

Software-Defined Storage Concepts

OVERVIEW

Release date: September 1, 2019

Micro-course length: 8–12 hours

Micro-course format: Online accessible through [NDG Online](#) or through a Learning Tool Interoperability (LTI) cartridge that can be uploaded into your own Learning Management System (LMS)

Delivery: Instructor-led or self-paced

Upon completion: Users will be able to request a skills badge

Summary

Through VMware IT Academy, Software-Defined Storage Concepts provides an overview of the key concepts related to storage in the data center and attributes of software-defined storage. It also introduces the hyperconverged infrastructure and storage vSAN™. Upon completion of this micro-course, the learner will have the basic understanding of storage virtualization, the software-defined data center, and basics of vSAN architecture. Additionally, the learner will be able to identify types of software-defined storage, the layers of a software-defined storage model, and components of a hyperconverged storage vSAN.

Prerequisites

While not required, learners who have a basic understanding of the following will be more successful in the course:

- Understanding of virtual machines
- Basic storage technology concepts

Target audience

- Upper-secondary students
- Community college/technical college
- College and university
- Technical learners/professionals



Modules

1. Welcome
 - 1.1. Before You Get Started
 - 1.2. Course Objectives
 - 1.3. Course Overview
 - 1.4. Additional Resources Available via VMware
2. Storage Concepts in the Data Center
 - 2.1. Local Disk Storage
 - 2.2. Network Accessible Storage (NAS)
 - 2.3. Storage Area Network (SAN)
 - 2.4. Virtual Machine File System (VMFS)
 - 2.5. Network File System (NFS)
 - 2.6. Virtual Volumes
 - 2.7. Virtual SAN (vSAN)
3. Introduction to Software-Defined Storage
 - 3.1. What is Software-Defined Storage?
 - 3.2. Types of Software-Defined Storage
4. Software-Defined Storage Model
 - 4.1. Virtual Data Plane
 - 4.2. Policy-Driven Control Plane
 - 4.3. Storage Policy-Based Management
 - 4.4. Virtual Data Services
5. Hyper-Converged Infrastructure
 - 5.1. Benefits of an HCI Model
 - 5.2. Software Stack Components
 - 5.3. Storage Policies Management
 - 5.4. Application Programming Interfaces
6. Hyper-Converged Storage vSAN
 - 6.1. vSAN Overview
 - 6.2. Attributes of vSAN
 - 6.3. Cache Layer and Capacity Layer
 - 6.4. Object and Component Layout
 - 6.5. Benefits of a vSAN Environment
7. Where To Go From Here?
 - 7.1. Who is NDG?

For additional information, please contact itacademy@vmware.com.