

# VMware Cloud Foundation 5.2 Administrator

## Exam Details (Last Updated: 04/01/2025)

The VMware Cloud Foundation 5.2 Administrator (2V0-11.24) exam, which leads to VMware Certified Professional – VMware Cloud Foundation Administrator certification (VCP-VCF Administrator), is a 70-item exam offers both English and Japanese 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</u> – <u>Certification website</u>.

### **Minimally Qualified Candidate**

The candidate can install, configure, manage, and perform basic troubleshooting of the VMware Cloud Foundation (VCF) solution but occasionally needs to research topics or request assistance. The candidate should have at least six months or more of experience working with the VCF solution and all its components. The candidate should have one to two years or more of experience working in IT. The candidate is knowledgeable of the features, functions, and architectures of all VCF components, which include the following: 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. The candidate may occasionally need to research some topics related to the aforementioned components or request assistance. The candidate has advanced level experience working with vSphere and its command line but occasionally needs to research topics or request assistance. The candidate may need to research some VCF related topics. The candidate possesses most of the knowledge shown in the exam sections (blueprint).

### **Exam Sections**

VMware exam blueprint sections are now standardized to 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.

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#### Sections Included in this Exam

Section 1 - IT Architectures, Technologies, Standards

NO TESTABLE OBJECTIVES 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 Cloud Foundation Network Operations)
- Objective 2.4 Identify the use cases for vSphere IaaS control plane (formerly vSphere with Tanzu) 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 VM ware by Broadcom Solution NO TESTABLE OBJECTIVES THIS SECTION

Section 4 - Install, Configure, Administrate the VM ware 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 VMware 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 NSX Edge Cluster
- Objective 4.4 Deploy VMware Aria Suite Lifecycle using SDDC Manager

Objective 4.4.1 - Validate 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 basic configuration of VMware Aria Suite Lifecycle
- 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 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 IaaS control plane (formerly 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 host lifecycle using VMware Lifecyle Manager images

Objective 4.18.2 - Given a scenario, secure a ESXi host

Objective 4.18.3 - Given a scenario, configure a ESXi host and 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 mutli-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 steps to add storage to a vSAN datastore

Objective 4.21.4 - Identify 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 Mangement 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 IaaS control plane (formerly vSphere with Tanzu) Objective 4.24 - Given a scenario, perform virtual machine migrations, operations or tasks using 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 VM ware 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 VMware 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 VM ware 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 IaaS Control Plane and its components



## **Recommended Courses**

VMware Cloud Foundation: Deploy, Manage, Configure

### **References\***

In addition to the recommended courses, item writers use 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.	



# **Exam Content Contributors**

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