Amazon EventBridge

**Service Overview**  
  
*Amazon EventBridge is a serverless event bus service that makes it easy to connect your applications with data from a variety of sources. EventBridge delivers a stream of real-time data from your own applications, Software-as-a-Service (SaaS) applications, and AWS services and routes that data to targets such as AWS services like AWS Lambda or Kinesis, to an HTTP invocation endpoint using an API destination, or to the event bus in another account. To define how events are processed, you set up rules in EventBridge to define a filter pattern to match incoming events. When EventBridge receives an event with an event pattern that matches the event pattern you defined in a rule, the event is sent to the target or targets you define for the rule.  
  
EventBridge was formerly called Amazon CloudWatch Events. The default event bus and any rules you created in CloudWatch Events are also displayed in the EventBridge console. EventBridge uses the same CloudWatch Events API, so all of your existing CloudWatch Events API usage remains the same. New features added to EventBridge are not added to CloudWatch Events.*  
  
**Use cases / Considerations**

*Amazon EventBridge provides several features:*

### *API Destinations*

*API Destinations is a new feature for EventBridge that enables developers to send events back to many on-prem or SaaS applications with the ability to control throughput and authentication. Customers can send events to any web-based application with a web address without worrying about writing custom code, or using additional infrastructure.*

1. *Archive and Replay Events(Allows to reprocess events)*
2. *Schema Registry*
3. *Over 100 built-in event sources and targets( AWS Lambda, Amazon SQS, Amazon SNS, AWS Step Functions, Amazon Kinesis Data Streams, Amazon Kinesis Data Firehose, and more)*
4. *Event filtering*
5. *Decoupled event publishers and subscribers*
6. *Reliable event delivery*
7. *Automatic response to operational changes in AWS Services*
8. *Scheduled events*
9. *Monitoring and auditing events*

**Governance**  
*EventBridge sends metrics to Amazon CloudWatch every minute.  
The AWS/Events namespace includes the following metrics:  
• DeadLetterInvocations  
• FailedInvocations  
• Invocations  
• InvocationsFailedToBeSentToDlq  
• InvocationsSentToDlq  
• ThrottledRules  
• TriggeredRules  
• MatchedEvents*  
  
<https://docs.aws.amazon.com/eventbridge/latest/userguide/eb-monitoring.html>  
  
**Cautions**  
*Amazon EventBridge has the following limitations:*

* *Event Publishing API requests: depends on a region(2500 r/s – 10000 r/s)*
* *Event buses: up to 100 per account*
* *Invocations: depends on a region*
* *Connections: 3.000*
* *API destinations: 3.000*
* *Rules: 300 per event bus*
* *Targets: up to 5 targets per rule*

**Pricing considerations**  
*All prices are provided for US East 1(Ohio) region.*

*Event Buses:*

* *AWS service events: Free*
* *Custom events: $1.00/million custom events published*
* *Third-party (SaaS) events: $1.00/million events published*
* *Cross-account events: $1.00/million cross-account events sent*

## *API Destinations:*

* *Invocations: $0.20 per million*

*Event Replay:*

*Customers will be able to specify event patterns to determine which events they want to archive for replay. Customers are charged at:*

* *Archive Processing: $0.10 per GB*
* *Storage / Month: $0.023 per GB*

**More details**

*EventBridge pricing*  
[*https://aws.amazon.com/eventbridge/pricing/*](https://aws.amazon.com/eventbridge/pricing/)

*Monitoring EventBridge*

<https://docs.aws.amazon.com/eventbridge/latest/userguide/eb-monitoring.html>

*Getting started with EventBridge*

https://docs.aws.amazon.com/eventbridge/latest/userguide/eb-get-started.html

*Events sources*

[*https://docs.aws.amazon.com/eventbridge/latest/userguide/eb-service-event.html*](https://docs.aws.amazon.com/eventbridge/latest/userguide/eb-service-event.html)

*EventBridge tutorials*

[*https://docs.aws.amazon.com/eventbridge/latest/userguide/eb-tutorial.html*](https://docs.aws.amazon.com/eventbridge/latest/userguide/eb-tutorial.html)