301-258-8200 | Sales@PhoenixTS.com | www.PhoenixTS.com

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MICROSOFT

# AZ-304T00: Microsoft Azure Architect Design

**BONUS! Cyber Phoenix Subscription Included:** All Phoenix TS students receive complimentary ninety (90) day access to the Cyber Phoenix learning platform, which hosts hundreds of expert asynchronous training courses in Cybersecurity, IT, Soft Skills, and Management and more!

## Course Overview

Phoenix TS' 4-day instructor-led Microsoft Azure Architect Design training and certification boot camp in Washington, DC Metro, Tysons Corner, VA, Columbia, MD or Live Online teaches Solutions Architects how to translate business requirements into secure, scalable, and reliable solutions. Lessons include design considerations related to logging, cost analysis, authentication and authorization, governance, security, storage, high availability, and migration. This role requires decisions in multiple areas that affect an overall design solution.

## What You'll Learn

- Recommend solutions to minimize costs
- Recommend a solution for Conditional Access, including multi-factor authentication
- Recommend a solution for a hybrid identity including Azure AD Connect and Azure AD Connect
- Recommend a solution for using Azure Policy
- Recommend a solution that includes KeyVault
- Recommend a solution that includes Azure AD Managed Identities
- Recommend a storage access solution
- Design and Azure Site Recovery solution
- Recommend a solution for autoscaling
- Recommend a solution for containers
- Recommend a solution for network security
- Recommend a solution for migrating applications and VMs
- Recommend a solution for migration of databases

10420 Little Patuxent Parkway Suite 500 Columbia, MD 21044

## Schedule

Currently, there are no public classes scheduled. Please contact a Phoenix TS Training Consultant to discuss hosting a private class at 301-258-8200.

## Program Level

Intermediate

## Training Delivery Methods

Group Live

## Duration

4 Days / 32 hours Training

## CPE credits

20 NASBA CPE Credits

## Field of Study

Information Technology

## Advanced Prep

N/A

## Course Registration

Candidates can choose to register for the course by via any of the below methods:

- Email: Sales@phoenixts.com
- Phone: 301-582-8200
- Website: www.phoenixts.com

Upon registration completion candidates are sent an automated course registration email that includes attachments with specific information on the class and location as well as pre-course study and test preparation material approved by the course vendor. The text of the email contains a registration confirmation as well as the location, date, time and contact person of the class.

Online enrolment closes three days before course start date.

On the first day of class, candidates are provided with instructions to register with the exam provider before the exam date.

## Complaint Resolution Policy

To view our complete Complaint Resolution Policy policy please click here: Complaint Resolution Policy

## Refunds and Cancellations

To view our complete Refund and Cancellation policy please click here: Refund and Cancellation Policy

## Who Should Attend

This course is for IT Professionals with expertise in designing and implementing solutions running on Microsoft Azure. They should have broad knowledge of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data platform, budgeting, and governance. Azure Solution Architects use the Azure Portal and as they become more adept they use the Command Line Interface. Candidates must have expert-level skills in Azure administration and have experience with Azure development processes and DevOps processes.

## Prerequisites

Successful Azure Solution Architects start this role with experience on operating systems, virtualization, cloud infrastructure, storage structures, and networking.

- Understanding of on-premises virtualization technologies, including: VMs, virtual networking, and virtual hard disks.
- Understanding of network configuration, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies.
- Understanding of Active Directory concepts, including domains, forests, domain controllers, replication, Kerberos protocol, and Lightweight Directory Access Protocol (LDAP).
- Understanding of resilience and disaster recovery, including backup and restore operations.

# Exam Information

### AZ-304: Microsoft Azure Architect Design

| | |
|---|---|
| Design monitoring | 10-15% |
| Design identity and security | 25-30% |
| Design data storage | 15-20% |
| Design business continuity | 10-15% |
| Design infrastructure | 25-30% |

You can purchase the exam voucher separately through Phoenix TS. Phoenix TS is an authorized testing center for Pearson VUE and Prometric websites. Register for exams by calling us or visiting the Pearson VUE and Prometric websites.

## Duration

**4 Days**

## Price

**$2,585**

## Course Outline

### Module 1: Design for Cost Optimization

In this module, you will learn how to optimize costs from recommendations, breakdown costs by Azure Service, and download and review usage details. 01-View

**Lessons**

- Recommend Solutions for Cost Management
- Recommended Viewpoints for Minimizing Costs

After completing this module, students will be able to:

- Optimize with Azure Cost Management.

- Design with Cost in mind
- Optimize Costs from recommendations

## Module 2: Design a Solution for Logging and Monitoring

In this module, you will learn about Azure Monitor, Azure Application Insights, and Azure Sentinel. You will be able to monitor Azure Resources with Azure Monitor and collect and analyze resource Logs for Azure.

**Lessons**

- Azure Monitoring Services
- Azure Monitor

After completing this module, students will be able to:

- Monitor Azure resources with Azure Monitor
- Collect and analyze Resource Logs for Azure resources
- Understand how Azure Sentinel collects data on the devices, users, infrastructure, and applications

## Module 3: Design Authentication

In this module, you will learn to implement Conditional Access and Azure Multi-Factor Authentication and also be able to recommend an Authentication Methodology for Hybrid Identity.

**Lessons**

- Recommend a Solution for Multi-Factor Authentication
- Recommend a Solution for Single-Sign On (SSO)
- Five Steps for Securing Identity Infrastructure
- Recommend a Solution for a Hybrid Identity
- Recommend a Solution for B2B Integration

After completing this module, students will be able to:

- Plan for a MFA Deployment
- Understand Azure Active Directory Seamless Single Sign-On (SSO)
- Recommend an Authentication Methodology for Hybrid Identity
- Integrate with Identity Providers

## Module 4: Design Authorization

In this module, you will learn how to provide Identities to services and understand the hierarchy of Management Groups and Subscriptions.

**Lessons**

- Infrastructure Protection
- Recommend a Hierarchical Structure for Management Groups, Subscriptions and Resource Groups

After completing this module, students will be able to:

- Recommend hierarchy of Management Groups and Subscriptions.
- Configure custom RBAC Role definitions and assignments

## Module 5: Design Governance

In this module, you will learn apply an Azure Policy, Identify non-compliant resources, and manage tag governance with Azure Policy.

**Lessons**

- Recommend a Solution for using Azure Policy
- Recommend a Solution for using Azure Blueprint

After completing this module, students will be able to:

- Organize Policies with Initiatives
- Manage Tag Governance with Azure Policy
- Provide guidance on Azure Blueprints

## Module 6: Design Security for Applications

In this module, you will understand Azure Key Vault availability and redundancy, managed Identities for Azure resources. Also, learn about system-assigned Managed Identity and Azure VMs.

**Lessons**

- Recommend a Solution using KeyVault
- Recommend a Solution using Azure AD Managed Identities

After completing this module, students will be able to:

- Understand Key Vault authentication and authorization
- Understan Azure Key Vault availability and redundancy
- Understand how Blueprints differ from Resource Manager Templates and Azure Policy

## Module 7: Design a Solution for Databases

In this module, you will be able to recommend the appropriate data store and recommend Azure SQL

Database and Azure SQL Managed Instance Service tiers.

**Lessons**

- Select an Appropriate Data Platform Based on Requirements
- Overview of Azure Data Storage
- Recommend Database Service Tier Sizing
- Dynamically Scale Azure SQL Database and Azure SQL Managed Instances
- Recommend a Solution for Encrypting Data at Rest, Transmission, and In Use

After completing this module, students will be able to:

- Recommend Database Service Tier Sizing
- Recommend a Solution for Encrypting Data at Rest, Transmission, and In Use
- Understand Azure Data Lake Store and Azure Blob Storage containers

## Module 8: Design Data Integration

In this module, you will learn about data flows using Azure Data Factory and Azure Synapse Analytics architecture.

**Lessons**

- Recommend a Data Flow
- Recommend a Solution for Data Integration

After completing this module, students will be able to:

- Implement Azure Synapse Analytics
- Describe how data flows using Azure Data Factory
- Demonstrate hjow to use Azure Data Factory to load data into SQL Data Warehouse

## Module 9: Select an Appropriate Storage Account

In this module, you will learn about recommend a design a strategy for using tiered storage and manage tiered Storage using Azure tools.

**Lessons**

- Understanding Storage Tiers
- Recommend a Storage Access Solution
- Recommend Storage Management Tools

After completing this module, students will be able to:

- Recommend tools for working with Azure Storage
- Design for Azure Blob Storage access tiers

## Module 10: Design a Solution for Backup and Recovery

In this module, you will learn about solutions for site recovery capacity and site failover and failback. You will be able to recommend solutions for recovery in different regions.

**Lessons**

- Recommend a Recovery Solution for Hybrid and On-Premises Workloads
- Design and Azure Site Recovery Solution
- Recommend a Solution for Recovery in Different Regions
- Recommend a Solution for Azure Backup Management
- Design a Solution for Data Archiving and Retention

After completing this module, students will be able to:

- Recommend solutions for Azure hybrid and on-premises workloads that meets recovery objectives
- Recommend a solution for site recovery capacity
- Recommend storage types and methodology for data archiving
- Identify requirements for data archiving

## Module 11: Design for High Availability

In this module, you will learn about solutions for application and workload redundancy, including compute, database, and storage.

**Lessons**

- Recommend a Solution for Application and Workload Redundancy
- Recommend a Solution for Autoscaling
- Identify Resources that Require High Availability
- Identify Storage Tpes for High Availability
- Recommend a Solution for Geo-Redundancy of Workloads

After completing this module, students will be able to:

- Recommend a solutions for autoscaling
- Identify storage types for high availability
- Recommend a solutions for geo-redundancy of workloads

## Module 12: Design a Compute Solution

In this module, you will learn about the appropriate compute technologies, including virtual machines, App Services, Service Fabric, Azure Functions, Windows Virtual Desktop, and containers.

**Lessons**

- Recommend a Solution for Compute Provisioning
- Determine Appropriate Compute Technologies
- Recommend a Solution for Containers
- Recommend a Solution for Automating Compute Management

After completing this module, students will be able to:

- Refer solution for automating compute management
- Recommend the appropriate compute technologies, including virtual machines, and App Services
- Recommend the approrioate AKS and ACI and the configurations

## Module 13: Design a Network Solution

In this module, you will learn about solutions for network addressing and name resolution, network provisioning, and network security.

**Lessons**

- Recommend a Solution for Network Addressing and Name Resolution
- Recommend a Solution for Network Provisioning
- Recommend a Solution for Network Security
- Recommend a Solution for iInternete Connectivity and On-Premises Networks,
- Recommend a Solution for Automating Network Management
- Recommend a Solution for Load Balancing and Rraffic Routing

After completing this module, students will understand :

- Solutions for network addressing and name resolution
- Solutions for network security including private endpoints, firewalls, and gateways
- Recommendations for network connectivity to the Internet, on-premises networks, and other VNets.
- Recommendations for load balancing and traffic routing

## Module 14: Design an Application Architecture

In this module, you will learn about solution for deployment of applications including ARM templates, Logic Apps, or Azure Functions. You will also learn about microservices architecture including Event Grid, Event Hubs, Service Bus, Storage Queues, Logic Apps, Azure Functions, and webhooks.

**Lessons**

- Recommend a Microservices Architecture
- Recommend an Orchestration Solution for Deployment of Applications
- Recommend a Solution for API Integration

After completing this module, students will be able to:

- Recommend deployment solutions using ARM templates, Logic Apps, or Azure Functions
- Recommend a solution for monitoring automation
- Recommend a hosting structure for API management

## Module 15: Design Migrations

In this module, you will learn about recommend a solution for migrating applications and VMs and a solution for migration of databases.

**Lessons**

- Assess and On-Premises Servers and Applications for Migration
- Recommend a Solution for Migrating Applications and VMs
- Recommend a Solution for Migration of Databases

After completing this module, students will be able to:

- Assess on-premises servers and applications for migration
- Suggest solutions for migrating applications and VMs
- Determine migration scope, including redundant, related, trivial, and outdated data

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Starting at **$2,585**

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For GSA pricing or Contractor quotes call 301-258-8200 – Option 2.

GSA

## Price Match Guarantee

We'll match any competitor's price quote. Call us at 240-667-7757.

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