EXAM BLUEPRINT GUIDE

Nutanix Certified Professional Cloud Integration - AWS (NCP-CI-AWS) 6.10 Exam

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1. The Exam

1.1 Purpose of Exam

The Nutanix Certified Professional - Cloud Integration - AWS (NCP-CI-AWS) 6.10 exam will measure a candidate's ability to successfully plan, deploy, configure, and manage Nutanix Cloud Clusters within an AWS public cloud environment. Successful candidates demonstrate mastery of these skills and abilities.

1.2 Number of Questions

The NCP-CI-AWS 6.10 exam consists of 75 multiple-choice and multiple-response questions.

1.3 Pricing

The cost for the NCP-CI-AWS 6.10 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 multicloud platform 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.

1.7 Time Limit

The time limit for the exam is 120 minutes.

1.8 Scheduling and Taking the Exam

The NCP-CI-AWS 6.10 exam is delivered via remote proctoring or in-person at select test centers.

If you select 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.

If you select in-person testing, you will be able to select a test center near you. On the day of the exam, you will need to arrive at the test center 15 minutes prior to the exam start time with a valid government-issued ID.

1.9 Certification Tracks

The NCP-CI-AWS 6.10 exam is a core component of the Nutanix Cloud Integration track. Passing this exam results in achieving the NCP-CI 6 certification.

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 recommended training course 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 email 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 Nutanix Certified Professional – Cloud Integration 6.10 exam and achieved the NCP-CI 6 certification, it will remain valid for three years.

To maintain your certification status, you must either renew your existing certification, pass an equivalent NCP-level exam within another certification track, or pass the NCM-MCI exam.

1.13 Benefits of Certification

- Digital badge from Credly that you can share on social media
- 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

A candidate for the NCP-CI-AWS 6.10 exam and NCP-CI 6 certification has approximately 2 years of general IT experience, 12 months of experience using Nutanix technologies, and 6 months of experience using the AWS public cloud provider or applicable training.

Successful candidates can plan, deploy, configure, and manage Nutanix Cloud Clusters within an AWS public cloud environment. They are typically IT Administrators, Cloud Operators, DevOps/SysOps/NetOps Administrators, Cloud/Solution Architects, and Network Administrators/Engineers who need to manage, or are interested in becoming certified in, Nutanix Cloud Clusters environments using the AWS public cloud platform.

Additionally, the successful exam candidate will most likely have taken training courses, such as the Nutanix Cloud Clusters on AWS Administration course.

3. Objectives Covered in the NCP-CI-AWS 6.10 Exam

3.1 Introduction

It is recommended that candidates have the knowledge and skills necessary to plan, deploy, configure, and manage Nutanix Cloud Clusters within an AWS public cloud environment before attempting the NCP-CI-AWS 6.10 exam. It is also recommended that the candidate complete the training course described in Section 4 prior to taking the exam.

For the NCP-CI-AWS 6.10 exam, candidates will be tested on the NC2 software versions concurrent with these Nutanix core platform versions:

- AOS: version 6.10
- Prism Central: pc2024.2

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 – Planning an NC2-on-AWS Deployment

Objective 1.1 – Prepare the AWS cloud environment

Knowledge:

- Determine the Cloud provider to use
- Determine cloud region(s) to be used from the selected cloud provider
- Determine the appropriate cloud AWS organization/account
- Determine the node type to use

References:

- NC2 on AWS Deployment Models
- Requirements for NC2 on AWS

- NC2 on AWS Limitations
- Supported Regions and Bare-Metal Instances
- Creating a Heterogeneous Cluster
- AWS Managed Policies
- AWS Accelerated Computing
- EC2 Instance Tenancy Types

Objective 1.2 – Subscribe to the NC2 service

Knowledge:

- Determine my.nutanix.com authentication methods, types, and organizations based on requirements
- Determine NC2 organization naming convention and the associated cloud accounts
- Apply applicable RBAC roles
- Compare subscription plan options

References:

- Creating a My Nutanix Account
- Starting a Free Trial for NC2
- Adding an AWS Cloud Account
- Managing Support Authorization
- NC2 User Management
- NC2 on AWS Payment Methods
- NC2 Licensing and Billing
- PAYG Subscriptions
- Usage Metering
- License Capacity Reservation

Objective 1.3 – Determine implementation requirements

Knowledge:

- Outline redundancy/resiliency requirements
- Evaluate deployment use cases
- Compare Nutanix compatibility matrix to requirements
- Implement NC2 integrations with provider services

- Determine allowed client access methods

References:

- Requirements for NC2 on AWS
- NC2 Infrastructure Deployment
- Supported Regions and Bare-Metal Instances
- Backup and Recovery
- Integration with Third-Party Backup Solutions
- NC2 Management Consoles
- API Key Management for NC2

Objective 1.4 – Identify networking requirements

Knowledge:

- Determine on-prem connectivity to NC2 cluster hosted in the cloud provider, such as, VPN, Direct Connect, SDWAN, and Megaport
- Determine appropriate CIDR ranges needed for VPC, subnets, and User VM Networks

References:

- AWS VPC Endpoints for S3
- Creating a Gateway Endpoint
- AWS Direct Connect
- Custom Security Groups
- Networking Requirements for NC2 on AWS

Section 2 – Deploying an NC2-on-AWS Environment

Objective 2.1: Deploy the cloud cluster

Knowledge

- Identify number of clusters, nodes in each cluster, and node types needed
- Define deployment types
- Identify Prism Central supported topologies
- Describe AWS network configuration
- Identify management networking type

References

- Creating a Cluster
- NC2 on AWS Deployment Requirements
- Cluster Deployment Limitations
- Nutanix Cloud Pricing Models
- Creating an Organization

Objective 2.2: Configure cloud provider networking

Knowledge

- Configure VPC resources (e.g., manual, automated)
- Configure outbound public internet connectivity
- Configure connectivity between environments, such as VPN, Direct Connect, and network peering

References

- Nutanix Cloud Networking
- AWS VPC Endpoints for S3
- Enabling Outbound Access to User VMs
- Creating a UVM Network
- Updating a UVM Network

Objective 2.3: Troubleshoot cluster deployment issues

Knowledge

- Verify cloud account quota, permission, and policies, such as CloudFormation and IAM
- Verify NC2 portal permissions and configurations

References

- Creating a Cloud Cluster
- NC2 on AWS Network Validation
- Troubleshooting failed NC2 Clusters
- Troubleshooting Cluster Creation Failed Due to Shared Subnets
- Updating AWS Stack Configurations

Section 3 – Configuring an NC2-on-AWS Environment

Objective 3.1: Configure cloud networking and security

Knowledge

- Determine access to the Cluster Management
- Modify access to workloads running on the NC2 cluster

References

- NC2 Security Approach
- NC2 Management Consoles
- User VM Network Management
- Security Groups
- Logging Into a Cluster By Using SSH
- Ports and Endpoint Requirements

Objective 3.2: Troubleshoot connectivity issues

Knowledge

- Verify initial cluster connectivity
- Verify User VM connectivity, for example, access to corporate locations and internet resources via network ports, security groups, ACLs, and routing

References

- Deploying a Load Balancer to Allow Internet Access
- Multicast Network Support
- User VM Network Management
- Network Security Using AWS Security Groups
- Troubleshooting CloudAPIEndpointUnreachable Errors
- AWS EC2 Instance IP Addressing

Section 4 – Managing an NC2-on-AWS Environment

Objective 4.1: Identify management tasks for nodes and clusters

Knowledge

- Identify cluster capacity and node types, such as heterogeneous cluster node pairing

- Identify node scale-out/scale-up triggers
- Describe the node management process
- Define the environment upgrade process

References

- Updating the Cluster Capacity
- Adding Users from the NC2 Console
- Local User Management
- Hibernate and Resume in NC2
- Nutanix Software Updates

Objective 4.2: Monitor cluster and cloud resource health

Knowledge

- Identify alerting options
- Describe alert email configuration options
- Identify syslog monitoring options, such as modules, severity levels, AWS Cloud Watch, and Data Dog
- Describe the cluster support process

References

- AWS Events in NC2
- Configuring Alert Emails in Prism Central
- Configuring an SMTP Server for Prism Central
- Syslog Modules
- Configuring Remote Syslog Server Settings
- Amazon CloudWatch
- AWS Services that Publish CloudWatch Metrics
- Datadog for AWS
- Nutanix Technical Support

Objective 4.3: Perform cluster backup and recovery

Knowledge

- Configure Nutanix Disaster Recovery
- Determine required RPO/RTO

- Configure cluster and VM backup

References

- Recovering NC2 Clusters
- Cluster Protect Configuration
- Prerequisites for Cluster Protect
- Protecting Prism Central Configuration
- Cluster Protect CLI Command Library
- Native Encryption of Replication Traffic
- Failover and Failback Operations
- Disaster Recovery
- Integration with Third-Party Backup Solutions

4. NCP-CI-AWS 6.10 Training Recommendations

4.1 Suggested Prerequisite Study

The NCP-CI-AWS 6.10 exam assumes prior knowledge of both the Nutanix stack and AWS. As a result, setting up and configuring AWS resources is beyond the scope of this exam.

To ensure your best success in this exam, it is recommended that you be familiar with:

- AWS EC2, VPC, and CloudFormation services
- The AWS framework
- The AWS Networking Basics training (requires authentication)

4.2 Course Recommendation

Nutanix offers a course that provides training on the objectives tested in the exam. More information on this course, including delivery methods and pricing, can be found at nutanix.com/training.

The course details are as follows:

The Nutanix Cloud Clusters on AWS Administration (NC2A-AWS) course teaches the skills needed to plan, deploy, configure, and manage Nutanix Cloud Clusters within an AWS public cloud environment.

This course will explore a number of subjects, including:

- Getting started with Nutanix Cloud Clusters
- Deploying and Configuring NC2 on AWS
- Managing NC2 Clusters
- Monitoring, Maintaining, and Troubleshooting NC2 Clusters

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

5. Resources

5.1 Nutanix Community Edition

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

5.2 Test Drive

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

5.3 The Nutanix Community

Connect with cloud builders from around the world, learn from IT Pros in your industry and share experiences on the Nutanix Community. The community maintains an area focused on Nutanix certifications, which is located here.

5.4 Additional Nutanix Cloud Clusters Resources

Find a wealth of additional NC2 on AWS resources here.