

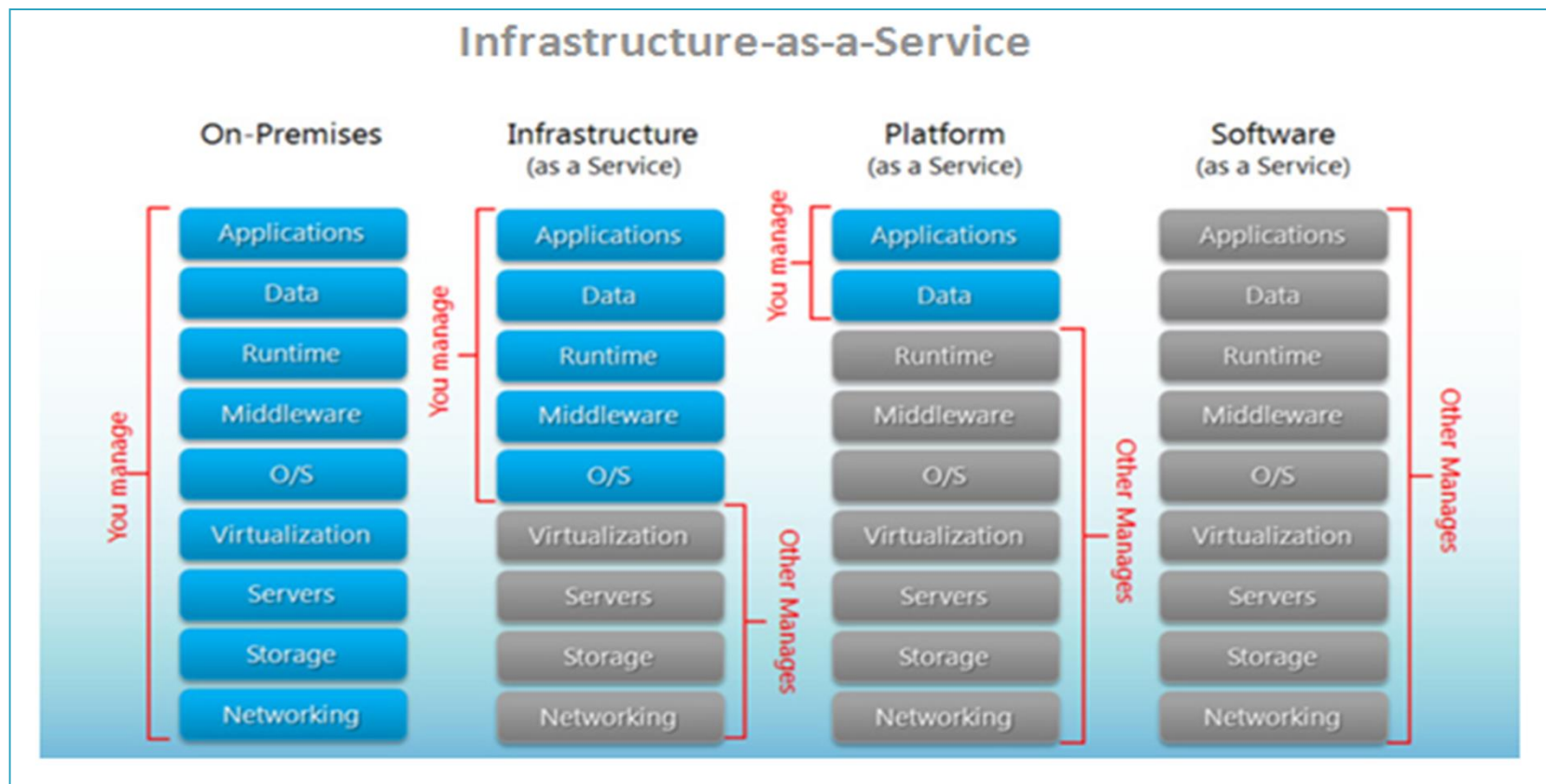
AWS COMPUTING SERVICES

Agenda

- ▶ Introduction
- ▶ Compute Services Overview
- ▶ Elastic Compute Cloud (EC2)
- ▶ AMI (Amazon Machine Image)
- ▶ EC2 Instance Types
- ▶ EC2 Instance Life-cycle
- ▶ Purchasing Options
- ▶ Launching EC2 instances (Windows/Linux)

EC2 (Elastic Compute Cloud)

Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) cloud



EC2 Overview

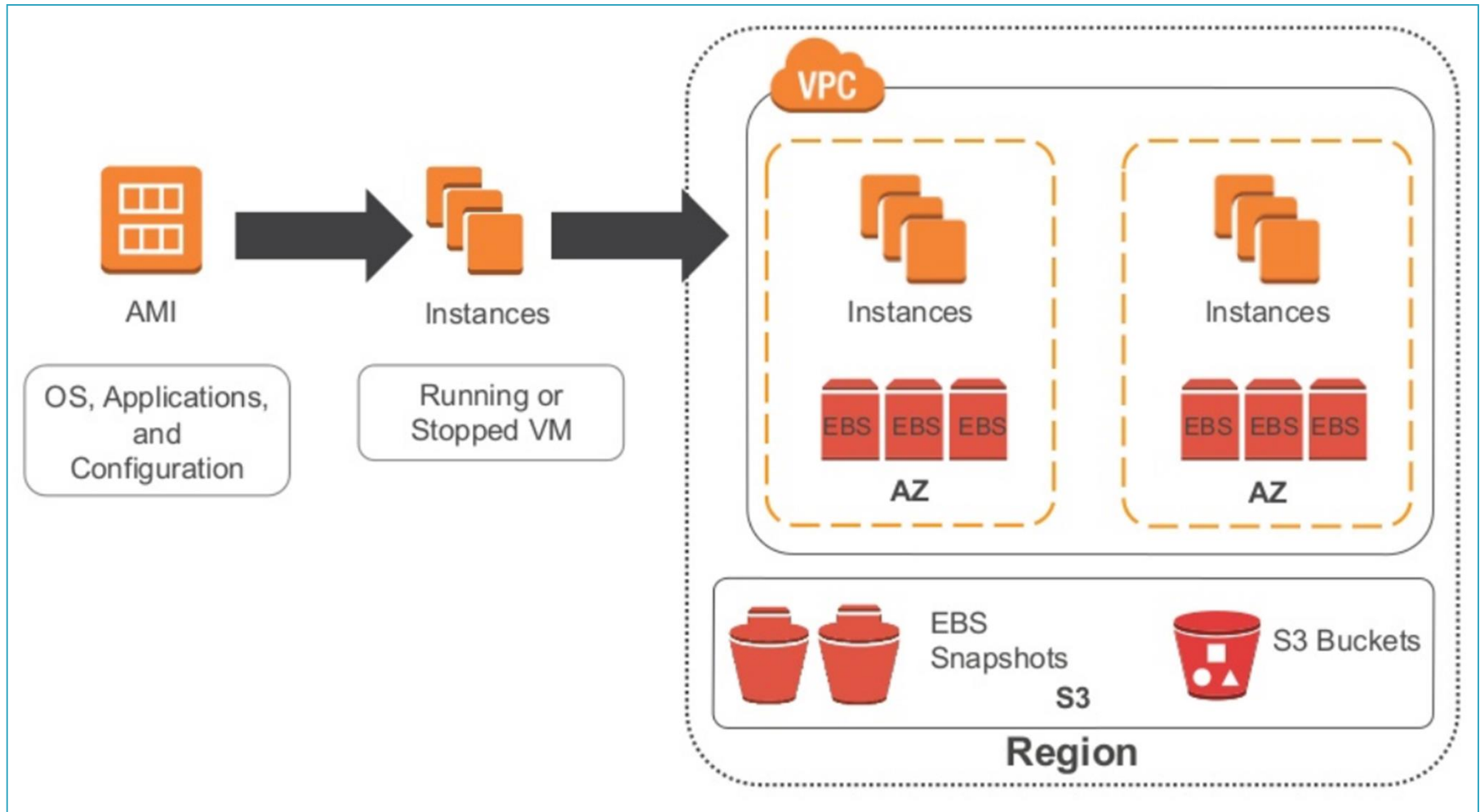


Amazon
EC2

- **Resizable** compute capacity
- Complete control of your computing resources
- **Reduced time required** to obtain and boot new server instances

- **Scale capacity** as your computing requirements change
- Pay only for capacity that you actually use
- Choose **Linux** or **Windows**
- Deploy across **AWS Regions** and **Availability Zones** for reliability
- Use **tags** to help manage your Amazon EC2 resources

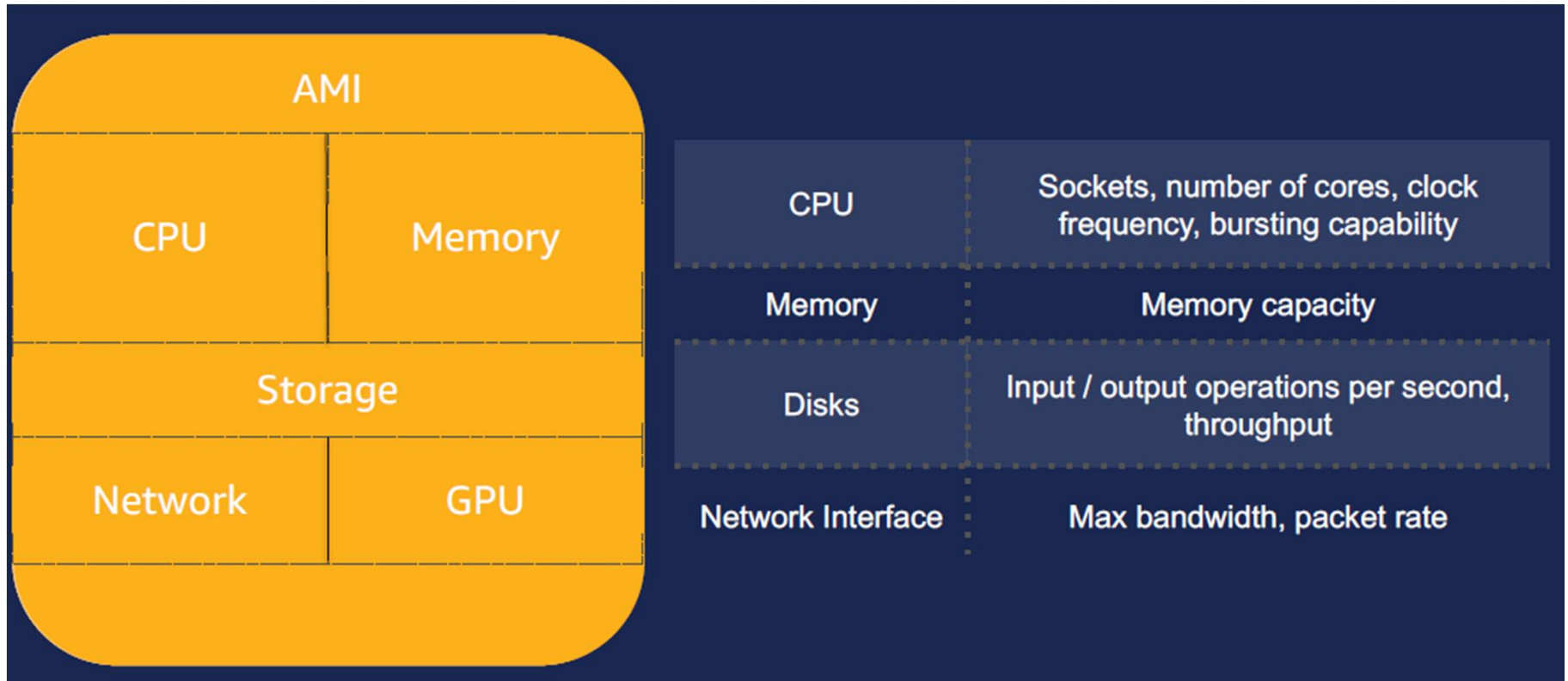
EC2 Instances



EC2 Concepts

- **Instance** - Virtual Computing environments
- **AMI** - Preconfigured template of instance
- **Instance Types** - Various configs of CPU, memory, storage and network
- **Key Pair** – Secure login to instance
- **Instance Store Volumes** – Temporary Data Storage
- **EBS (Elastic Block Store)** – Persistent Storage Volume
- **Availability Zones** – Physical locations of resources
- **Security Groups** – Firewall to protect resource access based on rules
- **Placement Groups** - Determines how instances are placed on underlying hardware
- **Tags** – Metadata about the instance

Inside of an Instance



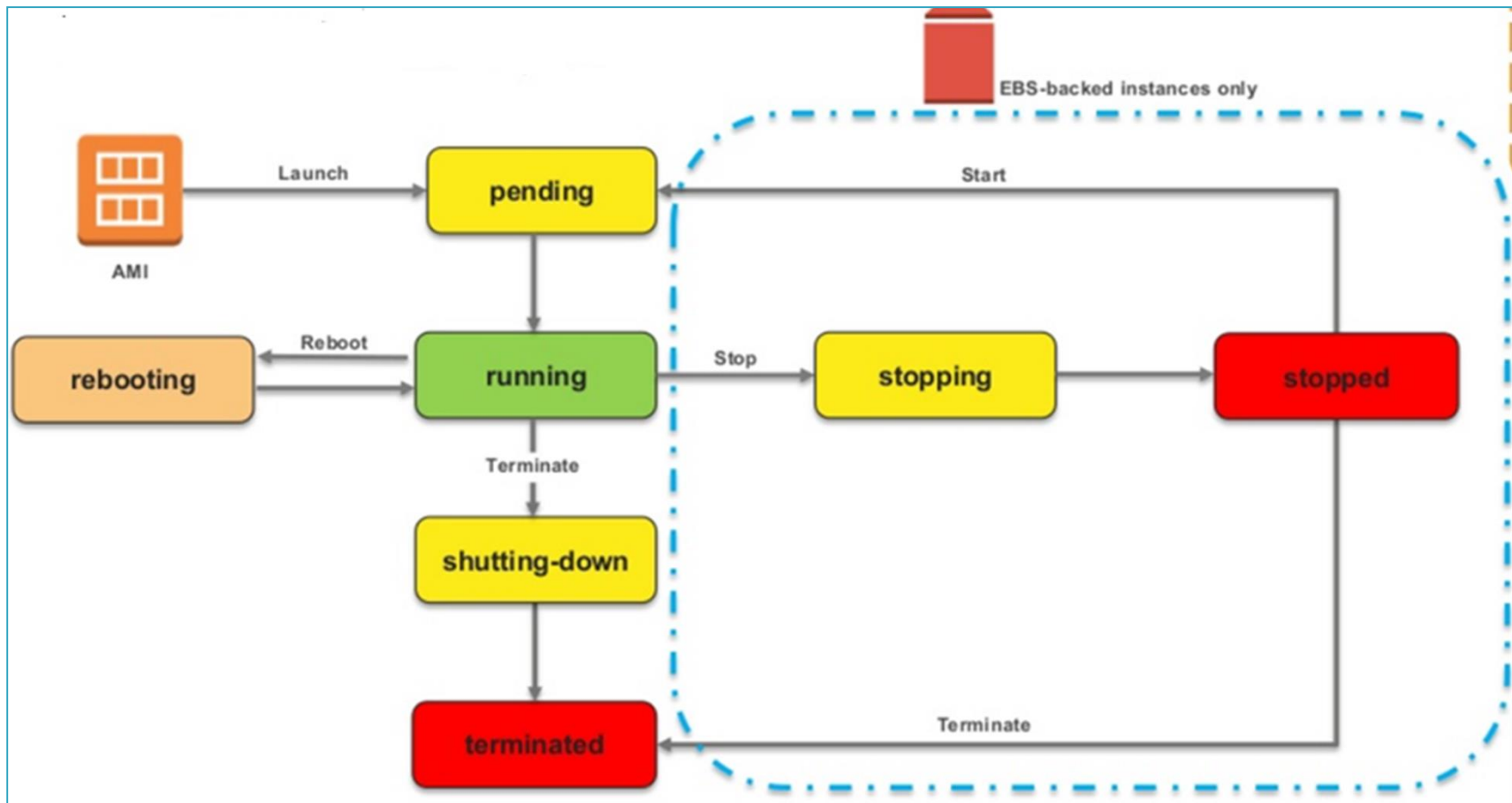
Instance Type and Size



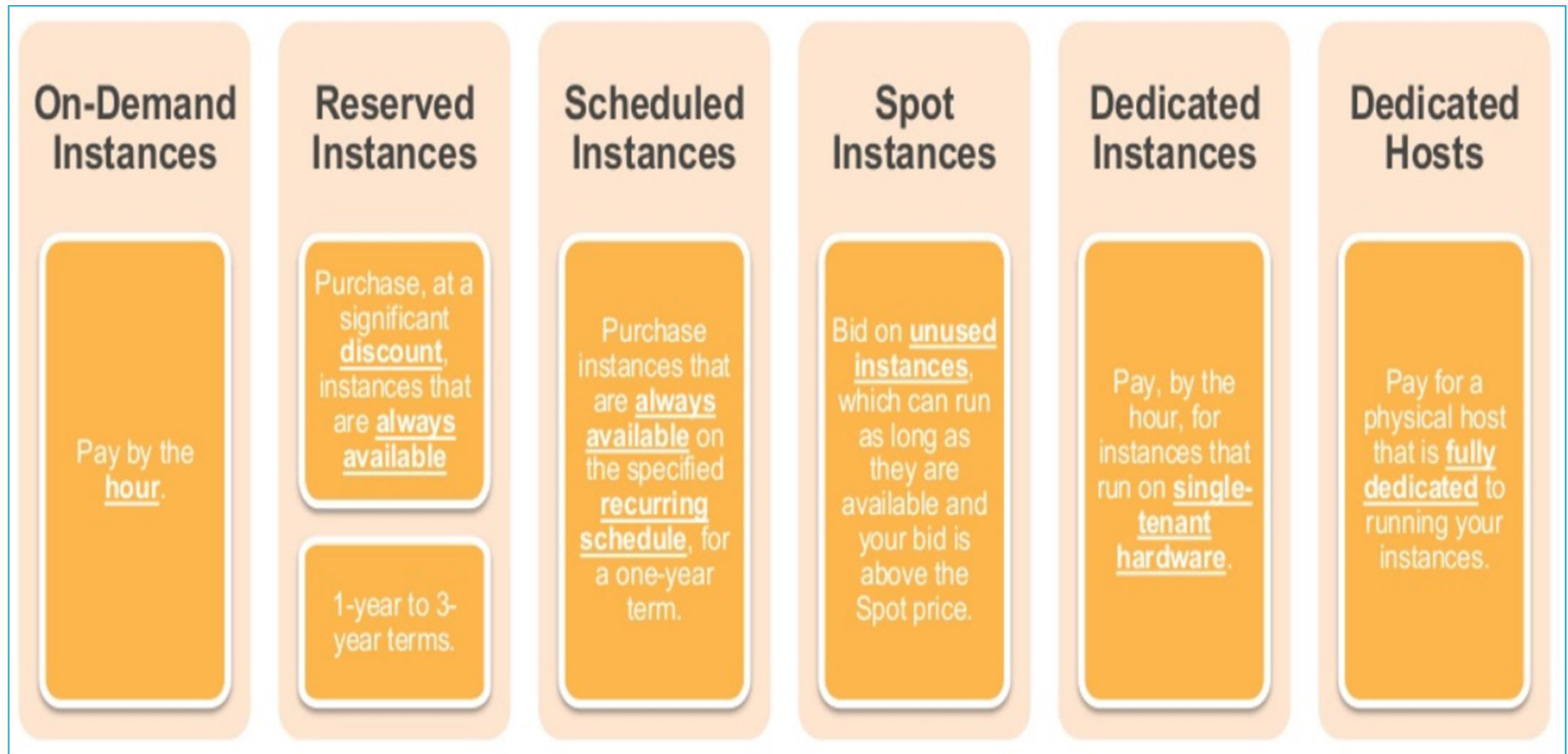
EC2 Instance Types

Instance Family	Some Use Cases
General purpose (t2, m4, m3)	<ul style="list-style-type: none">• Low-traffic websites and web applications• Small databases and mid-size databases
Compute-optimized (c4, c3)	<ul style="list-style-type: none">• High performance front-end fleets• Video-encoding
Memory-optimized (r3)	<ul style="list-style-type: none">• High performance databases• Distributed memory caches
Storage-optimized (i2, d2)	<ul style="list-style-type: none">• Data warehousing• Log or data-processing applications
GPU instances (g2)	<ul style="list-style-type: none">• 3D application streaming• Machine learning

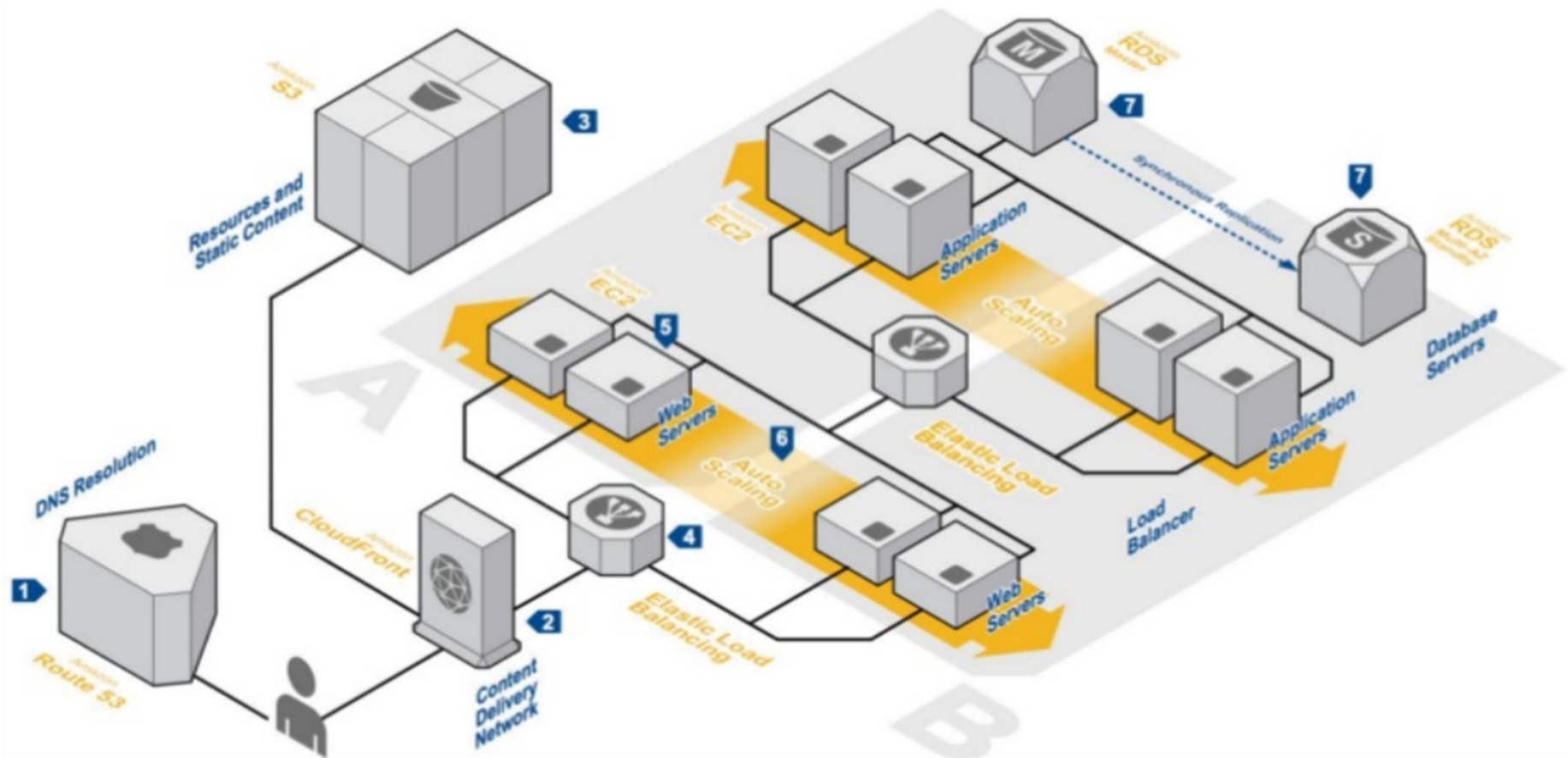
Instance Lifecycle



Instance Purchasing Options



Example: 3-tier Web Application



Thank You!