

# Associate VMware Application Modernization

## Exam Details (Last Updated: 06/24/2021)

The Associate VMware Application Modernization (1V0-71.21) exam, which leads to VMware Certified Technical Associate – Application Modernization 2022 certification is a 60-item exam, with a passing score of 300 using a scaled method. Candidates are given 130 minutes to complete the exam, 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 minimally qualified candidate (MQC) has basic experience in these areas: IT, virtualization, Linux, Containers and Kubernetes. The MQC works in environments where VMware Tanzu Kubernetes Grid and Tanzu Mission Control are present. The MQC can explain the VMware Tanzu vision and describe at a high level, containerization, Kubernetes, and Application Modernization concepts. The MQC can perform basic navigation of the Tanzu Mission Control interface and identify its key components. The MQC can perform basic commands with the kubectl and TKG Command Line Interface utilities. The MQC can identify the primary components and features of VMware Tanzu Observability, Tanzu Service Mesh, Tanzu Build Service, Tanzu Application Catalog and Tanzu Application Service. The MQC must possess all the knowledge contained in the sections included in this exam.

## 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 does not have testable objectives in this version of the exam, it will be noted below, 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 – Architecture and Technologies

#### **Kubernetes**

- Objective 1.1 Describe the purpose of Containers
- Objective 1.2 Describe difference between Containers and VMs
- Objective 1.3 Describe the relationship between Kubernetes and Containers
- Objective 1.4 Understand the basic architecture of Kubernetes
- Objective 1.5 Declarative versus Imperative design pattern for Kubernetes
- Objective 1.6 Understand interacting with Kubernetes
- Objective 1.7 Understand the POD
- Objective 1.8 Understand services
- Objective 1.9 Understand deployment
- Objective 1.10 Describe the types of services
- Objective 1.11 Describe the purpose of Ingress controllers
- Objective 1.12 Understand Namespaces
- Objective 1.13 Understand troubleshooting methods
- Objective 1.14 Describe the purpose of ConfigMaps

#### **Application Modernization**

- Objective 1.15 Describe application modernization
- Objective 1.16 Explain the need for app modernization
- Objective 1.17 Describe the importance of Microservices
- Objective 1.18 Describe CI/CD Pipelines
- Objective 1.19 Building Container Images
- Objective 1.20 Understand Image registry and functions
- Objective 1.21 Explain the use of App catalogs
- Objective 1.22 Describe Platform as a Service
- Objective 1.23 Describe Infra as Code (IaC)
- Objective 1.24 Describe the use of Service Mesh
- Objective 1.25 Compare Observability with Monitoring

### Section 2 – Products and Solutions

- Objective 2.1 Understand VMware Tanzu Portfolio
- Objective 2.2 Describe the types of Tanzu Editions (Basic, Standard, Advanced, Enterprise)
- Objective 2.3 Describe the use cases the Tanzu Portfolio solves, and the outcomes deliver
- Objective 2.4 Identify products in the Tanzu portfolio

Tanzu Kubernetes Grid

VMware Tanzu Mission Control  
 VMware Tanzu Observability  
 VMware Tanzu Service Mesh  
 Tanzu Application Service  
 Tanzu Build Service  
 Tanzu Application Catalog  
 Tanzu open source products

Objective 2.5 Understand open-source software in the VMware Tanzu strategy and how it relates to the Cloud Native Computing Foundation (CNCF)

Section 3 – There are no testable objectives for this section

Section 4 – There are no testable objectives for this section

Section 5 – There are no testable objectives for this section

Section 6 – There are no testable objectives for this section

Section 7 – There are no testable objectives for this section

## Recommended Courses/Training Materials

[kube.academy \(Free\)](https://kubernetes.io/learn/)

[Application Modernization: Core Technical Skills](#)

## 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
<a href="http://www.vmware.com">http://www.vmware.com</a>	VMware Tanzu
<a href="http://kb.vmware.com">http://kb.vmware.com</a>	VMware Tanzu
<a href="https://blogs.vmware.com">https://blogs.vmware.com</a>	VMware Tanzu
<a href="https://docs.vmware.com">https://docs.vmware.com</a>	VMware Tanzu
<a href="https://www.vmware.com/support/pubs/">https://www.vmware.com/support/pubs/</a>	VMware Tanzu
<a href="https://www.vmware.com/techpapers.html">https://www.vmware.com/techpapers.html</a>	VMware Tanzu
<a href="http://pubs.vmware.com">http://pubs.vmware.com</a>	VMware Tanzu
*Content in this exam is based on VMware Tanzu Basic edition. Review all Basic edition release notes and material for features and function.	

## 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

What are two responsibilities of the Kubernetes API server component? (Choose two.)

- A. To restart containers that have crashed
- B. To query and manipulate the state of API objects in Kubernetes
- C. To relay Kubernetes API requests to the appropriate Kubernetes component
- D. To determine which node a Pod should be assigned to
- E. To reject API requests that do not validate against the Kubernetes API

Key: B, E

### Sample question 2

How do Kubernetes Ingress Controllers run?

- A. As a system service installed to the OS of a worker node
- B. As one or more pods in the same cluster to where they are forwarding traffic
- C. As a controller inside the Kubernetes Scheduler component
- D. As a controller inside the Kubernetes Controller Manager component

Key: B

### Sample question 3

What is the purpose of a ConfigMap in Kubernetes?

- A. To map configuration data to Kubernetes Object types
- B. To set configuration data separately from application code
- C. To configure geospatial objects in Kubernetes
- D. To map Kubernetes objects to Namespaces

Key: B

### Sample question 4

Which Tanzu product enables users to monitor, observe, and analyze infrastructure and application health?

- A. Tanzu Build Service
- B. Tanzu Application Catalog
- C. Tanzu Observability
- D. Tanzu Kubernetes Grid

Key: C

Sample question 5

Which VMware Tanzu Edition can deploy Tanzu Kubernetes Grid on vSphere ONLY?

- A. Tanzu Platinum
- B. Tanzu Advanced
- C. Tanzu Limited
- D. Tanzu Basic

Key: D

Sample question 6

What are three names of services provided by VMware vSphere with Tanzu? (Choose three.)

- A. Application Automation Service
- B. Tanzu Kubernetes Grid Service
- C. Container Build Service
- D. Storage Service
- E. Observability Service
- F. Network Service

Key: B,D, F

Sample question 7

Which open-source solution provides log processing and forwarding in Tanzu Kubernetes Grid?

- A. Harbor
- B. Ansible
- C. Fluent Bit
- D. Apache

Key: C

## Certification Requirements

VCTA-AM 2022

## Exam Content Contributors

Jonathan Smith  
Hart Hoover  
Michael Gehard  
Chris Little  
Tom Felczynski  
Shana King  
Keith Lee  
Art Fewell  
Ryan Schneider  
Kevin Brady  
Raymundo Escobar  
Pawel Piotrowski  
Karel Novak  
Stephen Carter



**VMware, Inc.** 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 [www.vmware.com](http://www.vmware.com)  
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