

# Exam AZ-120: Planning and Administering Microsoft Azure for SAP Workloads – Skills Measured

## Audience Profile

Candidates for this exam are architects and engineers who are knowledgeable in the SAP Landscape Certification process and industry standards that are specific to the long-term operation of an SAP solution. Candidates make recommendations on services and adjust resources as appropriate for optimal resiliency, performance, scale, provision, size, and monitoring.

Architects of Azure for SAP Workloads should have extensive experience and knowledge of SAP Applications, SAP HANA, S/4HANA, SAP NetWeaver, SAP BW, OS Servers for SAP Applications and Databases, Azure Portal, ARM templates, operating systems, virtualization, cloud infrastructure, storage structures, high availability design, disaster recovery design, data protection concepts, and networking.

It is strongly recommended that candidates for this exam have an Azure Administrator or Azure Architect certification, in addition to SAP HANA and Linux certifications.

## Skills Measured

NOTE: The bullets that appear below each of the skills measured are intended to illustrate how we are assessing that skill. This list is not definitive or exhaustive.

NOTE: In most cases, exams do NOT cover preview features, and some features will only be added to an exam when they are GA (General Availability).

## Migrate SAP Workloads to Azure (10-15%)

### Create an inventory of existing SAP landscapes

- network inventory
- security inventory
- computing inventory
- operations system inventory
- resiliency and availability inventory
- SAP Landscape architecture
- SAP workload performance SLA and metrics
- migration considerations

## **Design a migration strategy**

- certified and support SAP Hana hardware directory
- design criteria for Tailored Datacenter Integration (TDI) v4 and v5 solutions
- databox with import and export
- HANA System Replication (HSR)
- ASR for SAP
- backup and restore methods and solutions
- infrastructure optimization for migration

## **Design an Azure Solution to Support SAP Workloads (20-25%)**

### **Design a core infrastructure solution in Azure to support SAP workloads**

- network topology requirements
- security requirements
- virtual or bare metal
- compute
- operating system requirements
- support SAP version
- storage requirements
- proximity placement group
- infrastructure requirements

### **Design Azure infrastructure services to support SAP workloads**

- backup and restoration requirements
- SLA/High Availability
- data protection (EFS, LRS/GRS, Availability Zones)
- compliance
- monitoring
- licensing
- application interfaces
- dependencies

### **Design a resilient Azure solution to support SAP workloads**

- HA models supported in HANA (N+N, N+0 and N+1)
- application servers
- SAP Central services
- availability sets

- availability zones
- Disaster Recovery (DR)
- Database HA

## **Build and Deploy Azure for SAP Workloads (35-40%)**

### **Automate deployment of Virtual Machines (VMs)**

- Azure Resource Manager (ARM) template
- automated configuration of VM
- scripting with automation tools, including script development, script modification, and deployment dependencies

### **Implement and manage virtual networking**

- IDS/IPS for Azure
- routing fundamentals
- subnetting strategy
- isolation and segmentation for SAP landscape

### **Manage access and authentication on Azure**

- custom domains
- Azure AD Identity Protection
- Azure AD join
- enterprise state roaming
- conditional access policies
- Role-based access control (RBAC)
- service principal
- just in time access

### **Implement and manage identities**

- Azure AD Connect
- AD Federation and single sign-on
- LDAP/Kerberos/SSH
- Linux VMs Active Directory domain membership mechanism

### **Monitor SAP workloads on Azure**

- Azure Enhanced Monitoring Extension for SAP workloads
- Azure Monitors

- workspaces & metrics

## **Validate Azure Infrastructure for SAP Workloads (10-15%)**

### **Perform infrastructure validation check**

- JMeter, Avalanch, Load Runner
- test implementation for SAP workloads
- verify network performance and throughput
- verify storage
- HWCCT (Hana)
- FIO and/or DD (AnyDB)

### **Perform operational readiness check**

- backup and restore
- high availability checks
- failover test
- DR test
- print test

## **Operationalize Azure SAP Architecture (10-15%)**

### **Optimize performance**

- SAP workloads on Azure using ABAPmeter
- storage structure
- SAP workloads on Azure support pre-requisites
- scheduled maintenance for planned outages
- recovery plan for unplanned outages
- SAP application and infrastructure housekeeping (i.e. snapshots on OS volumes)
- bandwidth adjustment for ExpressRoute
- IPtables and GlobalReach for HANA Large Instances (HLI)

### **Migrate SAP workloads to Azure**

- migration strategy
- Azure Site Recovery (ASR)
- private and public IP addresses, network routes, network interface, subnets, and virtual network
- storage configuration
- source and target environments preparation

- backup and restore of data