

BEYOND IDENTITY EVENTS DATA INTEGRATION WITH GOOGLE PUBSUB

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2 Introduction

2.1 About

This guide provides instructions on how to:

- Integrate BI events data with Google PubSub

2.2 Prerequisites

Ensure that you have the following:

- You have a tenant configured for your organization and able to enroll users.

3 Google PubSub Configuration

- Create a new project
- Create a new Topic and default Subscription
- Create a GCP service account and grant it an IAM role that allows publishing to a Pub/Sub topic of your choice

BEYOND
IDENTITY

- Generate a key and download the JSON representation. Share this JSON file with BI SME, Topic name and list of event types interested in. The appendix section explains how to get the event types

3.1 Create a new project

Access console.google.com with admin credentials. Click on “Create a project” under IAM & Admin menu.

Google Cloud Platform bi-pubsub

Cloud overview >

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In the “New Project” screen, type in a project name for example bi-pubsub. Choose organization and location to suit your GCP configuration. Click “Create”

Google Cloud Platform

New Project

Project name *
bi-pubsub

Project ID: bi-pubsub-349815. It cannot be changed later. [EDIT](#)

Organization *
zeropw.com

Select an organization to attach it to a project. This selection can't be changed later.

Location *
zeropw.com [BROWSE](#)

Parent organization or folder

 [CREATE](#) [CANCEL](#)

3.2 Create a new Topic

Enter “project” in the search box . In the drop-down search results, select the project you created under “PROJECTS , FOLDERS & ORGANIZATIONS.”

Search project



Search billing projects

PRODUCTS & PAGES

Create a Project
IAM & Admin

Billing projects
Billing

Project Settings
Cloud Volumes

Project Settings
Cloud Volumes

DOCUMENTATION & TUTORIALS

Create an Artifact Registry repository for Java.
Interactive Tutorial

Project | Config Connector Documentation
Documentation

Projects | Cloud Storage
Documentation

PROJECTS, FOLDERS & ORGANIZATIONS

ADFS Integration
Project - adfs-integration

bi-pubsub
Project - bi-pubsub

After selecting the project , in the search box type “topics”. In the drop-down search results, select “Topics”.

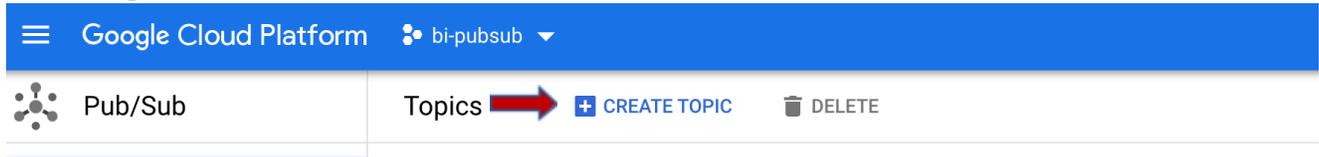
Search Topics

Search topics

PRODUCTS & PAGES

Topics
Pub/Sub

On the Topics screen , click “CREATE TOPIC”



Enter a name for the Topic ID for example “bi-data-export-pub-sub”. Leave “Add a default subscription” selected. This will create a subscription automatically. Click “CREATE TOPIC”.

Create a topic

A topic forwards messages from publishers to subscribers.

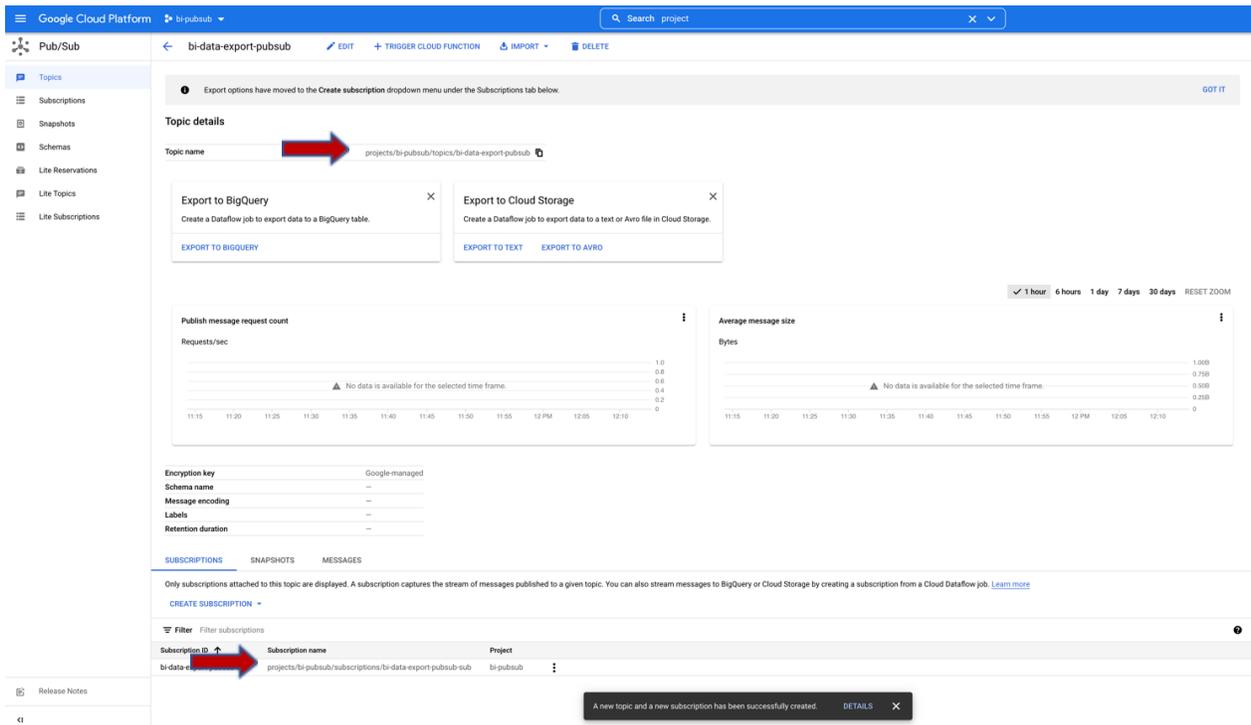
Topic ID * ?

Topic name: projects/bi-pubsub/topics/bi-data-export-pubsub

- Add a default subscription ?
- Use a schema ?
- Set message retention duration (not free) ?
- Use a customer-managed encryption key (CMEK)

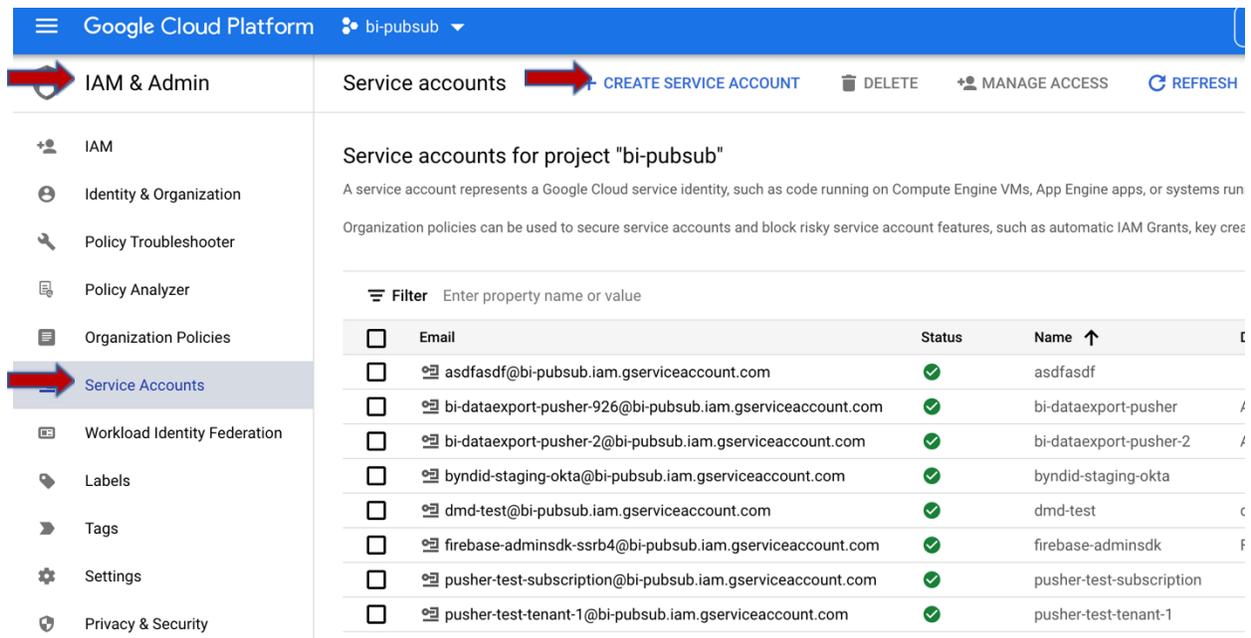
CANCEL  CREATE TOPIC

You will see the topic created with a default subscription. The default subscription created is “projects/bi-pubsub/subscriptions/bi-data-export-pubsub-sub”



3.3 Create GCP service account

The service account is used BI event integration code to authenticate to Google PubSub. In the Google cloud console, select your project and select “Service Accounts” under “IAM & Admin”. Click “CREATE SERVICE ACCOUNT” in menu.



In the “Create service account” screen, enter a name for the service account, for example bi-data-export-sa. The Service account ID and the email address are automatically filled in. Enter description in Service account description and click “CREATE AND CONTINUE”

The screenshot displays the Google Cloud Platform interface for creating a service account. The top navigation bar shows 'Google Cloud Platform' and the project 'bi-pubsub'. The left sidebar lists various IAM and Admin tools, with 'Service Accounts' highlighted. The main content area is titled 'Create service account' and is divided into three numbered sections:

- 1 Service account details**: This section contains three input fields:
 - Service account name**: bi-data-export-sa
 - Service account ID ***: bi-data-export-sa
 - Service account description**: access to bi-data-export-pubsub
- 2 Grant this service account access to project (optional)**: This section is currently empty.
- 3 Grant users access to this service account (optional)**: This section is currently empty.

At the bottom of the form, there are two buttons: 'DONE' and 'CANCEL'. A red arrow points to the 'CREATE AND CONTINUE' button, which is located below the 'Service account description' field.

Under “Grant this service account access to project” click on the Role drop-down and select “Pub/Sub Publisher”. Click “Done”

Google Cloud Platform bi-pubsub

IAM & Admin Create service account

1 Service account details

2 Grant this service account access to project (optional)

Grant this service account access to bi-pubsub so that it has permission to complete specific actions on the resources in your project. [Learn more](#)

Role	Condition	
Pub/Sub Publisher	Add condition	
Pub/Sub Subscriber	Add condition	

[+ ADD ANOTHER ROLE](#)

[CONTINUE](#)

3 Grant users access to this service account (optional)

[DONE](#) [CANCEL](#)

3.4 Generate a service account key and download the JSON file.

Navigate to the service account you created in IAM & Admin=>Service accounts

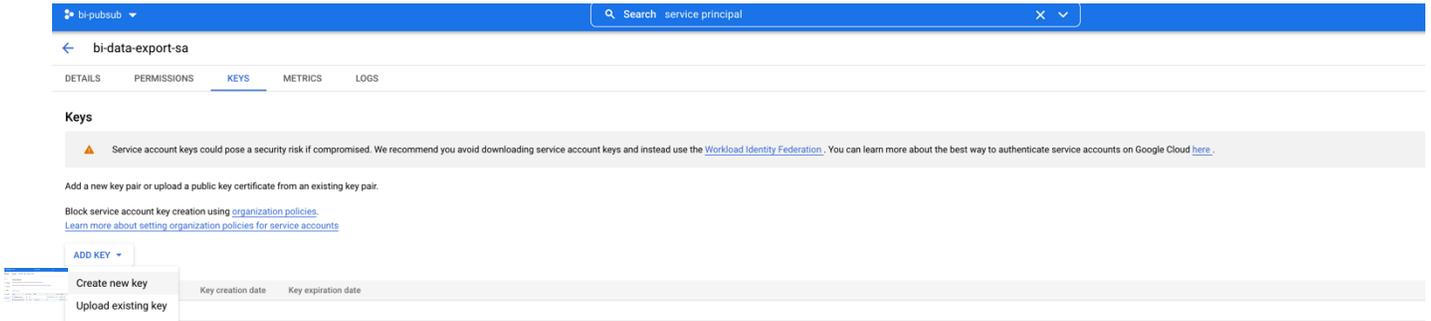
Google Cloud Platform bi-pubsub

IAM & Admin Service accounts

Service accounts for project "bi-pubsub"

Email	Status	Name	Description	Key ID	Key creation date	OAuth 2.0 Client ID	Actions
asdfsdf@bi-pubsub.iam.gserviceaccount.com		asdfsdf		192922695b390b6e05ed51643c4f0282cd7e4b	May 6, 2022	108488006593442253561	
bi-data-export-sa@bi-pubsub.iam.gserviceaccount.com		bi-data-export-sa	access to bi-data-export-pubsub	No keys		106347924534821878078	

Click on the service account. Select "Create New Key" under "Add key" drop-down/



In the pop-up screen, select “JSON” key type. Click “CREATE”

Create private key for "bi-data-export-sa"

Downloads a file that contains the private key. Store the file securely because this key can't be recovered if lost.

Key type

JSON

Recommended

P12

For backward compatibility with code using the P12 format

CANCEL  CREATE

The JSON file will be saved to your computer. Share this file securely with BI SME

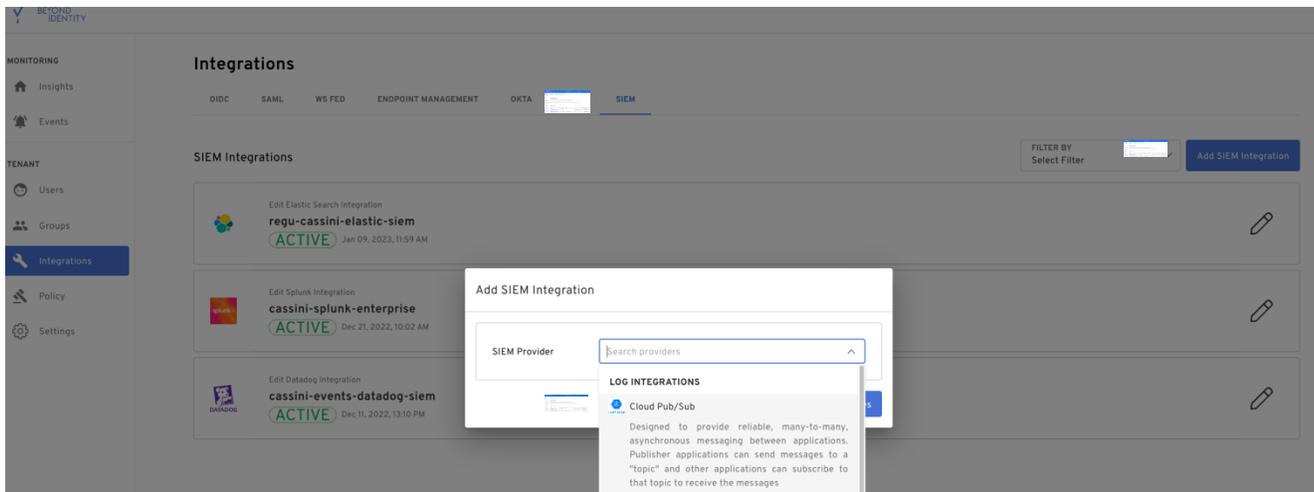
Private key saved to your computer

 bi-pubsub-57d8868ecdc5.json allows access to your cloud resources, so store it securely. [Learn more best practices](#)

CLOSE

4 Beyond Identity Configuration

In BI admin console, navigate to “Integrations”, “SIEM”. Click on “Add SIEM integration”, In “ADD SIEM integration” pop up, choose “Cloud Pub/Sub”



In “Add SIEM integration” screen, provide a name, the topic name from section 3.2. For the service account upload the file from section 3.4. In events drop down window select all events or only the events interested in. Make the “Status”, “Active”. Click on “Save changes”

Add SIEM Integration

SIEM Provider	Cloud Pub/Sub
Name	BI events Google cloud pub/sub
Topic Name	Topic Name from section 3.2
Service Account	<input type="button" value="Upload File"/> No file selected <small>Accepts .json files</small>
Events	<input type="button" value="ADD DEVICE"/> + 12 more
Status	ACTIVE <input checked="" type="checkbox"/>

5 Appendix

How to get event types?

- Access <https://developer.beyondidentity.com/reference/getevents>
- Scroll down the page and under “Responses” look for “200”. Click on the button to the right of description

RESPONSES

 200	
Retrieve the given page of events for the given tenant over the given window.	
 400	
Bad request.	

- This will pop-up the screen as shown below. All event types are listed under “event type” string required

Response

200



Events that have this field set to false may contain raw user input or data from a process not controlled by Beyond Identity.

actor object

The entity whose action caused the event to be emitted.

ACTOR OBJECT



event_type string required

The type of the event.

```
USER_AUTHENTICATION  OIDC_INBOUND  OIDC_COMPLETE
WSFED_INBOUND  WSFED_COMPLETE  SAML_INBOUND
SAML_COMPLETE  ADD_DEVICE  POLICY  TENANT_CREATED
GROUP_CHANGE  USER_CHANGE  GROUP_MEMBERSHIP_CHANGE
CONTINUOUS_AUTHENTICATION  DEVICE_CREDENTIAL_CHANGE
BOOTSTRAP_INBOUND  BOOTSTRAP_COMPLETE
BOOTSTRAP_KEY_ROTATION  AUTHSERVER_ACCESS
AUTHSERVER_DIRECTORY_ACCESS  AUTHORIZE_CONTEXT_ACCESS
APPLICATION_ACCESS  TENANT_CHANGE  OIDC_CLIENT_CHANGE
CONSOLE_SSO_IDP_CHANGE
CONSOLE_SSO_OIDC_AUTH_CONFIG_CHANGE
CONSOLE_SSO_SAML_AUTH_CONNECTION_CHANGE
SAML_CONNECTION_CHANGE
OKTA_DESKTOP_LOGIN_CONFIGURATION_CHANGE
OKTA_EVENT_HOOK_CONFIGURATION_CHANGE  POLICY_CHANGE
OKTA_REGISTRATION_ATTRIBUTE_CONFIGURATION_CHANGE
GPG_KEY_CHANGE  ENROLLMENT_CHANGE  REALM_CHANGE
SCIM11_PROVIDER_CHANGE  SCIM20_PROVIDER_CHANGE
OUTBOUND_ATTRIBUTE_UPDATE  CREDENTIAL_CHANGE
CREDENTIAL_BINDING_JOB_CHANGE
AUTHENTICATOR_INVOCATION_ATTEMPT
```