AWS Foundation

Monitoring – CloudWatch Part I

Agenda

1	Pre-CloudWatch

2	Monitoring

3	Architecture

4	Metrics & Namespaces

5	Dimensions & Statistics

5	Resource Metrics

Pre-CloudWatch

Monitoring

- What is the need of monitoring?
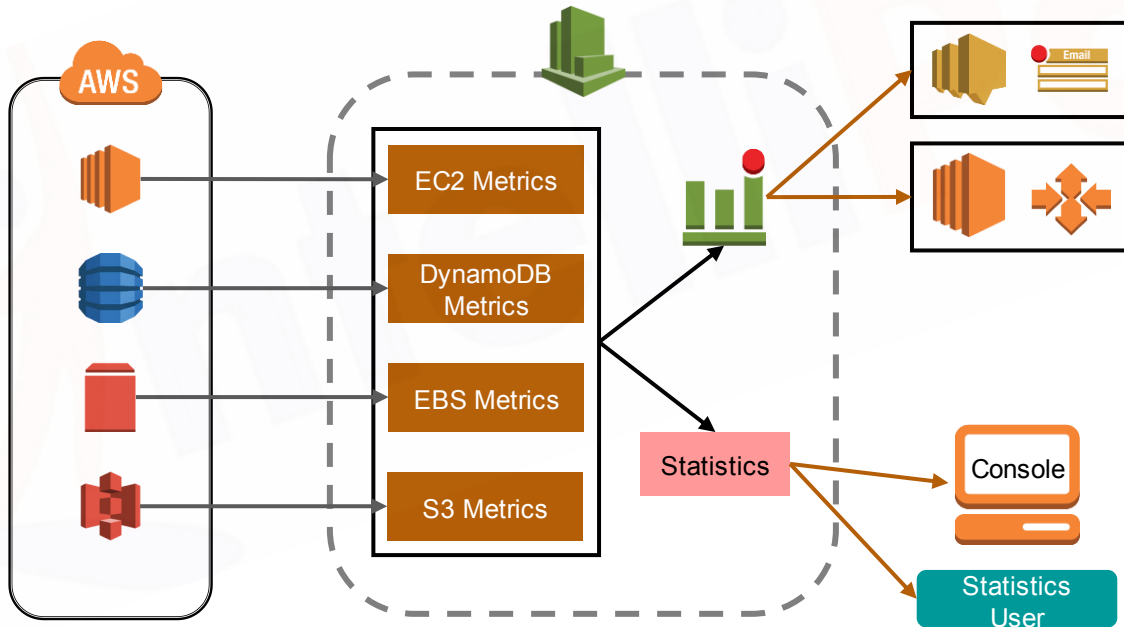
CW Concepts

CloudWatch Monitoring

- Monitors all AWS resources provisioned and deployed. Gives system wide visibility into resource utilization.

- Sends notifications if anything goes wrong.

- Following services are used in conjunction with CloudWatch

- SNS

- AS

- CloudTrail

CW Concepts

Architecture

EC2 Metrics

DynamoDB Metrics

EBS Metrics

S3 Metrics

Statistics

Console

Statistics User
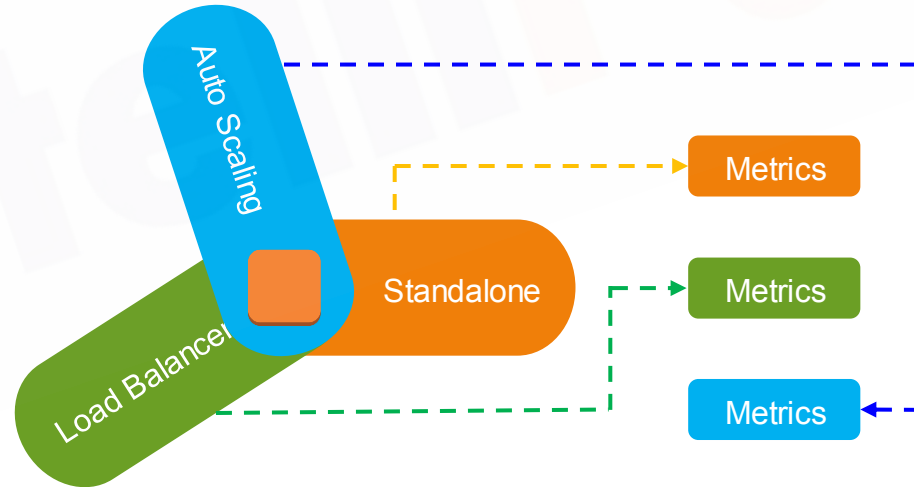
CW Concepts

Metrics & Namespaces

- Metrics are fundamental to CloudWatch monitoring.
- Individual data points which are monitored, all actions are based on metrics. e.g. CPU Utilization percentage.
- All AWS services send metrics to CloudWatch by default.
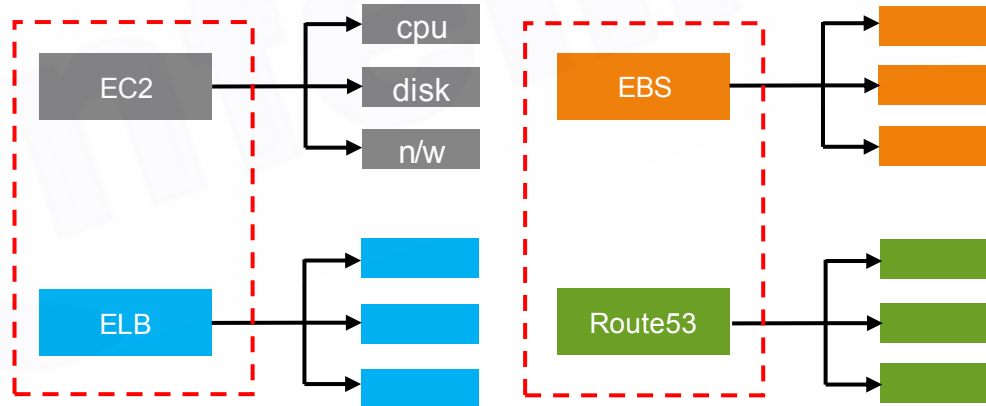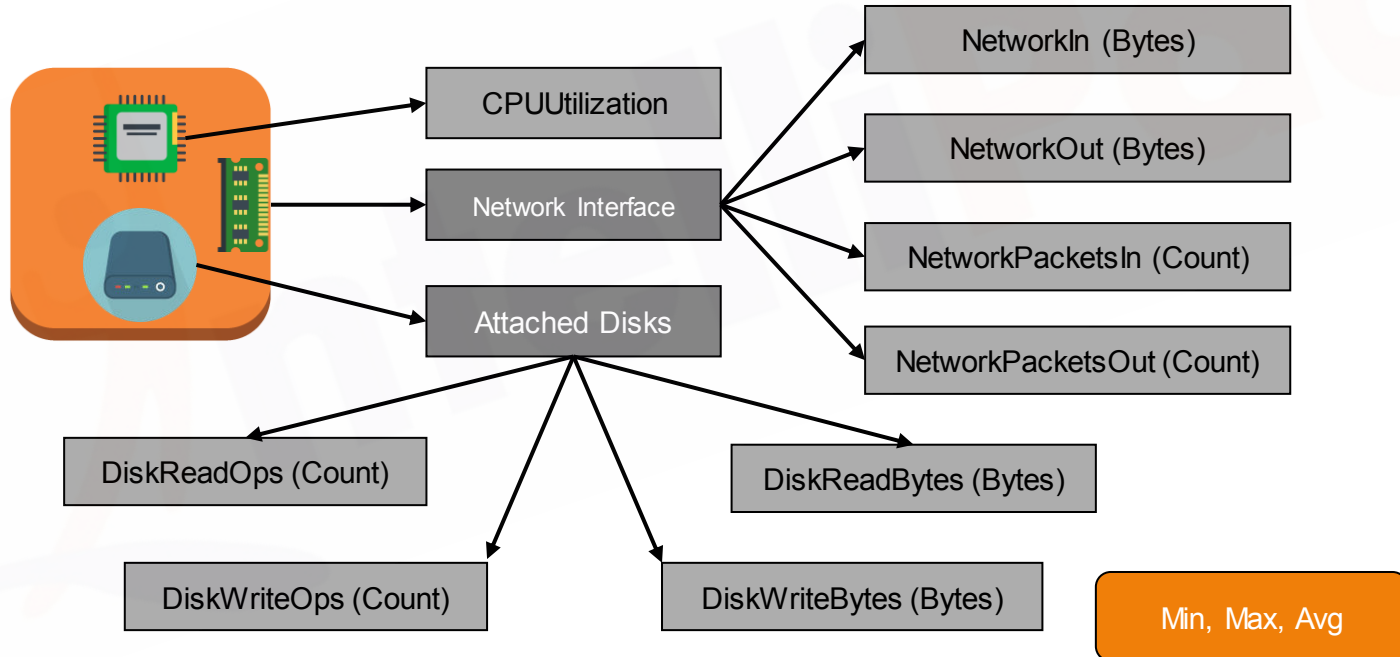
CW Concepts

Dimensions & Statistics

- Dimensions
- Statistics: Data aggregations over a period of time.

CW Concepts

Resource Metrics – EC2
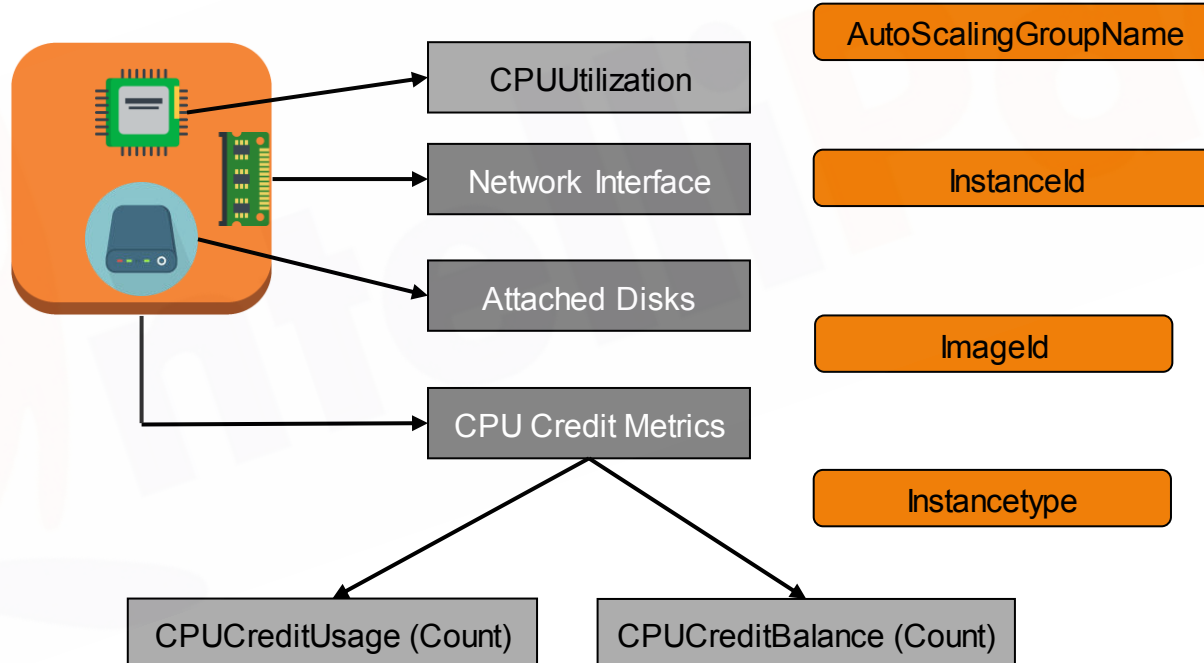
CPUUtilization
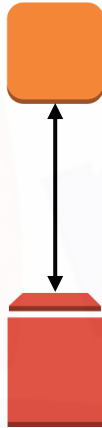
Network Interface

Attached Disks

NetworkIn (Bytes)

NetworkOut (Bytes)

NetworkPacketsIn (Count)

NetworkPacketsOut (Count)

DiskReadOps (Count)

DiskReadBytes (Bytes)

DiskWriteOps (Count)

DiskWriteBytes (Bytes)

Min, Max, Avg

CW Concepts

CW Concepts

Resource Metrics – EBS

Metrics	Unit	Statistics
VolumeReadBytes	Bytes	Sum, Avg, Count
VolumeWriteBytes	Bytes	Sum, Avg, Count
VolumeReadOps	Count	
VolumeWriteOps	Count	
VolumeTotalReadTime	Seconds	
VolumeTotalWriteTime	Seconds	
VolumeIdleTime	Seconds	
VolumeQueueLength	Count	
VolumeThroughputPercentage	Percent	
VolumeConsumedReadWriteOps	Count	
BurstBalance	Percent	

CW Concepts

Resource Metrics – S3

BytesUploaded

BytesDownloaded

Min, Max, Avg, Count, Sum

Sum

GetRequests (Count)

PutRequests (Count)

DeleteRequests (Count)

HeadRequests (Count)

PostRequests (Count)

ListRequests (Count)

Avg

NumberOfObjects (Count)

BucketSizeBytes (Bytes)

BucketName

StorageType

FilterId

CW Concepts

Resource Metrics – DynamoDB

BytesUploaded

Min, Max, Avg, Count, Sum

BytesDownloaded

Sum

BucketName

GetRequests (Count)

PutRequests (Count)

Avg

StorageType

DeleteRequests (Count)

HeadRequests (Count)

NumberOfObjects (Count)

BucketSizeBytes (Bytes)

PostRequests (Count)

ListRequests (Count)

FilterId

CW Concepts

Resource Metrics – DynamoDB

| GlobalSecondaryIndexName | StreamLabel | TableName |

PutItem
DeleteItem
UpdateItem
GetItem
BatchGetItem
Scan
Query
BatchWriteItem

Table   Item   Attributes

Min, Max, Avg, Count, Sum

GSI/LSI

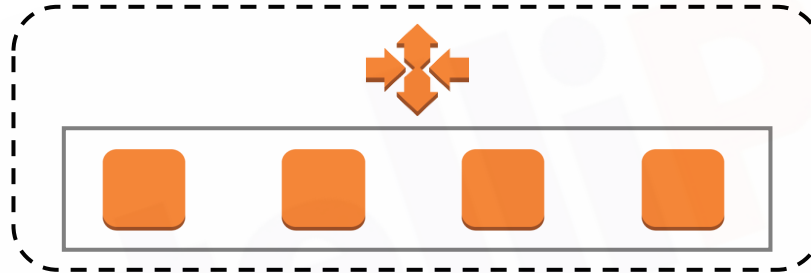| ConsumedReadCapacityUnits | ProvisionedReadCapacityUnits |
ConsumedWriteCapacityUnits	ProvisionedWriteCapacityUnits
OnlineIndexConsumedWriteCapacity	ReadThrottleEvents
OnlineIndexPercentageProgress	WriteThrottleEvents
OnlineIndexThrottleEvents	ThrottledRequests

CW Concepts

Resource Metrics – AS

GroupMinSize	GroupMaxSize	GroupDesiredCapacity
GroupInServiceInstances	GroupPendingInstances	GroupStandbyInstances
GroupTerminatingInstances	GroupTotalInstances	

India : +91-7847955955

US : 1-800-216-8930 (TOLL FREE)

sales@intellipaat.com

24X7 Chat with our Course Advisor