**Planning and Cost Management**

**Planning and Cost Management – Objective Domain**

* Identify factors that can affect costs (resource types, services, locations. Ingress and egress traffic)
* Identify factors that can reduce costs(reserved instances, reserved capacity, hybrid use benefit and spot pricing)
* Describe the functionality and usage of the Pricing calculator and the Total Costa of Ownership(TCO) calculator
* Describe the functionality and usage of Azure Cost Management

**Factors affecting costs (part 1)**

There are six primary factors affecting costs :

1. **Resource Type** – Costs are resource-specific, so the usage that a meter tracks and the number of meters associated with a resource, depend on the resource type. **Quanto melhor o tipo do recurso, mais caro ele fica.**
2. **Services** – Azure usage rates and billing periods can differ between Enterprise, Web Direct, and CSP customers. **Cobrança por período ou por contrato.**
3. **Location** – The Azure infrastructure is globally distributed, and usage costs might vary between locations that offer Azure products, services and resources.**Localizacao do datacenter.**
4. **Bandwidth –** Some inbound data transfers are free, such as data going into Azure datacenters. For outbound data transfers, such as data going into Azure datecenters. For outbound data transfers, such as data going out of Azure Datacenters, pricing is based on Zones. **Banda trafegada de dados – Quando vc poe um servidor entre o EUA, tem um custo, milhões de usarios acessando o seu site, vai ter impacto**
5. **Reserved Instances –** Witch Azure Reservations, you commit to buying one-year or three-year plans for multiple products. Reservations can significantly reduce your resource costs up to 72% on pay-as-you-go. **Instancias reservadas -Utilizar maquinas por longos periodos.**
6. **Azure Hybrid Use Benefit –** For customers with Software Assurance, Azure Hybrid Benefit allows you to use your on-premises licenses on Azure at a reduced cost.

**Uma empresa que já tem contrato Microsoft, pode aproveitar essas licenças na nuvem.**

**Pricing Calculator –** is a tool that helps you estimate the cost of Azure products. The options that you can configure in the Pricing Calculator vary between products, but basic configuration options include:

* **Region**
* **Tier**
* **Billing Options**
* **Support options**
* **Programs and offers**
* **Azure dev/test pricing**

<https://azure.microsoft.com/en-us/pricing/calculator/?&ef_id=EAIaIQobChMIw7ymmNml9wIVAsKRCh1FCQcdEAAYASAAEgJM2fD_BwE:G:s&OCID=AID2200154_SEM_EAIaIQobChMIw7ymmNml9wIVAsKRCh1FCQcdEAAYASAAEgJM2fD_BwE:G:s&gclid=EAIaIQobChMIw7ymmNml9wIVAsKRCh1FCQcdEAAYASAAEgJM2fD_BwE>

**Walkthrough – Use the Azure Pricing Calculator**

**Use the Azure Pricing Calculator to generate a cost estimate for an Azure virtual machine and related network resources.**

1. **Configure the pricing calculator**
2. **Review the pricing estimate**

**Total Cost of Ownership Calculator (TCO) Faz um comparative do preço entre montar um servidor físico ou na nuvem**

* **A tool to estimate cost savings you can realize by migrating to Azure.**
* **A report compares the costs of on-premises infrasctructures with the costs of using Azure products and services in the cloud.**

**Azure Cost Management – Gerenciamento de custos**

* **Reporting – billing reports**
* **Data enrichment**
* **Budgets -set spend budget**
* **Alerting – when cost exceed limits**
* **Recommendation – cost recommendations**

**Minizimizing costs**

**Perform –** Perform cost analyses. Use the **Azure Pricing** and **TCO calculators. Estimativa de quanto irá gastar**

**Monitor – Monitor usage** with **Azure Advisor.** Implement recommendations. **Monitorar utilizando o Azure Advisor**

**Use –** Use **spending limits.** Use via free trial customers and some credit-based Azure subscriptions. **Usar o limite de gastos, para travar o limite.**

**Use –** Use **Azure Reservations and Azure Hybrid Benefit(HUB) ( Reserva de maquinas e reaproveitar certificacoes)**

**Choose –** Choose **low-cost locations** and regions. If possible, use low-cost locations.**(Escolher a localidade com menor custo)**

**Keep – Keep up-to-date** with the latest Azure customer and subscription offers. Manter seu azure atualizado com as melhores ofertas de subscription

**Apply –** Apply tags to identify **cost owners.**Identify usage owners with tags. Aplicar tags para identificar os proprietários dos gastos.