

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

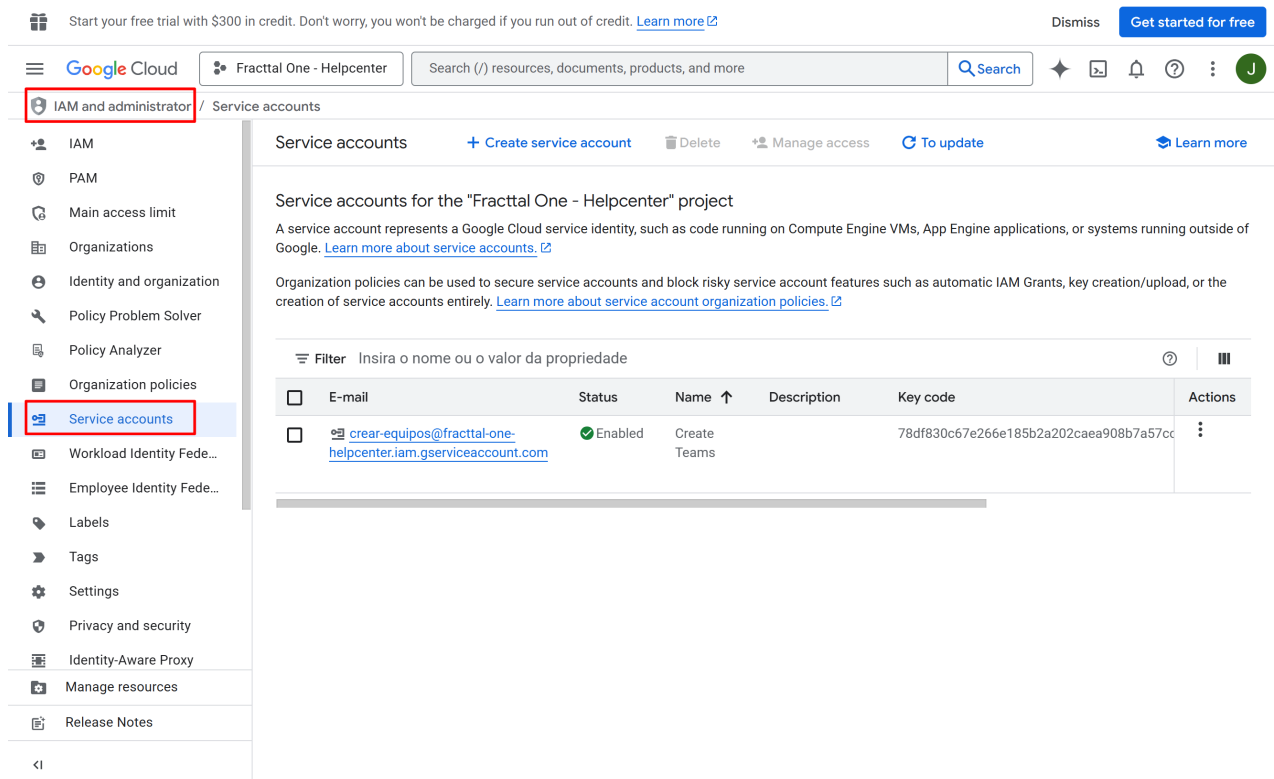
help.fractal.com/hc/pt-br/articles/37555734218893-Como-vincular-um-ativo-a-um-plano-de-manutenção-a-partir-do-Fractal-Hub

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 o console do Google Cloud

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

1. Acesse o console do Google Cloud.
2. No menu de navegação, vá para **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

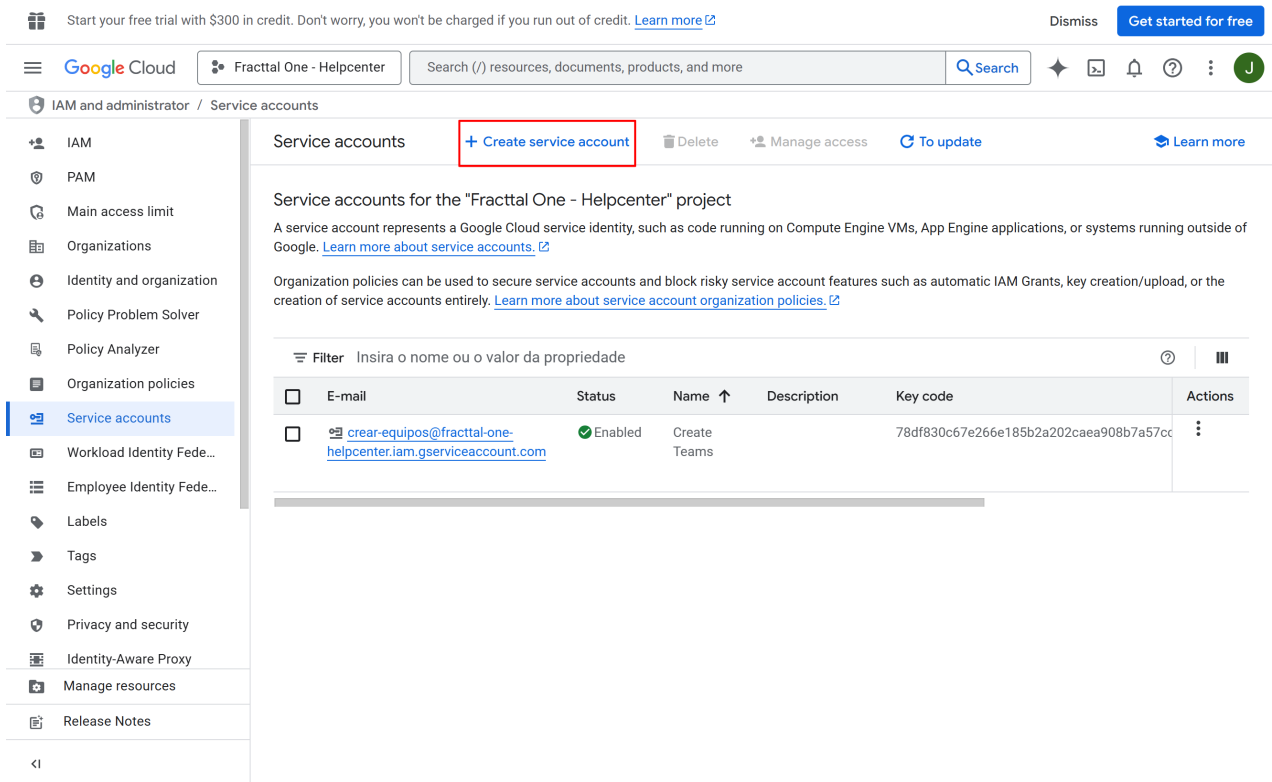
A service account represents a Google Cloud service identity, such as code running on Compute Engine VMs, App Engine applications, or systems running outside of Google. [Learn more about service accounts.](#)

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

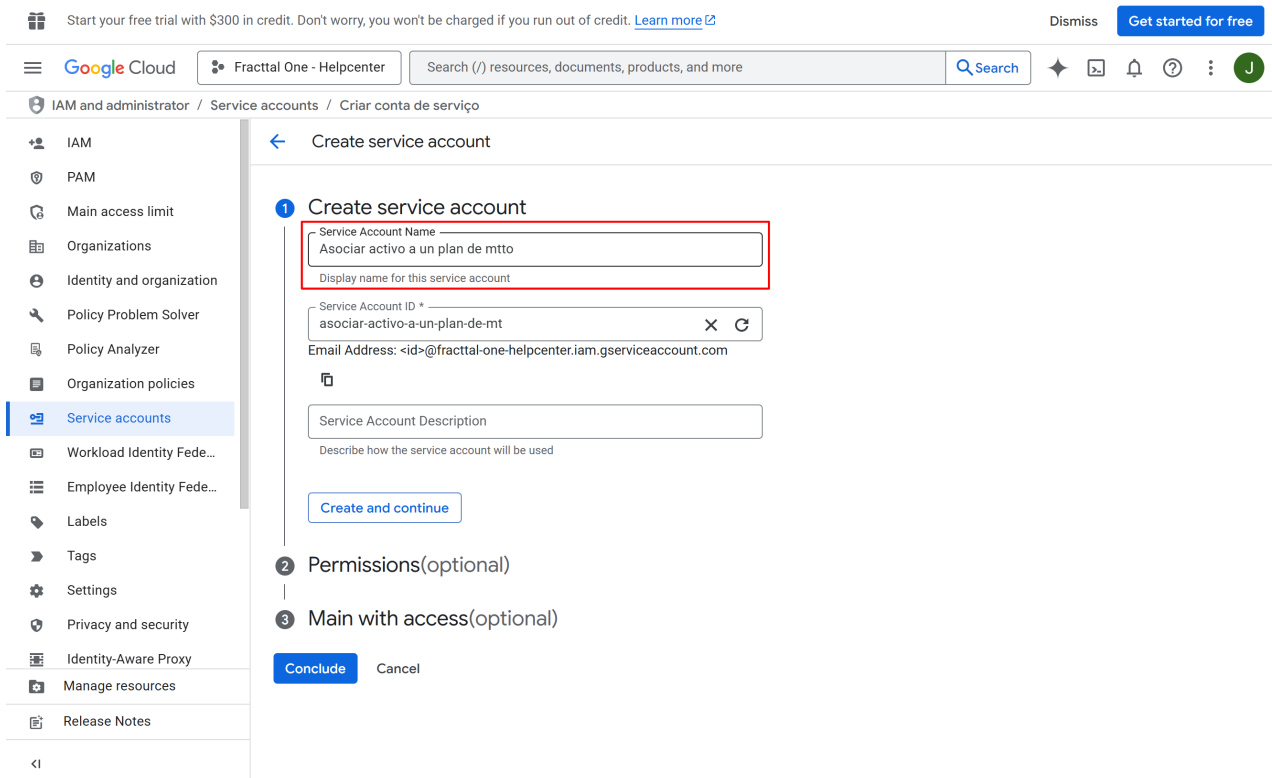
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Filter Insira o nome ou o valor da propriedade

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

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

IAM
PAM
Main access limit
Organizations
Identity and organization
Policy Problem Solver
Policy Analyzer
Organization policies
Service accounts
Workload Identity Fede...
Employee Identity Fede...
Labels
Tags
Settings
Privacy and security
Identity-Aware Proxy
Manage resources
Release Notes

Create service account

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 baixar a chave da conta de serviço

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

1. Na lista de contas de serviço, clique no email da conta que você acabou de criar.
2. Vá para a 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 new key

Upload a current key

Service account created

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 baixado automaticamente em seu computador. Guarde este arquivo em um local seguro, pois contém as credenciais de acesso.

Passo 3: Compartilhar a planilha do Google com a conta de serviço

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

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

```
iu/GJnbMTuPKUpPhPrRy\ntZCxNW/B3Rn5NDb+yCGFnsMhVHUqdolZgnaIpPwfxchw6Y9z13o
lbsETqWNNHo7R\nbZ1oTC05KsPs4eLr421Tf8jHbDR1VsGqZQchWq7XygebVsr4cyEkkLJVAo
GAcI4P\nfw7iK95IuZEQ0WNkRo6TS2MuYJ256ifdDiHMa4ZmbMuL43dXNLTO11p7SctyiuC2\
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 planilha no Google Sheets.
- Clique no botão **Compartilhar** (parte superior direita).
- Cole o email 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 planilha do Google Sheets

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

1. Acesse a 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:

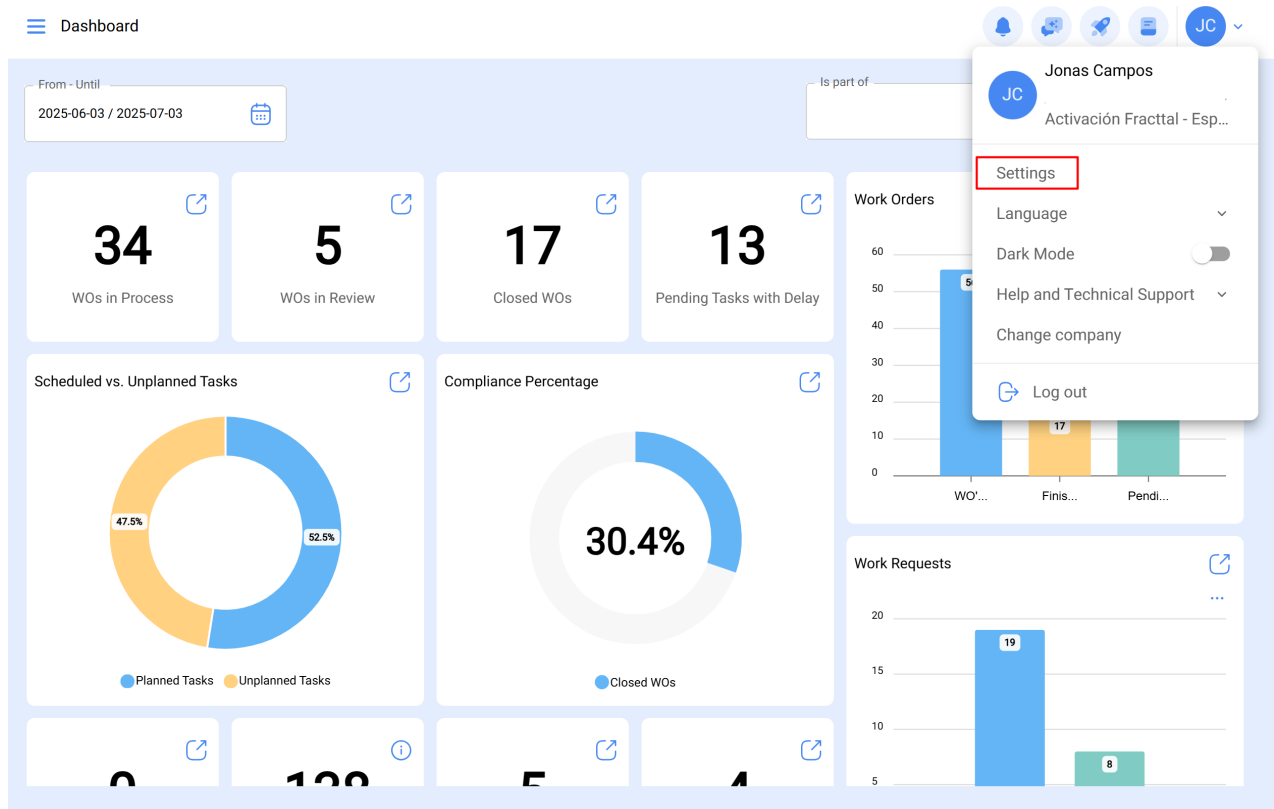
- **id_tasks_plan**: ID do plano de tarefas ao qual você deseja associar o ativo. Você pode encontrá-lo no Fractal.
- **code_user**: Código do usuário responsável pela transação. Encontre-o em *Catálogos > Recursos Humanos*.
- **item_code**: Código do ativo (equipamento, localização, etc.) que você deseja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

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

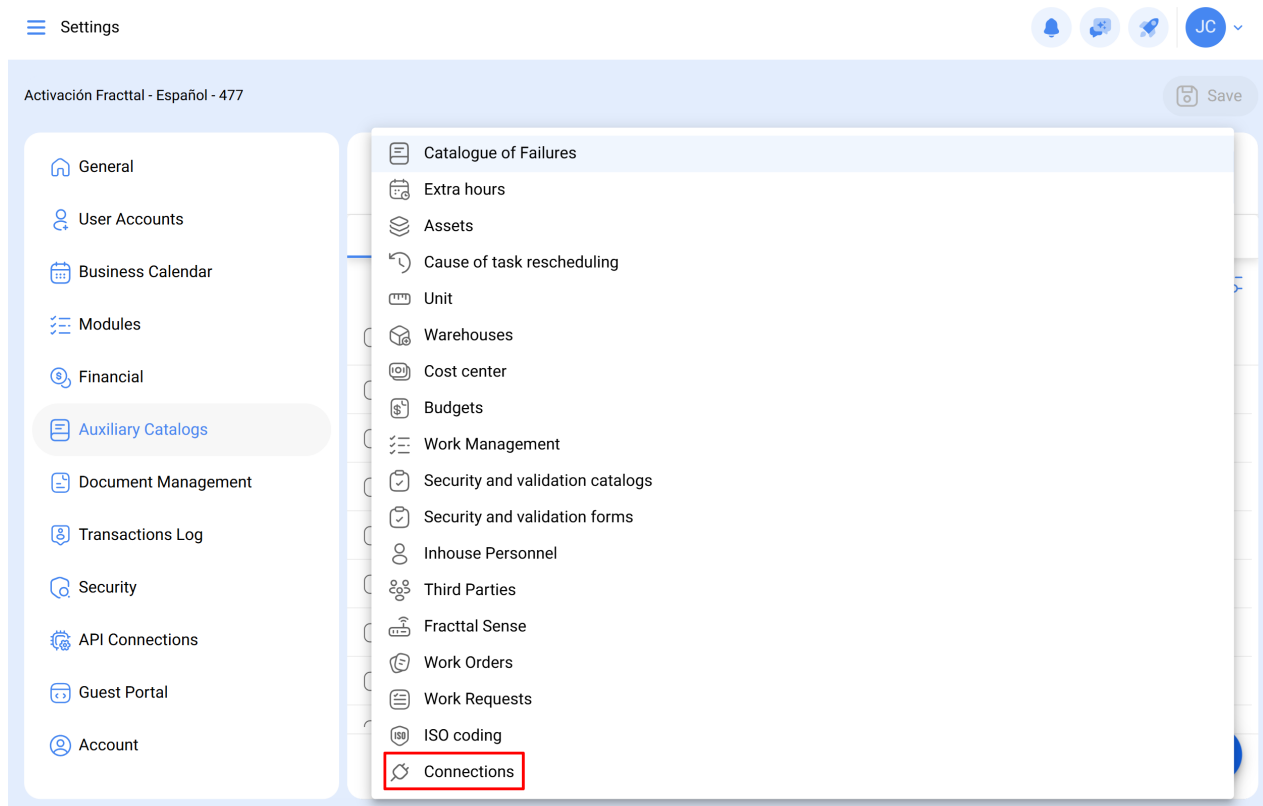
1. No Fractal, navegue até **Configuração > Catálogos Auxiliares > Conexões**.



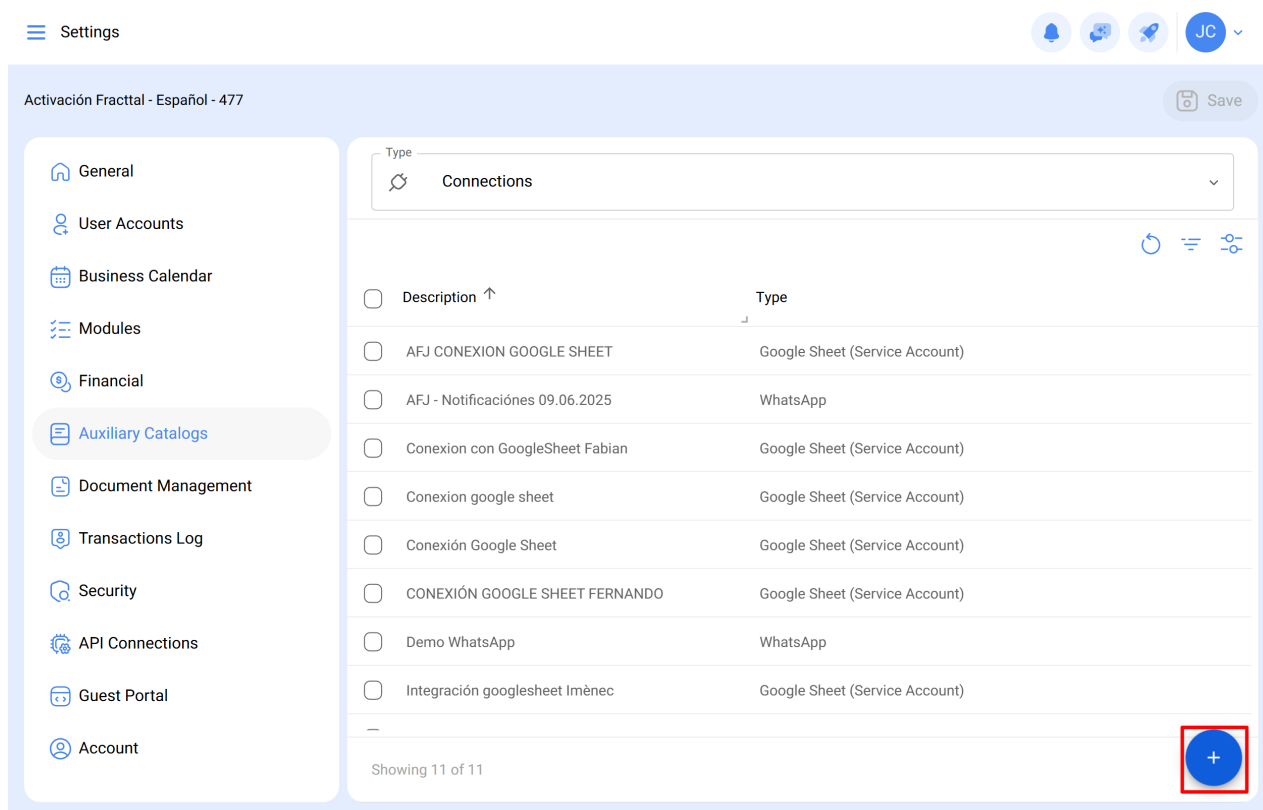
The settings page is titled "Activación Fractal - Español - 477". The left sidebar lists various settings categories, with "Auxiliary Catalogs" highlighted. The main form contains the following fields:

- 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 is displayed on the right side of the form, showing the location of Inacap Apoquindo. The map includes a search bar, a person icon, and a scale bar.



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



3. Preencha os seguintes campos:

The screenshot shows the 'Settings' page for 'Activación Fractal - Español - 477'. The sidebar on the left lists various settings categories: General, User Accounts, Business Calendar, Modules, Financial, Auxiliary Catalogs (highlighted), Document Management, Transactions Log, Security, API Connections, Guest Portal, and Account. The main content area is titled 'Connections' and displays a table with 11 rows. The table has columns for 'Type', 'Description', and 'Status'. The first row is a header with a checkbox and the text 'Description ↑'. The following rows list various connections, including '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', and 'Integración googlesheet Imènc'. The table is paginated, showing 'Showing 11 of 11'.

Below the screenshot, there are two input fields for 'Type' and 'Description' with validation messages:

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, and a blue checkmark icon is visible in the top right corner of the modal.

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

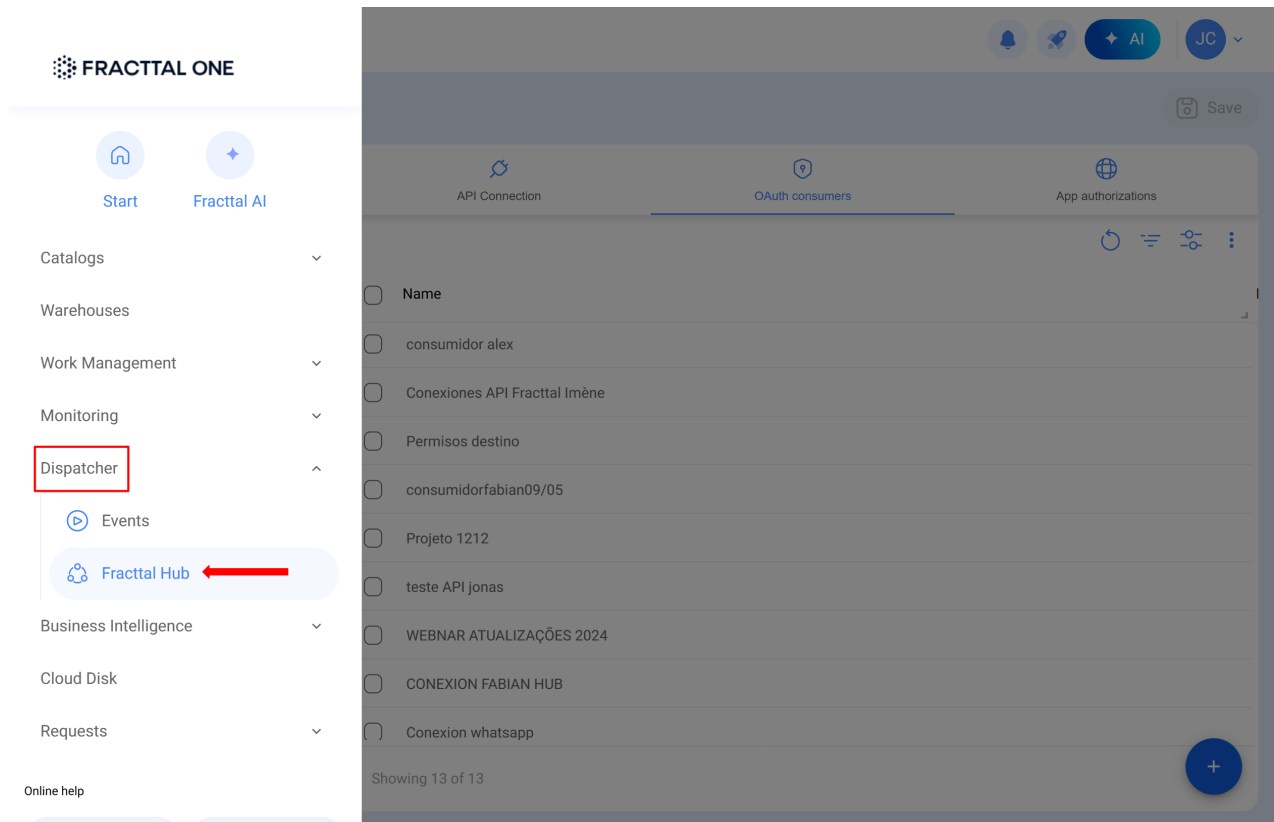
- private_key
- client_email
- client_id
- client_x509_cert_url

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

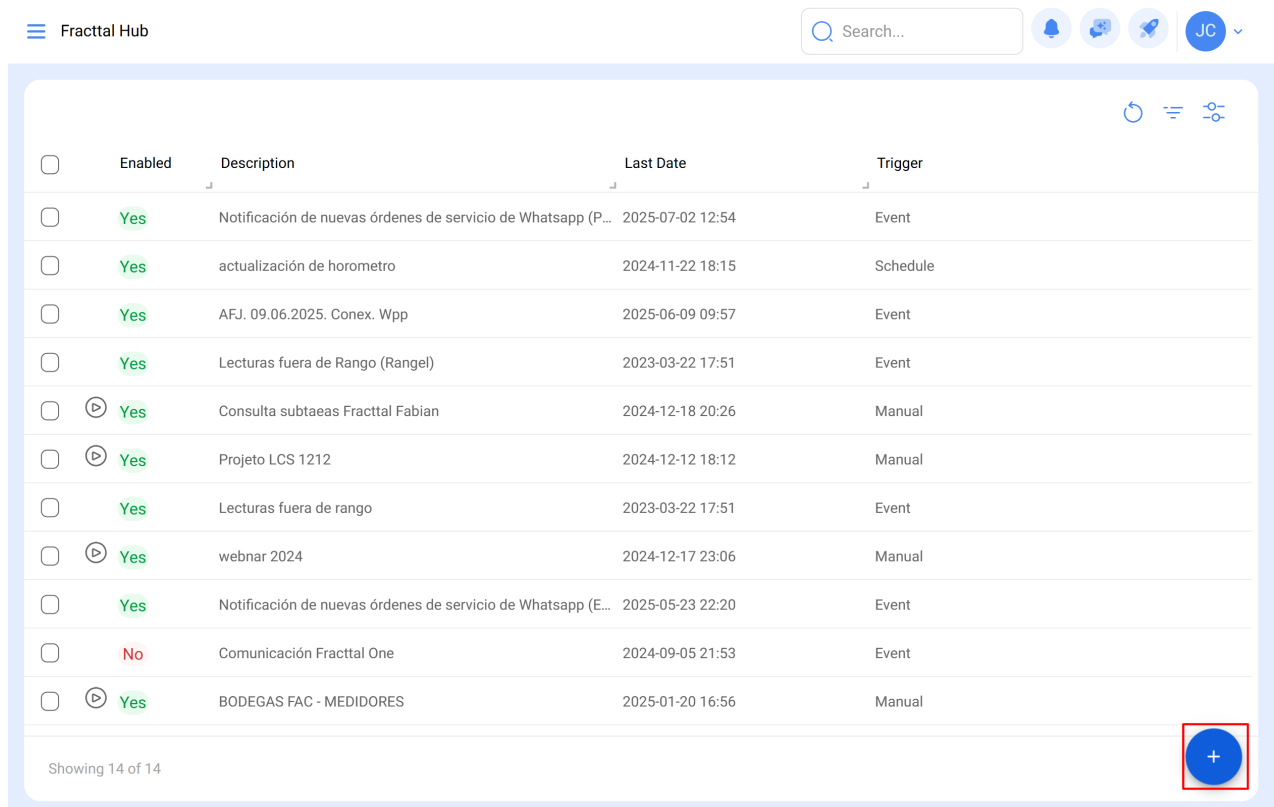
Passo 6: Configurar o fluxo no Fractal Hub

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. At the top, the header includes the Fractal Hub logo, a notification bell, a search icon, an AI icon, and a user profile icon labeled 'JC'. On the left sidebar, there is a toggle switch for 'Enabled', a 'Required Information' section with three bullet points, and a 'Flow' section with 'Execution history' and 'Event queue' links. 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, a flow diagram is shown with 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.

Fractal Hub

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

Trigger

Source

Select One

Connection

Settings

Source

Filter

Target

Configuração da Fonte:

Fractal Hub

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

Trigger

Source

Select One

Connection

Settings

Source

Filter

Target

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

Configuração do Destino:

The screenshot shows the Fractal Hub interface for configuring a flow. The top bar includes the Fractal Hub logo and user profile 'JC'. The left sidebar has 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 'Asociar activo a plan de MTTO'. The flow diagram shows three steps: 'Source' (with 'Trigger' and 'Source' sub-steps), 'Filter' (with 'Select One' sub-step), and 'Target' (with 'Connection' and 'Settings' sub-steps). The 'Connection' sub-step in the 'Target' section is highlighted with a red 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 left, there is a sidebar with a menu icon and the text 'Fractal Hub'. Below this, there is a toggle switch labeled 'Enabled' which is turned on. A 'Required Information' section contains a message: 'Target connection settings cannot be empty'. Below this, there is a 'Flow' section with icons for 'Execution history' and 'Event queue'. The main area shows a flow diagram with a 'Description' box containing the text 'CREAR MEDIDOR'. Below the description, there are two boxes labeled 'Trigger' and 'Source', followed by a blue arrow pointing to a 'Select One' box. The 'Target' configuration panel is overlaid on the right side of the screen. It has a title bar with a back arrow and the text 'Target'. Below the title bar, there is a red-bordered box containing three sections: 'Module' with a dropdown menu showing 'Fractal', 'Connection' with a dropdown menu showing 'FRACTAL HUB' and a close button, and 'Action' with a dropdown menu showing 'Create Gauges'.

Configuração de campos (mapeamento):

The screenshot displays the Fractal Hub interface for configuring a flow. On the left sidebar, there is a toggle for 'Enabled' (checked), a 'Required Information' section with a warning that 'Target connection settings cannot be empty', and a 'Flow' section with links for 'Execution history' and 'Event queue'. The main area is titled 'Flow settings' and contains a description field with the text 'CREAR MEDIDOR'. Below this, a flow diagram is shown with three stages: 'Source', 'Filter', and 'Target'. The 'Source' stage has two components, 'Trigger' and 'Source'. The 'Filter' stage has one component, 'Select One'. The 'Target' stage has two components, 'Connection' and 'Settings'. The 'Settings' component is highlighted with a red box, indicating it is the next step to be configured.

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

Fracttal Hub

Enabled

Information

Flow

Execution history

Event queue

Description

CREAR MEDIDOR

Trigger

Source

Source

Fields Configuration

Source: Google Sheet → Target: Fracttal API

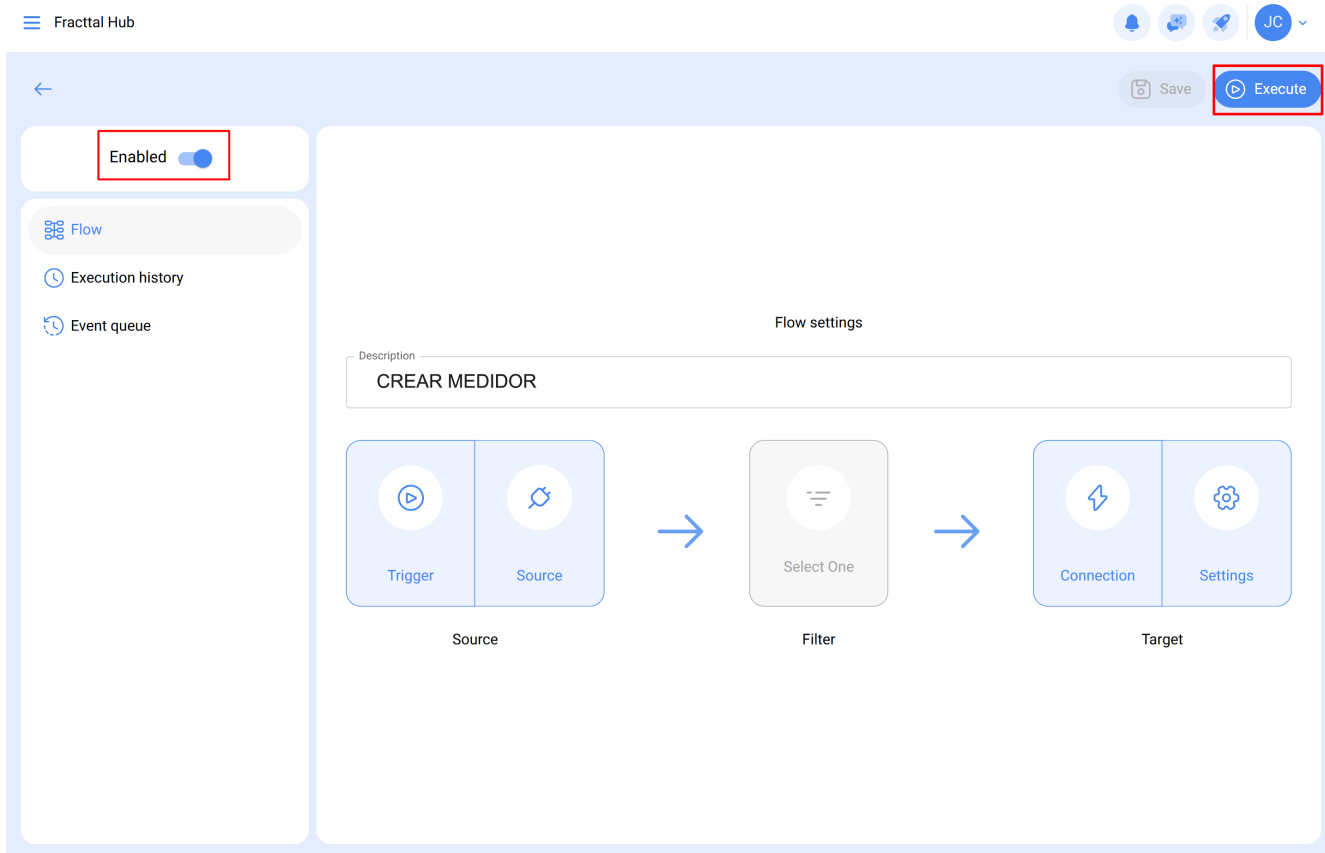
Source (Fields)		Target (Fields)	
description	→	description	
item_code	→	item_code	
unit_code	→	unit_code	
is_counter	→	serial	
All -> Object	→	is_counter	
All -> Object	→	serial_parent_meter	
All -> Object	→	last_reading	

Passo 7: Executar e verificar o fluxo

1. Clique em **Salvar** para salvar 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 for 'CREAR MEDIDOR'. A 'Trigger' button is visible. On the right, the 'Fields Configuration' panel is open, showing a mapping between 'Source (Fields)' and 'Target (Fields)'. The 'Source (Fields)' column includes 'description', 'item_code', 'unit_code', 'is_counter', and 'All -> Object'. The 'Target (Fields)' column includes 'description', 'item_code', 'unit_code', 'serial', 'is_counter', 'serial_parent_meter', and 'last_reading'. A red box highlights a checkmark icon in the top right corner of the 'Fields Configuration' panel.

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 para **Tarefas > Plano de Tarefas**, selecione o plano correspondente e, na aba **Ativos Vinculados**, você verá o ativo que foi associado por meio da planilha.

Notas:

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