**(AWS CAF) ----» Cloud Adoption Framework**

the AWS CAF organizes guidance into six areas of focus, called Perspectives. Each Perspective addresses distinct responsibilities.

Six Core Perspectives of the CAF:

» The **Business**, **People**, and **Governance** Perspectives focus on business capabilities.

» The **Platform**, **Security**, and **Operations** Perspectives focus on technical capabilities.

**Migration Strategies:**

**Rehosting = Lift & Shift (**Mainly used to moving applications without changes**)**

**Replatforming = Lift tinker & shift (**It involves making a few cloud optimizations to realize a tangible benefits**)**

**Refactoring = Also known as Re-Architecting (**Involves re-imagining that how an app is architected & developed by using cloud-native features**)**

**Repurchasing =** It is more like moving from a traditional license to a **SaaS(Software-as-a- Service)** Model

**Retaining =** It is nothing but keeping apps that are critical for the business in the source environment.

**Retiring =** It is the process of removing apps that are no longer needed.

**AWS Snow Family members**

The AWS Snow Family is a collection of physical devices that help to physically transport up to exabytes of data into and out of AWS.

»AWS Snow Family is composed of AWS Snowcone, AWS Snowball, and AWS Snowmobile.

**AWS Snowcone** is a small, rugged, and secure edge computing and data transfer device.

**» It features**

* 2 CPUs
* 4GB Memory
* 8TB of Storage

**AWS Snowball** offers two types of devices:

* **Snowball Edge Storage Optimized**devices are well suited for large-scale data migrations and recurring transfer workflows, in addition to local computing with higher capacity needs.

**»** Storage: 80 TB of hard disk drive (HDD) capacity for block volumes and Amazon S3 compatible object storage, and 1 TB of SATA solid state drive (SSD) for block volumes. 

**»** Compute: 40 vCPUs, and 80 GiB of memory to support Amazon EC2 sbe1 instances.

* **Snowball Edge Compute Optimized**provides powerful computing resources for use cases such as machine learning, full motion video analysis, analytics, and local computing stacks.

**»**Storage: 42-TB usable HDD capacity for Amazon S3 compatible object storage or Amazon EBS compatible block volumes and 7.68 TB of usable NVMe SSD capacity for Amazon EBS compatible block volumes.

**»**Compute: 52 vCPUs, 208 GiB of memory, and an optional NVIDIA Tesla V100 GPU. Devices run Amazon EC2 sbe-c and sbe-g instances, which are equivalent to C5, M5a, G3, and P3 instances.

* **AWS Snowmobile** is an exabyte-scale data transfer service used to move large amounts of data to AWS.

You can transfer up to 100 petabytes of data per Snowmobile, a 45-foot-long ruggedized shipping container, pulled by a semi-trailer truck.

**Innovate with AWS Services:**

To do Innovations in cloud you should clearly be aware of the following conditions

»Current state

»Desired state

» The problems you are trying to solve

* Serverless Applications:

 »**Serverless** applications don’t require you to provision, maintain, or administer servers. You don’t need to worry about fault tolerance or availability. AWS handles these capabilities for you.

»**AWS Lambda** is an example of a service that you can use to run serverless applications. If you design your architecture to trigger Lambda functions to run your code, you can bypass the need to manage a fleet of servers.

* **Artificial intelligence**

»AWS offers a variety of services powered by **artificial intelligence (AI)**.

For example, you can perform the following tasks:

» Convert speech to text with Amazon Transcribe.

»Discover patterns in text with Amazon Comprehend.

»Identify potentially fraudulent online activities with Amazon Fraud Detector.

»Build voice and text chatbots with Amazon Lex.

* **Machine learning**

»Traditional **machine learning (ML)** development is complex, expensive, time consuming, and error prone.

»AWS offers Amazon SageMaker to remove the difficult work from the process and empower you to build, train, and deploy ML models quickly.

» You can use ML to analyze data, solve complex problems, and predict outcomes before they happen.