Understanding Planning and Management of Costs



Steve Buchanan
MICROSOFT AZURE MVP / CLOUD ARCHITECT
@buchatech | www.buchatech.com



Overview



Understanding options for purchasing Azure products and services

Understanding options around Azure Free account

Understanding the factors affecting costs

Understanding Zones for billing purposes

Understanding best practices for minimizing Azure costs

Understanding the Azure Pricing calculators



Azure Subscription Use and Options



Free - \$200 in Azure credit to be used in 30 days. Access to free Azure services



Pay-As-You-Go - Charges monthly for the services you used in that billing period



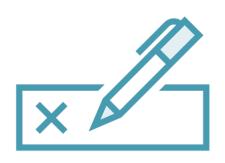
Student - \$100 in Azure credits to be used in 12 months. No credit cared required

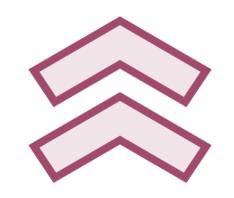


Enterprise Agreement - Purchase Azure services and Microsoft software under a single agreement



Options for Purchasing Azure Products and Services







Enterprise Agreement (EA)

- Designed for very large organizations
- Premiere support and dedicated
 Azure resources
- Annual Azure spend commit
- Customized and deeply discounted Azure pricing

Direct - from Microsoft

- Bill from Microsoft
- Support through Microsoft support plan
- Self-manage or use partner for Azure provisioning, deployment, usage management

Indirect - Cloud Solution Provider (CSP)

- Bill from CSP
- Support through CSP
- Work with CSP for Azure provisioning, deployment, and usage management



Azure Free Account

https://azure.microsoft.com/en-us/free/



Many popular services free for 12 months



30 day \$200 credit



25+ services free forever



Popular Azure Services Free for 12 Months

750 hours of B1S Linux VMs

SQL Database up to 250GB

Cosmos DB up to 5GB 400 request units

750 hours of B1S Windows VMs

5GB File Storage

15 GB outbound Bandwidth (Data Transfer)

Managed Disks - 64 GB x 2

5 GB Blob Storage Various AI & Machine Learning Services



Azure Services Always Free

Data Factory Azure App Service databases 5 10 web, mobile, or Batch compute activities low API apps frequency **Azure Functions** up to 1,000,000 **Security Center** Search 10,000 requests per free tier documents month

Azure DevOps 5
users (with
unlimited private
Git repos)

Data Catalog unlimited users

Service Fabric and Azure Kubernetes Service (AKS) (only pay for VMs used)

Event Grid 100,000 operations per month

Azure Automation 500 minutes per month Networking (vNets (upto 50), Subnets (unlimited), Load balancers (unlimited) etc.)

DevTest Labs

Active Directory B2C 50,000 authentications per month

Notification Hubs 1,000,000 push notifications App Insights / Azure Monitor up to 1GB per month



Understanding the Factors Affecting Costs

Resource Type:

Costs are specific to each resource. The usage that a meter tracks & the amount of meters associated to a resource will depend on resource type.

Service:

Azure usage rates and billing periods can be different across Enterprise Agreements, Direct, & CSP, which affect costs.

Location:

Azure is global with regions all over the world. Costs can vary between regions for the same Azure products, services, and resources. This is based on factors such as level of popularity, demand, and local costs to Microsoft of the infrastructure, connectivity, cooling, staff etc.

Egress traffic:

Sending data into Azure ingress (inbound) is always free. However, pulling data out of Azure egress (outbound) always has a cost. Understanding traffic flow & egress charges on services that will be consumed will help estimate costs.



Zones for Billing Purposes

An Azure Zone is a geographical grouping of Azure Regions for billing purposes

Data transfer pricing is based on the Zones



Zones for Billing Purposes

Zone 1 United States, US Government, Europe, Canada, UK, France, Switzerland

Zone 2 East Asia, Southeast Asia, Japan, Australia, India, Korea

Zone 3 Brazil, South Africa, UAE

DE Zone 1 Germany



Best Practices for Minimizing Azure Costs

Reserved Instances

Quotas

Azure Hybrid Benefit

Azure Cost Management

Spending Limits

Tags



The Pricing Calculators





Estimate the costs for Azure products



Total Cost of Ownership (TCO) calculator

Estimate the cost of migration and Cost of Ownership



Estimate total: \$152.62



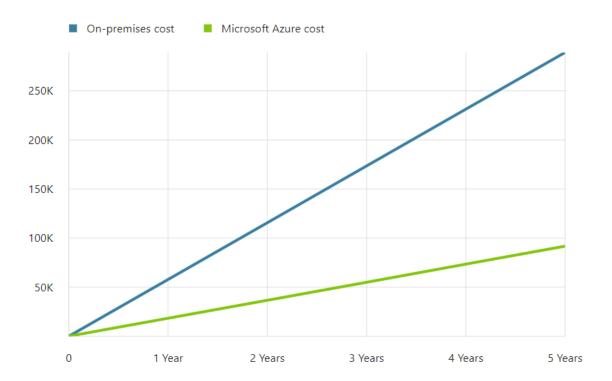
Understanding the Pricing Calculator

The Azure pricing calculator is web based and can be used to estimate cost of Azure services

You add the services, their tiers, and estimated consumption

The calculator will output the cost per service and the total cost of all inputted services





Understanding the TCO Calculator

This calculator should be used when planning to migrate to Azure

It will help estimate the cost savings that can be realized by migrating workloads to Azure along with the TCO over 5 years



Demo



In this demo we will:

 Pricing an IaaS solution with the Azure Pricing calculator and Total Cost of Ownership (TCO) calculator

