

# Planning, Costing and Service Level Agreements



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# Agenda

- Total Cost of Ownership
- Factors for affecting Cost
- Factors for reducing Cost
- Price Calculator
- What is SLA?
- What SLA includes?
- SLAs Percentages Relation to Total Downtime

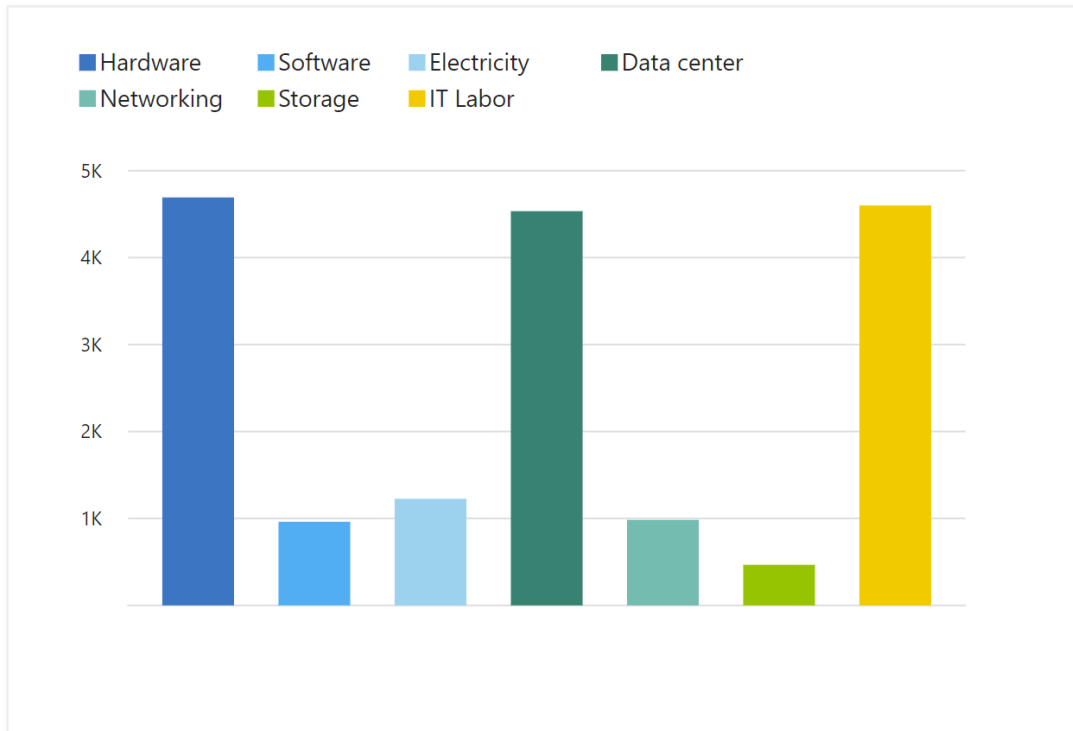
# Total Cost of Ownership Calculator

- Helps you estimate the cost savings of operating your solution on Azure over time, instead of in your on-premises datacenter.
- With the TCO Calculator, you enter the details of your on-premises workloads. Then you can compare those costs with the same workloads running on Azure.

# Total Cost of Ownership Calculator Contd..

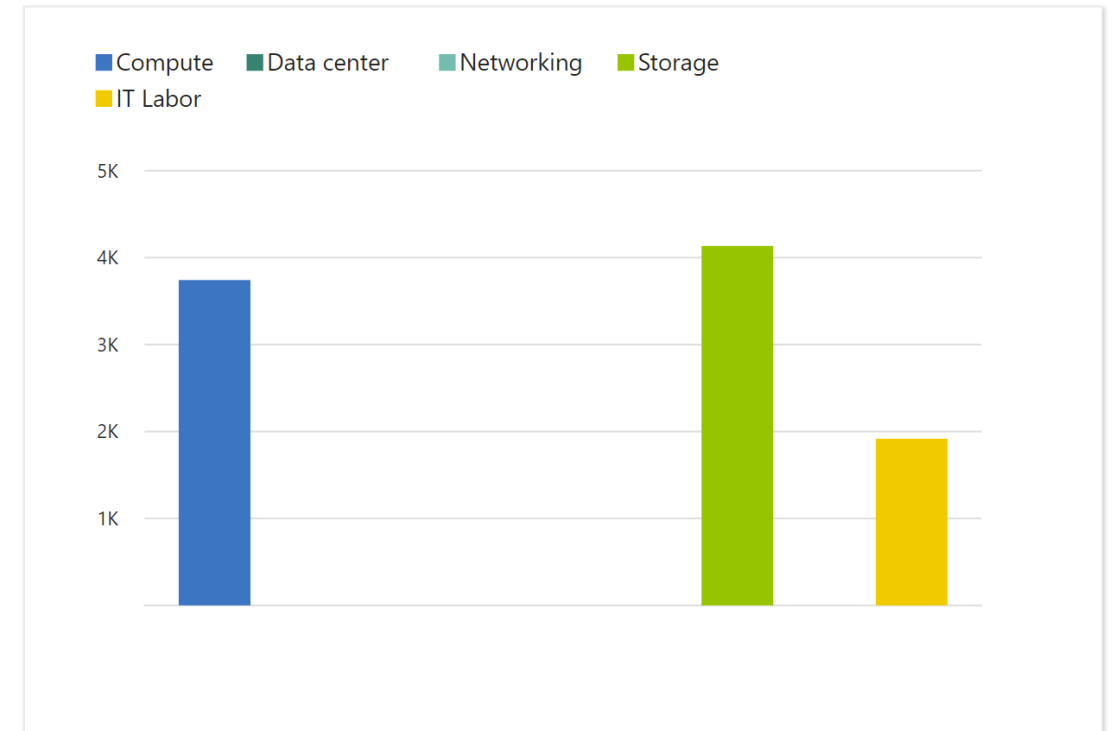
## Total on-premises cost breakdown

In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.



## Total Azure cost breakdown

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# Factors For Affecting Cost

- Resource type
- Usage meters
  - Overall CPU time.
  - Time spent with a public IP address.
  - Incoming (ingress) and outgoing (egress) network traffic in and out of the VM.
  - Disk size and amount of disk read and disk write operations.
- Resource usage
- Azure Subscription Types
- Location
- Network Traffic (Ingress and egress)

# Factors For Reducing Cost

- Reserved Instance - Create resources for 1Yr. or 3Yr. to get discount
- Reserved Capacity - Get significant savings on Azure SQL Database, Azure Cosmos DB and Azure Synapse Analytics with reserved capacity pricing
- Hybrid use Benefit - Use existing license keys
- Spot Pricing - **Spot** VMs, you can access unused **Azure** compute capacity at deep discounts up to 90 percent less

# Pricing Calculator

- Add Services to the estimate
- Configure Services to match your requirements
- Review, Share, and Save your estimate

## Your Estimate

^ Virtual Machines i 1 D2 v3 (2 vCPU(s), 8 GB RAM) x 730 ...

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Virtual Machines

REGION:

West US ▼

OPERATING SYSTEM:

Windows ▼

TYPE:

(OS Only)

# Practices to minimize Total Cost

- Understand estimated costs before you deploy
- Use Azure Advisor to monitor your usage
- Use Azure Reservations to prepay
- Choose low-cost locations and regions
- Research Available cost-saving offers
- Use Azure Cost Management and Billing to control spending
- Resize underutilized virtual machines
- Deallocate virtual machines during off hours
- Delete unused resources
- Use Azure Hybrid Benefit



# What is SLA?

- A service-level agreement (SLA) is a formal agreement between a service company and the customer.
- For Azure, this agreement defines the performance standards that Microsoft commits to its customers.
- SLAs helps you to understand what guarantees you can expect from Microsoft in terms of the availability of the Azure services.
- Each Azure service defines its own SLA. Azure services are organized by category.
- Free products typically don't have an SLA.

# What SLA Includes?

- **Introduction** - This section explains what to expect in the SLA, including its scope and how subscription renewals can affect the terms.
- **General terms** - This section contains terms that are used throughout the SLA so that both parties (you and Microsoft) have a consistent vocabulary like what's meant by downtime, incidents, and error codes.
- This section also defines the general terms of the agreement, including how to submit a claim, receive credit for any performance or availability issues, and limitations of the agreement.
- **SLA details** - This section defines the specific guarantees for the service. Performance commitments are commonly measured as a percentage. That percentage typically ranges from 99.9 percent ("three nines") to 99.99 percent ("four nines").

# SLAs Percentages Relation to Total Downtime

SLA percentage	Downtime per week	Downtime per month	Downtime per year
99	1.68 hours	7.2 hours	3.65 days
99.9	10.1 minutes	43.2 minutes	8.76 hours
99.95	5 minutes	21.6 minutes	4.38 hours
99.99	1.01 minutes	4.32 minutes	52.56 minutes
99.999	6 seconds	25.9 seconds	5.26 minutes

# Composite SLA

- Two virtual machines.
- One instance of Azure SQL Database.
- One instance of Azure Load Balancer.
- Composite SLA

$$= 99.9\% \times 99.9\% \times 99.99\% \times 99.99\%$$

$$= 0.999 \times 0.999 \times 0.9999 \times 0.9999$$

$$= 0.9978$$

$$= 99.78\%$$

# Service Life Cycle

- **Development phase** : In this phase, the Azure team collects and defines its requirements, and begins to build the service.
- **Public Preview phase**: During this phase, the public can access and experiment with it so that it can provide feedback. Your feedback helps Microsoft improve services.
- **General Availability (GA)**: After a new Azure service is validated and tested, it's released as a production-ready service.