EXAM BLUEPRINT GUIDE

Nutanix Certified Expert (NPX) Exam

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1. The Exam

1.1 Purpose of Exam

Those who complete the NPX Program will have a very unique set of skills, including the demonstrated ability to deliver enterprise cloud solutions using multiple hypervisors and vendor software stacks on the Nutanix platform (VMware® vSphere®, Microsoft® Hyper-V®, and AHV). This hypervisor-agnostic certification for Enterprise Architects is a first in the industry; our groundbreaking approach allows an NPX the freedom to design cutting-edge solutions for customers based solely on their business needs. The depth and breadth of the solution design and delivery skills validated through our peer- vetted program make NPX the new standard for excellence. In accordance with program goals, every NPX will be a superb technologist, a visionary evangelist for HCI and Cloud, and a true Enterprise Architect - capable of designing and delivering a wide range of cutting-edge solutions; custom-built to support the business goals of the Global 2000 and government agencies in every region of the world.

1.2 Exam Structure

NPX certification is a two-stage process; the first stage being a review of a candidate's NPX Program Application. If a candidate's application is accepted, they will be invited to participate in the NPX Design Review (NDR). The NDR is modeled after an academic viva voce defense (live, oral exam) and requires candidates to present their solution to, and answer questions posed to them, by NPX-Certified Examiners. The NDR also includes a series of hands-on exercises which must be completed by the candidate. Successful completion of both stages is required to earn the NPX credential.

1.3 Pricing

The NPX Certification Exam currently costs $399 per attempt. A voucher for this is included with the completion of the required Nutanix Certified Expert - Multicloud Infrastructure certification. Candidates are responsible for travel and other costs related to their pursuit of the credential.

1.4 Application and Program Guide

To begin the process of becoming an NPX, you must attend the Nutanix Multicloud Infrastructure Design (NMCID) course and achieve the NCX-MCI certification. Then you may fill out and submit an NPX application. To obtain the application as well as a PDF of this guide, click here.

1.5 Application Acceptance

All submitted NPX Program Applications are reviewed and scored by a team of NCE reviewers. An application must receive a passing score from the majority of reviewers in order for a candidate to be invited to appear at an NDR. If a candidate submits an application that does not achieve a score sufficient to pass the NPX Program Application Review (NPAR) their application will be rejected. Other reasons for application rejection may include late submission (missed deadline), an incomplete document set, lack of sufficient detail in the solution design, or any evidence of plagiarism. Detailed feedback will be provided regarding areas that require improvement.

1.6 Retake Policy

If a candidate's application is rejected they must wait 6 months from their initial application due date before they can reapply. Reapplying candidates will be required to document their revisions and show compliance with recommendations made by their NCE Reviewers. Candidates who fail a second NPAR will be required to submit an entirely new design for any subsequent attempts. Additionally, they may be required to seek training and obtain certifications equivalent to those specified in the NPX Program Readiness Self-Evaluation Matrix before reapplying.

1.7 Languages

The NDR is conducted in English only at this time.

1.8 Scheduling and Taking the Exam

The NDR is currently only delivered in person and takes approximately 3.5 hours..

Exam registration is facilitated by the NCX/NPX Program Manager. For additional information on this process you may email the NCX/NPX Program Manager at: npx@nutanix.com.

1.9 Certification Tracks

The NPX certification is the highest achievement that can be earned in the Nutanix Administration track. The certification requires that candidates have obtained the Nutanix Certified Professional - Multicloud Infrastructure (NCP-MCI) certification, attended the NMCID course and achieved the NCX-MCI certification in addition to successfully completing the NDR.

1.10 Retake Policy

If a candidate does not achieve a passing score, a one month waiting period is required before another attempt at the NPX credential can be scheduled. The NCX/NPX Program Manager will provide feedback and may recommend remedial study and/or provide a mentor to assist the candidate as required.

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 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

NPX candidates are expected to have considerable IT industry experience and to be expert technologists, consultants, and solution architects with portfolios of work reflecting this expertise. A successful NPX applicant will document and demonstrate their ability to deliver enterprise-scale IT solutions that support applications with service level agreements specified by business stakeholders.

Success in the NPX Program will require a high level of proficiency in all knowledge areas specified in this guide. While it is not necessary that a candidate hold specific industry certifications (beyond the required NCAP) or specific professional or academic credentials, it is highly recommended that the following matrix be used as a benchmark tool to ensure a candidate is prepared for the rigors of the NPX Program.

Because NPX is unique in requiring expert-level mastery of multiple vendor solution stacks, it is highly recommended that candidates have skills equivalent to individuals holding one or more of these certifications:

- Microsoft® MCM, MCSM, MCA or MCSE-Private Cloud
- Cisco® CCAr or CCDE
- Cloud Credential Council® (CCC) PCSA
- Red Hat® RHCA
- VMware® VCDX (-DCV, -DT, or -CMA)
- TOGAF
- Zachman (CEAP, ACEA, CEA)

Equivalent industry certifications, professional credentials, or academic degrees may also be used as benchmarks for self-assessment prior to applying for NPX Program acceptance.

3. NPX Certification Process

3.1 Overview

As stated in section 1.2, the NPX Certification is a two-part process consisting of the NPX Program Application and the NPX Design Review. Successful completion of both stages is required to earn the NPX credential. These stages are detailed in sections 4 and 5.

4. NPX Program Application

4.1 Overview

The NPX Program Application serves as a content checklist and provides detailed guidance on how to structure the documentation supporting a submitted solution design. Additionally, the application form provides information on acceptable document formats, the application submission process, and rules pertaining to the submission of fictitious solutions and solution designs with multiple contributors.

4.2 Application Requirements

There are specific elements required in the NPX Application pertaining to a candidate's qualifications and the document set supporting the solution design. All NPX Applications must contain the following:

- Candidate's work history (CV)
- Documentation of relevant Industry certifications (if held)
- 3 professional references
- An evaluation of emerging technologies related to Enterprise Cloud and DevOps, and recommendations for incorporating them in Nutanix solutions - authored by the candidate
- A fully documented enterprise-class infrastructure solution design, built on Nutanix, architected and delivered successfully by the candidate. The solution design documentation must contain the following:
    1. A current state and operational readiness assessment
    2. A Web-scale migration and transition plan
    3. Documentation of specific business requirements driving the solution design
    4. Documentation of assumptions that impacted the solution design
    5. Documentation of design constraints that impacted the design and delivery of the solution
    6. Documentation describing risks identified in the design and delivery of the solution and how those risks were remediated
    7. A solution architecture including a conceptual/logical and physical design with appropriate diagrams and descriptions of all functional components of the solution
    8. An implementation plan

9. An installation guide
10. A test and validation plan
11. Documentation of operational procedures

4.3 NPX Solution Design Judgement Criteria

The infrastructure solution design included in an NPX candidate's application will be judged using the objectives found in sections 2 and 3 on pages 8 and 9 of this guide.

NPX application length or word count is not specified and will vary widely depending on the documentation practices employed by applicants. Enterprise-class solution designs may require hundreds of pages in supporting documentation, but candidates should consider each included item carefully. A good method for avoiding clutter in an NPX application is to provide links to supporting materials such as generic product documentation, whitepapers, and KB articles.

Generally, NPX application reviewers expect all submitted documentation to be succinct, well organized, and complete. A wide range of styles and organizational frameworks are acceptable in solution design documentation, but the overarching standard is this: The supporting document set must be logically organized and contain sufficient detail to allow the solution to be delivered and validated by a reasonably skilled implementation team without undue assistance from the designer(s).

5. NPX Design Review (NDR)

5.1 Overview

The second part of the NPX certification process is the NDR: a 1/2-day, in-person, performance-based exam modeled after an academic viva voce defense. During the NDR, candidates should be prepared to present their solution and answer questions about the following before NPX-Certified Examiners:

- All aspects of their Nutanix-based solution (including all decisions made during the conceptual, logical, and physical design phases
- Features and benefits of the Nutanix Enterprise Cloud and how it is shaping the future of datacenter design, IT operations, and application development.

Additionally, candidates will be required to demonstrate expert-level Nutanix knowledge and advanced troubleshooting skills with multiple Nutanix-based solution sets. This is accomplished through participation in a hands-on exercise with a live Nutanix environment and completion of a solution design exercise that includes:

- Creation of a 3-tier-to-Web-scale migration strategy for an existing architecture
- Creation of a conceptual/logical solution design

Both exercises will utilize a second solution stack/hypervisor pre-selected by the candidate (e.g., a Hyper-V/Nutanix based cluster and solution design if the candidate's NPX application contained a vSphere/Nutanix or AHV/Nutanix solution).

5.2 BDR Components and Timeline

The NDR is structured as follows:

- Solution Design Presentation, the Nutanix Enterprise Cloud and technology trends discussion, and Q&A with NPX-Certified Examiners: 1:30
- Break: 0:10
- Hands-on exercise – focus on resolving an architectural issue in a live Nutanix environment: 0:30
- Break: 0:10
- Design Exercise – Focus on 3-tier-to-Web-scale migration and 2nd hypervisor/ solution stack: 1:00

5.3 Solutions and Design Presentation - Judgment Criteria and Objectives

The NDR solution design presentation is used to verify design authorship and candidate competency-based on the objectives specified in this guide. In cases where a solution design has more than one architect, the presentation will also verify that the candidate before the examiners has the appropriate level of competency in all objective areas; the performance standard being that any candidate must demonstrate understanding of every aspect of a submitted solution design and the rationale behind every design decision, even if certain components of the design (e.g., the backup solution or network infrastructure) were the primary responsibility of another team member.

This portion of the NDR will also validate that every NPX candidate can clearly articulate the benefits of Web-scale and provide clear examples of how solution design is influenced by hyper-convergence and the new technologies and operational models it supports in the datacenter.

The objectives covered by the Solution Design Presentation include:

Section 1 – Demonstrate Consultation Skills

Objectives

- Discovery of business requirements
- Identification of risks and risk elimination or remediation
- Identification of assumptions and constraints and removal or accommodation in the solution design
- Incorporation of Web-scale technologies and operational models
- Evaluation of organizational/operational readiness
- Migration and transition planning

Section 2 – Determine Conceptual and Logical Design Elements

Objectives

- Scalability
- Resiliency
- Performance
- Manageability and Control Plane Architecture
- Data Protection and Recoverability
- Compliance and Security
- Virtual Machine Logical Design
- Virtual Networking Design

- Third-party Solution Integration

Section 3 – Determine Physical Design Elements

Objectives

- Resource Sizing
- Storage Infrastructure
- Platform Selection
- Networking Infrastructure
- Virtual Machine Physical Design
- Management Component Design
- Datacenter Infrastructure (Environmental and Power)

5.4 Hands-on Exercise - Judgment Criteria and Objectives

The Hands-on Exercise will be used to verify that every NPX candidate has a practical working knowledge of the Nutanix Enterprise Cloud and how to support application performance on a Nutanix cluster. In this exercise, candidates will be challenged to identify and troubleshoot a performance issue that is being caused by a flaw in the solution architecture. The examiners will choose the application to run on the second solution stack/hypervisor pre-selected by the candidate. The candidate will be asked to make recommendations to improve the design if the root problem is identified.

Success with the hands-on exercise will require a well-structured, methodical approach to troubleshooting (e.g., RCA- based, or Kepner-Tregoe-based), an understanding of how solution components interact to deliver application services to end-users and the ability to access components and interpret information collected at all levels of the solution stack. Completion of the exercise will also require the ability to make corrective configuration changes to the infrastructure based on the candidate's interpretation of the collected data.

Section 4 – Troubleshoot a Design

Objectives

- Application performance
- General troubleshooting methods
- Nutanix platform performance and troubleshooting
- Solution design skills related to application performance

5.5 Design Exercise - Judgment Criteria and Objectives

The Design Exercise will be in the format of an interactive role-play. The candidate will be presented with documentation and diagrams describing a traditional, 3-tier datacenter environment supporting a large enterprise. The exercise will require the candidate to act as a consultant tasked with designing and migrating the customer's existing business to an Enterprise Cloud solution built on Nutanix. As stated previously the candidate will be required to provide a conceptual/logical design for the new customer environment utilizing a vendor solution different than the one used in the submitted NPX Program Application (e.g., if the application contains a Hyper-V or AHV-based solution the Design Exercise will call for vSphere).

Successful candidates will have excellent communication and presentation skills. The exercise will require whiteboarding and the ability to describe the components and benefits of an Enterprise Cloud solution clearly and succinctly. Candidates will be required to demonstrate an efficient, well-structured approach and produce a conceptual/ logical design in the allotted time. The design must address the business needs of the customer while reducing complexity/costs and offering improvements in operational efficiency.

Section 5 – Produce a Design Based on Given Requirements

Objectives

- Establish business requirements driving the solution design
- Identify risks and propose ways to eliminate or remediate them
- Recognize constraints and remove or account for them in the solution
- Provide a strategy for migrating the existing environment to a Nutanix Web-scale infrastructure
- Use the deployment of Web-scale infrastructure to introduce new technologies and improved operational models (e.g., DevOps)

6. Resources

6.1 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.

6.2 Test Drive

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

6.3 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 Nutanix certifications, which is located here

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