BRAIN STATION 23

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- AWS Developer
- AWS Solution Architect
- AWS SysOps Administrator
- MS Azure Infrastructure Architect
- CEH

Brain Station 23

- Consultancy & Migration Support

- Managed Service

- Billing Support in Local Currency

- Software Development Support for Cloud Adaptation

Few Clients

Local

International

AWS Services

Compute

Amazon Elastic Compute Cloud (Amazon EC2)

Amazon EC2 | Instance | Instances | AMI | DB on Instance | Instance with CloudWatch | Elastic IP

Amazon Elastic MapReduce

Amazon Elastic MapReduce | Cluster | HDFS Cluster

Auto Scaling

Auto Scaling

Storage

Amazon Simple Storage Service (Amazon S3)

Amazon S3 | Bucket | Bucket with Objects | Object

Amazon Elastic Block Storage (Amazon EBS)

Amazon Elastic Block Storage (EBS) | Volume | Snapshot

AWS Import/Export

AWS Import/Export

AWS Storage Gateway Service

AWS Storage Gateway Service

AWS Glacier

Amazon Glacier

Database

Amazon DynamoDB

DynamoDB | Table | Item | Items | Attribute | Attributes
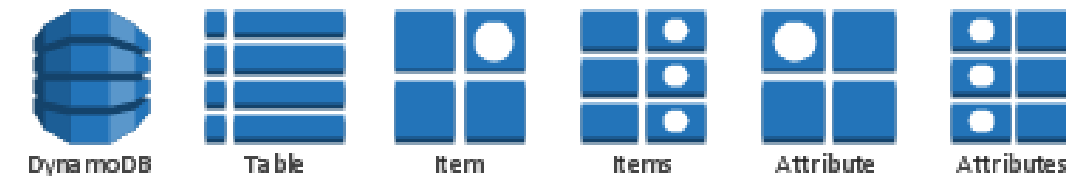
Amazon Relational Database Service (Amazon RDS)

Amazon RDS | RDS DB Instance | RDS DB Instance Standby (Multi-AZ) | RDS DB Instance Read Replica | MySQL DB Instance | Oracle DB Instance

Amazon ElastiCache

Amazon ElastiCache | ElastiCache Cache Node

Networking

Amazon Route 53

Amazon Route 53 | Hosted Zone | Route Table

Amazon Elastic Load Balancing

Elastic Load Balancer

AWS Direct Connect

AWS Direct Connect

Amazon Virtual Private Cloud (VPC)

Amazon VPC | Router | Internet Gateway | Customer Gateway | VPN Gateway | VPN Connection
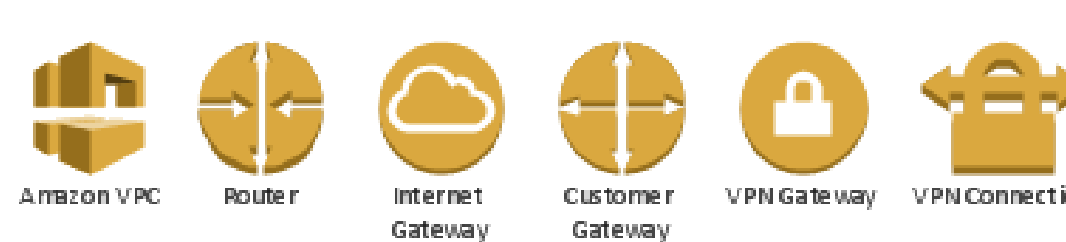
Content Delivery

Amazon Cloudfront

Amazon Cloudfront | Download Distribution | Streaming Distribution | Edge Location

Elastic Network Instance

Elastic Network Instance

Application Services

Amazon Simple Queue Service (SQS)

Amazon SQS | Queue | Message

Amazon Cloudsearch
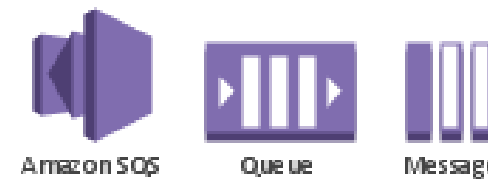
Amazon CloudSearch

Amazon Simple Email Service (SES)

Amazon SES | Email

Amazon Simple Workflow (SWF)

Amazon SWF | Decider | Worker
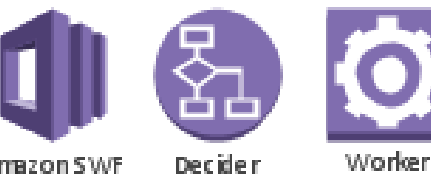
Amazon Simple Notification Service (SNS)

Amazon SNS | Email Notification | HTTP Notification | Topic
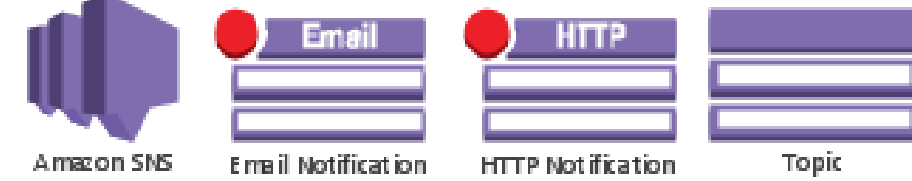
Deployment and Management

Amazon Elastic Beanstalk

Amazon Application Elastic Beanstalk

AWS Identity and Access Management (IAM)

AWS IAM | IAM Add-on

AWS CloudFormation

AWS CloudFormation | Template | Stack
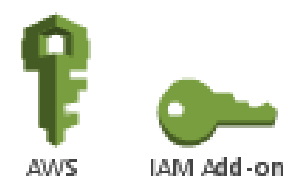
Monitoring

Amazon CloudWatch

Alarm | Amazon CloudWatch

Non-Service Specific

AWS Cloud | AWS Management Console | User | Users | Internet | Client | Mobile Client | Multimedia | Traditional Server | Corporate Data Center

Groups

Auto scaling Group | Availability Zone | Region | Security Group | Elastic Beanstalk Container | EC2 Instance Contents | VPC Subnet | Server Contents | Virtual Private Cloud | AWS Cloud | Corporate Data Center
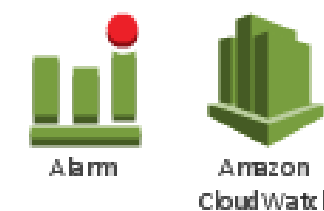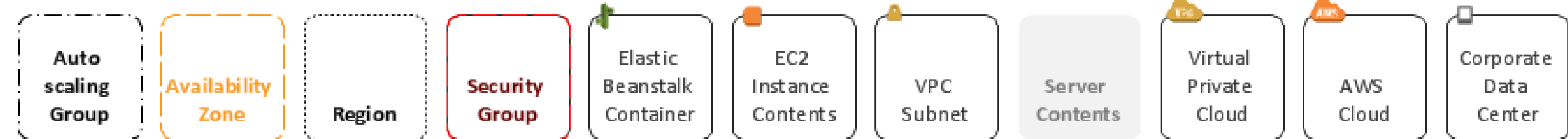
Virtual Private Cloud(VPC)
&
Identity Access Management(IAM)
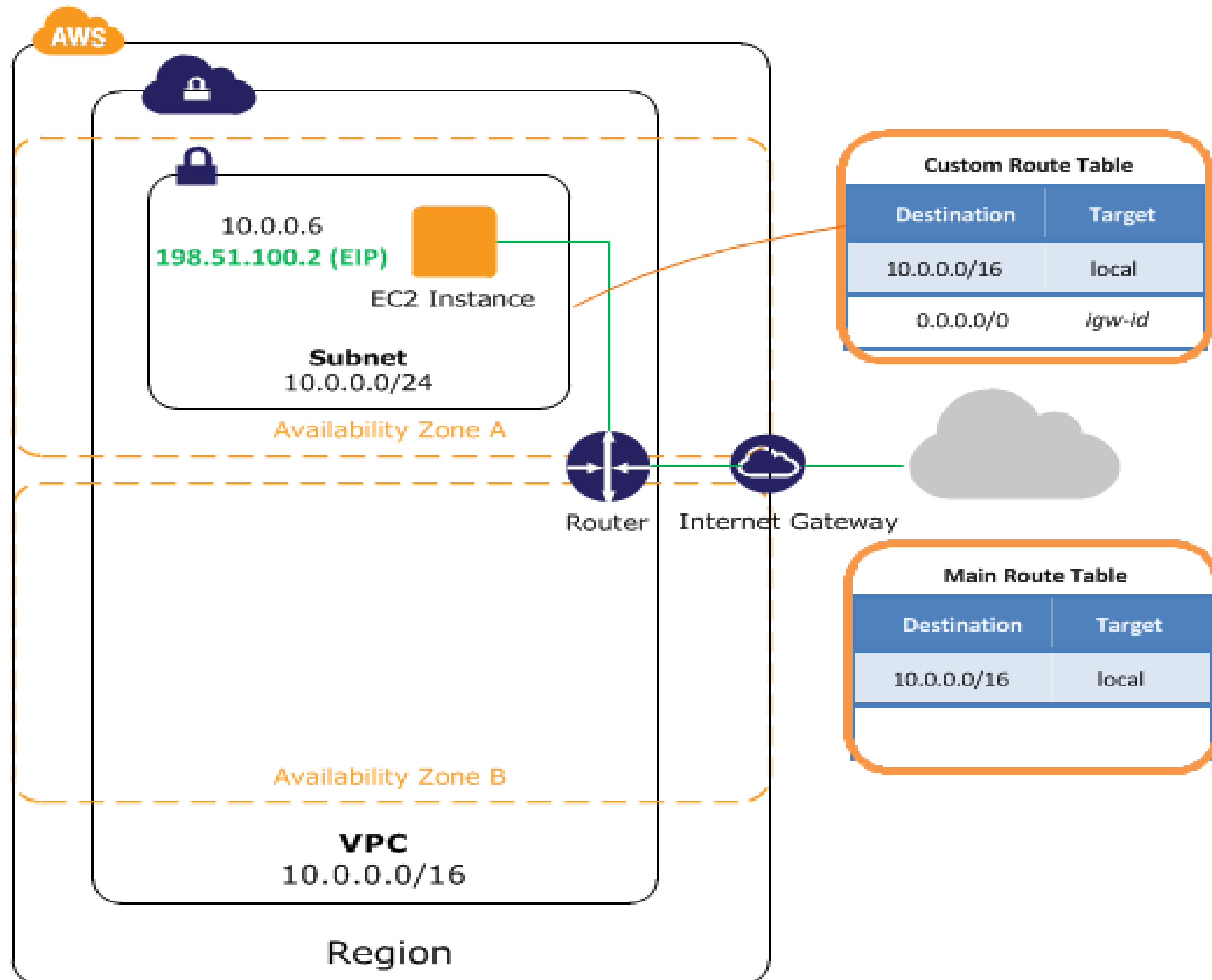
VPC (Virtual Private Cloud)

Your own private slice of the "**cloud**"

Amazon Virtual Private Cloud (VPC)

○ A VPC is a virtual private network for AWS.

○ Logically isolated from other virtual networks

○ Launch AWS resources, such as Amazon EC2 instances, into your VPC.

○ Configure VPC, setting IP address range, security settings, etc.

High-level Network Topology

- Region
  - Availability Zone
    - Data Center
      - Subnet

Virtual Private Cloud (VPC)

- Networks
- Subnets
- Route Tables
- Internet Gateways
- Network ACLs
- Security Groups
- Enhanced Firewall (Security Groups)

VPC

Comparing Security Groups & ACLs

Security Group	Items	Network ACL
Instance Level	Operates	Subnet Level
Rules Only	Support Allows	Rules & Deny Rules
Stateful: Allow return traffic regardless of rules	State full or less	Stateless: Allows return traffic with explicit rules
Applies to an instance only if someone specifies the security group when launching the instance or associates the security group with the instance later on	Launching Process	Automatically applies to all instances in the subnets it's associated with.

Screen of AWS VPC
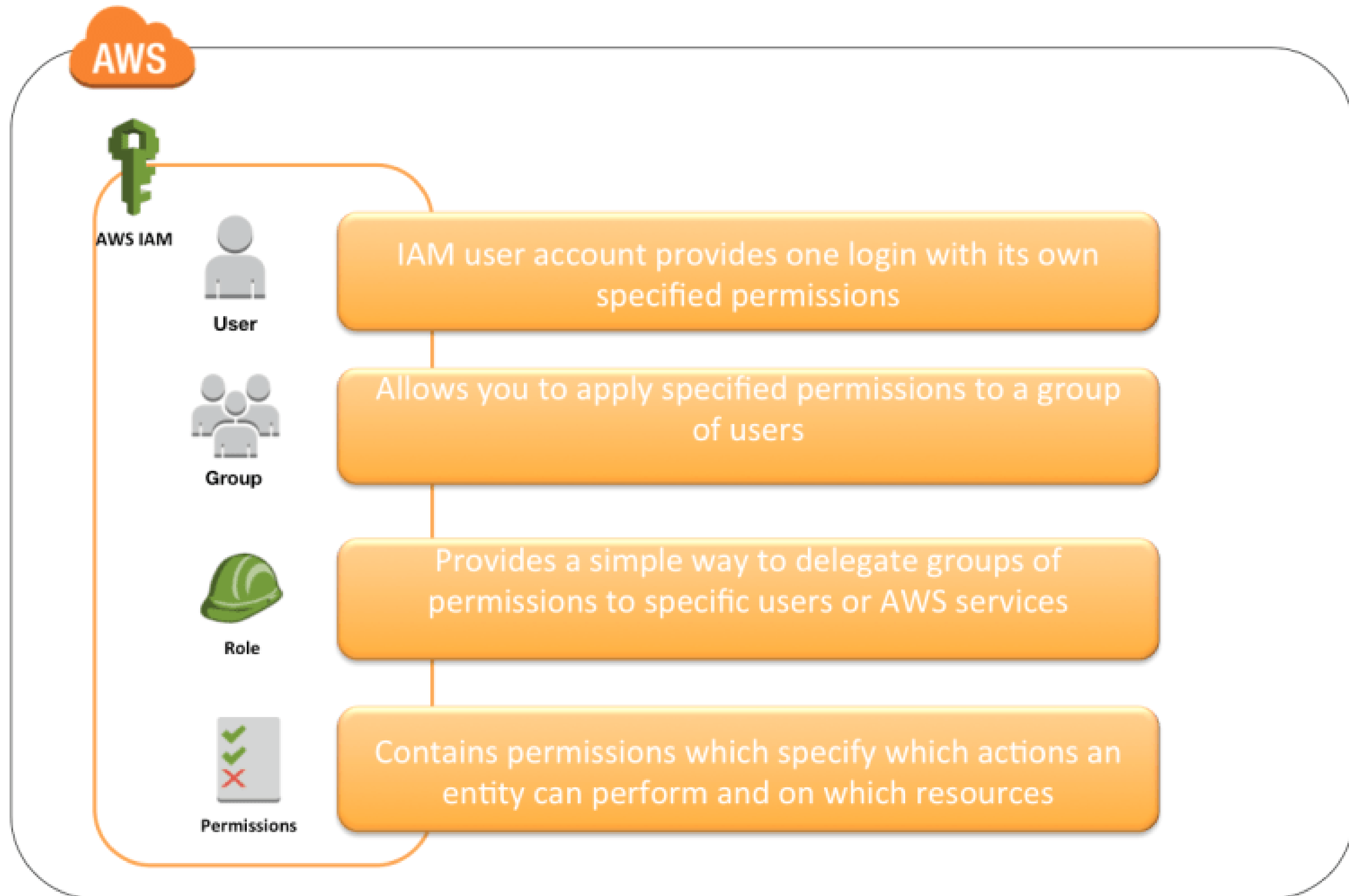
AWS IAM (Identity Access Management)

IAM (Identity Access management) In Action!

- Securely control access to AWS services and resources for the users.

- Create and manage AWS users and groups, and use permissions to allow and deny their access to AWS resources.

AWS IAM Identities

AWS

AWS IAM

User

IAM user account provides one login with its own specified permissions

Group

Allows you to apply specified permissions to a group of users

Role

Provides a simple way to delegate groups of permissions to specific users or AWS services

Permissions

Contains permissions which specify which actions an entity can perform and on which resources

IAM Users Access

Best Practices

- ✓**Minimize the use of the root account**
- ✓Create Individual users with least privileges. Use MFA
- ✓Use AWS Defined policies
- ✓Use groups
- ✓Use access levels to review IAM permissions
- ✓Use roles for applications that run on EC2 instances
- ✓Rotate credentials

Screen of IAM

Future is Cloud

Amazon Web Services (AWS) is the

CONNECTING DOT

Thank you all!

https://www.facebook.com/groups/AWSBangladesh/