

V1.0 | March 2021



EXAM BLUEPRINT GUIDE

Nutanix Certified Professional - Multicloud Infrastructure (NCP-MCI) 5.15 Exam

Author:

Jeff Hall - Technical Certification Developer
Jon C. Hall - Sr. Manager, Technical Certifications

**Contributors:**

Akwasi Adjei - Systems Engineer
John Burton - Staff SRE
Clarke Cooper - Core Performance Engineer
James Corder - Sr. Technical Trainer
Kenneth Fingerlos - Sr. Staff Consulting Architect
Bill Griffith - Sr. Technical Trainer
Shane Hill - Technical Program Manager
Keith Olsen - Sr. Systems Engineer
Anthony Schisler - Sr. Inside Systems Engineer
Lochan Serma - Sr. Consultant
Dan Simmons - Sr. Solutions Architect
Assen Spassov - Sr. Technical Trainer
Michael Webster NPX #7 - Technical Director, Engineering
Rishi Zalani - Inside Sales Engineer

Disclaimer:

The Nutanix Certified Professional - Multicloud Infrastructure (NCP-MCI) 5.15 Exam Blueprint Guide provides an over-view of the objectives that must be mastered to achieve the NCP-MCI credential. Nutanix does not offer any guarantees that this guide will ensure a candidate's success in achieving the NCP-MCI Certification. All information in this guide is subject to change at any time at the sole discretion of Nutanix.

1. THE EXAM	
1.1. Purpose of Exam.....	4
1.2. Number of Questions.....	4
1.3. Pricing.....	4
1.4. Passing Score.....	4
1.5. How Objectives Relate to Questions on the Exam.....	4
1.6. Languages.....	5
1.7. Time Limit.....	5
1.8. Scheduling and Taking the Exam.....	5
1.9. Certification Tracks.....	5
1.10. Retake Policy.....	5
1.11. Exam Security.....	6
1.12. Recertification.....	6
1.13. Benefits of Certification.....	6
2. INTENDED AUDIENCE	
2.1. Intended Audience.....	7
3. OBJECTIVES COVERED IN THE NCP-MCI 5.15 EXAM	
3.1. Introduction.....	8
3.2. Objectives.....	8
4. THE NUTANIX MULTICLOUD INFRASTRUCTURE COURSE RECOMMENDATIONS	
4.1. Course Recommendation.....	13
5. RESOURCES	
5.1. Nutanix Community Edition.....	15
5.2. The Nutanix Next Community.....	15



1. The Exam

1.1 PURPOSE OF EXAM

The Nutanix Certified Professional - Multicloud Infrastructure (NCP-MCI) 5.15 exam tests candidates on their skills and abilities deploying, administering and troubleshooting Nutanix AOS 5.15 in the Enterprise Cloud. Successful candidates demonstrate mastery of these skills and abilities.

1.2 NUMBER OF QUESTIONS

The NCP-MCI 5.15 exam consists of 75 multiple choice and multiple response questions.

1.3 PRICING

The cost for the NCP-MCI 5.15 exam is \$199 USD.

1.4 PASSING SCORE

The passing score for this exam is 3000, using a scaled scoring method. The scale is from 1000-6000. Scaled scores are calculated using a mathematical formula that considers a variety of factors, including the number and type of exam questions included in a specific version of the exam. Because this combination may vary in different versions of the same examination, scaled scores provide a fair score for everyone based on the version of the exam taken.

1.5 HOW OBJECTIVES RELATE TO QUESTIONS ON THE EXAM

Objectives summarize what the test is designed to measure. Objectives are developed by Exam Developers and Subject Matter Experts based on identified tasks that relate to the job of deploying and administering a Nutanix AOS 5.15 cluster. Once the initial development process is complete, these objectives are verified using an external group of individuals in the actual job role. Finally, a number of questions is determined for each objective, which relates directly to the criticality of the task in the job role.

1.6 LANGUAGES

The exam is available in English, Japanese and Simplified Chinese.

1.7 TIME LIMIT

The time limit for the exam is 120 minutes.

1.8 SCHEDULING AND TAKING THE EXAM

This exam is delivered via remote proctoring. After registering for the exam and providing valid identification, you will receive information on how to take the exam from your location using a web browser. Because the exam is remote proctored, you will be provided with a locked down, monitored, secure exam experience.

1.9 CERTIFICATION TRACKS

The NCP-MCI 5.15 exam is a core component of the Nutanix Multicloud Infrastructure track. The certification requires a passing score on the exam. While it is not required that you attend a course, Nutanix provides training that covers the objectives on the exam.

1.10 RETAKE POLICY

If a candidate fails an exam on the first attempt, he or she is allowed two additional attempts. There is a seven-day waiting period between attempts. Like the first attempt, these are paid for individually and Nutanix recommends that you allow sufficient time between attempts to be properly prepared and to maximize your chances for success.

Please note: After three attempts, you will be unable to take the exam for 60 days, after which you can e-mail university.nutanix.com and request that your attempts are reset. Nutanix recommends you utilize the time to thoroughly review this guide and the related references and/or take the recommended training for this exam.

1.11 EXAM SECURITY

Nutanix reserves the right to refuse certifying a candidate who violates exam security policies. This includes copying and redistribution of exam material, using any type of study material during the exam itself, attempting to photograph exam items and taking an exam using a false identity. Your identity is captured as part of the exam registration process and must be validated before you will be allowed to take the exam

1.12 RECERTIFICATION

Once you have achieved the NCP-MCI 5 certification, it will remain valid until Nutanix releases the next major version of the certification (i.e. NCP-MCI 6). At that time, you have one year to upgrade your certification to the new release before it expires. Nutanix provides a delta training covering features that are part of the AOS release that coincides with the new version of the certification.

1.13 BENEFITS OF CERTIFICATION

- Digital badge from Credly that you can share on social media
- Points on Nutanix Xtribe that you can redeem for prizes (not available for Nutanix employees)
- Access to the Certification store at <http://store.nutanix.com> for shirts, mugs, and more
- Opportunity to participate as a SME to develop future exams
- Discount on attending Nutanix .NEXT



2. Intended Audience

2.1 INTENDED AUDIENCE

A candidate for the NCP-MCI 5.15 certification has approximately three to six months experience working with an AOS implementation. They are typically infrastructure personnel who are capable of deploying and administering Nutanix AOS 5.15 nodes, blocks and clusters and can use Prism Element to monitor, manage, troubleshoot and administer AHV hosts and virtual machines. The successful candidate will most likely have additional general systems administration experience (typically 1-2 years).



3. Objectives covered in the NCP-MCI 5.15 Exam

3.1 INTRODUCTION

It is recommended that candidates have the knowledge and skills necessary to deploy, administer and troubleshoot a Nutanix AOS environment before attempting the NCP-MCI 5.15 exam. It is also recommended that the candidate complete the recommended course prior to taking the exam.

3.2 OBJECTIVES

Prior to taking this exam, candidates should understand each of the following objectives. Each objective is listed below; along with related tools the candidate should have experience with, and related documentation that contains information relevant to the objective. Please note that some documentation requires access via the Support Portal. Information on creating an account for use with the Support Portal can be found [here](#). All objectives may also be referenced in other product documentation not specifically highlighted below. The candidate should be familiar with all relevant product documentation or have the equivalent skills.

Section 1 – Nutanix Enterprise Cloud Concept

Objectives

- Define and differentiate features present in Acropolis, Prism (Element and Central), and AHV

References

- [What's New | AOS 5.15](#)
- [Features and Updates | AOS 5.15](#)
- [Nutanix Enterprise Cloud Overview](#)
- [Nutanix Key Technical Terms](#)
- [eBook – Enterprise Cloud for Dummies](#)
- [Video – Nutanix – How it Works \(Detailed\)](#)
- [Whitepaper – The Definitive Guide to Hyperconverged Infrastructure](#)
- [The Nutanix Bible](#)

Section 2 – Managing a Nutanix cluster

Objectives

- Manage node operations in a Nutanix cluster
- Given a scenario, deploy ROBO sites

References

- [Prism 5.15 Web Console Guide](#)
- [Prism 5.15 Central Guide](#)
- [Acropolis Command-Line Interface](#)
- [Nutanix Command-Line Interface](#)
- [Nutanix REST API](#)
- [Nutanix PowerShell Cmdlets](#)
- [ROBO Deployment and Operations](#)

Section 3 – Securing a Nutanix Cluster

Objectives

- Given a scenario, configure RBAC
- Install SSL certificates
- Explain authentication and password management
- Explain Data-at-Rest Encryption (DARE) functionality

References

- [Controlling User Access \(RBAC\)](#)
- [Installing an SSL Certificate](#)
- [Configuring Authentication](#)
- [Data-at-Rest Encryption](#)
- [Security Management](#)
- [User Management](#)
- [Nutanix Controller VM Security Operations Guide](#)
- [Tech Note – Information Security with Nutanix](#)
- [Video – Data-at-Rest Encryption Configuration on Nutanix](#)
- [Whitepaper – Building Secure Platforms and Services with Nutanix Enterprise Cloud](#)

Section 4 – Networking

Objectives

- Given a scenario, configure networking
- Describe AHV networking components and configuration settings
- Describe AHV managed versus unmanaged networks
- Describe AHV Bond Modes

References

- [Network Management](#)
- [Host Network Management](#)
- [Best Practices Guide - AHV Networking](#)
- [Best Practices Guide - AHV](#)
- [Video Series - Nutanix University Tech TopX Networking Series with Jason Burns](#)

Section 5 - VM Creation and Management

Objectives

- Identify tools and methods for migrating a VM
- Create and deploy VMs
- Given a scenario, modify VM configuration
- Given a scenario, configure Affinity rules
- Explain live migration

References

- [Creating a VM](#)
- [Managing a VM](#)
- [Nutanix Image Management](#)
- [Nutanix VirtIO for Windows](#)
- [Virtual Machine Management](#)
- [Affinity Policies for AHV](#)
- [Best Practices Guide - AHV](#)

Section 6 - Health Monitoring and Alerts

Objectives

- Given a scenario, conduct a basic analysis of performance and health of the cluster and VMs
- Configure cluster monitoring

References

- [Health Monitoring](#)
- [Alert and Event Monitoring](#)

Section 7 - Distributed Storage Fabric

Objectives

- Recognize components of storage constructs and the data path of snapshots, clones, etc.
- Identify methods for creating a storage container and how to configure deduplication, compression, and erasure coding on Nutanix containers

References

- [Storage Management](#)
- [eBook – Software-Defined Storage for Dummies](#)
- [Video – Snapshots and Clones](#)
- [Video – Deduplication](#)
- [Tech Note – Data Efficiency](#)

Section 8 – Acropolis Storage Services

Objectives

- Define and configure Nutanix Volumes
- Define Nutanix Files use cases

References

- [Nutanix Files](#)
- [Nutanix Volumes](#)
- [White Paper – Reimagine File Services with Nutanix Files](#)
- [Tech Note – Nutanix Files](#)
- [Best Practices Guide – Nutanix Volumes](#)

Section 9 – Data Resiliency

Objectives

- Given a scenario, configure VM High Availability
- Given a scenario, differentiate failover processes, including disk failure, CVM failure, and node failure related to replication factor
- Describe VM data path redundancy

References

- [Prism 5.15 Web Console Guide](#)
- [Failure and Recovery Scenarios](#)
- [VM High Availability in Acropolis](#)
- [Best Practices Guide – Data Protection and Disaster Recovery](#)
- [Whitepaper – The Definitive Guide to Data Protection and Disaster Recovery](#)
- [Video – Tech TopX – Redundancy Factor vs. Replication Factor](#)
- [Tech Note – Infrastructure Resiliency](#)
- [Tech Note – Data Protection and Disaster Recovery](#)

Section 10 – Data Protection

Objectives

- Given a scenario, configure protection domains
- Describe Leap availability zones

References

- [Data Protection](#)
- [Failing from One Site to Another](#)
- [Best Practices Guide – Data Protection and Disaster Recovery](#)
- [Whitepaper – The Definitive Guide to Data Protection and Disaster Recovery](#)
- [Video – Tech TopX – Redundancy Factor vs. Replication Factor](#)
- [Tech Note – Data Protection for AHV-Based VMs](#)
- [Leap Administration Guide](#)

Section 11 – Prism Central

Objectives

- Describe and differentiate Prism Element and Prism Central
- Identify methods for viewing information about VMs, clusters, hosts, disks, and storage containers
- Identify methods for creating and monitoring performance graphs, alerts, and statistics

References

- [Prism 5.15 Central Guide](#)
- [Prism 5.15 Web Console Guide](#)
- [Video – Prism: Element, Central and Pro](#)
- [Tech Note – Prism Central and Prism Pro](#)

Section 12 – Lifecycle Operations

Objectives

- Given a scenario, recognize processes to start, stop, and expand a cluster
- Given a scenario, demonstrate how to start and shut down a node in a cluster and how to eject a node from a cluster
- Perform upgrades
- Install, upgrade, and reclaim licenses

References

- [Cluster Management – AOS Advanced Administration Guide](#)
- [Starting a Cluster](#)
- [Stopping a Cluster](#)
- [Expanding a Cluster](#)
- [Acropolis Upgrade Guide](#)
- [Video – Maintain Infrastructure with Zero Downtime](#)

4. Course Recommendations

4.1 COURSE RECOMMENDATION

Nutanix offers a course that provides training on the objectives tested for in the exam. The details are as follows:

[Nutanix® Enterprise Cloud Administration](#)

The four-day, Nutanix Enterprise Cloud Administration hands-on training course explores the deployment, administration and troubleshooting of a Nutanix Enterprise Cloud environment. The course covers the following objectives:

- Nutanix Enterprise Cloud Concepts
- Managing a Nutanix Cluster
- Securing a Nutanix Cluster
- Networking
- Nutanix Enterprise Cloud Concepts
- Managing a Nutanix Cluster
- Securing a Nutanix Cluster
- Networking

The material provided in the course covers a majority of the objectives (approximately 80%) that appear on the NCP-MCI 5.15 exam and is recommended for individuals who want to gain a good understanding of these objectives. Please note that additional exposure to a Nutanix environment is highly recommended.



5. Resources

5.1 NUTANIX COMMUNITY EDITION

The Nutanix Community Edition is a free product that allows you to deploy a Nutanix Enterprise Cloud. To download the software and build your own environment for exam preparation, [click here](#).

You can also take a 2-hour Hyperconverged Test Drive, which utilizes the Nutanix Community Edition, by [clicking here](#).

5.2 THE NUTANIX NEXT COMMUNITY

The Nutanix Next Community is a social interaction site where professionals can connect with cloud builders from around the world, learn from IT Pros in the industry and share experiences. The community maintains an area focused on the NCP certification, which is located [here](#).



Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix Enterprise Cloud OS leverages web-scale engineering and consumer-grade design to natively converge compute, virtualization, and storage into a resilient, software-defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications. Learn more at www.nutanix.com or follow us on [Twitter @nutanix](https://twitter.com/nutanix).

NUTANIX[™]
YOUR ENTERPRISE CLOUD

info@nutanix.com | www.nutanix.com | [@nutanix](https://twitter.com/nutanix)