

PubSub Notifications for GCS

What are PubSub notifications?

PubSub notifications notifies any object change event in gcs buckets to the configured topic. For Ex – If any new object is created or deleted then notification in the form of message is sent to the topic. The topic can be in any project and cloud storage account should have required permissions to pubsub topic.

Notifications are configured with the rule that are attached to the bucket and specifies the following.

- The topic in Pub/Sub that receives notifications.
- The events that trigger a notification to be sent.
- The information contained within notifications.

Event Types

Following table illustrates the list of events for cloud storage notifications.

Event Type	Definition
OBJECT_FINALIZE	When new object is created or any existing object is rewritten successfully. Event is not triggered in case of failed uploads
OBJECT_METADATA_UPDATE	When the metadata of any object is changed or modified.
OBJECT_DELETE	When object is deleted from the bucket. If versioning is enabled on bucket then when current version becomes old then it is not triggered.
OBJECT_ARCHIVE	Only triggered when versioning is enabled on bucket. When the current version of object becomes non current then this event is triggered.

Notification format

Notification is comprised of two parts.

Attributes – Set of key value pairs describing the notification. Ex below

Attribute name	Example	Description
notificationConfig	projects/_/buckets/bucket1/notificationConfigs/2	An identifier for the notification configuration that triggered this notification.
eventType	OBJECT_FINALIZE	The type of event that has just occurred. See Event types for a list of possible values.
payloadFormat	JSON_API_V1	The format of the object payload. See Payload for a list of possible values.
bucketId	bucket1	The name of the bucket that contains the changed object.
objectId	object1	The name of the changed object.
objectGeneration	123456	The generation number of the changed object.
eventTime	2021-01-15T01:30:15.01Z	The time that the event took place, expressed in the RFC 3339 format.

Payload – It is string which contains the detailed information about the metadata of the object changed. Payload type can be none or json_api. For more details on payload data one can refer to https://cloud.google.com/storage/docs/json_api/v1/objects#resource-representations