AZ-120T00: Planning and Deploying SAP on Azure

Course Duration: 24 Hours (1 Day)

Overview

The "Planning and Deploying SAP on Azure" course is designed for IT professionals and architects who are responsible for planning, implementing, and maintaining SAP solutions on Microsoft Azure. This course covers a comprehensive range of topics that will equip learners with the knowledge to deploy SAP workloads effectively on Azure. Starting with an overview of the SAP and Microsoft partnership, the course moves on to foundational elements such as Azure compute, storage, and networking. It also delves into SAP Certified Offerings on Azure, including support for various SAP products, operating systems, and databases. Learners will gain practical experience through labs, implementing Linux and Windows clustering on Azure VMs. The course also provides guidance on Migration services, High availability, Disaster Recovery, and Monitoring requirements. With its focus on both theory and hands-on practice, this course will help learners understand how to maintain and troubleshoot SAP environments, ensuring optimal performance and reliability when operating in the Azure cloud ecosystem.

Audience Profile

The Planning and Deploying SAP on Azure Course is designed for IT professionals looking to integrate SAP solutions with Azure's cloud services. Target audience for the course includes

- Infrastructure Architects specializing in SAP solutions
- SAP Basis Administrators and Consultants
- Cloud Solutions Architects focusing on Azure
- Systems Engineers and Administrators with SAP workload experience
- SAP Technical Support Engineers
- Microsoft Certified Azure Administrators and Developers
- Database Administrators managing SAP HANA environments
- IT Project Managers overseeing SAP to cloud migrations
- Enterprise Architects planning SAP infrastructure
- Network Administrators involved in SAP implementations
- IT Security Professionals responsible for SAP and Azure security
- Disaster Recovery Specialists managing SAP applications on Azure
- Technical and Solution Sales Professionals for SAP on Azure offerings
- SAP Application Developers and Technical Integrators
- Performance Engineers and Analysts working with SAP on Azure

Course Syllabus

Migrate SAP workloads to Azure (25–30%)

Identify requirements for target infrastructure

- Estimate target sizing for SAP workloads
- Identify supported scenarios for SAP deployments on Azure
- Identify compute, storage, and network requirements for SAP workloads
- Assess constraints imposed by subscription models and quota limits
- Identify software licensing requirements for target workloads
- Identify cost implications for target workloads
- Specify an Azure support plan for the target infrastructure
- Choose between lift and shift, lift-shift-migrate, and lift-shift-migrate to HANA
- Choose an appropriate SAP workload migration strategy and tools

Design and implement an Azure environment to support SAP workloads

- Design and implement authorization and access control for SAP workloads
- Design and implement governance and compliance by using Azure Policy
- Design and implement authentication for SAP workloads Design and implement authentication for SAP software as a service
- (SaaS) applications
- Design and implement a management hierarchy, including management groups, subscriptions, and resource groups
- Design Azure landing zones for SAP

Design and implement an infrastructure to support SAP workloads on Azure (35–40%)

Design and implement a compute solution for SAP workloads

- Choose an SAP-certified Azure virtual machine for a given SAP workload
- Configure the Azure VM extension for SAP solutions
- Deploy an operating system by using an Azure Marketplace image
- Create a custom image and deploy it to an Azure virtual machine
- Automate a deployment of Azure virtual machines by using IaC,
- including Bicep and Azure Resource Manager (ARM) templates
- Automate a deployment by using the SAP on Azure Deployment
- Automation Framework
- Automate a deployment by using Azure Centre for SAP solutions

Design and implement networking for SAP on Azure virtual machines

- Design and implement virtual networks and subnets
- Implement Accelerated Networking for Azure virtual machines
- Design and configure proximity placement groups
- Design networking to meet SAP workload latency requirements
- Design and implement network flow control
- Design and implement network security
- Design and implement service endpoints and private endpoints for Azure Storage
- Design name resolution for integration with Azure DNS
- Design and configure ExpressRoute for hybrid connectivity

Design and implement a storage solution for SAP on Azure virtual machines

- Choose a storage type
- Specify when to use disk striping and simple volumes
- Design for storage security considerations
- Design and implement data protection
- Design and implement caching for disks
- Configure Write Accelerator
- Configure encryption for storage, disks, and data
- Design and implement volumes by using Azure NetApp Files
- Design and implement volumes by using Azure Files

Design and implement high availability and disaster recovery (HA/DR) (15–20%)

Design and implement a high availability solution for SAP on Azure virtual machines

- Design for service-level agreement (SLA) considerations
- Design and deploy SAP workloads into availability sets and availability zones
- Design and implement load balancing for high availability
- Configure clustering for HANA and SAP Central Services (SCS)
- Configure clustering for SQL
- Configure Pacemaker and STONITH
- Configure an Azure fence agent or STONITH Block Device (SBD)
- Design and configure storage-level replication for SAP workloads
- Configure restart of SAP systems, instances, and HANA databases

Design and implement a disaster recovery solution for SAP on Azure virtual machines

- Design and implement an Azure Site Recovery strategy for an SAP infrastructure
- Design a disaster recovery solution with regional considerations
- Specify network configurations for disaster recovery
- Design a backup strategy to meet SLA requirements
- Implement policies for backups and snapshots
- Configure and validate snapshots and backups for SAP workloads
- Perform backup and restore
- Test disaster recovery

Maintain SAP workloads on Azure (10–15%)

Optimize performance and costs

- Optimize performance and costs for an SAP workload by using Azure
- Advisor recommendations
- Analyse and optimize network performance
- Optimize costs by configuring snoozing and deploying reserved instances
- Optimize performance and costs by resizing Azure virtual machines
- Optimize storage costs
- Optimize performance and costs of SAP application servers and databases

Monitor and maintain SAP on Azure

- Monitor Azure virtual machines by using Azure Monitor
- Monitor high availability by using Azure Monitor
- Monitor storage by using Azure Monitor
- Monitor networking by using Azure Monitor and Azure Network Watcher
- Configure Azure Monitor for SAP solutions
- Manage backups by using Azure Backup
- Start and stop SAP systems by using Azure Centre for SAP solutions
- Manage virtual instances by using Azure Centre for SAP solutions
- Implement the SAP Landscape Management (Lama) connector for Azure