

Como vincular um ativo a um plano de manutenção a partir do Fractal Hub?

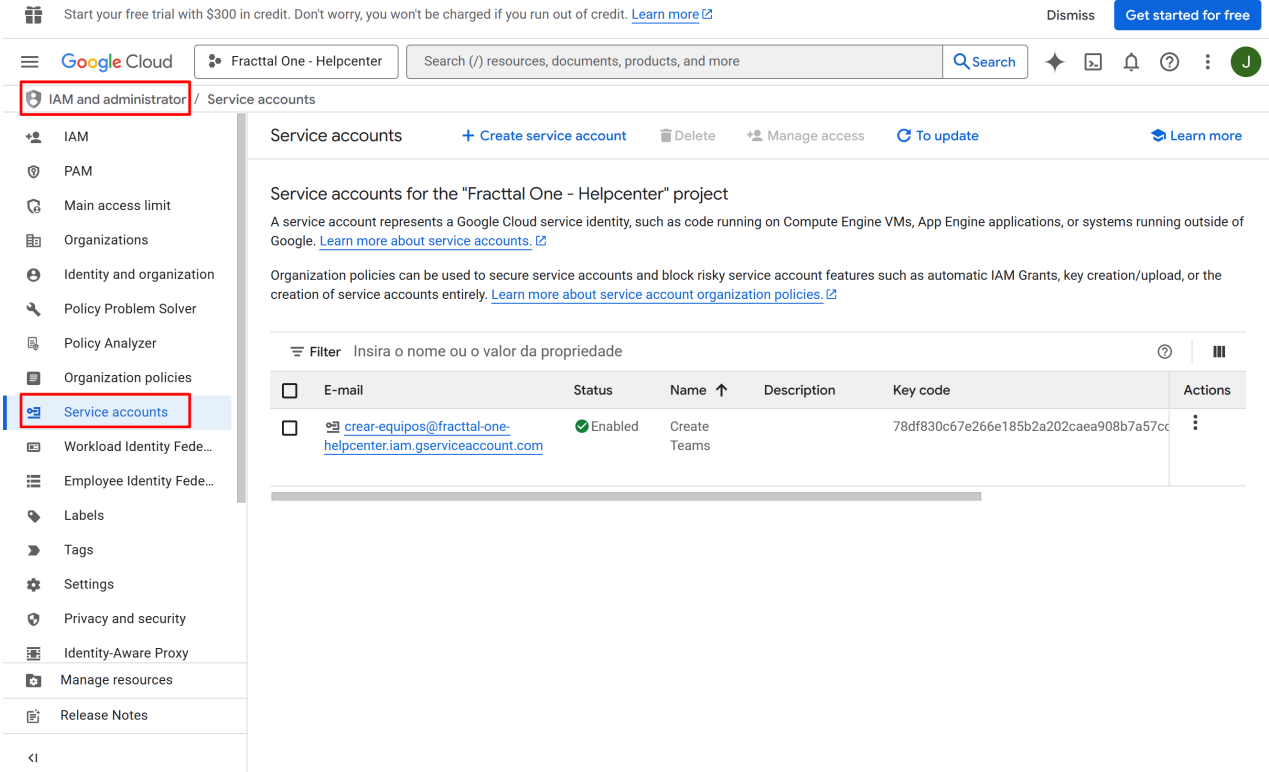
 help.fractal.com/hc/pt-pt/articles/37555734218893-Como-vincular-um-ativo-a-um-plano-de-manutenção-a-partir-do-Fractal-Hub

Fractal Hub permite associar ativos a planos de manutenção de forma massiva a partir do Google Sheets. Para que o carregamento seja válido, o ativo não deve estar vinculado a outro plano, deve ser uma localização, equipamento ou ferramenta, e o plano não pode incluir ativadores nem subtarefas com leituras de medidor.

Passo 1: Acesse a consola do Google Cloud

A comunicação entre Fractal e Google Sheets é realizada de forma segura através de uma conta de serviço.

1. Acesse a consola do Google Cloud.
2. No menu de navegação, vá a **IAM e administrador** > **Contas de serviço**.



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IAM and administrator / Service accounts

Service accounts [+ Create service account](#) [Delete](#) [Manage access](#) [To update](#) [Learn more](#)

Service accounts for the "Fractal One - Helpcenter" project

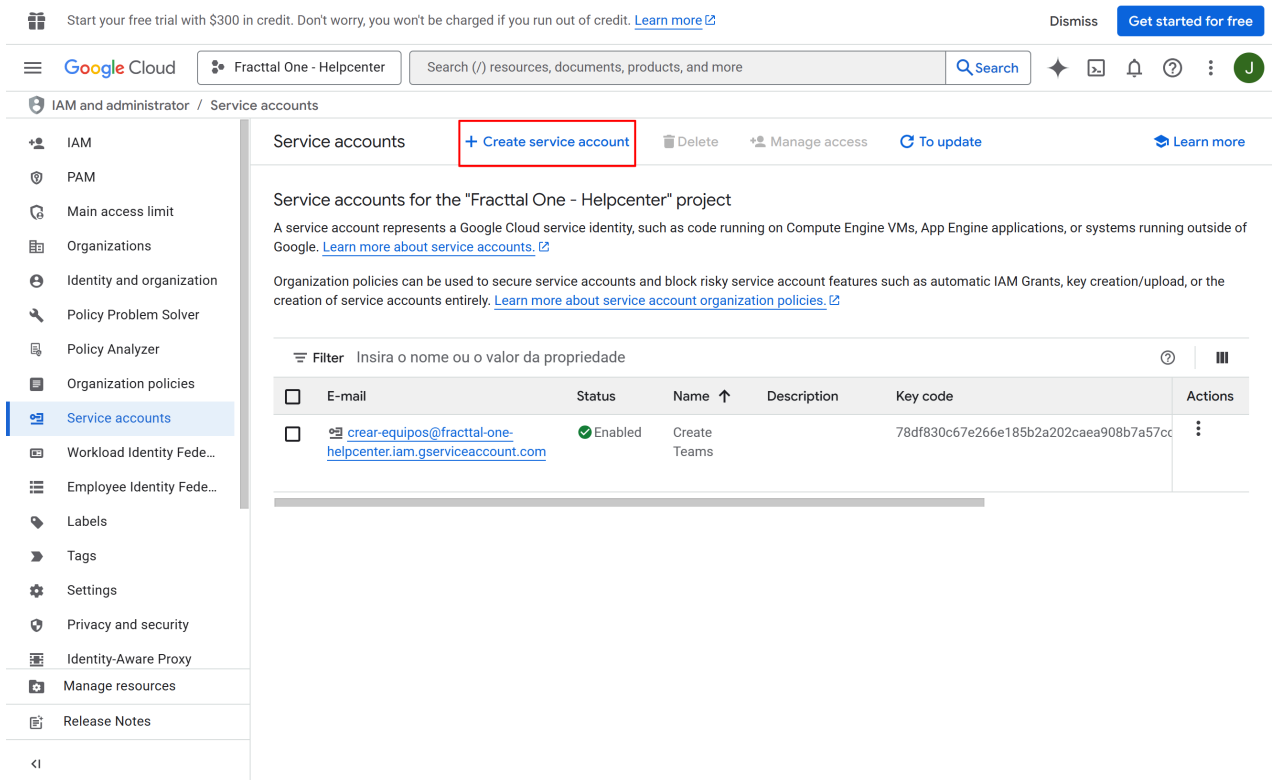
A service account represents a Google Cloud service identity, such as code running on Compute Engine VMs, App Engine applications, or systems running outside of Google. [Learn more about service accounts.](#)

Organization policies can be used to secure service accounts and block risky service account features such as automatic IAM Grants, key creation/upload, or the creation of service accounts entirely. [Learn more about service account organization policies.](#)

Filter Insira o nome ou o valor da propriedade

☐	E-mail	Status	Name ↑	Description	Key code	Actions
☐	crear-equipos@fractal-one-helpcenter.iam.gserviceaccount.com	Enabled	Create Teams		78df830c67e266e185b2a202caea908b7a57cc	⋮

3. Clique em + CRIAR CONTA DE SERVIÇO.



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Service accounts for the "Fractal One - Helpcenter" project

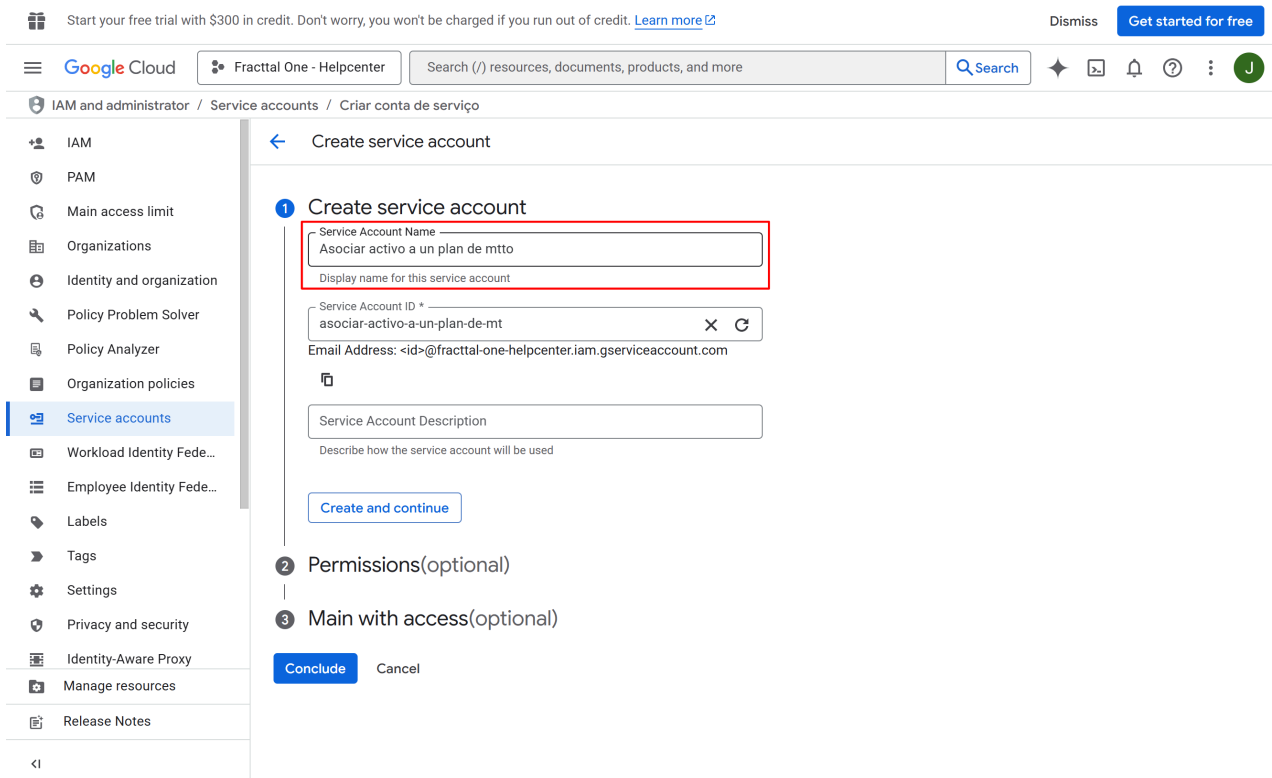
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☐	crear-equipos@fractal-one-helpcenter.iam.gserviceaccount.com	Enabled	Create Teams		78df830c67e266e185b2a202caea908b7a57cc	

4. Atribua um nome à conta de serviço que seja fácil de identificar, por exemplo: associar-ativo-plano-manutencao.



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IAM and administrator / Service accounts / Criar conta de serviço

Create service account

1 Create service account

Service Account Name

Display name for this service account

Service Account ID *

Email Address: <id>@fractal-one-helpcenter.iam.gserviceaccount.com

Service Account Description

Describe how the service account will be used

[Create and continue](#)

2 Permissions(optional)

3 Main with access(optional)

[Conclude](#) Cancel

5. Clique em **FINALIZAR** para criar a conta sem configurar permissões adicionais.

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IAM and administrator / Service accounts / Criar conta de serviço

1 Create service account

Service Account Name
Asociar activo a un plan de mtto
Display name for this service account

Service Account ID *
asociar-activo-a-un-plan-de-mt X ↺

Email Address: <id>@fracttal-one-helpcenter.iam.gserviceaccount.com

Service Account Description
Describe how the service account will be used

[Create and continue](#)

2 Permissions(optional)

3 Main with access(optional)

[Conclude](#) Cancel

Passo 2: Gerar e descarregar a chave da conta de serviço

Para que o Fractal possa autenticar-se, é necessário gerar uma chave privada para a conta de serviço.

1. Na lista de contas de serviço, clique no e-mail da conta que acabou de criar.
2. Vá à aba **CHAVES**.

3. Clique em **ADICIONAR CHAVE** e selecione **Criar nova chave**.

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IAM and administrator / Service accounts / Conta de serviço: 117194353684544360531 / Chaves

Associate asset to a maintenance plan

Details Permissions **Keys** Metric Records Main with access

Keys

Service account keys can pose a security risk if compromised. We recommend that you avoid downloading service account keys. Instead, use Workload Identity Federation. [Learn more about the best way to authenticate service accounts in Google Cloud](#).

Google automatically disables service account keys discovered in public repositories. This behavior can be customized using the "iam.serviceAccountKeyExposureResponse" organization policy. [Learn more](#)

Add a new key pair or upload a public key certificate of the existing pair.

Block service account key creation using [organization policies](#). [Learn more about configuring organization policies for service accounts](#)

Add key ▼

Create new key

Upload a current key

Service account created

4. Escolha o tipo de chave **JSON** e clique em **CRIAR**.

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IAM and administrator / Service accounts / Conta de serviço: 117194353684544360531 / Chaves

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Add a new key pair or upload a public key certificate of the existing pair.

Block service account key creation using [organization policies](#). [Learn more about configuring organization policies for service accounts](#)

Add key ▼

Create a private key to "Associate an asset with a maintenance plan"

A file containing the private key is downloaded. Store the file safely because this key cannot be recovered if lost.

Key type

☒ **JSON**
Recommended

☐ **P12**
For backward compatibility using code with P12 format

Cancel **To create**

Service account created

- Um arquivo .json será descarregado automaticamente no seu computador. Guarde este arquivo em um local seguro, pois contém as credenciais de acesso.

Passo 3: Compartilhar a folha de cálculo do Google com a conta de serviço

Agora você precisa conceder permissões à conta de serviço para acessar e editar sua folha de cálculo.

- Abra o arquivo .json que você descarregou. Localize e copie o valor do campo "client_email".

```
iu/GJnbMTuPKUpPhPrRy\ntZCxNW/B3Rn5NDb+yCGFnsMhVHUqdolZgnaIpPwfxchw6Y9z13o
lbsETqWNNHo7R\nbZ1oTC05KsPs4eLr421Tf8jHbDR1VsGqZQchWq7XygebVsr4cyEkkLJVAo
GAcI4P\nfw7iK95IuZEQ0WNkRo6TS2MuYJ256ifdDiHMa4ZmbMuL43dXNLT01lp7SctyiuC2\
nomIw9Kj8j9rebDHD0iLnU5Y7tZggInIXEs9bZsowkxbNz73s8h/QpLY2Oxb7KZFk\n5RA2nI
SubZYqV08TZ9N6alcwqmFxJ4XSkd3PFuECgYEAs5qjpCHYbQdRvj7yq5I5\n7rxFXxDOov9WI
tW7/AlEkxAGnxDxTFGqXrytrCDsh7rC3s1xKmeKCnRJcto/KZDQ\nnNWgnXuk0uOu/GBkZjWgP
7aLR5E7j27IY/gpUEDsTQRxe+bQOayF/RB2ZTcbeEKyO\n5Q9oAXxNsVo6DiSMg8329K4=\n-
----END_PRIVATE_KEY-----\n",
  "client_email": "asociar-activo-a-un-plan-de-mt@fracttal-one-
helpcenter.iam.gserviceaccount.com",
  "client_id": "117194353684544360531",
  "auth_uri": "https://accounts.google.com/o/oauth2/auth",
```

- Abra sua folha de cálculo no Google Sheets.
- Clique no botão **Compartilhar** (parte superior direita).
- Cole o e-mail da conta de serviço no campo de compartilhamento.
- Certifique-se de conceder a permissão de **Editor**.
- Clique em **Enviar**.

	B	C	D

Share ×

Add people and groups

asociar-activo-a-un-plan-de-mt@fracttal-one-helpcenter.iam.gserviceaccount.com Editor

Message (optional)

Cancel Send

Passo 4: Preparar a folha de cálculo do Google Sheets

A primeira linha da sua folha deve conter os cabeçalhos (parâmetros) exatos que o Fracttal espera receber.

1. Aceda à documentação da API do Fracttal para consultar os parâmetros necessários.

2. Na primeira linha, insira os seguintes cabeçalhos:

id_tasks_plan	code_user	item_code	last_date_maintenance
284558	1928182192	HUB-001	2025-03-12T20:00:00-03

3. Preencha as linhas seguintes com os dados correspondentes:

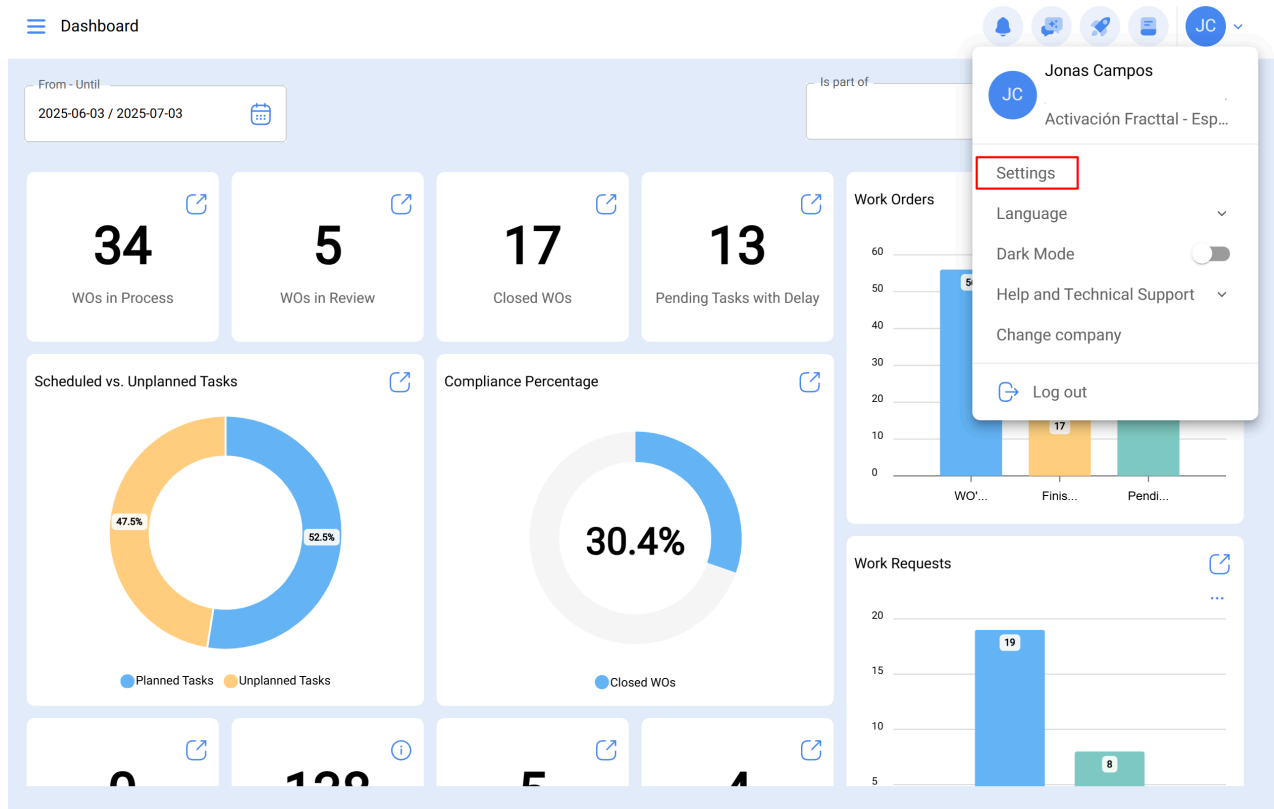
- **id_tasks_plan**: ID do plano de tarefas ao qual você deseja associar o ativo. Você pode encontrá-lo no Fracttal.
- **code_user**: Código do usuário responsável pela transação. Encontre-o em *Catálogos > Recursos Humanos*.
- **item_code**: Código do ativo (equipamento, localização, etc.) que você deseja vincular. Encontre-o em *Catálogos > Ativos*.
- **last_date_maintenance**: Data da última manutenção.

Importante: O formato da data `last_date_maintenance` deve ser AAAA-MM-DDTHH:MM:SS-UTC. Copie o formato da documentação da API para evitar erros.

Passo 5: Criar a conexão no Fracttal One

Agora vamos configurar a conexão dentro do Fracttal para que possa usar as credenciais da conta de serviço.

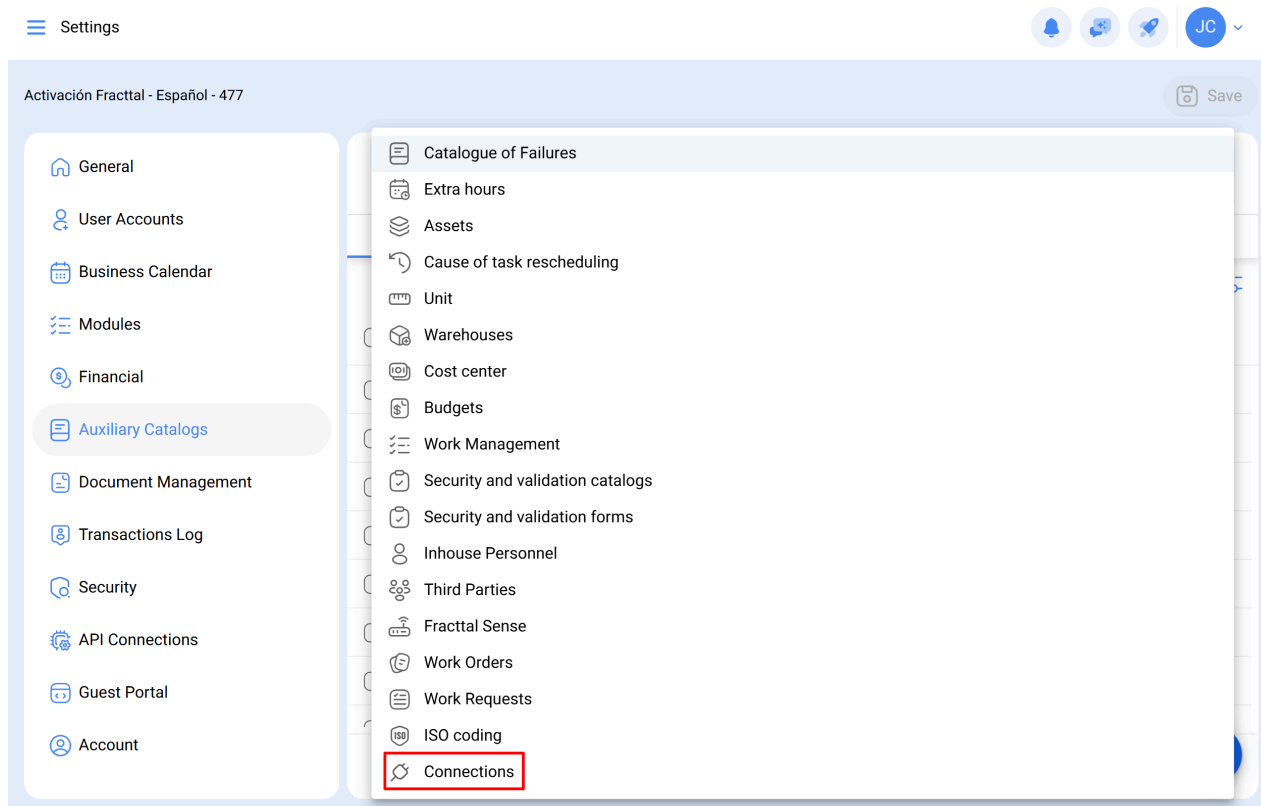
1. No Fractal, navegue até **Configuração > Catálogos Auxiliares > Conexões**.



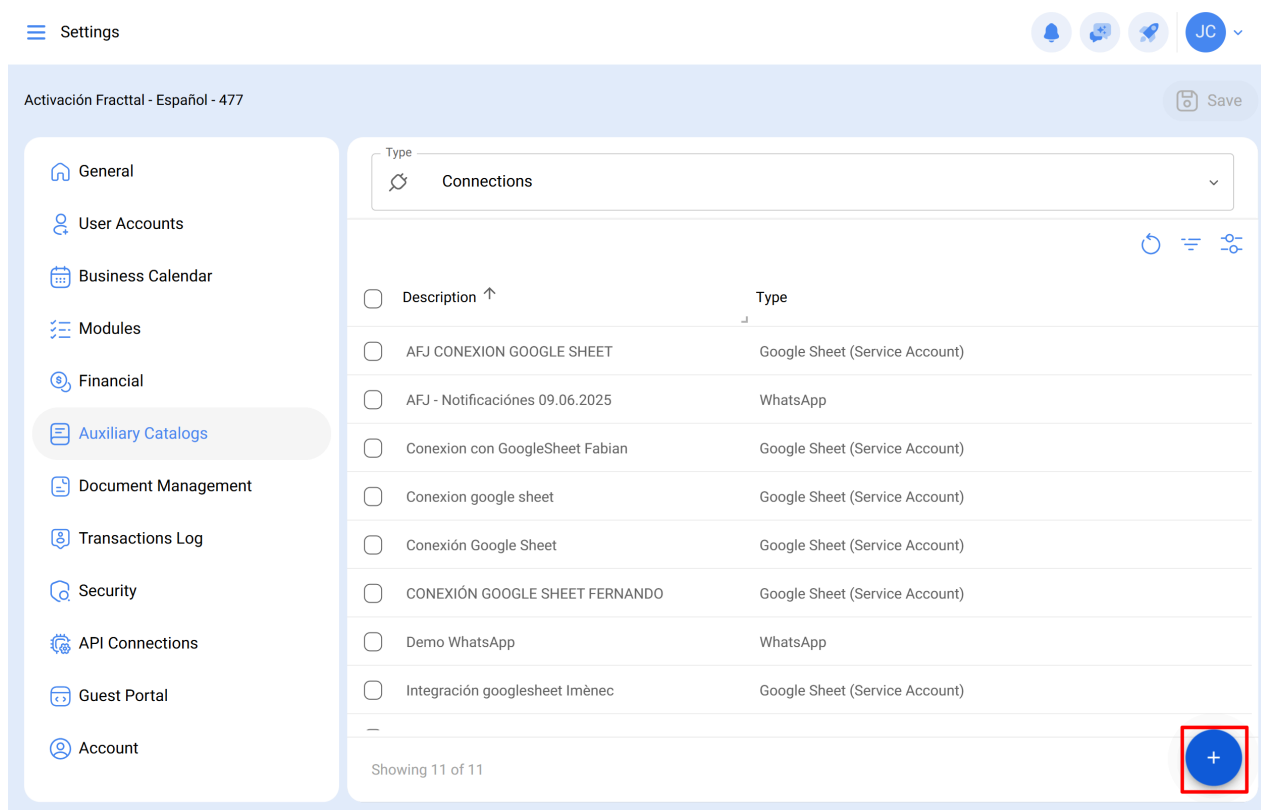
The settings page is titled "Activación Fractal - Español - 477". The left sidebar lists various settings categories, with "Auxiliary Catalogs" highlighted. The main form contains the following fields:

- Code:** RFC10829120
- Name:** Activación Fractal - Español - 477
- Email:** contacto@fractal.com
- Currency:** Chilean Peso
- Thousands separator:** (.) The character used is a p
- Address:** Calle de San José Artesano, 12
- City:** Bogota
- State:** Cundinamarca
- Country:** Colombia
- Zip code:** 28108

A map of Bogotá is displayed on the right, with a red pin marking the location. The map includes a search bar and a scale bar.



2. Clique no ícone + para adicionar uma nova conexão.



3. Preencha os seguintes campos:

Settings

Activación Fractal - Español - 477

General

User Accounts

Business Calendar

Modules

Financial

Auxiliary Catalogs

Document Management

Transactions Log

Security

API Connections

Guest Portal

Account

Connections

Type

Description

AFJ CONEXION GOOGLE SHEET

AFJ - Notificaciones 09.06.2025

Conexion con GoogleSheet Fabian

Conexion google sheet

Conexión Google Sheet

CONEXIÓN GOOGLE SHEET FERNANDO

Demo WhatsApp

Integración googlesheet Imenec

Showing 11 of 11

Type

Type can't be blank

Description

Description can't be blank

- **Tipo:** Seleccione **Google Sheet (Service Account)**.

- **Descrição:** Atribua um nome à conexão:

The screenshot shows the 'Settings' page in Fractal Hub. The left sidebar contains various settings categories like General, User Accounts, Business Calendar, Modules, Financial, Auxiliary Catalogs, Document Management, Transactions Log, Security, API Connections, Guest Portal, and Account. The main area is titled 'Activación Fractal - Español - 477' and shows a list of connections under the 'Connections' tab. A modal form is open for creating a new connection. The form fields are: Type (Google Sheet (Service Account)), Description (Crear medidor), Type (service_account), project_id (empty), private_key_id (empty), private_key (empty), client_email (crear-medidores@fractal-one-helpcenter.iam.gserviceaccount.com), client_id (102808271571990193291), and client_x509_cert_url (https://www.googleapis.com/robot/v1/metadata/x509/crear). A red box highlights the modal form.

4. Abra o arquivo .json descarregado e copie/cole o conteúdo dos seguintes campos em seus respectivos lugares do formulário do Fractal:

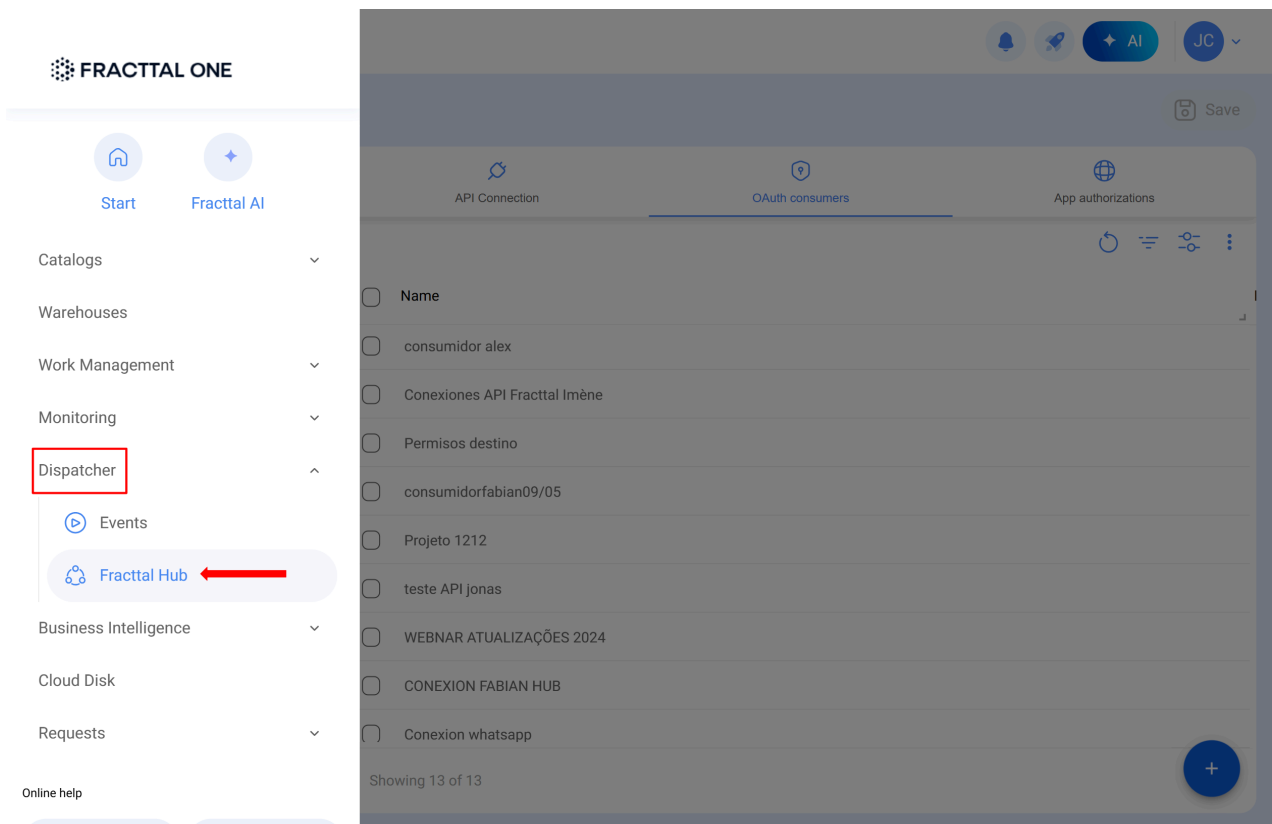
- private_key
- client_email
- client_id
- client_x509_cert_url

5. Clique no ícone ✓ para salvar e depois em **Salvar**.

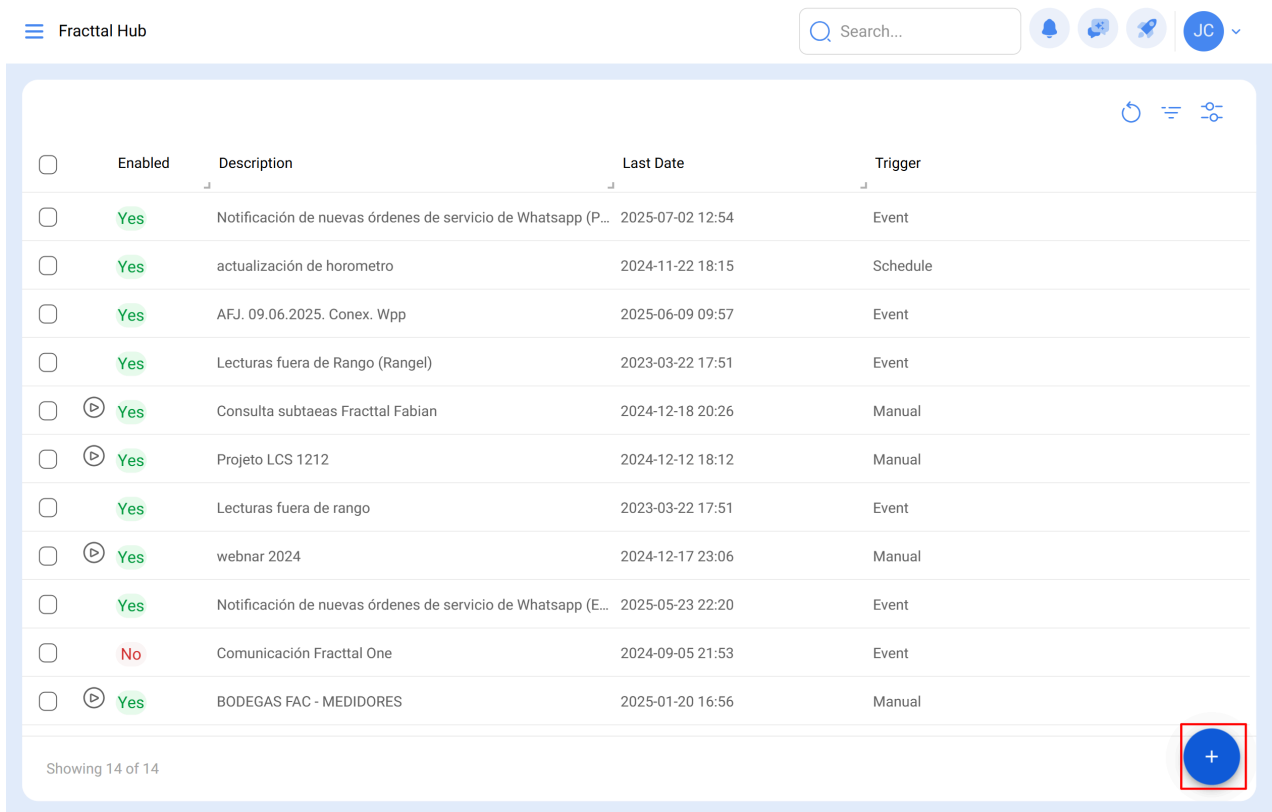
Passo 6: Configurar o fluxo no Fractal Hub

Com a conexão pronta, o último passo é criar o fluxo de automação.

1. Navegue até o módulo **Fractal Hub**.



2. Clique no ícone + para criar um novo fluxo.



3. Adicione uma **Descrição** para o fluxo:

The screenshot displays the Fractal Hub interface for configuring a flow. On the left sidebar, there is a toggle for 'Enabled' and a 'Required Information' section with three bullet points: 'Source configuration cannot be empty', 'Target connection settings cannot be empty', and 'Mapping to destination configuration cannot be empty'. Below this are links for 'Flow', 'Execution history', and 'Event queue'. The main area is titled 'Flow settings' and contains a 'Description' field with the text 'CREAR MEDIDOR', which is highlighted by a red rectangle. Below the description is a flow diagram showing three stages: 'Source' (containing 'Trigger' and 'Source' components), 'Filter' (containing 'Select One' component), and 'Target' (containing 'Connection' and 'Settings' components). Arrows indicate the flow from Source to Filter to Target.

Configuração do ativador:

Clique em **Ativador** e selecione o tipo **Manual**. Isso permite executar o fluxo quando desejado.

Save

Enabled 

Required Information

- Source configuration cannot be empty
- Target connection settings cannot be empty
- Mapping to destination configuration cannot be empty



Flow



Execution history

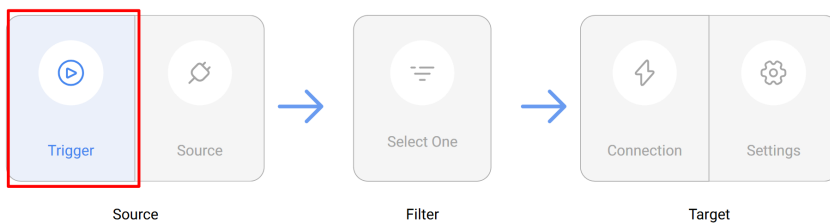


Event queue

Flow settings

Description

CREAR MEDIDOR



Configuração da Fonte:

Save

Enabled 

Required Information

- Source configuration cannot be empty
- Target connection settings cannot be empty
- Mapping to destination configuration cannot be empty



Flow



Execution history

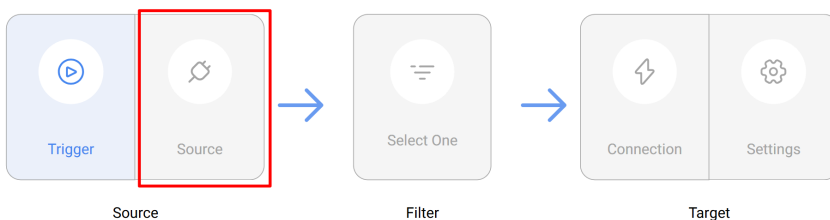


Event queue

Flow settings

Description

CREAR MEDIDOR



- Clique em **Fonte**.
- **Módulo**: Selecione GoogleSheet.
- **Conexão**: Selecione a conexão criada no passo anterior.
- **Ação**: Selecione Ler.
- **spreadsheet_id**: Copie o ID da sua folha de cálculo (encontra-se na URL, entre /d/ e /edit/).
- **sheet**: Escreva 0 para ler a primeira aba.
- **Campos**: Adicione os nomes das colunas: *description*, *item_code*, *unit_code*, *is_counter*.

Configuração do Destino:

The screenshot displays the Fractal Hub interface for configuring a flow destination. The top navigation bar shows 'Fractal Hub' and user profile 'JC'. The left sidebar contains an 'Enabled' toggle, a 'Required Information' section with warnings about source, target, and mapping configurations, and navigation links for 'Flow', 'Execution history', and 'Event queue'. The main workspace, titled 'Flow settings', shows a flow diagram with three stages: 'Source' (containing 'Trigger' and 'Source' components), 'Filter' (containing 'Select One'), and 'Target' (containing 'Connection' and 'Settings' components). The 'Connection' component in the Target stage is highlighted with a red rectangular box.

- Clique em **Conexão** na seção de destino.
- **Módulo**: Selecione Fractal.
- **Conexão**: Escolha FRACTTAL HUB.

- **Ação:** Selecione Criar Medidor.

The screenshot displays the 'Fractal Hub' interface. On the right, a 'Target' configuration panel is visible, outlined in red. This panel includes a 'Module' dropdown set to 'Fractal', a 'Connection' dropdown set to 'FRACTAL HUB' with a close button, and an 'Action' dropdown set to 'Create Gauges'. The background shows a blurred view of the main interface. On the left, a sidebar contains 'Flow', 'Execution history', and 'Event queue'. The main area features a 'Description' field with the text 'CREAR MEDIDOR' and a 'Flow settings' section with 'Trigger' and 'Source' buttons.

Configuração de campos (mapeamento):

Fractal Hub

Enabled ☒

Required Information

- Target connection settings cannot be empty

Flow

Execution history

Event queue

Flow settings

Description

CREAR MEDIDOR

Trigger Source

Select One

Connection Settings

Source Filter Target

- Clique em **Configuração** na seção de destino.
- Mapeie os campos da folha (Origem) com os do sistema (Destino), garantindo que coincidam:

Fracttal Hub

←

Enabled

Information

You have pending changes to save!

Flow

Execution history

Event queue

Description

CREAR MEDIDOR

Trigger

Source

Source

< Fields Configuration

Source: Google Sheet → Target: Fracttal API

Source (Fields)

Target (Fields)

description

→

description

⚙

item_code

→

item_code

⚙

unit_code

→

unit_code

⚙

☐ is_counter

→

serial

⚙

☐ All -> Object

→

is_counter

⚙

☐ All -> Object

→

serial_parent_meter

⚙

☐ All -> Object

→

last_reading

⚙

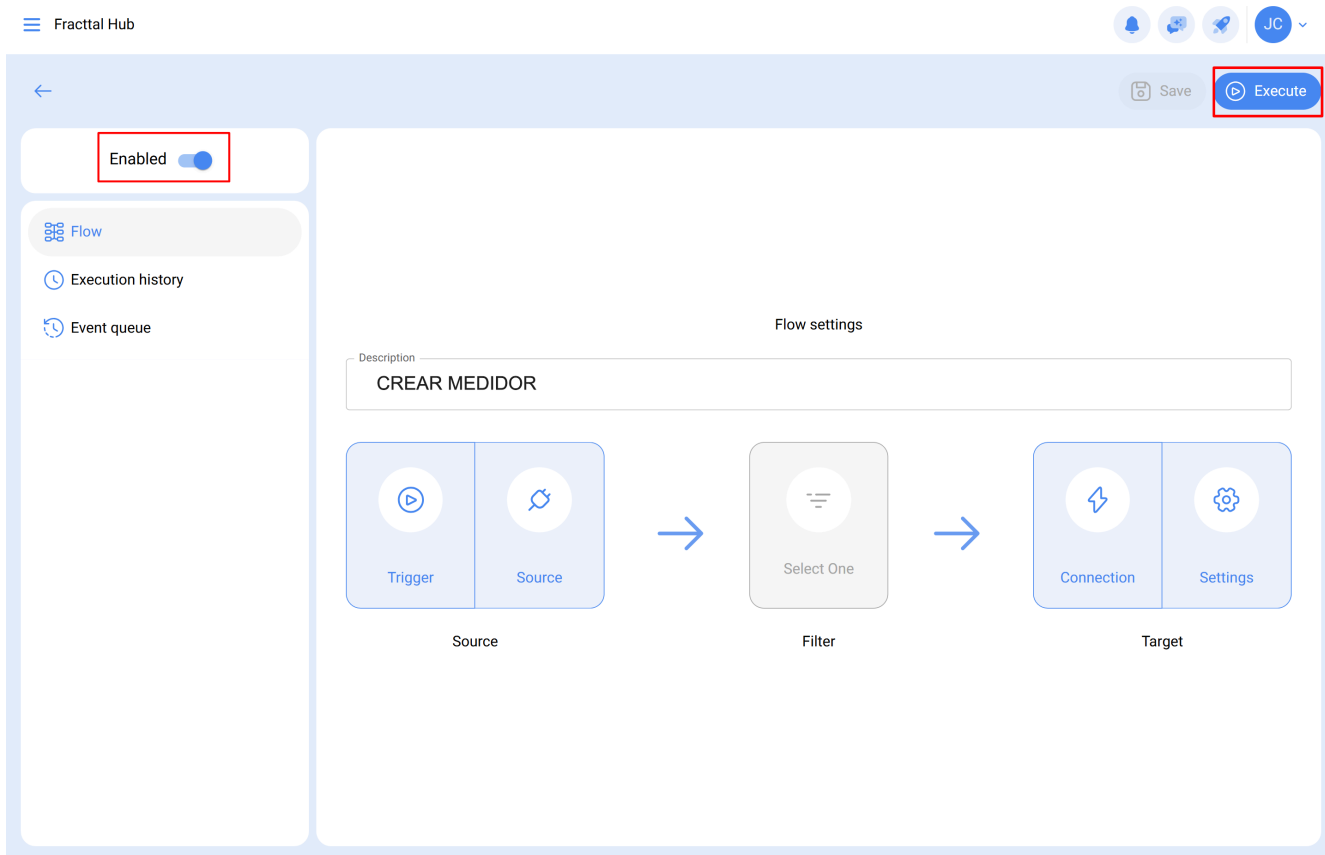
Passo 7: Executar e verificar o fluxo

1. Clique em **Salvar** para guardar a configuração do fluxo.

The screenshot displays the Fractal Hub interface. On the left, a sidebar contains a menu with 'Flow', 'Execution history', and 'Event queue'. The main area shows a flow configuration with a 'Trigger' and 'Source' block. On the right, the 'Fields Configuration' panel is open, showing a mapping from 'Source (Fields)' to 'Target (Fields)'. The mapping includes fields like 'description', 'item_code', 'unit_code', 'is_counter', and 'serial'. A red box highlights a checkmark icon in the top right corner of the panel.

Source (Fields)	Target (Fields)
description	description
item_code	item_code
unit_code	unit_code
is_counter	serial
All -> Object	is_counter
All -> Object	serial_parent_meter
All -> Object	last_reading

2. Ative o interruptor **Habilitado**.
3. Clique novamente em **Salvar**.
4. Clique no botão **Executar** para iniciar o processo.



Você pode monitorar o progresso nas abas **Fila de eventos** e **Histórico de Execução**. Um processo bem-sucedido mostrará "Processo Realizado" e marcará como completas as etapas de Extração, Transformação e Carga.

Para verificar, vá a **Tarefas > Plano de Tarefas**, selecione o plano correspondente e, na aba **Ativos Vinculados**, verá o ativo que foi associado através da folha de cálculo.

Notas:

- Este método é compatível unicamente com planos de tarefas baseados em **frequência (data)**. Não é compatível com planos que tenham ativadores por leitura de **medidor**.
- Você pode adicionar múltiplas linhas na sua folha do Google Sheets para associar vários ativos a um ou mais planos de uma só vez.