Microsoft Azure Fundamentals

Lesson 01 - Getting started with Microsoft Azure

What's in It for Me

- What cloud computing is

- What Azure is

- Managing Azure

- Subscription management, support, and billing`

What is Cloud Computing?

- Overview of cloud computing
- Cloud-computing models
- Types of cloud services
- Discussion: How will cloud computing benefit your organization?

Overview of Cloud Computing

Characteristics of cloud-computing solutions:

- [ ] On-demand self-service

- [ ] Broad network access

- [ ] Resource pooling

- [ ] Rapid elasticity

- [ ] Measured service

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Overview of Cloud Computing

Advantages of cloud-computing:

- [ ] Access to a broad range of managed services

- [ ] Minimized or eliminated capital expenses

- [ ] Lowered operational expenses

- [ ] Usage-based billing model

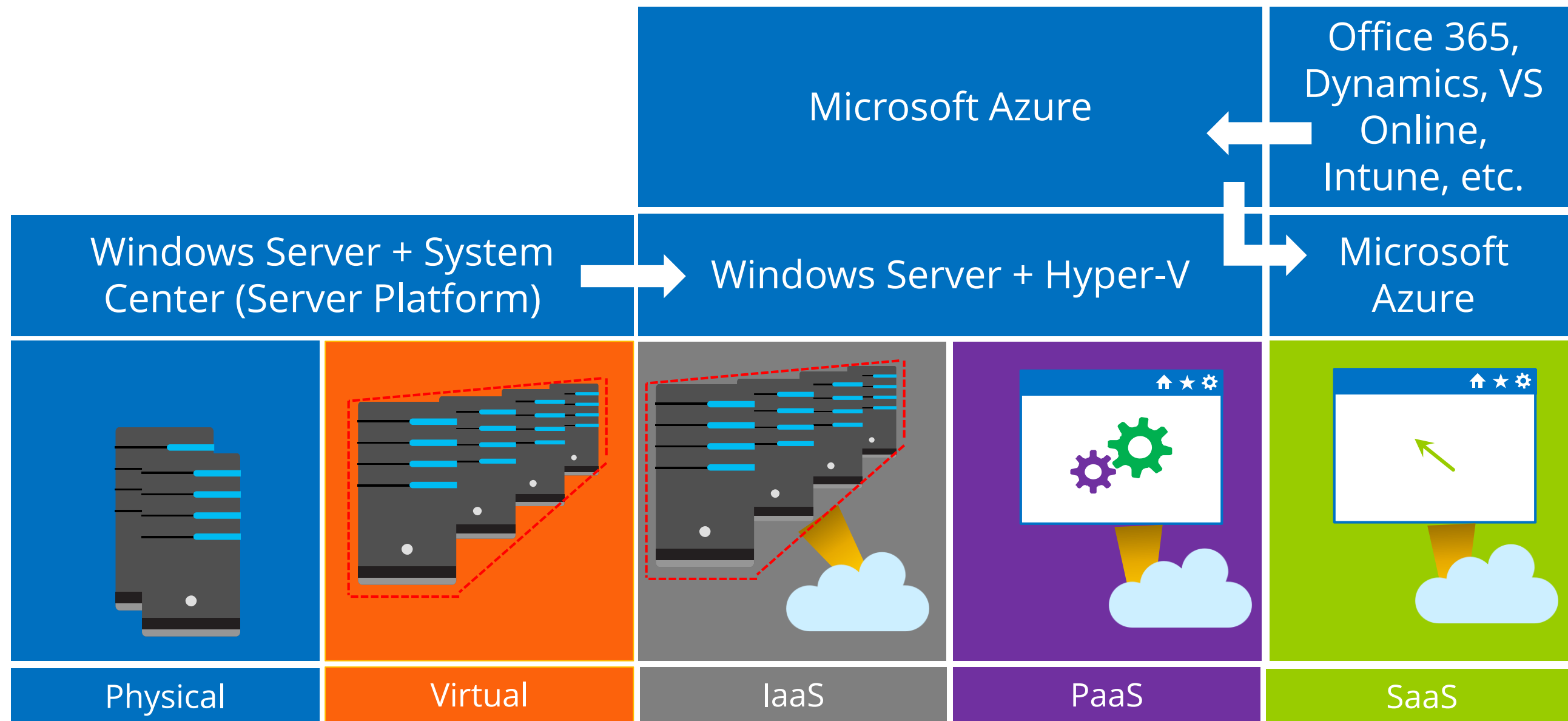- [ ] Improved agility

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Cloud Computing Models

A public cloud is an infrastructure, platform, or application service that a cloud service provider delivers for access and consumption by the public.

A private cloud is a privately owned and managed cloud that offers benefits similar to those of a public cloud, but is designed and secured for use by a single organization.

A hybrid cloud is a technology that binds two separate clouds—public and private—together for the specific purpose of obtaining resources from both.

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Types of Cloud Services

		Microsoft Azure		Office 365, Dynamics, VS Online, Intune, etc.
Windows Server + System Center (Server Platform)		Windows Server + Hyper-V		Microsoft Azure
Physical	Virtual	IaaS	PaaS	SaaS

What is Azure?

- Overview of Azure
- Overview of Azure services
- Azure management models

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Overview of Azure

- Azure services allow you to:

  - Deploy and operate cloud-based applications

  - Host workloads in the cloud

  - Integrate cloud services with an on-premises infrastructure

- Datacenter placement follows the principle of pairing

Overview of Azure Services

Compute
- Service Fabric
- Container Service
- Azure Virtual Machines
- Azure Cloud Services

Networking
- Virtual Network
- Azure DNS
- Application Gateway
- Traffic Manager
- ExpressRoute
- Load Balancer

Data & Storage
- Storage
- DocumentDB
- Azure SQL Database
- StorSimple

Web & Mobile
- Web Apps
- Mobile Apps
- Notification Hub

Other services
- Service Bus
- Azure AD
- Azure AD DS
- MFA
- Automation
- Scheduler
- Azure Backup
- Site Recovery
- Key Vault
- Azure Security Center

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Azure Management Models

- Azure Service Management (classic):

    - Azure classic portal and Azure portal

    - Provides limited RBAC support

- Azure Resource Manager:

    - Is based on the concept of Resource Groups

    - Supports tagging

    - Supports template-based deployments

    - Provides full RBAC support

    - Is not available via Azure classic portal

Managing Azure

- The Azure portal
- The Azure classic portal
- Demonstration: Navigating the Azure portals
- Client tools
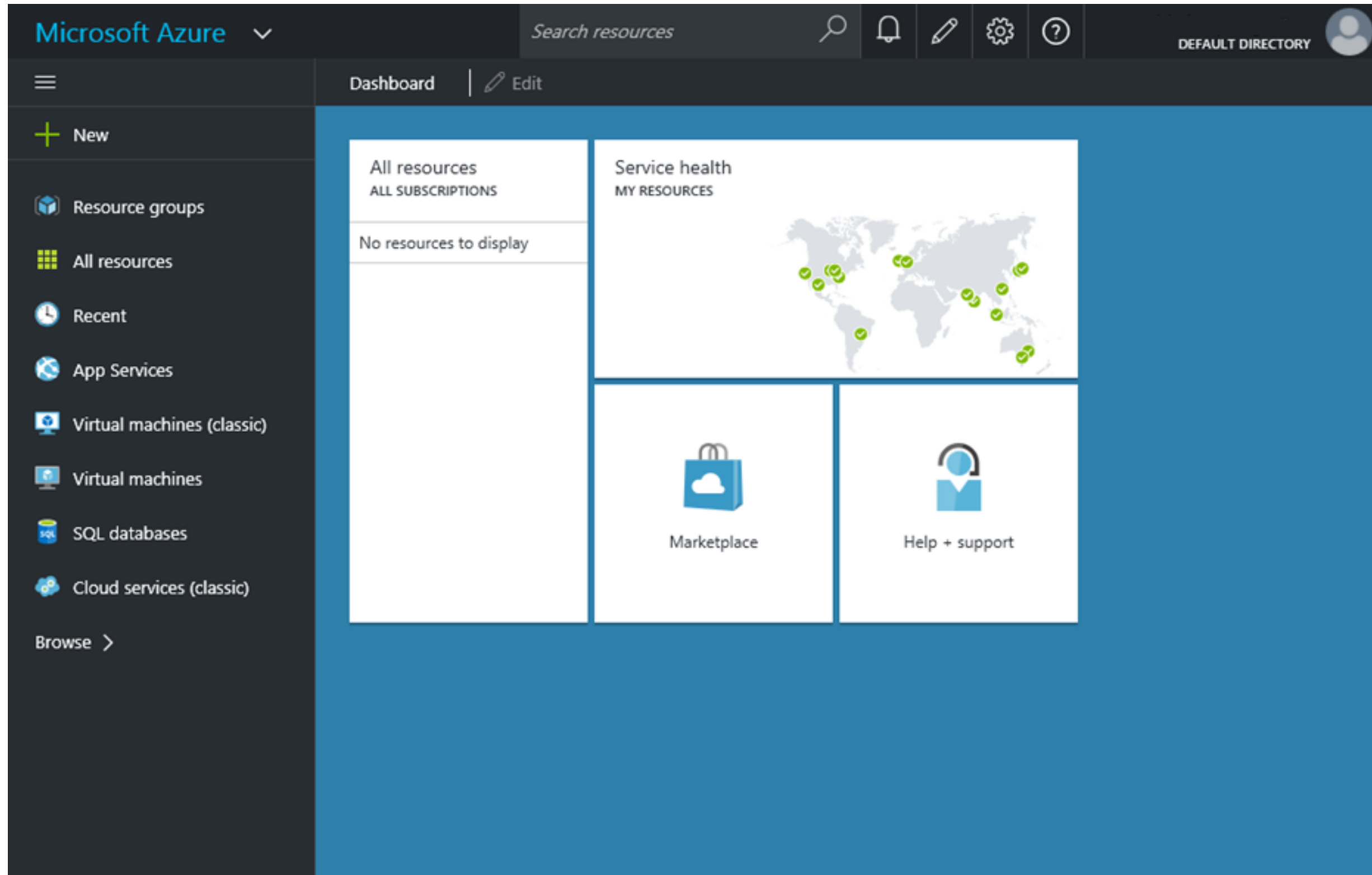
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The Azure Portal

The Azure Classic Portal

Demonstration: Navigating the Azure Portals

In this demonstration, you will see how to:
- Navigate the Azure portal
- Navigate the Azure classic portal

Client Tools

- Windows PowerShell with Azure PowerShell modules:
  - Run scripts to manage Azure from Windows
- Azure CLI:
  - Run scripts to manage Azure from Windows, Linux, iOS
- Visual Studio with Azure SDK for .NET:
  - Build solutions targeting Azure

# Subscription Management, Support, and Billing

- Accounts, subscriptions, administrative roles, and RBAC

- Azure billing and support options

- Azure pricing

- Pricing calculator

- Demonstration: Viewing resource cost, billing data, and subscription usage and quotas

# Accounts, Subscriptions, Administrative Roles, and RBAC

- An Azure account:

  - Determines usage reporting and billing methods

- A subscription:

  - Is the administrative and billing boundary within an account

- Management roles:

  - Account administrator: account level only

  - Service administrator: full permissions on the subscription level

  - Co-administrator: full permissions on the subscription level

  - RBAC: granular permissions on the subscription, resource group, and resource level

Azure Billing and Support Options

Pay-As-You-Go
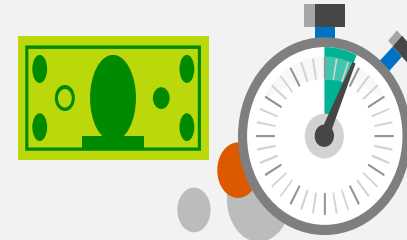
Buy from a Microsoft Reseller
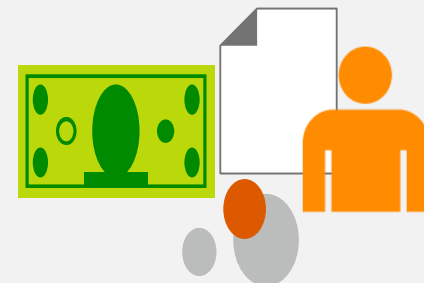
Enterprise agreements

Azure Pricing

- No upfront costs

- No termination fees

- Pay only for what you use

- Per minute billing

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Pricing Calculator

Commonly purchased together (Click to add to cart)

VPN Gateway

SQL Database

App Service

Virtual Machines

REGION:

West US

TYPE:

Windows

PRICING TIER:

Standard

ⓘ

INSTANCE SIZE:

D1	SSD	1 cores	3.5 GB RAM	50 GB disk	$0.140/hr

Key Takeaways

- Cloud computing plays an increasingly important role in IT infrastructure. There are three main cloud computing models: public, private, and hybrid.

- Azure is a public-cloud offering from Microsoft that provides a wide range of IaaS, PaaS, and SaaS services from globally distributed data-centers.

- Azure Management models are classified into two models, Azure Service Management and Azure Resource Manager

- To implement Azure services, you must have a subscription.

- The most common Azure billing options include, Pay-As-You-Go, Buy from Microsoft Reseller, and Enterprise Agreement

This concludes "Getting started with Microsoft Azure."

Next Lesson is "Microsoft Azure Management Tools"

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THANK YOU

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