troubleshooting of a VMware Cloud Foundation (VCF) solution. The candidate is knowledgeable in the features, functions, and architecture of VCF and its components. This includes the following: VMware vSphere Enterprise Plus (which includes vCenter Standard, ESXi, vSphere Supervisor), vSAN, NSX Networking, Aria Suite Enterprise (including VMware Identity Manager, Aria Automation, Aria Operations, Aria Operations for Logs, Aria Suite Lifecycle), Aria Operations for Networks, VMware HCX, and VMware Data Services Manager (DSM).

The candidate should have a minimum of one year experience working in IT and should have a foundational knowledge in general enterprise IT topics (such as hardware, storage, networking, DNS, NTP and certificates). In addition, the candidate should have at least six months of experience working with either VCF or the individual VCF components. The candidate may occasionally need to research advanced VCF topics (such as commandline utilities) or request assistance to troubleshoot complex scenarios. The candidate possesses most of the knowledge shown in the exam sections (blueprint).

#### **Exam Sections**

VMware by Broadcom exam blueprint sections are now standardized into the five sections below, some of which may NOT be included in the final exam blueprint depending on the exam objectives.

Section 1 – IT Architectures, Technologies, Standards

Section 2 - VMware by Broadcom Solution

Section 3 - Plan and Design the VMware by Broadcom Solution

Section 4 – Install, Configure, Administrate the VMware by Broadcom Solution



Section 5 – Troubleshoot and Optimize the VMware by Broadcom Solution

If a section does not have testable objectives in this version of the exam, it will be noted accordingly. 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 this Exam**

Section 1 - IT Architectures, Technologies, Standards

NO TESTABLE OBJECTIVES IN THIS SECTION

## Section 2 - VMware by Broadcom Solution

- Objective 2.1 Identify the VMware Cloud Foundation components (vSphere, vSAN, NSX) and architecture (including stretched).
- Objective 2.2 Describe the requirements for implementing private cloud solutions based on VMware Cloud Foundation.
- Objective 2.3 Identify the use cases for the different components of the VMware Aria Suite (including VMware Aria Operations for Networks).
- Objective 2.4 Identify the use cases for vSphere Supervisor based on VMware Cloud Foundation.
- Objective 2.5 Identify the use cases for Data Services Manager
- Objective 2.6 Identify the use cases for VMware Cloud Foundation Add-Ons.

### Section 3 - Plan and Design the VMware by Broadcom Solution

NO TESTABLE OBJECTIVES IN THIS SECTION

## Section 4 - Install, Configure, Administrate the VMware by Broadcom Solution

- Objective 4.1 Identify the installation and configuration process (bring-up) for VMware Cloud Foundation components.
- Objective 4.2 Deploy and configure a VMware Cloud Foundation management domain.
  - Objective 4.2.1 Deploy and configure a VMware Cloud Foundation management domain using VMware Cloud

    Builder
  - Objective 4.2.2 Configure the VM ware Cloud Foundation management domain.
- Objective 4.3 Deploy and configure an NSX Edge Cluster.
  - Objective 4.3.1 Validate the prerequisites for deploying an NSX Edge cluster.
  - Objective 4.3.2 Scale an NSX Edge cluster by adding or removing Edge Transport Nodes.
  - Objective 4.3.3 Given a scenario, identify the role of BGP in route propagation with an NSX Edge cluster.
- Objective 4.4 Deploy VMware Aria Suite Lifecycle using SDDC Manager.
  - Objective 4.4.1 Validate the prerequisites for deploying Aria Suite Lifecycle.
  - Objective 4.4.2 Create Application Virtual Networks (AVNs) in preparation for deploying the VMware Aria Suite.
  - Objective 4.4.3 Complete a basic configuration of VMware Aria Suite Lifecycle.
- Objective 4.5 Deploy VMware Aria Suite using VMware Aria Suite Lifecycle.
  - Objective 4.5.1 Validate the prerequisites for deploying the VMware Aria Suite.
  - Objective 4.5.2 Deploy VMware Aria Suite.
- Objective 4.6 Deploy and configure a virtual infrastructure (VI) workload domain using SDDC Manager.
  - Objective 4.6.1 Validate the prerequisites for deploying a VI workload domain.
  - Objective 4.6.2 Identify the steps for deploying a VI workload domain.
  - Objective 4.6.3 Deploy a VI workload domain using SDDC Manager.



- Objective 4.7 Enable vSphere Supervisor (Workload Management) within VMware Cloud Foundation.
  - Objective 4.7.1 Identify the prerequisites for enabling workload management.
- Objective 4.8 Create and configure a vSphere Namespace
  - Objective 4.8.1 Download the vSphere CLI tools to a developer workstation.
- Objective 4.9 Deploy stretched clusters across availability zones for VMware Cloud Foundation.
  - Objective 4.9.1 Validate the requirements for deploying stretched clusters.
  - Objective 4.9.2 Identify the procedure for deploying stretched clusters.
- Objective 4.10 Deploy and manage VMware Cloud Foundation using the VMware Cloud Foundation APIs.
- Objective 4.11 Given a scenario, scale a VMware Cloud Foundation deployment.
  - Objective 4.11.1 Validate the prerequisites for host commissioning.
  - Objective 4.11.2 Add hosts using host commissioning.
  - Objective 4.11.3 Remove hosts using host decommissioning.
  - Objective 4.11.4 Scale a cluster within VMware Cloud Foundation.
  - Objective 4.11.5 Scale a VMware Cloud Foundation domain.
  - Objective 4.11.6 Scale a VMware Cloud Foundation deployment with a workload domain.
- Objective 4.12 Given a scenario, perform Day 2 Operations within VMware Cloud Foundation SDDC Manager.
  - Objective 4.12.1 Implement backup and recovery strategies for VMware Cloud Foundation components.
    - Objective 4.12.2 Perform lifecycle management for VMware Cloud Foundation components.
    - Objective 4.12.3 Perform update, rotate, and sync for passwords managed by the SDDC Manager.
    - Objective 4.12.4 Perform rotation of certificates managed by the SDDC Manager.
    - Objective 4.12.5 Upgrade VMware Cloud Foundation.
- Objective 4.13 Given a scenario, perform Day 2 Operations within VMware vCenter.
  - Objective 4.13.1 Given a scenario, configure Role-based Access Control to vCenter.
- Objective 4.14 Given a scenario, manage the lifecycle of a virtual machine.
  - Objective 4.14.1 Create a virtual machine template.
  - Objective 4.14.2 Create a virtual machine from a VM template.
  - Objective 4.14.3 Create a virtual machine from an ISO/OVA.
  - Objective 4.14.4 Destroy a virtual machine.
  - Objective 4.14.5 Given a scenario, manage virtual machine snapshots
  - Objective 4.14.6 Given a scenario, complete Day 2 Operations on a virtual machine.
- Objective 4.15 Given a scenario, configure vSphere Networking components
  - Objective 4.15.1 Configure a Virtual Distributed Switch.
  - Objective 4.15.2 Configure Network IO Control.
  - Objective 4.15.3 Configure a Port Group.



- Objective 4.16 Given a scenario, configure Content Libraries to manage resources.
  - Objective 4.16.1 Create a Content Library.
  - Objective 4.16.2 Publish a Content Library.
  - Objective 4.16.3 Subscribe to a Content Library.
- Objective 4.17 Given a scenario, configure vSphere storage components
  - Objective 4.17.1 Given a scenario, configure VM storage policies.
- Objective 4.18 Given a scenario, manage ESXi hosts
  - Objective 4.18.1 Given a scenario, manage the host lifecycle using VMware Lifecyle Manager images.
  - Objective 4.18.2 Given a scenario, secure an ESXi host.
  - Objective 4.18.3 Given a scenario, configure an ESXi host and the host profile.
- Objective 4.19 Given a scenario, secure workloads and infrastructure using encryption.
  - Objective 4.19.1 Given a scenario, identify how to secure workloads using Virtual Machine Encryption.
  - Objective 4.19.2 Given a scenario, identify how to secure workloads using host-based encryption.
  - Objective 4.19.3 Given a scenario, identify how to secure vMotion with encryption.
- Objective 4.20 Given a scenario, perform Day 2 Operations within VMware NSX.
  - Objective 4.20.1 Given a scenario, create a segment using VMware NSX.
  - Objective 4.20.2 Given a scenario, configure logical routing in NSX.
  - Objective 4.20.3 Configure logging for NSX components.
  - Objective 4.20.4 Differentiate between the use cases for deploying a new NSX Fabric vs. joining an existing NSX Fabric.
  - Objective 4.20.5 Create a VPC and configure projects to enable multi-tenancy in NSX.
  - Objective 4.20.6 Given a scenario, identify the use cases for VMware NSX advanced features.
  - Objective 4.20.7 Given a scenario, configure VMware NSX advanced features.
- Objective 4.21 Given a scenario, perform Day 2 Operations for VMware vSAN.
  - Objective 4.21.1 Configure and manage storage resources, policies, and performance using VMware vSAN and other storage technologies.
  - Objective 4.21.2 Identify the procedure for setting vSAN in maintenance mode.
  - Objective 4.21.3 Identify the steps to add storage to a vSAN datastore.
  - Objective 4.21.4 Identify the use cases for enabling/disabling vSAN health alerts.
- Objective 4.22 Given a scenario, perform Day 2 Operations within VMware Aria Suite.
  - Objective 4.22.1 Given a scenario, perform Day 2 Operations within VMware Aria Suite Lifecycle.
  - Objective 4.22.2 Complete SSL Certificate Management for the Aria Suite components (including Aria Operations for Networks).
  - Objective 4.22.3 Complete License Management for the Aria Suite components (including Aria Operations for Networks).
  - Objective 4.22.4 Given a scenario, scale an existing Aria Suite deployment.
  - Objective 4.22.5 Configure Multi-Organizational Tenancy.
  - Objective 4.22.6 Create a log bundle for an Aria Suite component.



- Objective 4.22.7 Configure Content Management in Aria Suite Lifecycle.
- Objective 4.22.8 Given a scenario, operationalize VMware Cloud Foundation with the VMware Aria Suite.
- Objective 4.23 Deploy workloads on vSphere Supervisor.
- Objective 4.24 Given a scenario, perform virtual machine migrations, operations or tasks using VMware HCX.

### Section 5 - Troubleshoot and Optimize the VMware by Broadcom Solution

- Objective 5.1 Diagnose and identify technical issues related to the deployment of VMware Cloud Foundation.
- Objective 5.2 Diagnose and identify technical issues related to VMware Cloud Foundation.
  - Objective 5.2.1 Identify the relevant tools for troubleshooting technical issues related to VMware Cloud Foundation.
  - Objective 5.2.2 Diagnose and identify technical issues related to VMware Cloud Foundation SDDC Manager.
  - Objective 5.2.3 Diagnose and identify technical issues related to VMware vSphere (including hosts, clusters, networking, and storage).
  - Objective 5.2.4 Diagnose and identify technical issues related to VMware vSphere.
  - Objective 5.2.5 Diagnose and identify technical issues related to VMware vSAN.
  - Objective 5.2.6 Diagnose and identify technical issues related to VMware NSX.
- Objective 5.3 Given a scenario, troubleshoot the VMware Cloud Foundation Deployment/Bring Up Process
- Objective 5.4 Perform troubleshooting tasks for vSphere.
  - Objective 5.4.1 Identify the procedure for setting a host in maintenance mode.
  - Objective 5.4.2 Resolve host connectivity issues.
  - Objective 5.4.3 Resolve certificate issues.
  - Objective 5.4.4 Troubleshoot vCLS.
  - Objective 5.4.5 Troubleshoot snapshot issues.
  - Objective 5.4.6 Troubleshoot vSphere HA host states.
  - Objective 5.4.7 Troubleshoot lifecycle management.
- Objective 5.5 Perform troubleshooting tasks for vSphere Networking.
  - Objective 5.5.1 Identify the health of an NSX Edge cluster to include tier-0 and tier-1 routers.
  - Objective 5.5.2 Resolve NSX overlay network connectivity or configuration issues in VMware Cloud Foundation.
  - Objective 5.5.3 Resolve network connectivity or configuration issues on a vSphere Distributed Switch.
  - Objective 5.5.4 Resolve load balancing issues in NSX.
- Objective 5.6 Perform troubleshooting tasks for vSAN.
  - Objective 5.6.1 Resolve connectivity or configuration issues with vSAN in VMware Cloud Foundation.
  - Objective 5.6.2 Recover from a disk or controller failure in vSAN.
  - Objective 5.6.3 Identify the process to update the vSAN database.
  - Objective 5.6.4 Identify the process to update the driver/firmware in vSAN.
  - Objective 5.6.5 Interpret the Skyline vSAN Health Score and complete remediation action(s).
- Objective 5.7 Identify and perform troubleshooting tasks in VMware Cloud Foundation SDDC Manager.
  - $Objective \ 5.7.1 Resolve \ issues \ related \ to \ password \ management \ in \ VM ware \ Cloud \ Foundation.$



- Objective 5.7.2 Identify how to use the "SOS" CLI tool to identify potential health issues in VMware Cloud Foundation.
- Objective 5.7.3 Identify how to use the "SOS" CLI tool to collect logs for a workload domain as part of a support request.
- Objective 5.7.4 Identify scenarios for using the SDDC Manager local admin account.
- Objective 5.7.5 Identify how to query passwords for deployed components using SDDC Manager.
- Objective 5.7.6 Identify the steps to restart/resume a failed workflow.
- Objective 5.8 Perform troubleshooting tasks with VMware Aria Suite.
  - Objective 5.8.1 Generate and analyze reports on infrastructure performance, capacity, utilization, and compliance.
  - Objective 5.8.2 Optimize resource allocation and utilization to ensure efficient operation.
  - Objective 5.8.3 Identify and implement improvements to enhance the efficiency, performance, and reliability of the VMware Cloud Foundation environment.
  - Objective 5.8.4 Verify the health of a VMware Cloud Foundation deployment.
- Objective 5.9 Identify and perform troubleshooting of vSphere Supervisor and its components.



# **Recommended Courses**

VMware Cloud Foundation: Deploy, Manage, Configure

# References\*

In addition to the recommended courses, item writers used the following references for information when writing exam questions. It is recommended that you study the reference content as you prepare to take the exam in addition to any recommended training.

Name	Products
http://www.vmware.com	VMware vSphere Enterprise Plus (which includes vCenter Standard, ESXi, vSphere with Tanzu), vSAN, NSX Networking, Aria Automation, Aria Operations, Aria Operations for Logs, Aria Suite Lifecycle, Aria Operations for Network, HCX, and DSM
https://support.broadcom.com	VMware vSphere Enterprise Plus (which includes vCenter Standard, ESXi, vSphere with Tanzu), vSAN, NSX Networking, Aria Automation, Aria Operations, Aria Operations for Logs, Aria Suite Lifecycle, Aria Operations for Network, HCX, and DSM
https://blogs.vmware.com	VMware vSphere Enterprise Plus (which includes vCenter Standard, ESXi, vSphere with Tanzu), vSAN, NSX Networking, Aria Automation, Aria Operations, Aria Operations for Logs, Aria Suite Lifecycle, Aria Operations for Network, HCX, and DSM
https://docs.vmware.com	VMware vSphere Enterprise Plus (which includes vCenter Standard, ESXi, vSphere with Tanzu), vSAN, NSX Networking, Aria Automation, Aria Operations, Aria Operations for Logs, Aria Suite Lifecycle, Aria Operations for Network, HCX, and DSM
https://www.vmware.com/techpapers.html	VMware vSphere Enterprise Plus (which includes vCenter Standard, ESXi, vSphere with Tanzu), vSAN, NSX Networking, Aria Automation, Aria Operations, Aria Operations for Logs, Aria Suite Lifecycle, Aria Operations for Network, HCX, and DSM
*Content in this exam is based on VCF 5.2. Review all 5.2 release notes and material for features and functions.	



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