

# CloudWatch Logs and Trails

- By default, **no logs** from your EC2 instance will go to CloudWatch
- You **need to run** a **CloudWatch agent** on EC2 to Push the log files you want

## CloudWatch Event

### Amazon CloudWatch Events



- Schedule: Cron jobs (scheduled scripts)



- Event Pattern: Event rules to react to a service doing something



- Trigger Lambda functions, send SQS/SNS messages...

## Amazon EventBridge

### Amazon EventBridge



- EventBridge is the next evolution of CloudWatch Events
- Default event bus: generated by AWS services (CloudWatch Events)
- Partner event bus: receive events from **SaaS service** or **applications** (Zendesk, DataDog, Segment, Auth0...)
- Custom Event buses: for your own applications
- Schema Registry: model event schema
- EventBridge has a different name to mark the new capabilities
- The **CloudWatch Events** name will be replaced with **EventBridge**

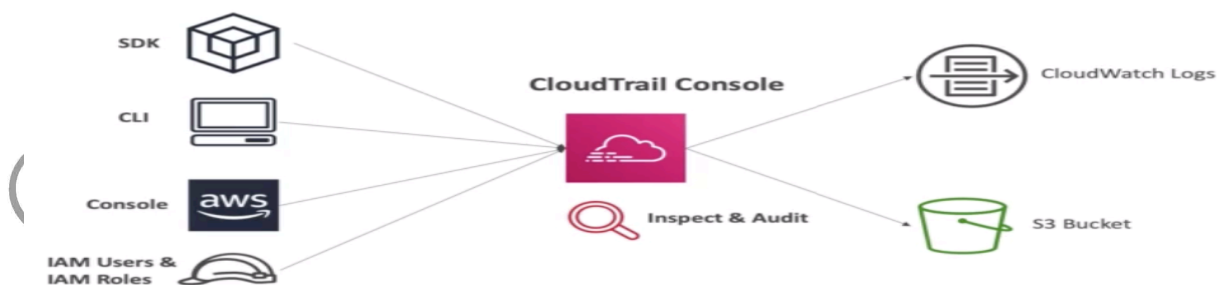
# CloudWatch Trails

## AWS CloudTrail



- Provides governance, compliance and audit for your AWS Account
- CloudTrail is enabled by default!
- Get an history of events / API calls made within your AWS Account by:
  - Console
  - SDK
  - CLI
  - AWS Services
- Can put logs from CloudTrail into CloudWatch Logs or S3
- A trail can be applied to All Regions (default) or a single Region.
- If a resource is deleted in AWS, investigate CloudTrail first!

## CloudTrail Diagram



## AWS X-Ray

helps developers analyze and debug production, distributed applications, such as those built using a microservices architecture. With X-Ray, you can understand how your application and its underlying services are performing to identify and troubleshoot the root cause of performance issues and errors.

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