



**EXAM DESCRIPTION**

**Hitachi Data Systems Certified Specialist - NAS Solutions Architect HCE-3210 Exam**

<b>Description:</b>	This test is designed for Hitachi Data Systems employees and partners who architect Hitachi NAS Platform solutions and develop proposals. The test will validate that the successful candidate has knowledge and skills in assessing, planning and designing solutions proposals that meet the business needs of HDS customers. This includes strong knowledge of the NAS Platform products and solutions portfolio, how systems integrate into customer environments, and how they can best satisfy the customers' needs and meet their expectations. This test covers NAS Platform models 30x0 and 4000 and accompanying management software.
<b>Audience:</b>	Hitachi Data Systems employee and partner solutions architects.  HDS NAS solutions architects examine customer-related data and information to assess requirements from a business perspective and respond with solutions, defined as a hardware and software architecture that meets the customer's business needs. In a pre-sales engineering role, they define the technical architecture and components of the solution according to solution-design best practices in the context of the client's infrastructure, and they apply the most recent technologies. In a storage-engineering role and in association with implementation personnel, they present and propose initial deployment and support plans for the solutions. Solutions architects have broad and in-depth knowledge of storage concepts, hardware and software technologies and offerings, and interoperability of storage networking.
<b>Supporting material:</b>	THE1977 Hitachi Data Systems Architect – Hitachi NAS Platform course (6h vILT)
<b>Exam type:</b>	Certification
<b>Format:</b>	Proctored, closed-book exam
<b>Credential:</b>	Hitachi Data Systems Certified Specialist - NAS solutions architect
<b>Delivery:</b>	The exam is available through the <a href="#">Kryterion Webassessor</a> system.
<b>Questions:</b>	60
<b>Passing score:</b>	66%
<b>Duration:</b>	90 minutes; 120 minutes for non-English-speaking countries
<b>Cost:</b>	US\$225

**Test Objectives**

<b>Section 1</b>	<b>Understanding NAS environments, concepts and technologies</b>
1.1	Describe the hardware media-type requirements for integration of a NAS Platform.
1.2	Describe Hitachi best practices for SAN and DAS storage-port configurations.
1.3	Describe the NAS Platform storage pool concepts.
1.4	Describe the NAS Platform file-system concepts.
1.5	Describe file-system architectures and access protocols.
1.6	Demonstrate how to integrate a NAS Platform solution with SMB and/or NFS authentication services.
1.7	Demonstrate how the Enterprise Virtual Server allows integration of a NAS Platform solution with separate domains.
1.8	Identify Ethernet switch infrastructure requirements for integration of a NAS Platform.
1.9	Describe file tiering concepts using data migrator in a NAS Platform.
<b>Section 2</b>	<b>Understanding the customer's business requirements and assessing the environment</b>
2.1	Describe the relevant business related information to be collected from the customer prior to architecting a solution.
2.2	Describe the process to size a NAS Platform storage solution to meet the customer's

	performance requirements.
2.3	Describe relevant configuration information to be collected when architecting a new NAS Platform solution.
2.4	Describe relevant configuration information to be collected when using existing storage systems in a new NAS Platform solution.
2.5	Demonstrate knowledge of NAS Platform software licenses and bundles to meet the solution requirements.
2.6	Demonstrate an understanding of the impact of microcode upgrades on a NAS Platform solution.
<b>Section 3</b>	<b>Solution design best practices</b>
3.1	Describe scalability requirements when designing a NAS Platform solution.
3.2	Describe storage-capacity planning requirements when designing a NAS Platform solution.
3.3	Demonstrate knowledge of Fibre Channel storage array performance when sizing and designing a NAS Platform solution.
3.4	For NAS Platform, describe how to design and configure system drives, storage pools, file systems, and enterprise virtual servers.
3.5	Demonstrate how to design an Ethernet network infrastructure solution for a NAS Platform.
3.6	Identify design considerations when using anti-virus software with NAS Platform.
3.7	Describe NAS Platform model-dependent differences when designing a solution.
3.8	Demonstrate ability to assess the customer infrastructure to identify potential points of contention in a consolidation scenario.
3.9	Demonstrate how to architect a NAS Platform solution for a migration/consolidation scenario.
3.10	Demonstrate how to design a disaster-resilient cluster.
<b>Section 4</b>	<b>Designing a Hitachi NAS Platform data protection solution for single or multi-site environments.</b>
4.1	Demonstrate how to architect a NAS Platform solution using snapshot technology.
4.2	Demonstrate how to architect a NAS Platform solution using file replication technology.
4.3	Demonstrate how to architect a NAS Platform solution using object-based replication technology.
4.4	Demonstrate how to architect a NAS Platform solution using array-based replication technology.
4.5	Demonstrate how to design a NAS Platform solution for a site failover.
4.6	Demonstrate how to integrate a NAS Platform solution with backup-and-restore software.
4.7	Demonstrate how to select the appropriate replication technology.
4.8	Demonstrate how to architect a NAS Platform stretched-cluster using global-active device.
<b>Section 5</b>	<b>Understanding Hitachi NAS Platform system management tools</b>
5.1	Describe the NAS Platform management and administration tools.
5.2	Demonstrate how to integrate NAS Platform with storage management and monitoring tools.