

Oracle Cloud Infrastructure Events Service FAQs

(Updated July 31st, 2019)

- [General](#)
- [Features and Functionality](#)
- [Security](#)
- [Operations & Troubleshooting](#)

General

What is Oracle Cloud Infrastructure Events Service?

Events Service is a fully managed service that enables tracking changes across your Oracle Cloud Infrastructure resources, and respond to them using [Oracle Functions](#), [Notifications](#) and [Streaming](#) services.

What can I do with this service?

The Events Service can be used in any scenario where you need to respond to resource changes in near real time. For example -

- Developers can leverage Events Service integration with [Oracle Functions](#) for fast event-driven serverless application development.
- IT Operations can use Events Service with [Notification](#) Service to receive email or PagerDuty notifications for mission critical operations.
- Security Operations can use Events Services with [Streaming](#) to route events to Security Incident Management (SIM) systems for further analysis.
- Events Service is compatible with the [Cloud Native Computing Foundation \(CNCF\)](#) CloudEvents format to build applications across providers who support this common format e.g. Microsoft Azure.

What are Oracle Functions?

Oracle Functions is a functions-as-a-service offering on Oracle Cloud Infrastructure built on the open source [Fn Project](#). It is a fully managed, multi-tenant, secure cloud service that makes it easy to build cloud native applications by letting developers focus on writing code and not on managing infrastructure. More details about the Oracle Functions are available [here](#).

What is the Oracle Cloud Infrastructure Notifications service?

Oracle Cloud Infrastructure Notifications is a fully managed publish-subscribe service that pushes messages to a number of subscription endpoints at scale. Notifications supports email delivery

and HTTPS (PagerDuty) delivery as well as integrated support with Oracle Cloud Infrastructure Monitoring. More details about the Notifications Service are available [here](#).

What is Oracle Cloud Infrastructure Streaming (OSS)?

The Oracle Cloud Infrastructure Streaming service provides a fully managed, scalable, and durable storage option for continuous, high-volume streams of data that you can consume and process in near real-time. More details about the Streaming Service are available [here](#).

Which Oracle Cloud Infrastructure Services publish events to the Events Service?

At launch, [Object Storage](#) and [Database Service](#) are publishing events to the Events Service. You can see at all times the complete set of services and events supported by the Events Service [here](#).

What is the pricing for the Events Service?

Events Service is free. You only pay for the services that you consume that publish events to the Events Service or that receive events from the Events Service e.g. [Functions](#), [Notifications](#) and [Streaming](#).

How do I get started with the Events Service?

You can access Events Service using the console (Events Service is under Application Integration), REST API, CLI or Terraform. Please refer to this [quick start guide](#) for using the Events Service. All technical documentation for the Events Service is available [here](#).

Key Concepts

What is an event?

An event is a structured and schematized message that denotes a change in a resource. An event could be a CRUD operation e.g. bucket created, a resource life cycle state change e.g. compute instance stopped, or a system event e.g. hardware reboot.

What is an action?

An action is a user-defined response to when an event occurs. For example, triggering a Function, sending a PagerDuty alert, writing to a stream.

What is a rule?

A rule is an object where a user defines which events they want to filter, and which actions to trigger if the rule is matched.

What kinds of actions are supported?

The Events Service supports triggering [Oracle Functions](#), sending email notifications and PagerDuty alerts via the [Notifications](#) Service, and publishing to streams via the [Streaming](#) Service.

What data is available in an event?

Each event contains two parts:

- The event envelope containing common attributes for all events e.g. event source (Database Service), event time, type of event (e.g. Autonomous Database Backup Complete), etc.
- The event payload containing service specific attributes that describe the event.

Please refer to [this technical documentation](#) for more details about the events schema.

Features and Functionality

What features does the Events Service support?

- Deep integration to deliver platform events from other Oracle Cloud Infrastructure services.
- Enables responding to events in near real time with [Oracle Functions](#), [Notifications](#) and [Streaming](#).
- Implements Cloud Native Computing Foundation (CNCF) open standard for application development across compatible cloud providers.
- Security support for Identity and Access Management

What are the available API operations for Events Service, and where can I find documentation?

Events Service supports the following API operations. More documentation is located [here](#).

Operation	Description
CreateRule	Creates a new rule
updateRule	Updates a rule
deleteRule	Deletes a rule
getRule	Retrieves a rule
listRules	Lists rules in the compartment

ChangeRuleCompartment	Moves a rule into a different compartment in the same tenancy
-----------------------	---

What metrics can I use to monitor Events Service?

You can use the metrics listed in the table below for monitoring your rules. These metrics are automatically available for the rules you create.

Metric Name	Description
PublishedEvents Count	Count of events received from resources that emit events
MatchedEvents Count	Count of events matched by this rule.
DeliverySucceedEvents Count	Count of successful deliveries by this rule.
DeliveryFailedEvents Count	Count of failed deliveries by this rule.

More documentation for the above is located [here](#).

How many times does an action receive an event?

An action should receive an event at least once, and not necessarily in the exact order in which the event is published. However, there is a possibility that an action can receive duplicate events if it doesn't acknowledge receipt of the event. It is recommended that the receiver be idempotent and handle duplicate deliveries.

Can I publish the same event to multiple actions through a single rule?

Yes, rules can be configured to deliver events to multiple actions simultaneously. For example, a rule can deliver an event to Oracle Function, [Notifications](#) and [Streaming](#) simultaneously.

What are the service limits for the Events Service?

The Events Service supports a maximum of 50 rules per compartment or 50 rules for the entire tenancy for all users. For additional rules please [contact us](#) to increase these limits.

Security

Who can create rules in my tenancy?

By default, tenant admins have permissions to create Rules. Users who are not tenant admins must get permissions to get access to create rules. Please refer to [Events and IAM Policies](#) for instructions on getting access to create rules.

Operations & Troubleshooting

How long does the Events Service try to deliver an event in case of an action endpoint failure?

Events Service retries delivery for up to 2 hours from the time the event is published when an action endpoint doesn't acknowledge receipt of the event.

What happens to undelivered events?

The Events Service drops events that could not be delivered in 2 hours from the time the event is published. You can use the `DeliveryFailedEvents` metric to debug undelivered events. More documentation for metrics is located [here](#).