2. Cloud Computing Fundamentals

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> 💡 **Cloud Computing: (I think its better to create my own definition)**
> **#5 Criteria to be a cloud**
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>
> **1. On-Demand Self Service:** **Can Provision capabilities as needed without requiring human interaction.**
> **2.Broad Network Access:** **Capabilities are available over the network and access through standard mechanism.**
> **3.Resource Pooling:** **There is a sense of location independence no control or knowledge over the exact location of the resources. Resources are pooled to serve multiple consumers using a multi-tenant model.**

Cloud Computing

1   On-Demand Self-Service   Provision and Terminate using a UI/CLI without human interaction.

2   Broad Network Access   Access services over any networks, on any devices, using standard protocols and methods.

3   Resource Pooling   Economies of scale, cheaper service.

4   Rapid Elasticity   Scale UP (OUT) and DOWN (IN) automatically in response to system load

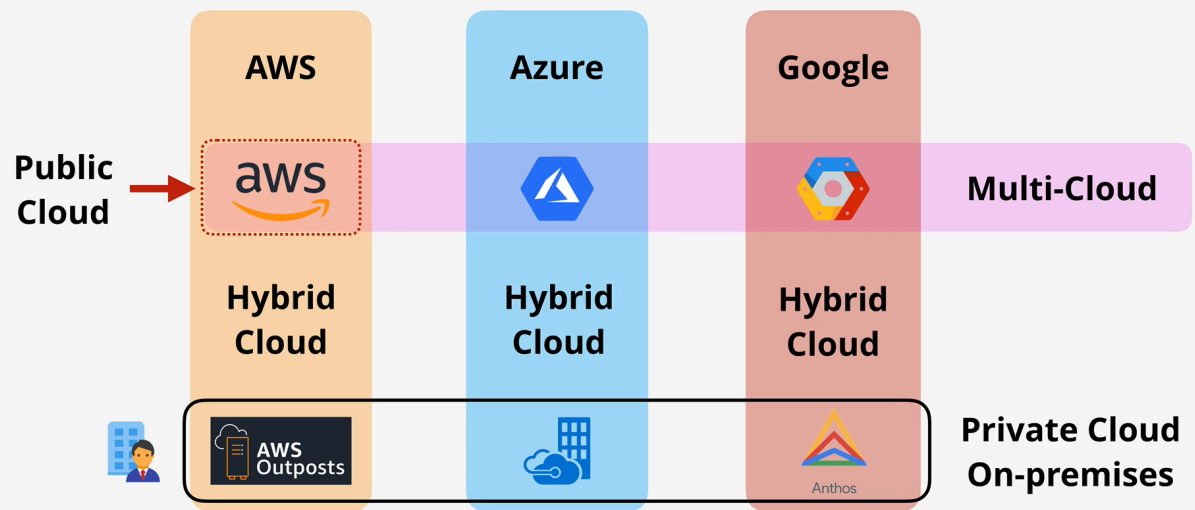**5   Measured Service**   Usage is measured. Pay for what you consume.

Public vs Private vs Hybrid vs Multi Cloud
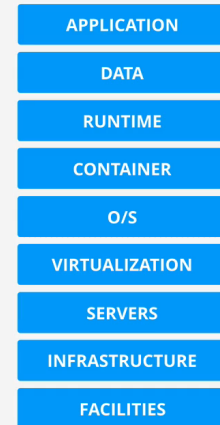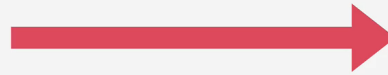
Public vs Private vs Multi vs Hybrid

💡 Hybrid cloud is not a public cloud plus legacy on-premises cloud.

Hybrid cloud is public + on premises cloud from same company at least that's what I think

💡 infra stack

- Infrastructure Stack

| APPLICATION |
| DATA |
| RUNTIME |
| CONTAINER |
| O/S |
| VIRTUALIZATION |
| SERVERS |
| INFRASTRUCTURE |
| FACILITIES |

🟥 Software As A Service (SaaS)

On-Premises	DC Hosted	IAAS	PAAS	SAAS
APPLICATION	APPLICATION	APPLICATION	APPLICATION	APPLICATION
DATA	DATA	DATA	DATA	DATA
RUNTIME	RUNTIME	RUNTIME	RUNTIME	RUNTIME
CONTAINER	CONTAINER	CONTAINER	CONTAINER	CONTAINER
O/S	O/S	O/S	O/S	O/S
VIRTUALIZATION	VIRTUALIZATION	VIRTUALIZATION	VIRTUALIZATION	VIRTUALIZATION
SERVERS	SERVERS	SERVERS	SERVERS	SERVERS
INFRASTRUCTURE	INFRASTRUCTURE	INFRASTRUCTURE	INFRASTRUCTURE	INFRASTRUCTURE
FACILITIES	FACILITIES	FACILITIES	FACILITIES	FACILITIES