VMware Cloud Foundation 5.2 Administrator

Exam Details (Last Updated: 08/26/2024)

The VMware Cloud Foundation 5.2 Administrator (2V0-11.24) exam, which leads to VMware Certified Professional – VMware Cloud Foundation Administrator 2024 certification (VCP-VCF Administrator 2024), is a 70-item exam 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 VMware Education Services – Certification website.

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.

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 VMware by Broadcom Solution
  - NO TESTABLE OBJECTIVES 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 4.2.1.1 - Validate the prerequisites for deploying VMware Cloud Foundation
      - Objective 4.2.1.2 - Deploy the VMware Cloud Builder appliance
      - Objective 4.2.1.3 - Prepare ESXi hosts
      - Objective 4.2.1.4 - Deploy the VMware Cloud Foundation management domain (including vCenter, vSAN, NSX, and SDDC Manager) using VMware Cloud Builder
    - Objective 4.2.2 - Configure the VMware Cloud Foundation management domain.
      - Objective 4.2.2.1 - Identify the different backup methods for components within the VMware Cloud Foundation management domain
      - Objective 4.2.2.2 - Configure the Backup of VMware Cloud Foundation Management Components
      - Objective 4.2.2.3 - Identify the use case for certificate management in VMware Cloud Foundation
      - Objective 4.2.2.4 - Configure Certificate Management
      - Objective 4.2.2.5 - Configure Password Management
  - Objective 4.3 - Deploy and configure an NSX Edge Cluster
    - Objective 4.3.1 - Validate the prerequisites for deploying an NSX Edge Cluster

Objective 4.3.1.1 - Identify the uplink requirements for deploying an NSX edge cluster

Objective 4.3.1.2 - Identify the TEP requirements 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 4.7.1.1 - Identify NSX Edge requirements for enabling Tanzu on a Cloud Foundation workload domain

Objective 4.7.1.2 - Identify Overlay network requirements for enabling Tanzu on a Cloud Foundation workload domain

Objective 4.7.1.3 - Identify Ingress and Egress network requirements for enabling Tanzu on a Cloud Foundation workload domain

Objective 4.7.1.4 - Validate prerequisites to enable and configure Supervisor

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 4.11.4.1 - Add a host to the existing cluster

Objective 4.11.4.2 - Remove a host from an existing cluster

Objective 4.11.5 - Scale a VMware Cloud Foundation Domain

Objective 4.11.5.1 - Add a cluster to an existing VMware Cloud Foundation Domain

Objective 4.11.5.2 - Remove a cluster from an existing VMware Cloud Foundation Domain

Objective 4.11.6 - Scale a VMware Cloud Foundation deployment with a workload domain

Objective 4.11.6.1 - Add a workload domain to an existing VCF deployment

Objective 4.11.6.2 - Remove a workload domain from an existing VCF deployment

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 4.12.5.1 - Differentiate between the types of bundles available in VMware Cloud Foundation

Objective 4.12.5.2 - Based on a scenario, identify the correct upgrade procedure for VMware Cloud Foundation.

Objective 4.12.5.3 - Download update bundles in a connected environment using the SDDC Manager UI

Objective 4.12.5.4 - Download update bundles in a disconnected environment using the Offline Bundle Transfer Utility (OBTU) CLI tool

Objective 4.12.5.5 - Apply software updates using the Async Patch CLI Tool

Objective 4.12.5.6 - Perform an update pre-check for a workload domain in preparation for performing an upgrade

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 4.13.1.1 - Identify the capabilities of the different out of the box roles within vCenter Objective 4.13.1.2 - Create vCenter Roles

Objective 4.13.1.3 - Add an identity source (such as Active Directory) to vCenter

Objective 4.13.1.4 - Assign Roles to Users/Groups

Objective 4.13.1.5 - Assign Permissions to Users/Groups

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 4.14.5.1 -Identify the capabilities of the different out of the box roles within vCenter

Objective 4.14.5.2 - Create vCenter Roles

Objective 4.14.5.3 - Add an identity source (such as Active Directory) to vCenter Objective 4.14.5.4 - Assign Roles to Users/Groups

Objective 4.14.5.5 - Understand the impact of completing different snapshot operations.

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 4.20.7.1 - Configure a DHCP server for an NSX Segment

Objective 4.20.7.2 - Configure an NSX load balancer (not AVI)

Objective 4.20.7.3 - Configure Network Adress Translation (NAT) in VMware NSX Objective 4.20.7.4 - Configure an IP Pool and IP Block

Objective 4.20.7.5 - Configure VPN service for NSX

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 4.22.1.1 - Patch / upgrade the components of VMware Aria Suite (including Aria Operations for Networks)

Objective 4.22.2 - Complete SSL Certificate Mangement for the Aria Suite Components (including Aria Operations for Networks)

4.22.2.1 - Differentiate between the different ceritifcate creation

options 4.22.2.2 - Identify the steps for creating an SSL Certificate

4.21.2.3 - Create a Certificate Request

4.22.2.4 - Generate a self-signed SSL certificate

4.22.2.5 - Import a CA-signed certificate

4.22.2.6 - Apply an SSL certificate to a Aria Suite Component

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 4.22.5.1 - Identify the prerequisites for enabling Multi-Organizational Tenancy Objective 4.22.5.2 - Enable Multi-Organizational Tenancy in Aria Suite Lifecycle

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 4.22.8.1 - Manage the health, performance, compliance and capacity of the VMware Cloud Foundation environment using VMware Aria Operations

Objective 4.22.8.2 - Automate deployment and configuration of workloads using VMware Aria Automation

Objective 4.22.8.3 - Implement log event monitoring and management with VMware Aria Operations for Logs

Objective 4.22.8.4 - Monitor networks using Aria Operations for Networks

Objective 4.22.8.5 - Configure single sign-on using VMware Identity Manager (aka Workspace ONE Access)

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 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 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 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 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

Christopher Lewis
Emad Younis
Iwan Hoogendoorn
Karel Novak
Tommy Grot
Jens Hennig
Katherine Skilling
Murali Krishnan
Richard van Dantzig
Gregg Robertson
Kim Botu
Kyle Gleed
Katarina Brookfield
Pawel Piotrowski

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