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EXAM BLUEPRINT GUIDE

# Nutanix Virtual Desktop Infrastructure (VDI) 5 Beta Exam

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**Disclaimer:**

The Nutanix Virtual Desktop Infrastructure 5 Beta Exam Blueprint Guide provides an overview of the objectives that must be mastered to achieve the NCP credential. Nutanix does not offer any guarantees that this guide will ensure a candidate's success in achieving the NCP Certification. All information in this guide is subject to change at any time at the sole discretion of Nutanix.

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# 1.The Exam

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## 1.1 PURPOSE OF EXAM

The Nutanix Virtual Desktop Infrastructure (VDI) 5 beta exam tests candidates on their skills and abilities to successfully deploy, monitor, administrator, troubleshoot, and maintain end user computing environments utilizing Nutanix technologies. Successful candidates demonstrate mastery of these skills and abilities.

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## 1.2 NUMBER OF QUESTIONS

The beta exam consists of 102 multiple choice and multiple response questions.

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## 1.3 PRICING

There is no cost for the beta exam.

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## 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.

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## 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 navigating and managing a Nutanix EUC Virtual Desktop Infrastructure 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.

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## 1.6 LANGUAGES

The beta exam is available in English, while the live exam will be available in English, Japanese, and Simplified Chinese.

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## 1.7 TIME LIMIT

The time limit for the beta exam 180 minutes.

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## 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.

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## 1.9 CERTIFICATION TRACKS

The Nutanix VDI 5 beta exam is a core component of the Nutanix End User Computing track. Passing this exam results in achieving the NCP-EUC 5 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 course and track are provided in section 4.

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## 1.10 RETAKE POLICY

The beta exam cannot be retaken.

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## 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.

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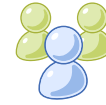
## 1.12 RECERTIFICATION

Once you have passed the Nutanix VDI 5 beta exam and achieved the NCP-EUC 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.

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## 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



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## 2. Intended Audience

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### 2.1 INTENDED AUDIENCE

A candidate for the Nutanix VDI 5 beta exam and NCP-EUC 5 certification has approximately six months to 12 months of Nutanix EUC management experience, while also having 18-24 months of either desktop, virtualization, and/or network support experience. They are typically EUC administrators, architects, consultants, or business leaders and are capable of successfully deploying, monitoring, administering, troubleshooting, and maintaining End User Computing environments using Nutanix technologies. The successful candidate will most likely have taken training courses such as the Nutanix End User Computing Administration (NEUCA) course.



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# 3. Objectives covered in the Nutanix VDI 5 Beta Exam

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## 3.1 INTRODUCTION

It is recommended that candidates have the knowledge and skills necessary to deploy, monitor, administrator, troubleshoot, and maintain end user computing environments utilizing Nutanix technologies before attempting the Nutanix VDI 5 beta exam. It is also recommended that the candidate complete the training course described in Section 4 prior to taking the exam.

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## 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 TECHNOLOGIES AND SOLUTIONS

Objective 1.1 - Demonstrate optimal configuration of Nutanix core components, such as Storage container options, for a VDI environment

Knowledge

- Explain the optimal configuration for Nutanix essentials, such as Files, Flow, and Beam, in a VDI environment
- Understand the optimal configuration of Nutanix core components, such as Storage container options, for a VDI environment

## References

- [Capacity Management](#)
- [NVIDIA Grid vGPU on Nutanix](#)
- [Citrix Virtual Apps and Desktops on Nutanix](#)
- [Nutanix Storage Best Practices - Citrix Virtual Apps and Desktops on Nutanix](#)
- [Performance Analysis of Nutanix Shadow Clones](#)
- [Nutanix Bible – Shadow Clones](#)
- [Securing Citrix Virtual Apps and Desktops with Nutanix Flow](#)
- [VDI Policy Configuration](#)
- [GPU and vGPU Support](#)
- [VMware Horizon 7 on Nutanix](#)
- [Recommended Guidelines for Maximum Storage Utilization on a Cluster](#)

Objective 1.2 – Describe the role of Nutanix technologies in a VDI implementation

## Knowledge

- Identify use cases for Nutanix essentials, such as Files, Flow, and Beam, in a VDI environment
- Identify Nutanix core components, such as HCI, Xi Frame, Cloud, data locality, and shadow clones, that benefit VDI environments

## References

- [Horizon View Linked Clones](#)
- [Nutanix Bible – Capacity Optimization](#)
- [How Nutanix Solves the Top VDI Deployment Challenges](#)
- [Citrix Virtual Apps and Desktops on Nutanix](#)
- [Nutanix Storage Best Practices – VMware Horizon on Nutanix](#)
- [Securing Citrix Virtual Apps and Desktops with Nutanix Flow](#)
- [Nutanix Software Options](#)
- [VMware Horizon the Nutanix Way](#)
- [VMware Horizon 7 on Nutanix](#)
- [Performance Analysis of Nutanix Shadow Clones](#)

## SECTION 2 - ARCHITECT A NUTANIX VDI IMPLEMENTATION

### Objective 2.1 - Given business requirements, determine an appropriate VDI configuration

#### Knowledge

- Given business requirements, interpret the optimal profile configuration, such as managed, roaming, mandatory, local profiles, including third-party utilities
- Given business requirements, interpret the optimal delivery environment, such as on-prem, cloud-based, or hybrid environments
- Interpret what should and shouldn't be included in the gold image

#### References

- [VMware Horizon 7 on Nutanix](#)
- [Nutanix Reference Architecture - VMware Horizon 7](#)
- [Citrix Virtual Apps and Desktops Image Management](#)
- [Profile Management and User Data](#)

### Objective 2.2 - Demonstrate an understanding of the properties of Citrix, Horizon, and Xi Frame

#### Knowledge

- Given business requirements, choose between on-prem and cloud-based VDI options
- Given requirements, infer the appropriate VDI solution(s)

#### References

- [VMware Horizon 7 on Nutanix](#)
- [Performance Analysis of Nutanix Shadow Clones](#)
- [Nutanix Reference Architecture - VMware Horizon 7](#)
- [VMware Horizon 7](#)
- [Virtual Machine Application Runs Slower Than Expected in ESXi](#)
- [VMware App Volumes on Nutanix](#)

## SECTION 3 - CONFIGURE AND OPERATE A NUTANIX VDI ENVIRONMENT

### Objective 3.1 - Demonstrate an understanding of gold images

#### Knowledge

- Given a scenario or use case, infer the appropriate gold image deployment option(s)
- Given a scenario or use case, explain application layering impact(s)
- Given a scenario or use case, infer what applications to include in a gold image
- Compare approaches for managing gold images across multiple sites and geographies
- Explain the positive and negative impacts of optimizing gold images
- Given a scenario or use case, explain how to appropriately optimize gold images

#### References

- [Citrix Virtual Apps and Desktops Image Management](#)
- [Citrix Best Practices Guide: Virtual Apps & VDI on Nutanix](#)
- [Citrix Optimizer](#)
- [How to include McAfee Agent 5.x on an image](#)
- [VMware Horizon 7](#)
- [Nutanix Reference Architecture - VMware Horizon 7 on Nutanix](#)

Objective 3.2 – Demonstrate an understanding of the components required for configuring a Nutanix VDI solution using third-party technologies

#### Knowledge

- Demonstrate an understanding of Citrix AHV plugins
- Demonstrate knowledge of hypervisor requirements of each solution
- Demonstrate an understanding of VMware ESXi and vCenter prerequisites

#### References

- [VMware Horizon 7](#)
- [Tech Talks – View Composer for Array Integration VCAI & Nutanix](#)
- [Nutanix Files Sizing Guide](#)
- [Nutanix AHV Plugin for Citrix XenDesktop](#)
- [Nutanix AHV Plugin for Citrix Director](#)
- [NVIDIA vGPU User Guide](#)
- [Nutanix Guest Tools](#)

Objective 3.3 – Demonstrate an understanding of VDI profile store concepts

#### Knowledge

- Given a use case, select the appropriate user profile store solution
- Compare the behaviors of user profile store solutions
- Given a scenario, infer the appropriate profile management strategy
- Compare stateful and stateless user profile environments
- Assess the environment to determine the profile management strategy in use

#### References

- [Profile Management and User Data](#)
- [VMware Horizon 7](#)
- [Microsoft Office 365 for Citrix XenApp and XenDesktop 7.x](#)
- [Citrix Profile Management Best Practices](#)
- [PeerGFS on Nutanix](#)

## SECTION 4 - DESCRIBE THE ROLE OF XI FRAME IN A NUTANIX VDI SOLUTION

### Objective 4.1 - Recognize configurable items in an Xi Frame environment

#### Knowledge

- Identify Xi Frame terminal features

#### References

- [Xi Frame Capacity Management](#)
- [Xi Frame User Management](#)

### Objective 4.2 - Demonstrate how to manage and configure an Xi Frame environment

#### Knowledge

- Configure and manage Launchpads
- Given a set of requirements, manage organizations and accounts
- Given a set of requirements, manage master images via the Sandbox
- Given a scenario, manage capacity utilization
- Demonstrate authentication methodologies in a Xi Frame environment
- Arrange a Xi Frame environment for multitenancy
- Interpret analytics and usage

#### References

- [Xi Frame BYO AWS Account](#)
- [Xi Frame Analytics](#)
- [Xi Frame Session Conduct](#)
- [Xi Frame Add a Utility Server](#)
- [Xi Frame Capacity Management](#)

### Objective 4.3 - Describe the features and architecture of Xi Frame

#### Knowledge

- Describe the Xi Frame architecture
- Describe the features of Xi Frame

#### References

- [Xi Frame Platform Hierarchy](#)
- [Xi Frame Account Management](#)
- [Adding a Launchpad within Xi Frame](#)
- [Accessing a Xi Frame End User Account](#)
- [Add a Utility Server within Xi Frame](#)

## SECTION 5 - TROUBLESHOOT, OPTIMIZE, AND SCALE A NUTANIX VDI IMPLEMENTATION

Objective 5.1 – Given a scenario, determine how to optimize a Nutanix VDI environment

Knowledge

- Determine if a Nutanix VDI environment is properly deployed
- Recommend the appropriate technologies/tools to optimize a Nutanix VDI environment
- Determine the appropriate resources for the optimal performance of a Nutanix VDI environment
- Determine if an optimization is appropriate for the given Nutanix VDI environment

References

- [VMware Horizon on Nutanix Best Practice Checklist](#)
- [ESXi VAAI plugin NCC Health Check](#)
- [How to Prove VAAI was Used and what Logs to Review](#)
- [VMware App Volumes on Nutanix – Replicate AppStacks](#)
- [Behavioral Learning Tools](#)
- [Disable PreFetch and SuperFetch Features on Windows Virtual Machines](#)
- [Poor Performance in VDI Environments with SuperFetch and PreFetch Enabled](#)

Objective 5.2 – Given a scenario, determine resource utilization of a specific virtual desktop or groups of desktops

Knowledge

- Discuss Prism Central and other management tools
- Analyze data from Citrix/Horizon/Xi Frame to evaluate the utilization of a Nutanix VDI environment
- Evaluate the statistics available to determine the status of resources

References

- [Prism Central Guide](#)
- [How Much CPU Ready is OK?](#)
- [High CPU Ready with Low CPU Utilization?](#)
- [Acropolis Dynamic Scheduling \(ADS\)](#)
- [Nutanix Bible – Dynamic Scheduler](#)
- [Advanced VM Placement Intelligence](#)

Objective 5.3 – Given a scenario, determine how to troubleshoot a Nutanix VDI environment  
Knowledge

- Given a scenario, troubleshoot settings in a Nutanix VDI environment
- Given a set of requirements, manipulate settings in a Nutanix VDI environment

References

- [Injecting Storage VirtIO Driver that was not Installed Before Migration to AHV](#)
- [Pulse Health Monitoring and Support](#)
- [NVIDIA Grid vGPU Driver Installation and Configuration Workflow](#)
- [Troubleshooting VM Power On with NVIDIA vGPU Profiles](#)
- [Creating, Renaming, and Deleting Home Share Top Level Directories \(TLDs\)](#)
- [Problems Assigning vGPUs to Guests When Using Certain Tesla GPUs with NVIDIA Grid](#)
- [Installing NVIDIA Grid Virtual GPU Manager \(Host Driver\)](#)



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# 4. Nutanix Virtual Desktop Infrastructure Training Recommendations

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## 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® End User Computing Administration (NEUCA) Course**

The Nutanix End User Computing Administration course teaches the skills needed to design, install, configure, and manage a VDI (Virtual Desktop Infrastructure) solution on Nutanix.

The NEUCA course will explore a number of VDI-focused subjects, including:

- Considerations when architecting an EUC environment, how to choose between VDI and DaaS (Desktop as a Service), and the options available when designing your VDI solution.
- Nutanix technologies that support an EUC deployment, including Nutanix Flow, which provides increased security for desktops, and Nutanix Files, an integrated file server solution.
- Configuring and operating EUC environments, including using third-party solutions, working with profile stores, and creating and optimizing gold images.
- Optimizing and troubleshooting a VDI environment, including best practices, viewing utilization metrics, and troubleshooting various common issues with VDI deployments.

In addition, this course also includes an introduction to Nutanix Frame, covering the major tasks involved in configuring and managing a Frame environment, ranging from connecting infrastructure and identity systems to delivering applications and desktops to end users.



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# 5. Resources

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## 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](#).

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

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## 5.3 THE NUTANIX NEXT COMMUNITY

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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