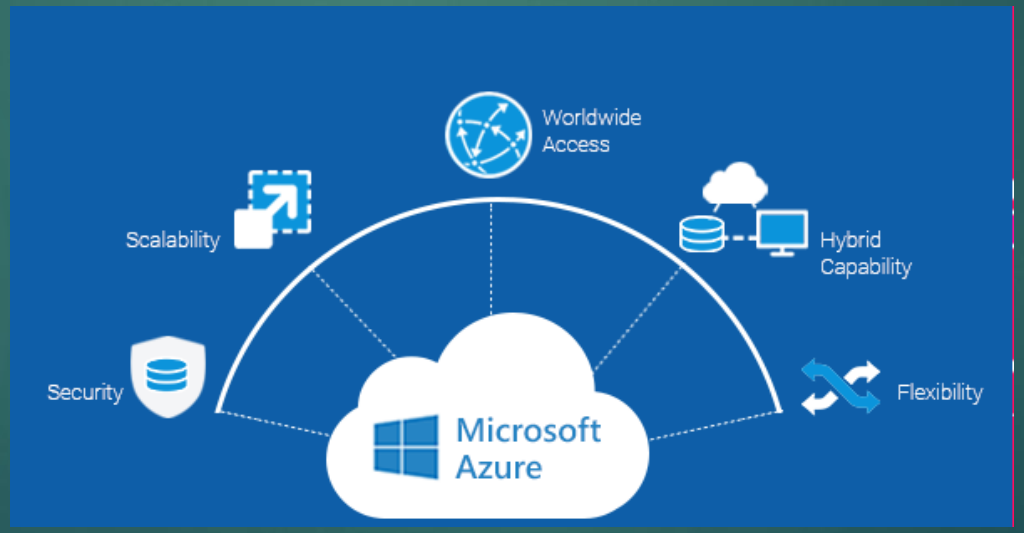
Introduction to Azure



Agenda

- Overview of Cloud Computing
  - What is Cloud Computing
  - Definition of Cloud Computing
    - Essential Characteristics
    - Service Models
    - Deployment Models
  - On-premises vs Service Models
  - Advantages & Disadvantages of Cloud Computing
  - Cloud Computing Providers
- Why AZURE
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  - AZURE Availability Zone
  - Azure Edge Locations
  - How to access the AZURE Services
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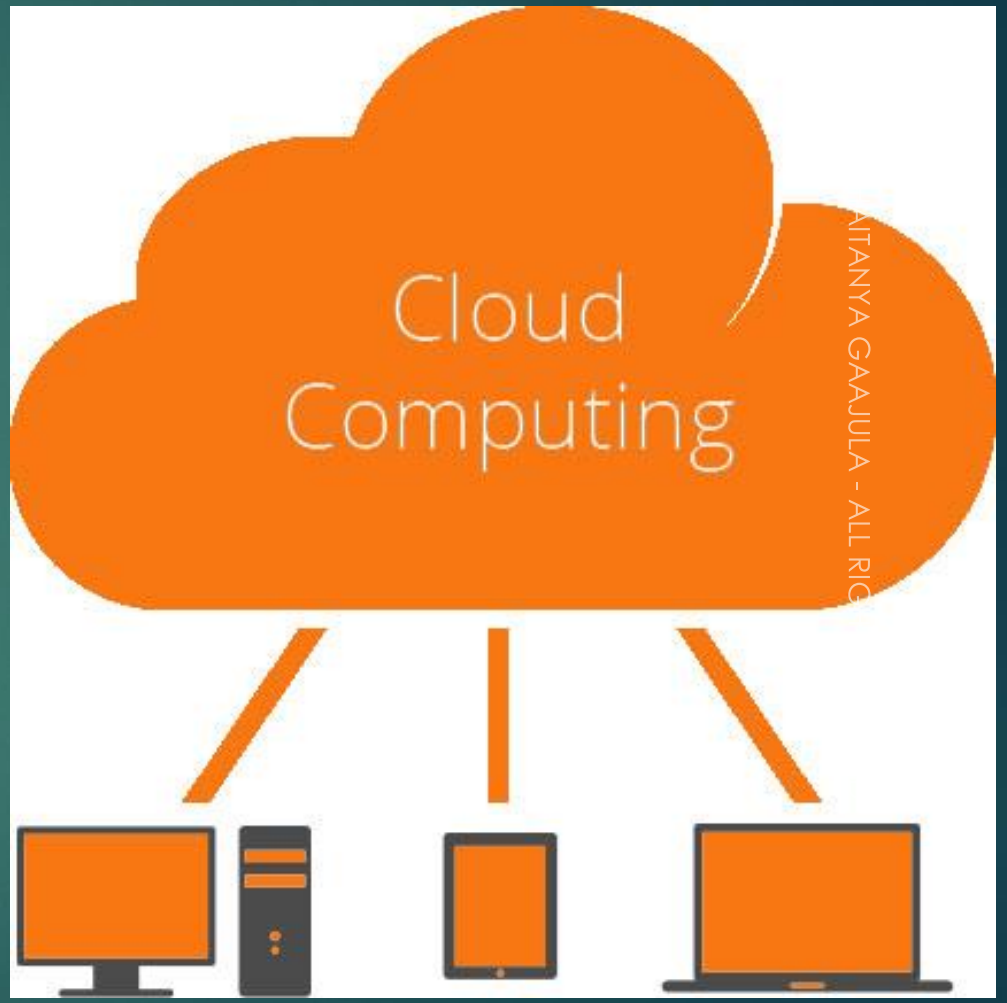
Overview of Cloud Computing

What is Cloud Computing

- **Cloud computing** is the delivery of computing services - servers, storage, databases, networking, tools and software over the Internet.

- Cloud computing enables companies to consume a compute resource, such as a servers, storage or an application, as a utility like water or electricity, rather than having to build and maintain computing infrastructures in house.

- Companies offering these computing services are called **cloud providers** and they charge for cloud computing services based on usage.

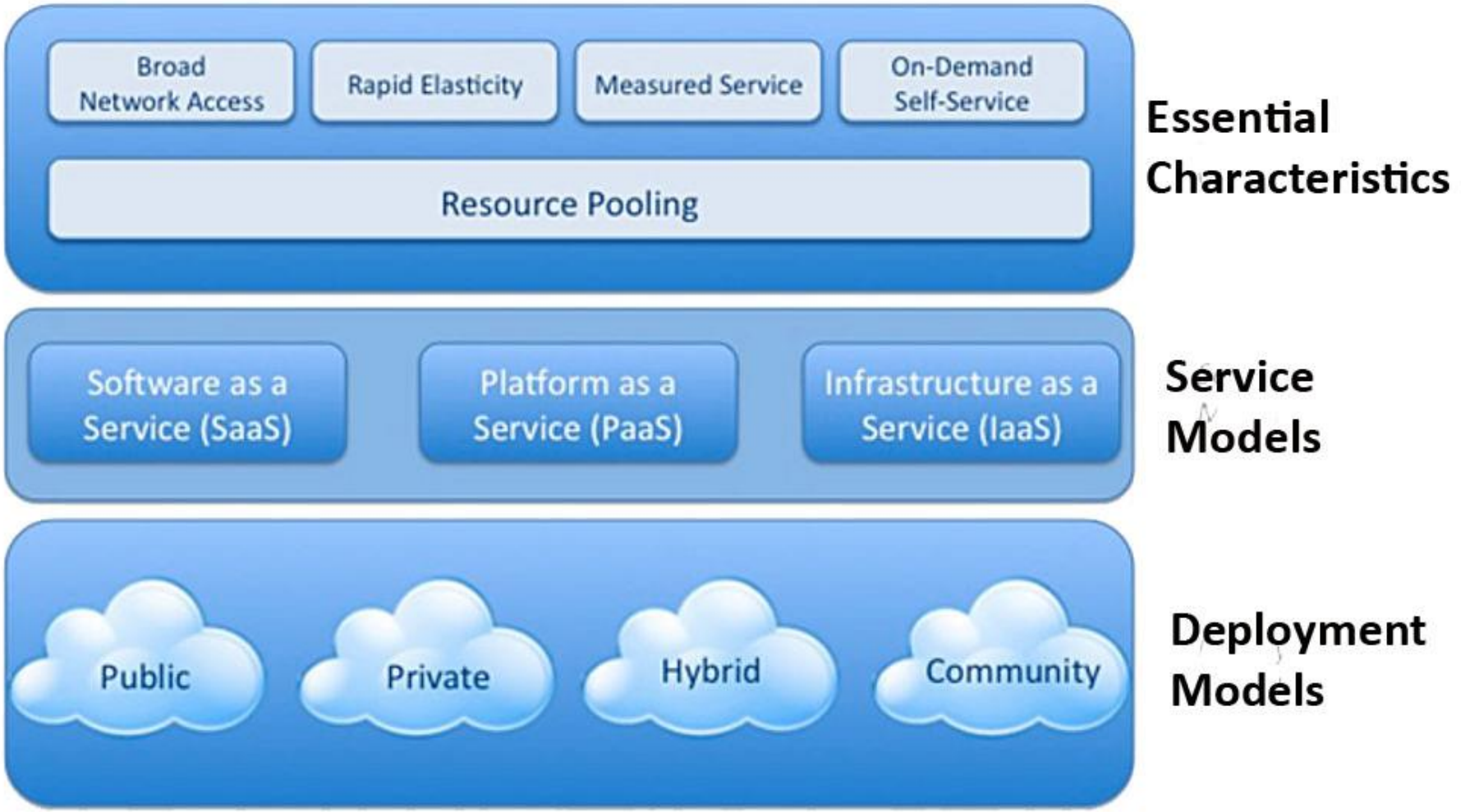


Cloud Computing: Definition

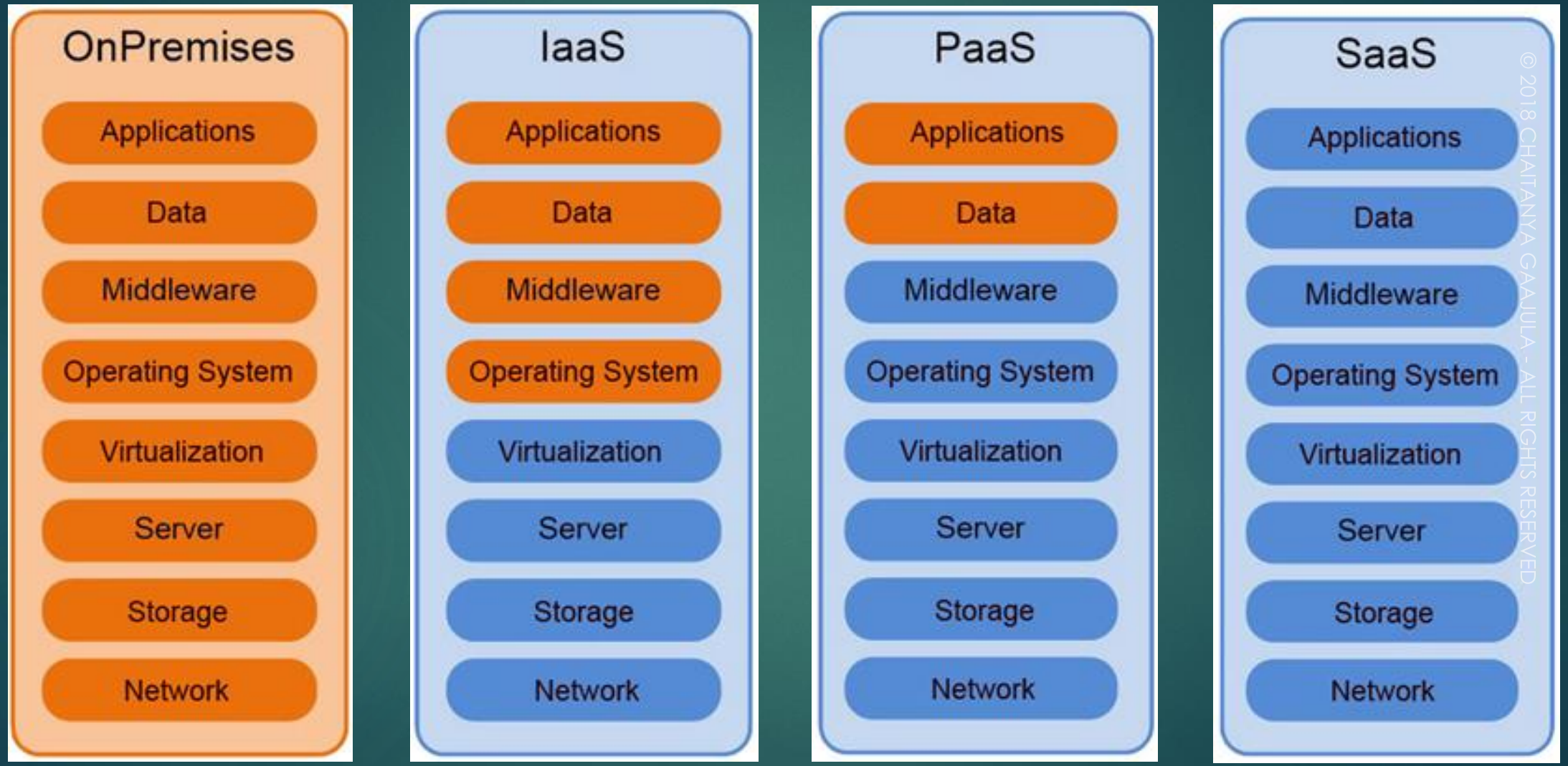
- Cloud computing is a model for enabling **ubiquitous**, **convenient**, **on-demand** network access to a **shared pool** of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

- This cloud model is composed of
  - Five essential characteristics
  - Three service models
  - Four deployment models.

Cloud Computing: Definition



Cloud Computing: On-premises vs Service Models



Cloud Computing: Advantages & Disadvantages

Advantages

- ✓ Flexibility
- ✓ Availability
- ✓ Accessibility
- ✓ Scalability
- ✓ Multi-tenancy
- ✓ Disaster Recovery
- ✓ Cost of ownership
- ✓ Metered Services

Disadvantages

- ✓ Downtime
- ✓ Vulnerability to attack
- ✓ Security

Cloud Computing: Cloud Computing Providers

	AWS	Azure	Google Cloud
Company	AWS Inc.	Microsoft	Google
Launch year	2006	2010	2008
Geographical Regions	25	54	21
Availability Zones	78	140 (countries)	61
Key offerings	Compute, storage, database, analytics, networking, machine learning, and AI, mobile, developer tools, IoT, security, enterprise applications, blockchain.	Compute, storage, mobile, data management, messaging, media services, CDN, machine learning and AI, developer tools, security, blockchain, functions, IoT.	Compute, storage, databases, networking, big data, cloud AI, management tools, Identity and security, IoT, API platform
Compliance Certificates	46	90	
Annual Revenue	$33 billion	$35 billion	$8 billion

Overview of AZURE

Why AZURE

Why should You Choose Microsoft Azure for Your Business?

RADIX

01 Azure has the best IaaS enabling companies to outsource pay-for-what-you-use cloud computing subscription

02 Azure Site Recovery provides DRaaS (Disaster Recovery as a Service) to help minimize disaster repercussions

03 Azure provides security for Windows and Linux servers, cloud native applications data and protects your IoT environment

04 Azure provides a fully integrated development platform for the company's scaling and managing business critical processes

05 In migration of data, Microsoft Azure accommodates your preference with its Hybrid Cloud model

06 Azure cloud offers mobility to organizations to facilitate remote access. This can be for critical business applications or data

07 Microsoft Azure is designed to ensure business continuity in the face of application redundancy

www.radixweb.com

What is AZURE

What is Azure?

At its core, Azure is a public cloud computing platform—with solutions including **Infrastructure as a Service** (IaaS), **Platform as a Service** (PaaS), and **Software as a Service** (SaaS) that can be used for services such as analytics, virtual computing, storage, networking, and much more. It can be used to replace or supplement your on-premise servers.

Here are some quick facts about Azure.

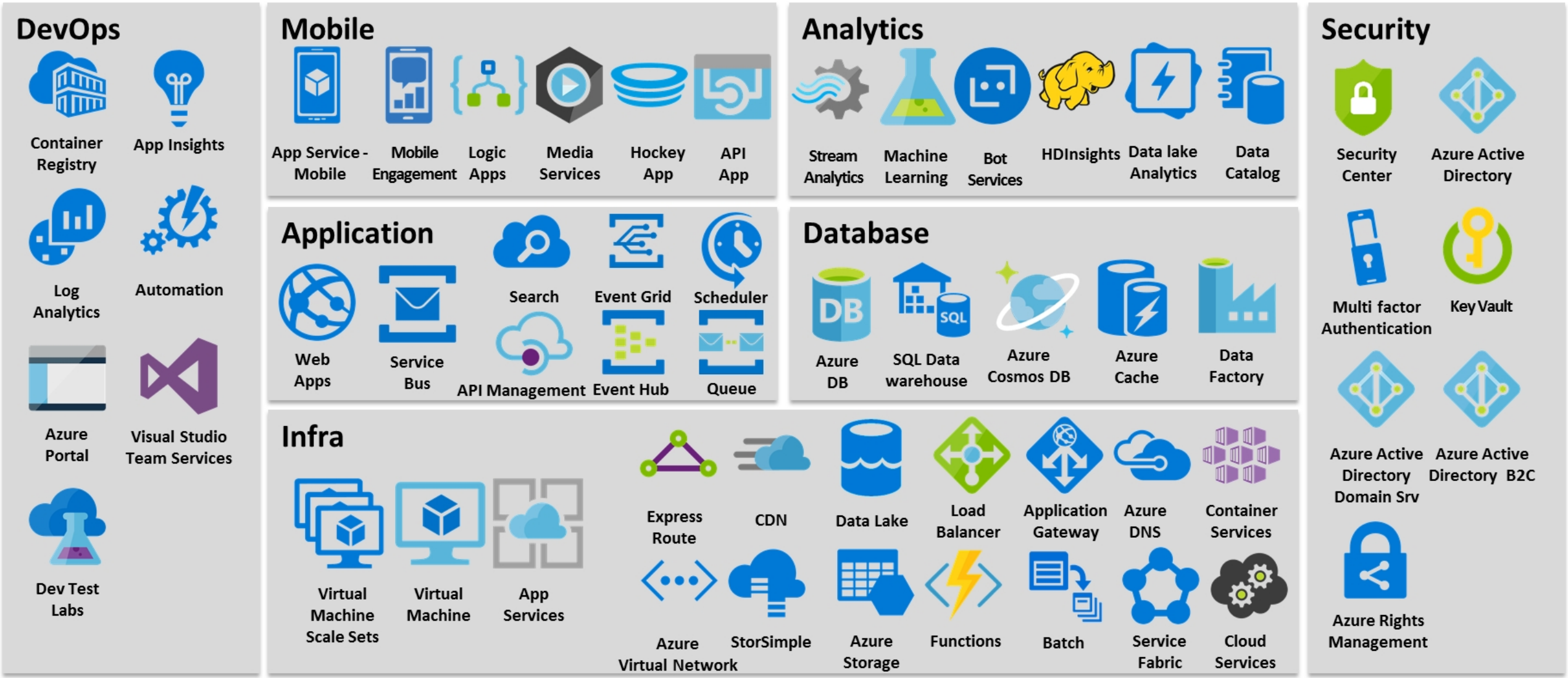
Microsoft Azure – IaaS, PaaS and SaaS
· **Flexible** – Move compute resources up and down as needed
· **Open** – Supports almost any OS, language, tool, or framework
· **Reliable** – 99.95% availability SLA and 24×7 tech support
· **Global** – Data housed in geo-synchronous data centers
· **Economical** – Only pay for what you use

Azure is a fast, flexible, and affordable platform, and its pricing and capabilities make it the best public cloud offering on the market. Now let's take a look at *how* to put it to work for you.

AZURE: Benefits

- Trade capital expense for variable expense
- Benefit from massive economies of scale
- Increase speed and agility
- Stop guessing about capacity
- Stop spending money running and maintaining data centers
- Go global in minutes

AZURE: Services

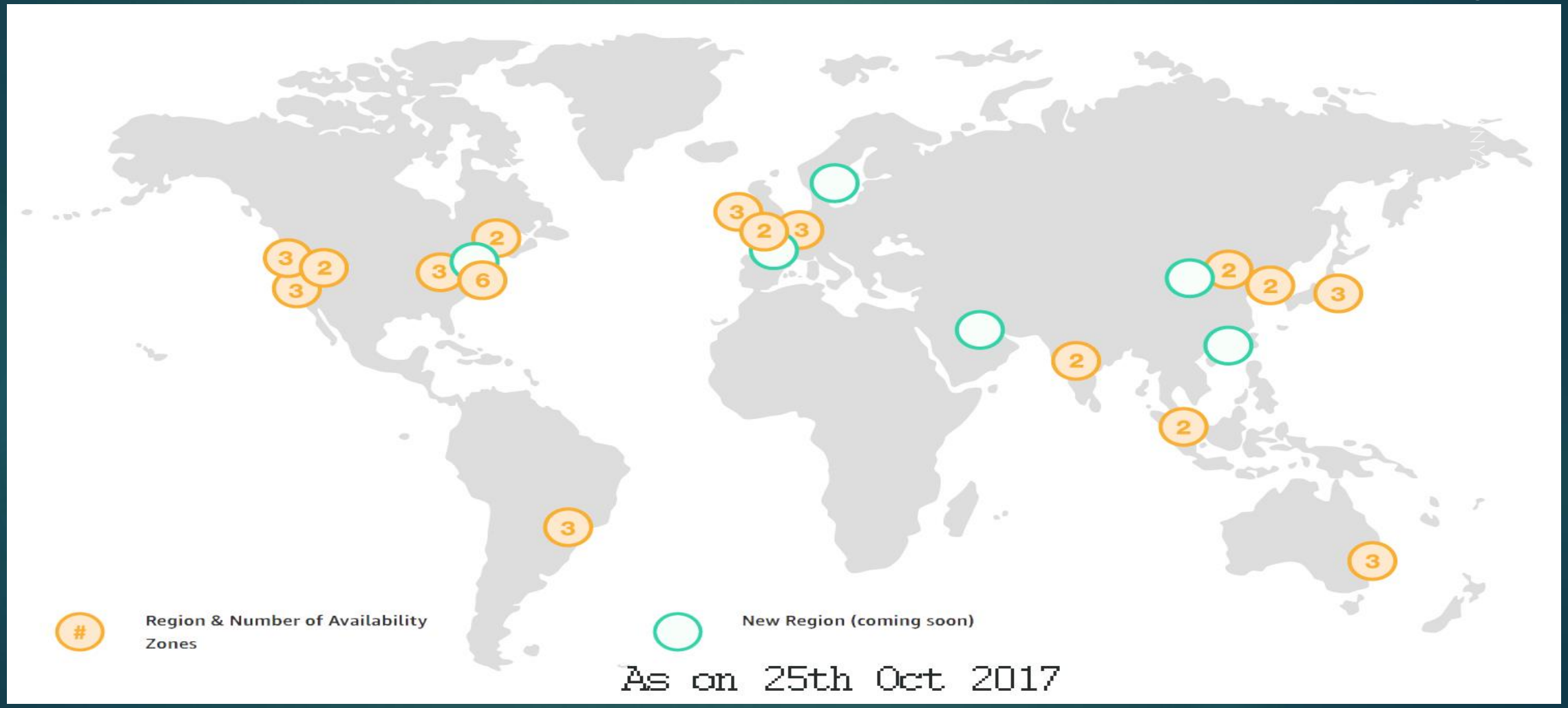


AZURE: Traditional vs AZURE Components

Traditional Infrastructure Services		Amazon Web Services
Firewalls, ACLs, Administrators	Security	Security Groups, NACLs, IAM
Router, Network Pipeline, Switch	Networking	ELB, VPC
Operating System, On-Premises Servers	Servers	AMI, EC2 Instances
	Storage	EBS, EFS, S3
RDBMS, No SQL	Database	RDS, Dynamo DB

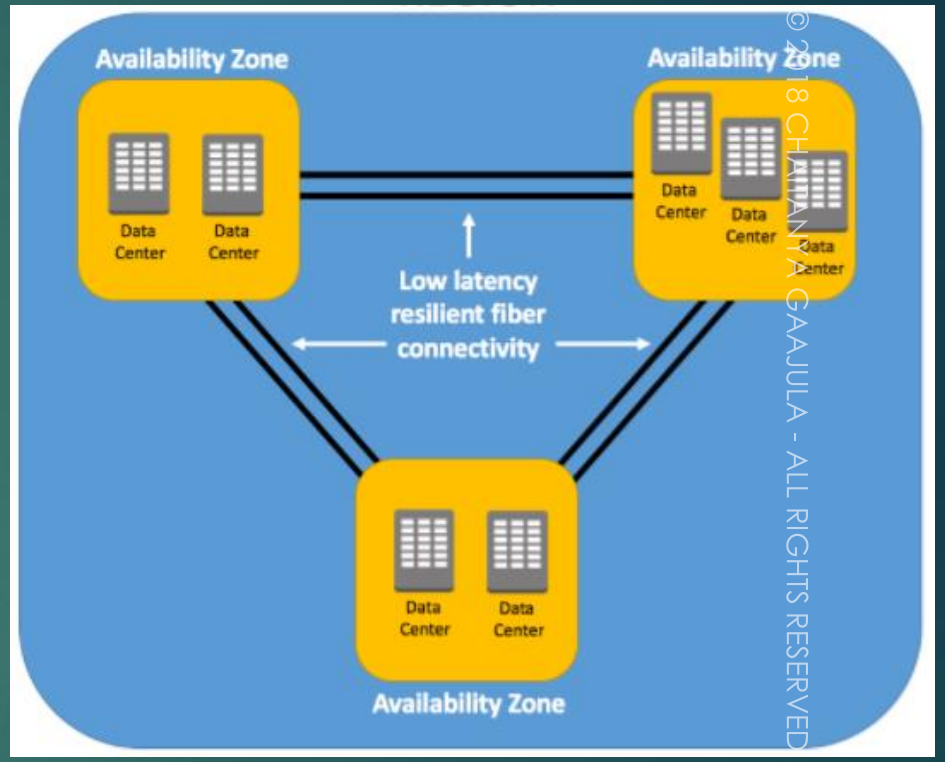
AZURE: Global Infrastructure

The AZURE Cloud operates 44 Availability Zones within 16 geographic Regions around the world, with announced plans for 17 more Availability Zones and six more Regions.



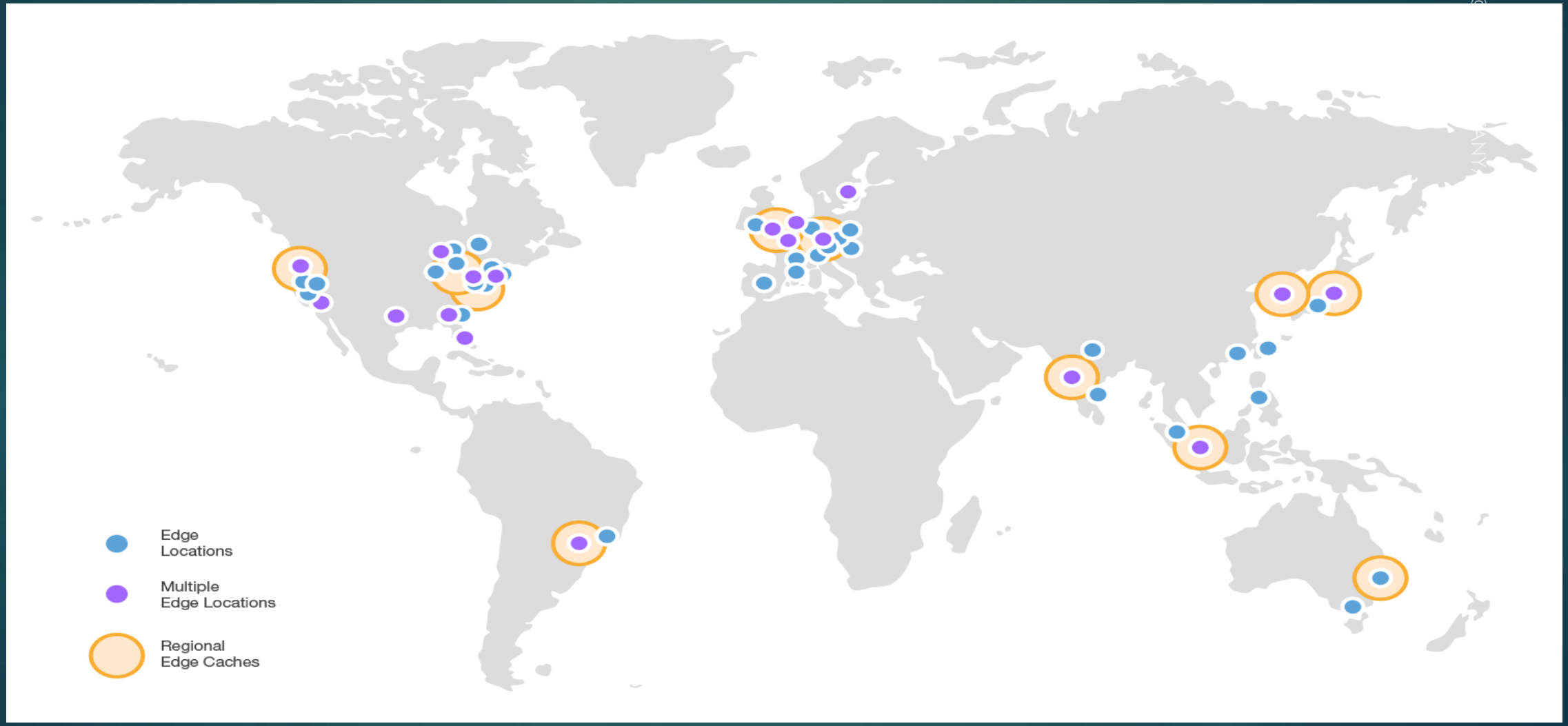
AZURE: Availability Zone

- High Availability Through Multiple Availability Zones.
- In each region there will be at least two availability zones for fault tolerance.
- An AZ is a combination of one or more data centers in a given region.
- It is a logical grouping of data centers in a given region for service high availability.
- A datacenter is a location where actual physical data resides.
- A single or couple of data centers are clubbed in to one AZ.

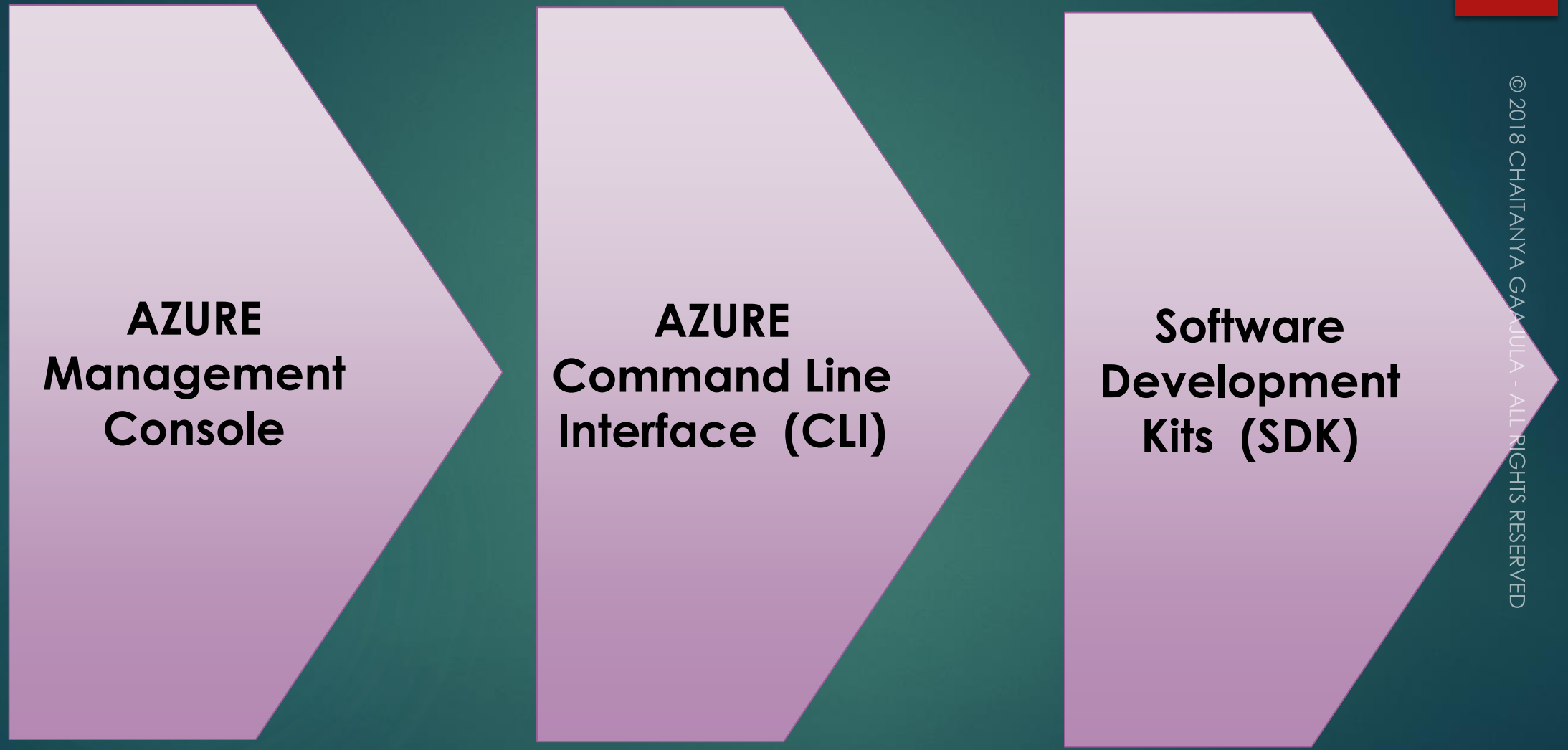


AZURE: Edge Locations

The AZURE have global network of 98 Edge locations (87 Points of Presence and 11 Regional Edge Caches) in 50 cities across 23 countries.



AZURE: How to access the Services



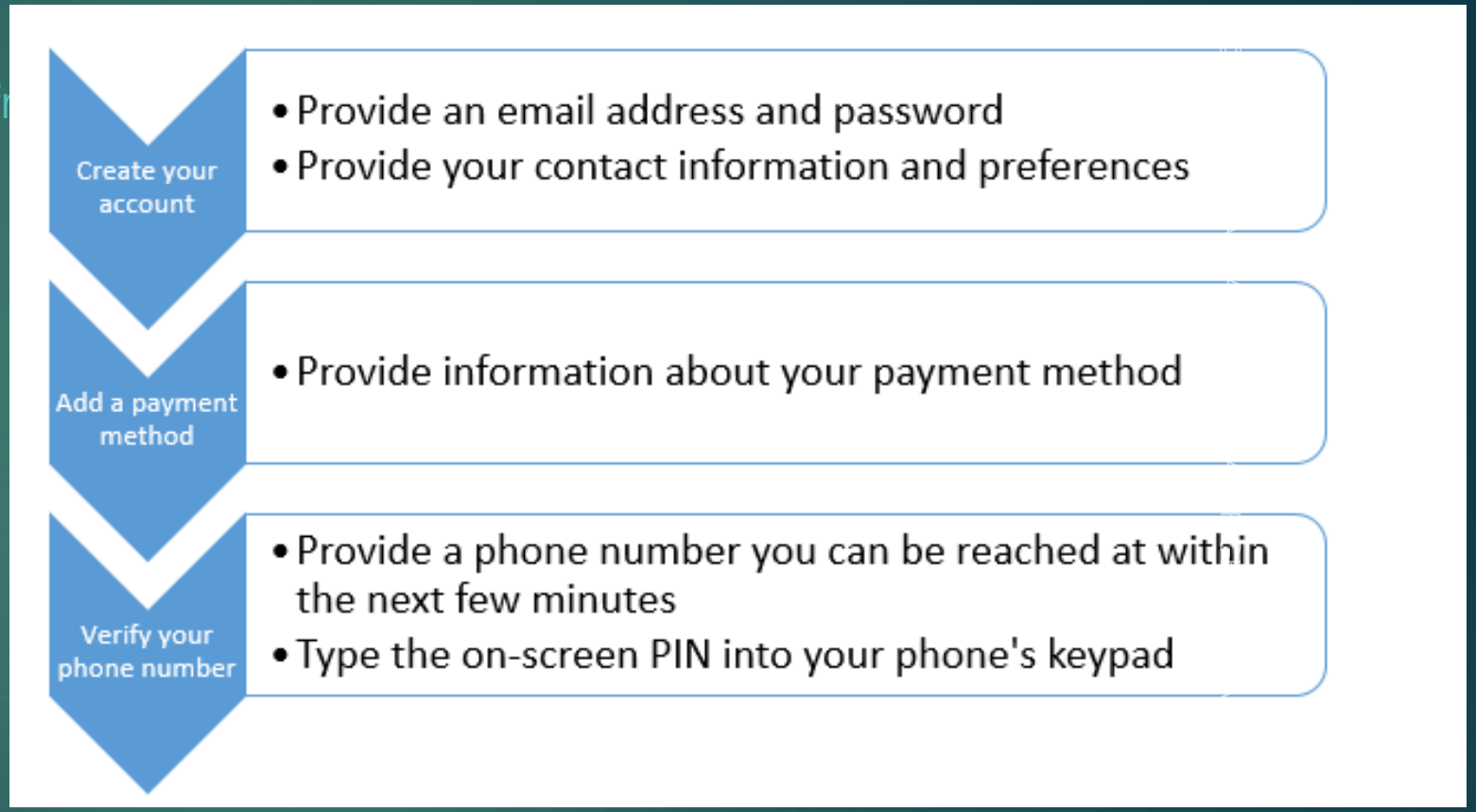
Hands-On Lab

Hands-on Lab: Sign-up AZURE Account

- Create and activate a new Amazon Web Services account
  - https://Azure.amazon.com/free/
  - Payment method:
    - Credit or Debit Card
  - Support plan:
    - Basic

- Accounts are usually activated within a few minutes, but account activation can take up to 24 hours.

- When your account is fully activated, you'll receive confirmation email. After you receive this email, you should have full access to all AZURE services.



Thank You