



VIRTUALIZATION (VMWARE & HYPER-V)

HYPERSVISORS . VSPHERE . HYP
NETWORKING . STORAGE . C
HA . MIGRATION . BACKUP .

DURATION

45 Hours

LEVEL

Intermediate

MODULES

8

MODE

**Classroom ·
Online · Hybrid**

01 COURSE OVERVIEW

A virtualisation course covering VMware vSphere and Microsoft Hyper-V in one comparative track. The course covers hypervisor architecture, virtual networking and storage, clustering, high availability, live migration and backup, taught on both platforms so administrators can operate mixed estates.

Learners build a two-node cluster with shared storage and run failover and migration drills.

WHO IT IS FOR

System administrators

Infrastructure engineers

Data centre operations staff

Cloud engineers managing hybrid estates

PREREQUISITES

Server administration and networking fundamentals.

02 LEARNING OUTCOMES

01 Explain hypervisor types and resource scheduling.

03 Design virtual switches, VLANs and uplinks.

05 Build clusters with high availability.

07 Size, monitor and right-size virtual machines.

02 Install and configure ESXi and Hyper-V hosts.

04 Present and manage shared storage.

06 Perform live migration and maintenance without downtime.

08 Back up and restore virtual workloads.

01 VIRTUALISATION CONCEPTS

Type 1 and type 2

Overcommitment

Licensing overview

CPU and memory virtualisation

Snapshots vs backups

02 VMWARE VSPHERE

ESXi installation

Datacenters and clusters

Templates and clones

vCenter

VM creation

Resource pools

LAB

VSPHERE SETUP

03 HYPER-V

Role installation

Generation 1 vs 2 VMs

Checkpoints

Virtual switches

Dynamic memory

Hyper-V Manager

LAB

HYPER-V SETUP

04 VIRTUAL NETWORKING

vSwitch and distributed switch

VLAN tagging

Traffic shaping

Port groups

NIC teaming

Security policies

05 STORAGE

Datastores

iSCSI and FC basics

Storage vMotion

VMFS and NFS

Thin vs thick provisioning

CSV for Hyper-V

LAB

SHARED STORAGE

06 HIGH AVAILABILITY

Clusters

Admission control

Quorum

HA and DRS

Failover clustering

Live migration

LAB

FAILOVER DRILL

07 PERFORMANCE AND SIZING

Resource metrics

Right-sizing

Capacity planning

Contention indicators

Monitoring tools

08 BACKUP AND RECOVERY

Snapshot management

Replication

Restore testing

Agentless backup

DR planning

PROJECT

TWO-NODE HA CLUSTER

04 ASSESSMENT & CERTIFICATION

Module assignments and labs

25%

Mini projects

20%

Internal assessments

15%

Final project and review

40%

CERTIFICATION

Learners who complete all modules, submit the final project and clear the review receive a course completion certificate from Kaizen Infinities Private Limited. Project work is documented for the learner's portfolio, and interview preparation is included in the closing sessions.

05 CAREER OUTCOMES

ROLES THIS PROGRAMME PREPARES FOR

VIRTUALISATION ADMINISTRATOR

INFRASTRUCTURE ENGINEER

DATA CENTRE ENGINEER

CLOUD ENGINEER

SYSTEMS ENGINEER

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