Integrating On-Premises Core Infrastructure with Microsoft Azure (10992)

Duration: 3 days

Course Overview

This 3-day instructor-led course covers a range of components, including Azure Compute, Azure Storage, and network services that customers can benefit from when deploying hybrid solutions. In this context, the term hybrid means integrating infrastructure technologies that customers host in on-premises datacenters with Azure IaaS and PaaS services. This course offers an overview of these services, providing the knowledge necessary to design hybrid solutions properly. It also includes a number of demonstrations and labs that enable students to develop hands-on skills that are necessary when implementing such solutions.

Who should attend

This course is intended for IT professionals and development operations (DevOps) professionals who are well versed in on-premises technologies and who have some knowledge of cloud technologies but want to learn more about integrating their on-premises environments with Azure. These professionals should have at least three years of experience working in their respective fields—typically, in the areas of on-premises system administration or network administration, in addition to DevOps support. These IT professionals have broadly applicable administration and operational skills, and they generally work for both enterprise-level organizations and small and medium business environments.

More specifically, the intended audience includes:

1. **IT professionals who have used on-premises virtualization technologies, including both Hyper-V and VMware platforms, but who want to deploy, configure, and administer services and virtual machines in Azure.**
2. **IT professionals who have used Microsoft System Center to manage and orchestrate an on-premises server infrastructure.**
3. **Windows and Linux administrators who are looking to evaluate and migrate on-premises workloads and services to the cloud.**
4. **IT professionals who need to implement network connectivity between on-premises environments and services that Azure or Microsoft Office 365 hosts.**
5. **IT professionals who want to use Azure to increase the resiliency and agility of their on-premises environments.**
6. **DevOps personnel who are considering deploying hybrid solutions that consist of both cloud-based and on-premises components.**
7. **IT professionals and DevOps personnel who are experienced in other non-Microsoft cloud technologies,, who meet the course prerequisites, and how are looking to cross-train on Azure.**

Prerequisites

Before attending this course, students must have:

1. **An understanding of on-premises virtualization technologies, including virtual machines, virtual networking, and virtual hard disks.**
2. **An understanding of network configuration, including TCP/IP, Domain Name System (DNS), VPNs, firewalls, and encryption technologies.**
3. **An understanding of web applications, including creating, configuring, monitoring, and deploying web applications on Internet Information Services (IIS).**
4. **An understanding of Active Directory concepts, including domains, forests, domain controllers, replication, the Kerberos protocol, and Lightweight Directory Access Protocol (LDAP).**
5. **Knowledge of Windows Server 2012 and Windows Server 2016 fundamentals.**
6. **Knowledge of Windows PowerShell command-line interface basics.**
7. **Knowledge of cloud computing basics.**

Course Objectives

After completing this course, students will be able to:

1. **Describe the core concepts of Azure.**
2. **Explain the primary methods for integrating an on-premises environment with Azure Virtual Machines and Azure Cloud Services.**
3. **Describe Azure hybrid networking technologies.**
4. **Describe the Azure services that provide data storage, management, and analytics capabilities in hybrid scenarios.**
5. **Explain the use of Azure disaster recovery and business continuity solutions for on-premises environments.**
6. **Explain how to design and implement cross-premises applications.**
7. **Describe Azure monitoring and management solutions that offer hybrid capabilities.**

Course Content

1. Introduction to Microsoft Azure
2. Integrating with Azure Compute services
3. Integrating with Microsoft Azure virtual networks
4. Integrating with Azure Storage and data services
5. Designing and implementing Azure Site Recovery solutions
6. Designing and implementing cross-premises applications
7. Integrating operations and application monitoring and management