

CloudWatch

- CloudWatch provides metrics for every service in AWS
- Metric is a Variable to monitor (CPU Utilization, Network IN...)
- Metrics have timestamps
- Can create CloudWatch Dashboards of Metrics

Important Metrics:

- **EC2 instances**: CPU Utilization, Status Checks, Network in/out instance (not RAM)
- **Default Metrics every 5 minutes**
- Option for Detailed Monitoring (\$\$\$): metrics every 1 Minute
- **EBS Volumes**: Disk Read /Writes
- **S3 Buckets**: BucketSizeBytes, NumberOfObjects, AllRequests
- **Billing**: Total Estimated charge (only in US-east-1)

Note: Before you can create a billing alarm, you must **enable billing alerts** in your account, or in the **master/payer account** if you are using consolidated billing. For more information, see [Enabling Billing Alerts](#).

- **Service limits**: How much you have been using a services API
- **Custom metrics**: Push your own Metrics

Amazon CloudWatch Alarm

- Alarm are **used to Trigger Notification** for **any Metrics**
- Alarm Actions:
 - **Auto Scaling**: increased or Decrease EC2 instances "Desired" Count
 - **EC2 Actions**: Stop, Terminate, Reboot, or Recover and EC2 instance
 - **SNS notifications**: Send a notification into an SNS topic (for ex. EC2 used above 90 % then send Mail)
 - Various options (Sampling, %, Max, Min, etc...)

- Can Choose the period on which to Evaluate an alarm
- Example: Create a billing alarm on the CloudWatch Billing Metric
- Alarm States: Ok, Insufficient_DATA, ALARM

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