Factors that Affect Cost

Remember that one of the benefits to move to cloud is flexibility in pricing. You can choose to have relative certainty over the monthly bill or choose to save money by paying only what you use (consumption based).

Now we will look at different factors:

1. Resource Type: Different resources have different price structures

     - VMs are priced by compute time.

     - Storage charges by capacity and redundancy.

     - Networking may include data transfer costs.

2. Usage and Billing Model: Azure offers flexible pricing models

     - pay-as-you-go

     - Reserved instances: save with 1-or 2-year precommitments

     - Spot pricing: deep discounts (but with interruptible workloads)

3. Service Tiers and Configuration: Services come in Multiple SKUs or tiers

     - Example: App service – Free, Basic, Standard, Premium

     - More CPU, memory, … increase cost

     - Region choice also affect price

4. Licensing Costs: Some services include licensing

     - Extra charge for Windows or SQL Server licensing

     - Azure Hybrid Benefits can save more if you have existing licenses

5. Data Transfer (Bandwidth)

     - Inbound data is usually free

     - Outbound data charged beyond a free tier

     - inter-region transfers also cost more

6. Idle or Unsused Resources: You may be charged even if a resource is not in use.

     - Running a VM that does nothing still costs money

     - Reserved IPs and orphaned disks can also generate charges

7. Additional Considerations

     - Storage access tiers: Hot, Cool, Archive

     - Read/write operations on storage can have micro-costs

     - marketplace services may add third party fees

Tools to estimate and control costs:

     - Azure Pricing Calculator (try out configurations)

     - TCO (total cost of ownership) Calculator (compare on premises and cloud)

     - Cost Management + Billing: Monitor and optimize actual usage

Resource Tags

Tags are metadata elements that you apply to your Azure resources. They are key-value pairs that help you identify resources based on settings that are relevant to your organization. If you want to track the deployment environment for your resources, add a key name. To identify the resources deployed to production, give them a value.

Note: For governance, we can make tags mandatory. This will make cost tracking easy.