



EXAM BLUEPRINT GUIDE

Nutanix Certified Associate (NCA) 5.20 Exam

Author:

Jeff Hall - Manager, Technical Certification Development
Jon C. Hall - Director, Technical Certifications

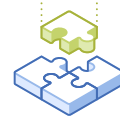
**Contributors:**

Cliff Butler - Lab Manager
Farhan Parkar - Platform Solution Specialist
Guillaume Pare - Sr. Systems Engineer
Jason Burroughs - Sr. Systems Engineer
Jeff Yaptengco - Services Enablement Manager
Jefrey Edurese Cayab - Systems Architect
John Burton - Sr. Staff System Reliability Engineer
John Davidson - Advanced Learning Solutions Consultant
Josh Crosby - Sr. Systems Engineer
Keith Olsen - Sr. Systems Engineer
Mark Gabryjelski - Sr. Architect & Virtualization Ambassador
Matias Migone - Sr. Consultant
Matt Barrett - Sr. Staff Consulting Architect
Paulo Vitor - Sr. Presales System Engineer
Rod Bradbury - Staff Residency Consultant
Ross Hunt - Lead Infrastructure Development Engineer
Samuele Cerutti - Sr. Partner & OEM Systems Engineer Nutanix Italia
Thomas Dory - Sr. System Engineer

Disclaimer:

The Nutanix Certified Associate (NCA) 5.20 Exam Blueprint Guide provides an overview of the objectives that must be mastered to achieve the NCA credential. Nutanix does not offer any guarantees that this guide will ensure a candidate's success in achieving the NCA Certification. All information in this guide is subject to change at any time at the sole

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1.The Exam

1.1 PURPOSE OF EXAM

The Nutanix Certified Associate (NCA) 5.20 exam tests candidates on their skills and abilities navigating a Nutanix AOS 5.20 cluster as well as managing and operating Nutanix core offerings. Successful candidates demonstrate mastery of these skills and abilities.

1.2 NUMBER OF QUESTIONS

The NCA 5.20 exam consists of 50 multiple choice and multiple response questions.

1.3 PRICING

The cost for the NCA 5.20 exam is \$99 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 automating infrastructure and single/multi-tiered applications within a Nutanix multicloud environment. 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 90 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 NCA 5.20 exam is a core component of the Nutanix Associate 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. Details on the course and track are provided in section 4.

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

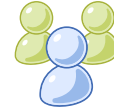
Nutanix reserves the right to refuse certifying a candidate who violates exam security policies. This includes copying and redistribution of exam material, using any type of study material during the exam itself, attempting to photograph exam items and taking an exam using a false identity. Your identity 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 passed the NCA 5.20 exam and achieved the NCA 5 certification, it will remain valid until Nutanix releases the next version of the certification. 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 NCA 5.20 certification has approximately six months to 12 months of holistic IT infrastructure experience as well as some hands-on experience working with an AOS implementation. They are typically a systems administrator, junior engineer or IT operator and are capable of operating and assisting in the management of a Nutanix Enterprise Cloud including AOS, Prism (Volumes, LCM, NCC), AHV and PRISM-OPS. The successful candidate will most likely have taken training courses such as Enterprise Cloud Operations.



3. Objectives covered in the NCA 5.20 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 NCA 5.20 exam. It is also recommended that the candidate complete the training course described in Section 4 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 – Describe Nutanix Solutions

Objective 1.1 – Describe Nutanix architectural concepts

Knowledge:

- Explain the Nutanix self-healing architecture
- Describe the Replication Factor (RF) architecture
- Describe the Nutanix Multicloud Acropolis Operating System

References

- [Nutanix AOS Architecture](#)
- [Nutanix Platform Overview](#)
- [Nutanix Cluster Components](#)
- [Nutanix Infrastructure](#)
- [Redundancy Factor 3](#)
- [Introduction to AOS](#)
- [Nutanix Bible - Book of AOS](#)

Objective 1.2 – Identify Nutanix products by use case

Knowledge:

- Identify use cases for Nutanix products (i.e. Flow, Calm, Move, etc.)
- Understand operational costs of the workloads/environment
- Describe Data-at-Rest Encryption
- Determine which tools should be used to identify cluster capacity
- Describe how to automate the deployment of an application
- Describe cluster conversion

References

- [Example Use Cases Supported By Volumes](#)
- [Multi-Datcenter Design For Nutanix Core and BC/DR](#)
- [Nutanix Objects Overview](#)
- [Multiprotocol Support for Files](#)
- [Configuring Data-at-Rest Encryption \(Software Only\)](#)
- [Backing up Keys](#)
- [Incorporating Optional Nutanix Products and Services](#)
- [Windows Defender Credential Guard Support in AHV](#)
- [Cluster Operations](#)
- [Calm – Applications Usage](#)
- [In-Place Hypervisor Conversion](#)
- [What is Effective Capacity](#)

Objective 1.3 – Demonstrate an understanding of how to interact with Nutanix Support

Knowledge:

- Demonstrate an understanding of how to use a log collector
- Demonstrate an understanding of how to use the Support Portal to create a ticket
- Demonstrate an understanding of how to use Insights on the Support Portal

References

- [Log Collector](#)
- [Collecting Logs by Using Web Console](#)
- [Customer Support Portal Overview](#)
- [Case Summary View](#)
- [Diagnostics Summary View](#)
- [Discoveries Menu](#)
- [Alerts Automatically Generating a Support Case](#)
- [Nutanix Insights](#)
- [Insights – Remote Diagnostics - Overview](#)
- [Remote Diagnostics](#)

Section 2 – Operate Nutanix Hybrid Cloud Solutions

Objective 2.1 – Describe VM entity components

Knowledge:

- Interpret the configuration of a VM
- Describe how to manipulate VM components

References

- [Supported Guest VM Types for AHV](#)
- [AHV Guest OS Compatibility Matrix](#)
- [Virtual Machine Network Management](#)
- [Virtual Machine Memory and CPU Hot-Plug Configurations](#)
- [Virtual Machine Memory Management \(NUMA\)](#)
- [Windows VM Provisioning](#)

Objective 2.2 – Apply procedural concepts to maintain VM/cluster health

Knowledge:

- Use resource metrics to identify performance issues
- Measure VM performance using Nutanix tools
- Determine VM health by using performance monitor tools
- Create a report using analytics
- Gather and provide information about workloads

References

- [Prism Performance Monitoring](#)
- [Prism Central Analysis Dashboard](#)
- [Creating an Entity Chart](#)
- [Creating a Metric Chart](#)
- [Pulse Health Monitoring](#)

Objective 2.3 – Demonstrate an understanding of how to manage a VM

Knowledge:

- Add a VM to a Category
- Add a new network interface to a VM
- Discuss Prism's capabilities to group VMs
- Explain OVA support for VMs
- Manage directly attached Volume Groups in a Guest VM cluster

References

- [Creating a Category](#)
- [Modifying a Category](#)
- [Assigning a Category](#)
- [Nutanix Guest Tools](#)
- [Guest VM Cluster Configuration \(AHV Only\)](#)
- [Network Configuration for VM Interfaces](#)
- [Guest VM Data Management](#)
- [OVA Management](#)
- [Create a Volume Group](#)

Section 3 – Manage Nutanix Hybrid Cloud Solutions

Objective 3.1 – Recognize Data Protection entities

Knowledge:

- Describe how to enable Data Protection on a VM
- Identify Retention Policy elements
- Identify remote/replication targets
- Describe conducting cross cluster live migration with Leap
- Locate the availability zone

References

- [Enabling Self-Service Restore](#)
- [Data Protection with NearSync Replication \(1-15 Minutes RPO\)](#)
- [Single-Node Replication Target Clusters](#)
- [Performing Live Migration](#)
- [Requirements of Cross-Cluster Live Migration](#)
- [Prism Central - Availability Zones View](#)
- [Data Protection Best Practices Guide](#)
- [Data-at-Rest Encryption](#)

Objective 3.2 – Describe Storage entity components

Knowledge:

- Identify space saving technologies
- Define a storage pool
- Define a storage container
- Identify storage utilization by using Prism
- Recognize Nutanix Distributed Storage Fabric (DSF) components

- Describe how to view storage space consumed by the Recycle Bin
- Disable or Enable the Recycle Bin
- Identifying Capacity Reporting enhancements

References

- [Enterprise Storage Capabilities](#)
- [Storage Components](#)
- [Modifying a Storage Pool](#)
- [Creating a Storage Container](#)
- [Volume Group Configuration](#)
- [Nutanix Bible – Book of AOS – Distributed Storage Fabric](#)
- [I/O Path and Cache](#)
- [Recycle Bin](#)
- [Recycle Bin Limitations and Considerations](#)
- [Enabling and Disabling the Recycle Bin](#)
- [Capacity Optimization](#)

Objective 3.3 – Apply cluster management concepts

Knowledge:

- Update a cluster AOS version
- Perform an LCM inventory
- Perform hardware maintenance
- Manage the Prism Central Image repository

References

- [Performing Updates with the Life Cycle Manager](#)
- [Performing Inventory with the Life Cycle Manager](#)
- [Hardware Management](#)
- [Prism Central Image Management](#)



4. The Nutanix Administration Track and Course Recommendations

4.1 NUTANIX ADMINISTRATION TRACK

It is recommended that candidates have the knowledge and skills necessary to operate and manage Nutanix environment.



4.2 COURSE RECOMMENDATIONS

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

Nutanix® Hybrid Cloud Fundamentals Training Course

This course will introduce you to the products, capabilities, and technologies that form the foundation of Nutanix's Hybrid Cloud solution. You will begin by exploring the history of this technology space, including different types of clouds, and how on-prem and public infrastructures came together to create hybrid operating models.

Then, you will delve deeper into essential Nutanix products - AOS, AHV, and Prism - while discussing how these products were designed to solve business challenges. And finally, you will conclude by discussing certain fundamental aspects involved in operating the Nutanix Hybrid Cloud, such as cluster updates, managing virtual machines, reporting and performance metrics, and more.

The material provided in the course covers a majority of the objectives that appear on the NCA 5.20 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.

This course is available online or instructor-led (in-person or virtual). More information including schedules and how to register can be found at www.nutanix.com/university.

Udacity Hybrid Cloud Engineer Nanodegree Program

Nutanix has partnered with Udacity to teach cloud professionals the skills needed to use hybrid cloud infrastructure to meet the increasing requirements of enterprise applications and the fast pace of modern business.

The Nanodegree program, takes cloud technology and datacenter professionals on an in-depth journey into the design, deployment, and management of infrastructure and applications together on the Hybrid Cloud. Master the concepts you need to transform how your IT teams manage applications and support the business.



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, [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 NCA certification, which is located [here](#).

5.3 TEST DRIVE

Build your clouds your way in a few clicks and instantly complete all your IT tasks on a unified cloud platform with Test Drive. [Click here](#) to take a Test Drive today.



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

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