KOENIG SOLUTIONS · COURSE OUTLINE

Apache CloudStack: Deployment, Storage & Networking

5 Days	9	60
DURATION	MODULES	TOPICS

LEARNING OBJECTIVES

- Explain core Apache CloudStack concepts and terminology
- Compare small-scale, large-scale and multi-site deployment architectures
- Identify prerequisites and steps for building CloudStack packages
- Configure zones, pods, clusters, hosts and storage during provisioning
- Apply hypervisor installation and agent configuration steps
- Plan network topologies including VLAN allocation and firewalls
- Describe storage architectures such as local and clustered shared storage
- Explain service offerings, VM lifecycle and user role management

COURSE SYLLABUS

9 Modules, 60 Topics

01

CloudStack Concepts and Terminology

TOPICS

What is Apache CloudStack? · What can Apache CloudStack do? · Deployment Architecture Overview · CloudStack Terminology

02

Choosing a Deployment Architecture

TOPICS

Small-Scale Deployment · Large-Scale Redundant Setup · Separate Storage Network · Multi-Node Management Server · Multi-Site Deployment · Choosing a Hypervisor · Best Practices

03

Installation

TOPICS

- Introduction
- Minimum System Requirements
- Downloading the Release
- Verifying the Downloaded Release
- Prerequisites for building Apache CloudStack
- Extracting source
- Install new MySQL connector
- Building DEB packages
- Building RPMs from Source

04

Configuring CloudStack Installation

TOPICS

- Overview of Provisioning Steps
- Adding Regions (optional)
- Adding a Zone
- Adding a Pod
- Adding a Cluster
- Adding a Host
- Add Primary Storage
- Add Secondary Storage
- Initialize and Test
- Configuration Parameters
- Granular Global Configuration Parameters

05

Compute Setup

TOPICS

- Host Hypervisor Installation
- System Requirements for Hypervisor Hosts
- Preparation Checklist for Hypervisor
- Hypervisor Installation Steps
- Installing the CloudStack Agent on a Hypervisor Host
- Physical Network Configuration for Hypervisor
- Storage Preparation for Hypervisor (Optional)

06

Network Setup

TOPICS

- Basic and Advanced Networking
- VLAN Allocation Example
- Hardware Firewall-Generic Firewall Provisions
- Management Server Load Balancing
- Runtime Internal Communications Requirements
- Storage Network Topology Requirements
- External Firewall Topology Requirements
- Advanced Zone Topology Requirements
- Hyper-V Topology Requirements

07

Storage Setup

TOPICS

- Introduction - Primary Storage, Secondary Storage
- Configurations - Small-Scale Setup, Large-Scale Setup
- Storage Architecture - Local Storage, 'Traditional' node-based Shared Storage
- Clustered Shared Storage
- Network Configuration For Storage

08

Service Offering and Virtual Machine

TOPICS

- Offerings and their purpose in the cloud
- Various types of offerings supported by CloudStack
- How users can use these offerings to request resources from the cloud
- The virtual machine lifecycle

09

Domains, Accounts, Projects, and Users

TOPICS

- Role-based access mechanisms for managing users in the CloudStack
- How CloudStack allows us to segregate and group users for efficient usage of resources
- Various terminologies used in CloudStack such as domains, accounts, projects, and so on
- The working of domains, accounts, projects, and users

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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