

# Taller Desarrollo de Configuraciones APIC

## Entrenamiento VCSOFT



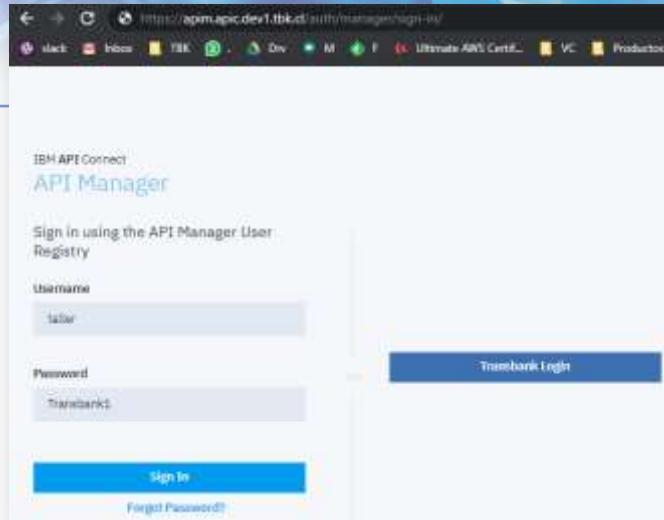
# Talleres Desarrollo de Configuraciones APIC

Temario	Descripción
Taller 01	Taller de entendimiento de contexto de configuración de APIs en API Manager El objetivo es construir un simple API proxy a una funcionalidad ya existente
Taller 02	Diseño de API con Swagger en APICURIO
Taller 03	Registro de API en API Manager
Taller 04	Analítica API para desarrolladores
Taller 05	OAuth2
Taller 06	Integración servicios SOAP
Taller 07	Publicación Producto Interacción como Consumidor en API Developer Portal

# Usuario

- Usuario de acceso a APIC

- ❖ Usuario: taller
- ❖ Password: Transbank1



- Recursos

- ❖ GIT: <https://git.vc-soft.com/jaimev/taller-apic>

- ❖ Descarga ZIP

<https://git.vc-soft.com/jaimev/taller-apic/repository/archive.zip?ref=master>

- ❖ Alternativa: clonar <https://git.vc-soft.com/jaimev/taller-apic.git>

Solo directorio <https://git.vc-soft.com/jaimev/taller-apic/tree/master/tallerDesarrollo>

# Elementos a descargar

---

- Postman

<https://www.postman.com/downloads/>

- CURL

[https://curl.haxx.se/windows/dl-7.69.1\\_1/curl-7.69.1\\_1-win64-mingw.zip](https://curl.haxx.se/windows/dl-7.69.1_1/curl-7.69.1_1-win64-mingw.zip)

- API Designer

- ❖ IBM Fix Central

[http://www\\_vc-soft\\_com/downloads/IBM-APIC/toolkit-windows\\_lts\\_v2018.4.1.9.zip](http://www_vc-soft_com/downloads/IBM-APIC/toolkit-windows_lts_v2018.4.1.9.zip)

- Postman Colección pública

<https://web.postman.co/collections/427632-dd19985f-2eff-4c57-8cbe-4a78b7800586?version=latest&workspace=36588f9a-94ae-4359-8d8d-849f6f79d2ab>

# Taller 01

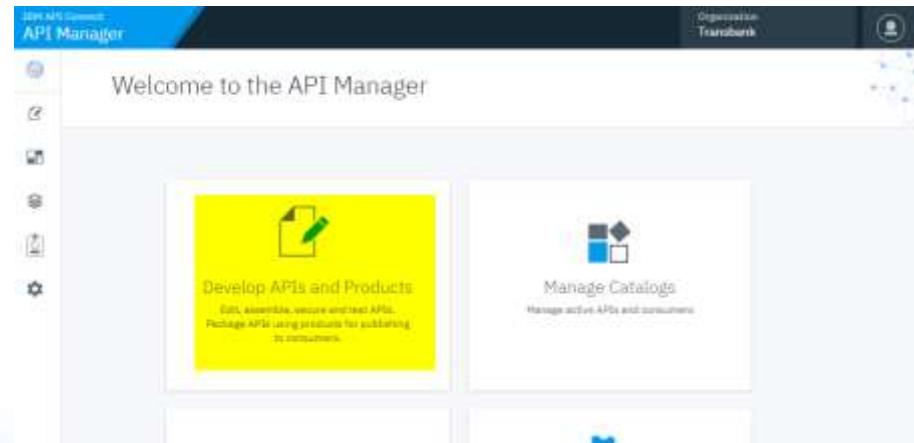
## API REST

- Objetivo
  - ❖ Registrar un API
  - ❖ Implementación Existente: Servicio REST
  - ❖ Sin transformación de mensajería
  - ❖ Control de Tráfico:
    - Máximo dos invocaciones por minuto
- API a ser invocada
  - ❖ GET <http://ip-api.com/json/{ip-internet}>
  - ❖ <http://ip-api.com/json/181.58.73.161>

```
{  
    "status": "success",  
    "country": "Colombia",  
    "countryCode": "CO",  
    "region": "ANT",  
    "regionName": "Antioquia",  
    "city": "Medellín",  
    "zip": "050001",  
    "lat": 6.2529,  
    "lon": -75.5646,  
    "timezone": "America/Bogota",  
    "isp": "Telmex Colombia S.A.",  
    "org": "Telmex Colombia S.A.",  
    "as": "AS10620 Telmex Colombia S.A.",  
    "query": "181.58.73.161"  
}
```

# Crear el API

- Convención Ambiente Desarrollo
  - ❖ Taller-01-xx\_nombre: donde xx es el grupo asignado:
    - Ejemplo Taller-01-07\_where-ip
- Crear API



## Develop

### APIs and Products

TITLE	TYPE	LAST MODIF.
 Abonos-1.1.0	API (REST)	Today at 9 AM
 Laboratorio_UDP-1.0.0	API (REST)	Today at 9:29 AM

Add

API

Product

## Create

### From target service

Create a REST proxy that routes all traffic to a target API or service endpoint

### From existing OpenAPI service

Create a REST proxy based upon an OpenAPI described target service

### From existing WSDL service (SOAP proxy)

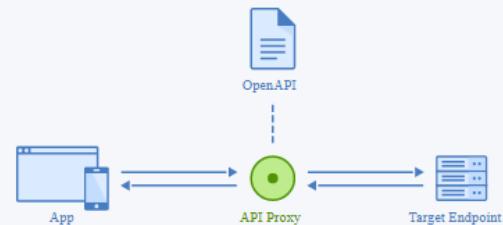
Create a SOAP proxy based upon a WSDL described target service

### From existing WSDL service (REST proxy)

Create a REST proxy based upon a WSDL described target service

### New OpenAPI

Compose a new REST proxy by defining paths and operations



## Create API from Target Service

### Info

Enter details of this API

#### Title

Taller-01-00\_“where-is-my-ip”

#### Name

taller-01-00-“where-is-my-ip”

#### Version

1.0.0

#### Base path (optional)

/taller-01-00-“where-is-my-ip”

#### Description (optional)

Esta es la documentación principal del API

#### Target Service URI

## Create API from Target Service

### Secure

Configure the security of this API

Secure using Client ID

Limit API calls on a per key basis

CORS

Cancel

Back

Next

# Revisión de API generada

Develop

taller... 1.0.0 ▾

Design

Source

Assemble



Stopped



No Errors

## API Setup

Security Definitions

Security

Paths

Definitions

Properties

Target Services

Categories

Activity Log

## Info

Enter the API summary details

### Title

Taller-01-00\_where-is-my-ip

### Name

taller-01-00-where-is-my-ip

### Version

1.0.0

### Description (optional)

Esta es la documentación principal del API

# Aumentar documentación y cambiar tipo de contenido:JSON

Develop

taller... 1.0.0 ▾

Design\*

Source

Assemble



Stopped



**API Setup**

Name: taller-01-00-where-is-my-ip

Version: 1.0.0

Description (optional):

Esta es la documentación principal del API. Se debe escribir lo \*necesario\* para que los potenciales consumidores

## Se sigue sintaxis Markdown  
La representación de esta documentación:  
\* Sigue markdown  
\* Sin muchas funcionalidades, pero lo suficiente

**Base path (optional):** /taller-01-00-where-is-my-ip

**Consumes:**

application/json

application/xml

**Produces:**

application/json

application/xml

# Revisión Seguridad: Definiciones de Seguridad

Develop taller... 1.0.0 ▾ Design Source Assemble ● Stopped ▶ No Errors Save ⋮

**API Setup**

**Security Definitions** (selected)

**Paths**

**Definitions**

**Properties**

**API Security Definition**

Name: clientID

Description (optional):

Type:  API Key  Basic  OAuth2

Located In: Header

Key Type: Choose one...  
 Client ID (highlighted)  
 Client Secret

**API Security Definition**

Name: clientID

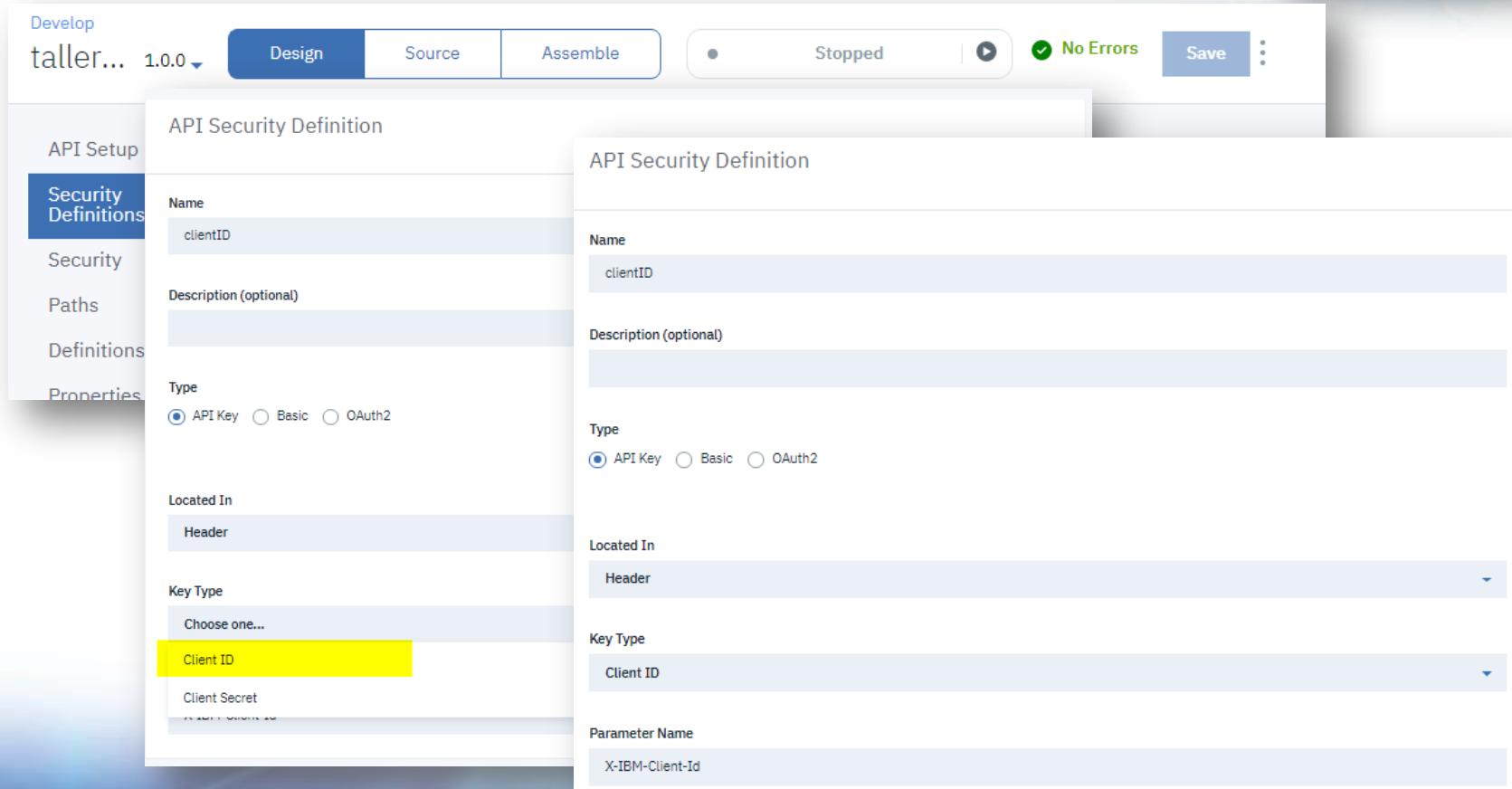
Description (optional):

Type:  API Key  Basic  OAuth2

Located In: Header

Key Type: Client ID

Parameter Name: X-IBM-Client-Id



# Revisar que la definición se aplique al API

The screenshot shows the MuleSoft Anypoint Studio interface for managing an API definition named "taller... 1.0.0". The top navigation bar includes tabs for "Develop", "Design" (which is selected), "Source", and "Assemble". Status indicators show the API is "Stopped" with "No Errors" and a "Save" button.

The main content area is titled "Security". It contains a sub-section "Security Definitions" with the note: "Security definitions selected here apply across the API, but can be overridden for individual operations. Learn more". A blue "Add" button is visible. On the left, a sidebar lists "API Setup", "Security Definitions" (selected), "Paths", "Definitions", "Properties", and "Target Services".

In the "SECURITY DEFINITIONS" section, there is a list of selected security definitions: "clientID" and "apiKey", each preceded by a checked checkbox.

# Revisión de las operaciones

**Path**

Paths identify the REST resources exposed by the API. An operation combines a path with an HTTP verb, parameters, and definitions for requests and responses. [Learn more](#)

**Path name**

/

**Add**

**Path Parameters**

REQUIRED	NAME	LOCATED_IN	TYPE	DESCRIPTION	DELETE
 No items found					

**Operations**

**Add**

NAME
GET
PUT
POST
DELETE
OPTIONS
HEAD
PATCH

# Vista Assemble

Develop taller... 1.0.0 ▾

Design Source Assemble Stopped

Invoke

Filter Search Show catches

Logic

Switch Throw

Transforms

JSON to XML Map Parse

catch

The screenshot shows the Vista Assemble interface. At the top, there's a navigation bar with tabs for Develop, Design, Source, and Assemble (which is selected). Below the tabs, there's a status bar showing 'Stopped' and a play button. To the right of the status bar is a configuration panel for an 'Invoke' node. The configuration panel includes fields for 'target-url' (with a note: 'The URL to be invoked.'), 'TLS Profile' (set to '(none)'), 'Timeout' (set to 60), and a checkbox for 'Follow redirects'. Below these are fields for 'Username' and 'Password' for HTTP Basic authentication, and a dropdown for 'HTTP Method' set to 'Keep'. On the left side of the interface, there's a sidebar with sections for Logic (containing Switch and Throw nodes) and Transform (containing JSON to XML, Map, and Parse nodes). The main workspace shows a simple workflow: a start node connected to an 'Invoke' node, which then connects to an end node. A 'catch' node is also present in the workspace.

target-url  
The URL to be invoked.

TLS Profile  
(none)

Timeout  
60

Follow redirects

Username

Password

HTTP Method  
Keep

The username to use for HTTP Basic authentication.

The password to use for HTTP Basic authentication.

The HTTP method to use for the invocation. If omitted or set to 'Keep', then it is inherited from the incoming request will be

# Prueba del servicio

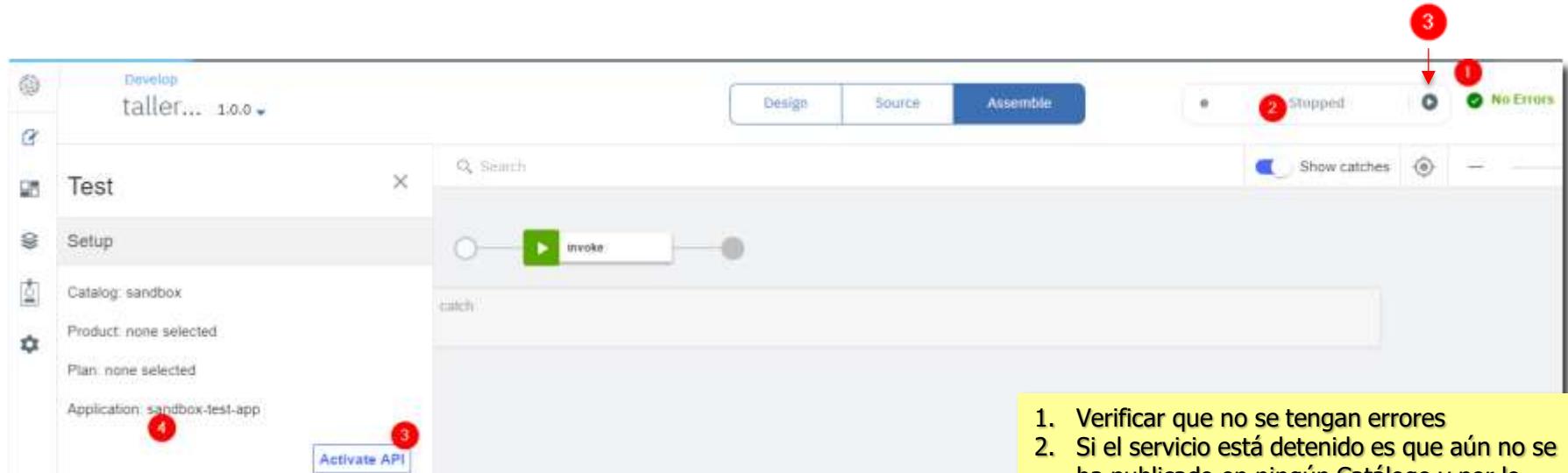
The screenshot shows a service development environment with a sidebar and a main workspace.

**Left Sidebar:**

- Google Search:** A search bar with "what is my ip" and results showing "About 2,370,000,000 results". Below it, the IP address "3.208.59.113" and "Your public IP address" are displayed.
- Logic:** A section containing icons for "Switch" (diamond), "Throw" (triangle), and "Transforms".
- Transforms:** Sub-sections include "JSON to XML" and "Map".

**Main Workspace:**

- Header:** "Develop" tab, project name "taller...", version "1.0.0", and three tabs: "Design", "Source", and "Assemble".
- Search Bar:** Includes a "Filter" input and navigation buttons (left arrow, right arrow, search icon).
- Flow Diagram:** A BPMN-like diagram with a start event, an "invoke" step (green parallelogram), and an end event. The "invoke" step has a label "invoke".
- Logs:** A wavy line at the bottom of the workspace.



1. Verificar que no se tengan errores
2. Si el servicio está detenido es que aún no se ha publicado en ningún Catálogo y por lo tanto en ningún API Gateway
3. Activar el API para desplegar en un catálogo. Los API no se despliegan directamente, siempre se incluyen en PRODUCTOS. El producto tiene control de tráfico en el plan
4. Quien invoca el API es una APP que es a quien se le asigna el APIKey

# Invocación de API en entorno Prueba

The screenshot shows the AWS Lambda Test console. At the top, it says "Develop taller... 1.0.0". Below that is a "Test" tab. In the center, there's a "Search" bar and a "invoke" button. To the right of the invoke button is a "Catch" section. On the left, under "Response", it shows "Status code: 200 OK" and "Response time: 849ms". Under "Headers", it shows "Content-type: application/json; charset=utf-8". Under "Body", there is a JSON response object. A yellow callout bubble points to this body area with the text "Resultado".

```
{"status": "success", "country": "United States", "countryCode": "US", "region": "VA", "regionName": "Virginia", "city": "Ashburn", "zip": "20149", "lat": 39.0438, "lon": -77.4879, "timezone": "America/New_York", "isp": "Amazon.com, Inc.", "org": "AWS EC2 (us-east-1)", "as": "AS1618 Amazon.com, Inc.", "query": "38.200.2.131"}
```

- La invocación esta fija sin Valor de IP (AWS default)
- Cambie la invocación en Properties adicionando un nuevo IP

The screenshot shows the AWS Lambda Properties configuration screen. At the top, it says "Develop taller... 1.0.0" with "Design" and "Source" tabs. Below that are sections for "API Setup", "Properties", "Security Definitions", "Security", "Paths", "Definitions", and "Properties". The "Properties" section is highlighted with a blue background. It has a table with one row: "target-url" under "PROPERTY NAME" and "false" under "ENCODED". Below the table are sections for "Target Services", "Categories", and "Activity Log".

PROPERTY NAME	ENCODED
target-url	false

# Registro de Producto

## Develop

### APIs and Products

Add

TITLE	TYPE	LAST MOD
 Abonos-1.1.0	API (REST)	Today at 2:44 PM
 Laboratorio_UDP-1.0.0	API (REST)	Today at 2:44 PM
 Taller-01-00_where-is-my-ip-1.0.0	API (REST)	Today at 2:44 PM

API

Product



# Nuevo Producto

## Add Product

### Create

#### New product

Compose a new product by adding rate limits and plans

### Import

#### Existing product

Use an existing instance of a product

Cancel

Next

## Create New Product

### Info

Enter details of the product

### Title

Taller-01-00-Producto01

### Name

taller-01-00-producto01

### Version

1.0.0

### Summary (optional)

Un producto inicial para agrupar los API creados en el taller

Cancel

Next

## Create New Product

### APIs

Select the APIs to add to this product

<input type="checkbox"/>	TITLE	VERSION	DESCRIPTION
<input type="checkbox"/>	Abonos	1.1.0	
<input type="checkbox"/>	Laboratorio_UDP	1.0.0	
<input checked="" type="checkbox"/>	Taller-01-00_where-is-my-ip	1.0.0	
<input type="checkbox"/>	Tbk-Test-Ventas	1.0.0	
<input type="checkbox"/>	Test Ventas	1.0.0	
<input type="checkbox"/>	Ventas	1.1.0	

Items per page 50 ▾ |

< >

Cancel

Back

Next

# Plan y Visibilidad

**Plans**  
Compose a new product by adding rate limits and plans

**Add**

**Default Plan**

Title  
Default Plan

Description (optional)  
Default Plan

Rate Limit  
2 / 1 minute

**Cancel** **Back** **Next**

## Create New Product

Publish product

### Visibility

Select the organizations or groups you would like to make this product visible to

- Public
- Authenticated
- Custom

### Subscribability

Select the organizations or groups you would like to subscribe to this product

- Authenticated
- Custom

**Cancel** **Back** **Next**

# Reporte de creación de producto

## Create New Product

### Summary

-  Created new product
-  Added APIs
-  Added rate limits

[Edit Product](#)

Product Setup

Visibility

APIs

**Plans**

Categories

## Plan Rate Limits

Unlimited  Rate Limits

### Rate Limits

Add

NAME	CALLS	PER	UNIT	HARD LIMIT	DELETE
default	2	1	minute	-	

## Plan Burst Limits

Add

NAME	CALLS	PER	UNIT	DELETE
3xmin	3	1	minute	

# API y Producto

## Develop

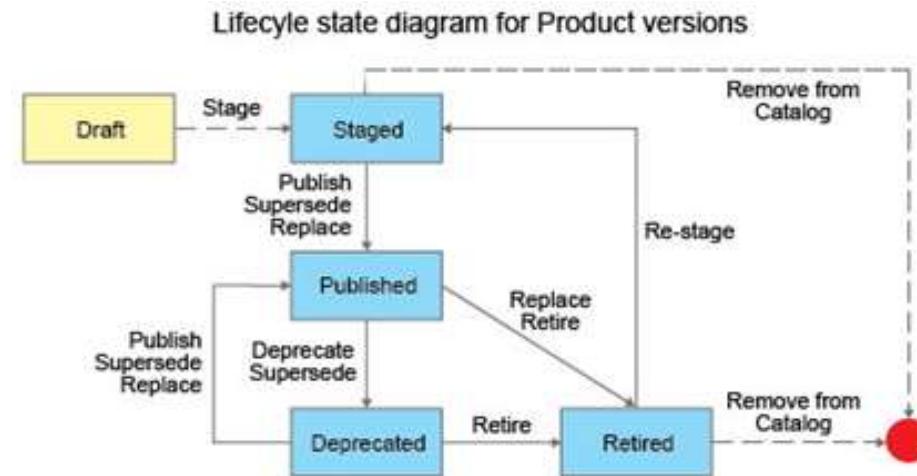
### APIs and Products

Add

TITLE	TYPE	LAST MODIFIED	
 Taller-01-00_where-is-my-ip-1.0.0	API (REST)	Today at 2:57 PM	
 Taller-01-00-Producto01-1.0.0	Product	Today at 2:57 PM	 <p>Actividades sobre Producto</p> <ul style="list-style-type: none"><li>Publish</li><li>Stage</li><li>Save as a new version</li><li>Download</li><li>Delete</li></ul>

# Ciclo de Vida de Producto

- Los productos dentro cada catálogo siguen un ciclo de vida de gobierno que define los siguientes estados:
  - ❖ Stage (Desplegar)
  - ❖ Publicar
  - ❖ Dejar en desuso
  - ❖ Retirar
  - ❖ Reemplazar
  - ❖ Sustituir



# Publish to Catalog

## Publish To

Catalog

Sandbox ▾

Publish to specific gateway services  
By default, this product is published to all gateway services. You can also publish to specific gateway services by enabling this option.

<input checked="" type="checkbox"/>	GATEWAY SERVICES	GATEWAY TYPE
<input checked="" type="checkbox"/>	DP-k8s	DataPower API Gateway

[Cancel](#) [Publish](#)

## Manage

A catalog hosts a collection of API products that are visible in the associated developer portal when published.

TITLE	NAME	STATE	LAST STATE CHANGED
Abonos auto product	abonos-auto-product 1.1.0	published	Today at 4:30 PM
Taller-01-00-Producto01	taller-01-00-producto01 1.0.0	published	Today at 4:30 PM
test Ventas auto product	test-ventas-auto-product 1.0.0	published	Today at 11:21 AM

Lifecycle state diagram for Product versions

```

graph TD
    Draft -- Stage --> Staged
    Staged -- Publish --> Published
    Staged -- Supersede --> Published
    Staged -- Replace --> Published
    Published -- Deprecate --> Deprecated
    Published -- Retire --> Retired
    Deprecated -- Retire --> Retired
    Staged -- ReStage --> Published
    Published -- Replace --> Retired
    Published -- Retire --> Retired
    Retired -- Remove --> End(( ))
    Staged -- Remove --> End
  
```

Actions available on the right side of the table:

- Deprecate
- Retire
- Replace
- Supersede
- Set migration target
- Update gateway services
- Edit visibility
- Manage APIs

# Registrando un consumidor: suscripciones

Manage / Sandbox

## Applications

Add

TITLE	APPLICATION TYPE	STATE	
APP-RUT-1234567890-1	Production	Enabled	
Sandbox Test App	Production	Enabled	<div style="border: 1px solid #ccc; padding: 5px; display: inline-block;">⋮</div>

Items per page **50** ▾ | 1-2 of 2 items

1 of 1 pages

- Edit
- Credentials
- Create subscription
- View subscription
- Disable
- Delete

Manage / Sandbox

## Create Subscription

### Product/Plan

Select the product and plan for the application subscription



Taller-01-00-Producto01:1.0.0/Default Plan

Items per page

50



Cancel

Create

# Definiendo el APIKey

Sandbox Test App      Production      Enabled

page 50 | 1-2 of 2 items      1 of 1 pages

⋮

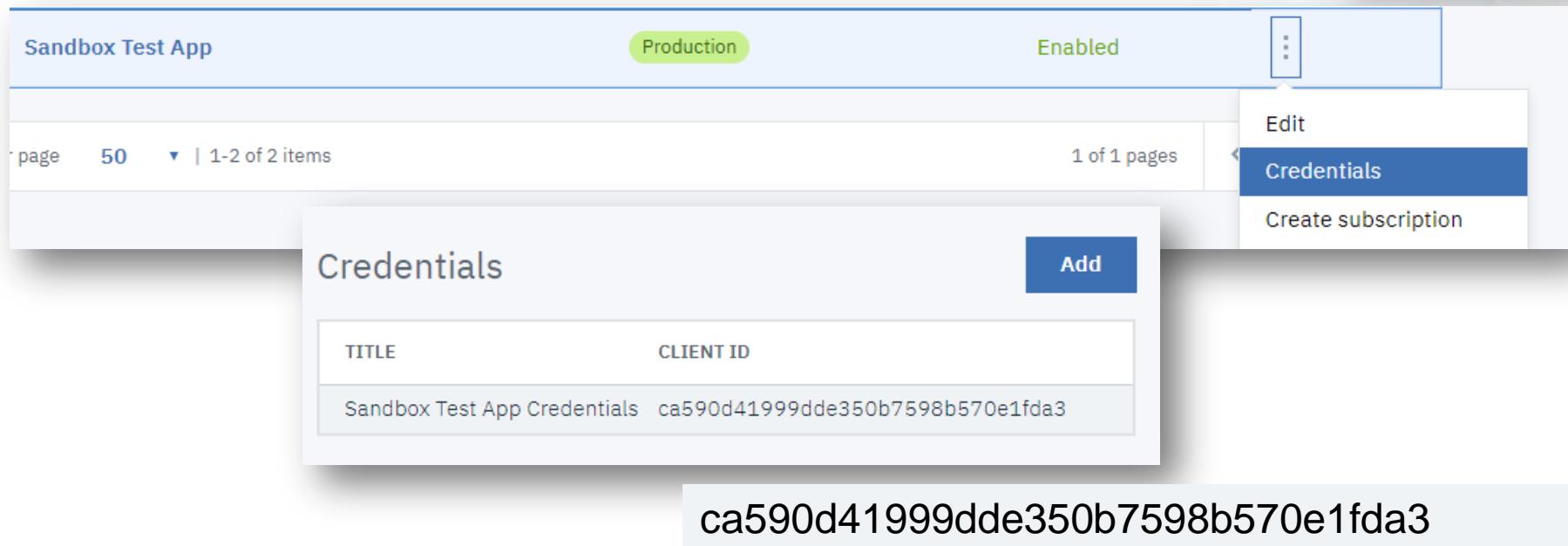
Edit  
**Credentials**  
Create subscription

Credentials

Add

TITLE	CLIENT ID
Sandbox Test App Credentials	ca590d41999dde350b7598b570e1fda3

ca590d41999dde350b7598b570e1fda3



- Crear una invocación REST hacia
  - ❖ GET <https://api.apic.dev1.tbk.cl/transbank/sandbox/taller-01-00-where-is-my-ip>
  - ❖ Header
    - X-IBM-Client-Id
    - ca590d41999dde350b7598b570e1fda3

GET https://api.apic.dev1.tbk.cl/transbank/sandbox/taller-01-00-where-is-my-ip

**Headers (8)**

Key	Value	Description
<input checked="" type="checkbox"/> X-IBM-Client-Id	ca590d41999dde350b7598b570e1fda3	

**Body**

```

1: {
2:   "status": "success",
3:   "country": "Colombia",
4:   "countryCode": "CO",
5:   "region": "DC",
6:   "regionName": "Bogotá D.C.",
7:   "city": "Bogotá",
8:   "zip": "110221",
9:   "lat": 4.64816,
10:  "lon": -74.0594,
11:  "timezone": "America/Bogota",
12:  "isp": "Telmex Colombia S.A.",
13:  "org": "Telmex Colombia S.A.",
14:  "as": "AS14080 Telmex Colombia S.A.",
15:  "query": "190.144.108.170"
16: }

```

**Headers (8)**

Key	Value	Description
<input checked="" type="checkbox"/> X-IBM-Client-Id	ca590d41999dde350b7598b570e1fda3	

**Body**

```

1: {
2:   "httpCode": "401",
3:   "httpMessage": "Unauthorized",
4:   "moreInformation": "Authentication failed"
5: }

```

**Headers (8)**

Key	Value	Description
<input checked="" type="checkbox"/> X-IBM-Client-Id	ca590d41999dde350b7598b570e1fda3	

**Body**

```

1: {
2:   "status": "failure",
3:   "error": "Too Many Requests",
4:   "moreInformation": "Rate limit exceeded"
5: }

```

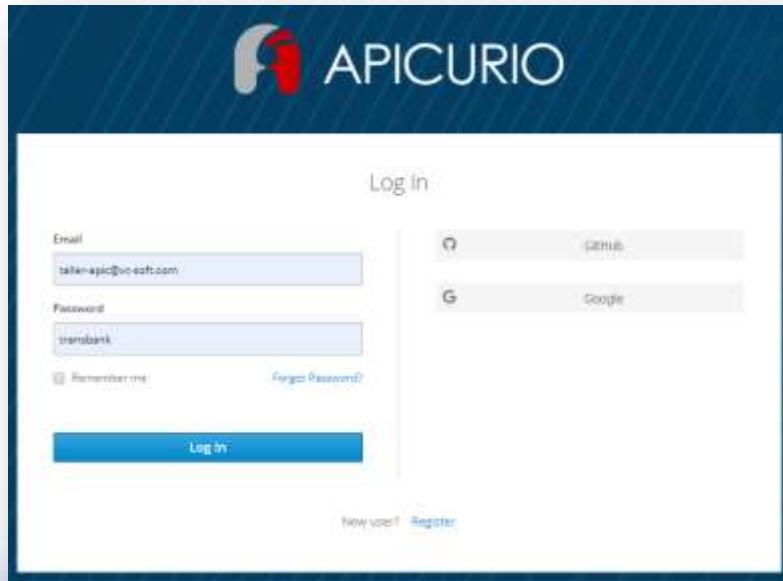
- Se creó un API proxy
- Se protegió con un control de acceso APIKey
- Se creo un producto con visibilidad a todo el portal
  - ❖ El producto ofrece un plan con restricción a pocas invocaciones al minuto
  - ❖ Se desplegó el producto en el Catálogo Sandbox
- Se realizó la invocación al URL publicado por el APIGateway asociado al Catálogo Sandbox
  - ❖ Si no se registra la APP la invocación se rechaza (protección APIKEY)
  - ❖ Al registrarse la APP se limitan las invocaciones al plan ofrecido
- No se resolvieron aspectos de uso de parámetros de entrada ni lógica de transformación

# Taller 02

## Diseño

### OpenAPI

- <https://studio-auth.apicur.io/>
  - ❖ Ingresar con taller-apic@vc-soft.com / transbank
  - ❖ O registrarse y crear un usuario



# Definición del API

- Se quiere ofrecer un API que agrupe consultas de información pública asociada a comercios y a usuarios.
- El API se llamará “taller01-xx-info-publica”
- **Operación 1**
- Ofrece un path “comercio”
- Operación de consulta (GET)
- Parámetros query: [dominio=vc-soft.com](#)
- Se protege por API KEY
- Control de tráfico 10 invocaciones por minuto
- Respuesta:
  - ❖ nombreComercio
  - ❖ descripcion
  - ❖ direccionFisica
  - ❖ direccionWeb
  - ❖ direccionLinkedin
  - ❖ direccionTwitter
  - ❖ logo

# Definición del API

- Operación 2.
- Ofrece un path “usuario”
- Operación de consulta (GET)
- Parámetros query: [mail=jaimev@vc-soft.com](#)
- Se protege por API KEY
- Control de tráfico 10 invocaciones por minuto
- Respuesta:
  - ❖ nombreUsuario
  - ❖ cargo
  - ❖ descripción
  - ❖ direccionFisica
  - ❖ direccionWeb
  - ❖ direccionLinkedin
  - ❖ direccionTwitter
  - ❖ logo

- Definir el OpenApi utilizando APICURIO
- Definir los Paths y Definiciones
- Adoptar estructura JSON-API para entregar la información de negocio
- Verificar la documentación en APICURIO
- Cargar el OpenAPI en APIC toolkit (API Designer)
- Definir propiedades en el API en APIManager
  - ❖ Target-url con valor <https://api.fullcontact.com/v3/person.enrich>
  - ❖ fullcontact-apikey con valor 7gfNF2FJPtoVC3rFP2pWX1nrLWzgY0Zx
  - ❖ El proveedor [fullcontact.com](http://fullcontact.com) requiere de APIKEY en header  
Authorization: Bearer 7gfNF2FJPtoVC3rFP2pWX1nrLWzgY0Zx
- Revisar la documentación en el portal de desarrolladores de aplicaciones

# Datos generales

taller01-00-info-publica

Design Source

Paths

No paths have been created. Add a path

Data Types

No reusable types have been created. Add a data type

Responses

No reusable responses have been created. Add a response

- INFO

Version  
1.0.0

Description  
taller01-00-info-publica

Este API consulta información en repositorios de información pública. Sirve para labores de recolección de información para clientes potenciales.

Consumes (Inputs)  
application/json

Produces (Outputs)  
application/json

- CONTACT

Name  
Jaime Valencia

Email  
jaimevi@vc-soft.com

URL  
No URL provided.

- LICENSE

No license has been set. Set license

- TAG DEFINITIONS

- Version
- Descripción
- Consume y produce
- Contacto
- Definición Seguridad
- Seguridad del API
- TAGs: comercio, usuario

# Datos PATH

taller01-00-info-publica

Search everything...

- Paths (2)

- /comercio
- /usuario

- Data Types

No reusable types have been created. [Add a data type](#)

- Responses

No reusable responses have been created. [Add a response](#)

/comercio

Design Source

Get Put Post Delete Options Head

Patch

INFO

Summary Datos públicos por dominio ✓ Operation ID consultaComercioPorMail ✓

Description Consulta datos publicos por el dominio del comercio

Tags [comercio](#) X

Consumes (Inputs) [application/json](#) Override

Produces (Outputs) [application/json](#) Override

QUERY PARAMETERS (1)

[dominio](#) Es el dominio DNS ... [required] string

HEADER PARAMETERS

REQUEST BODY

RESPONSES

## Define a New Query Parameter

Path

/comercio

Operation

GET

[Cancel](#) [Save](#)

### 1. Enter Basic Information

Enter a name and description for the new query parameter.

Name\*

dominio

Enter a valid name (only alpha-numeric characters are allowed - no whitespace).

Description

Ej: el dominio DNS del comercio

### 2. Enter Type Information (optional)

Enter information about the parameter's type (and whether it is required).

Parameter is [Required](#) and has type [String](#) as [String](#)

[Cancel](#) [Save](#)

- Para crear una estructura de gobierno la mensajería adoptará un orden definido por JSON-API
- Los Mensajes XX\_Rs
  - ❖ data o errors
  - ❖ meta
  - ❖ links
- Los mensajes XX\_Rq
  - ❖ data
  - ❖ meta
- La entidad meta se definirá como →

A document **MUST** contain at least one of the following top-level members:

- `data`: the document's "primary data"
- `errors`: an array of `error objects`
- `meta`: a `meta object` that contains non-standard meta-information.

The members `data` and `errors` **MUST NOT** coexist in the same document.

A document **MAY** contain any of these top-level members:

- `jsonapi`: an object describing the server's implementation
- `links`: a `links object` related to the primary data.
- `included`: an array of `resource objects` that are related to the primary data and/or each other ("included resources").

```
{  
  "_msgId": "e8410f95-5097-4604-8dc3-6bd4a97ba5a3",  
  "_version": "1.0.2",  
  "_rqDateTime": "2018-02-10T09:30",  
  "_transactionId": "77333456789099",  
  "_rsLength": 1,  
  "_clientId": "899812212-1"  
}
```

# Diseño de Definiciones

Construya la entidad Comercio y Usuario según los datos de negocio

taller01-00-info-publica

APIs / taller01-00-info-publica / Editor

Search everything... Issues

- Paths (2) /comercio /usuario

- Data Types (7)

- ✓ \_error
- ✓ \_meta
- ✓ Comercio**
- ✓ Comercios
- ✓ ErrorRs
- ✓ Usuario
- ✓ UsuariosRs

- Responses

No reusable responses have been created. Add a response

<> Comercio

Design Source

Inheritance Type No inheritance

- PROPERTIES (7)

- descripcion <no description> string
- direccionFisica <no description> string
- direccionLink... <no description> string
- direccionTwitter <no description> string
- direccionWeb <no description> string
- logo <no description> string
- nombreComercio <no description> string

- EXAMPLE

```
{  
    "nombrecomercio": "",  
    "descripcion": "",  
    "direccionFisica": "",  
    "direccionLink": "",  
    "direccionTwitter": "",  
    "direccionWeb": "",  
    "logo": ""  
}
```

Defina ejemplos validos del mensaje

taller01-00-info-publica

APIs / taller01-00-info-publica / Editor

Search everything... Issues

- Paths (2) /comercio /usuario

- Data Types (7)

- ✓ \_error
- ✓ \_meta
- ✓ Comercio
- ✓ Comercios
- ✓ ErrorRs
- ✓ Usuario**
- ✓ UsuariosRs

- PROPERTIES (8)

- cargo <no description> string
- descripcion <no description> string
- direccionFisica <no description> string
- direccionLink... <no description> string
- direccionTwitter <no description> string
- direccionWeb <no description> string
- logo <no description> string
- nombreUsuario <no description> string

- Responses

No reusable responses have been created. Add a response

<> Usuario

Design Source

Inheritance Type No inheritance

- EXAMPLE

```
{  
    "nombreausuario": "",  
    "cargo": "",  
    "descripcion": "",  
    "direccionFisica": "",  
    "direccionLink": "",  
    "direccionTwitter": "",  
    "direccionWeb": "",  
    "logoa": ""  
}
```

# Defina campos de gobierno

## ■ meta

taller01-00-info-publica

Search everything... Issues

- Paths (2) Design Source

/comercio /usuario

- Data Types (7)

- ↳ \_error
- ↳ \_meta
- ↳ Comercio
- ↳ ComercioRs
- ↳ ErrorRs
- ↳ Usuario
- ↳ UsuarioRs

- Responses

No reusable responses have been created. Add a response

↳ \_meta

Inheritance Type: No inheritance

- PROPERTIES (6)

- \_clientId: Free description. → string
- \_mgId: Free description. → string
- \_reqDateTime: Free description. → string as date-time
- \_rsLength: Free description. → integer as int32
- \_transactionId: Free description. → string
- \_version: Free description. → string

- EXAMPLE

```
{
  "_error": "application/xml+json; charset=UTF-8",
  "status": "400",
  "case": "400",
  "title": "Falla en parametros enviados por el cliente",
  "detail": "Campo en formato incorrecto",
  "source": [],
  "pointer": "fecha-desde",
  "parameter": "fecha-desde"
}
```

## ■ error

taller01-00-info-publica

Search everything... Issues

- Paths (2) Design Source

/comercio /usuario

Inheritance Type: No inheritance

- Data Types (7)

- ↳ \_error
- ↳ \_meta
- ↳ Comercio
- ↳ ComercioRs
- ↳ ErrorRs
- ↳ Usuario
- ↳ UsuarioRs

- PROPERTIES (6)

- node: An application-specific error code... → string
- detail: A human-readable explanation sp... → string
- id: JSON-API Error A unique identifier... → string
- source: A free description. → file type
- status: The HTTP status code applicable t... → string
- title: A short, human-readable summar... → string

- EXAMPLE

```
{
  "id": "12345678",
  "status": "400",
  "case": "400",
  "title": "Falla en parametros enviados por el cliente",
  "detail": "Campo en formato incorrecto",
  "source": [],
  "pointer": "fecha-desde",
  "parameter": "fecha-desde"
}
```

# Definiciones de Mensajes Rs y Errores

## (y Rq para POST/PUT)

taller01-00-info-publica

↳ ComerciosRs

Design Source

This data type is currently a complex object.  
Switch to simple type

- INHERITANCE

Inheritance Type  
No inheritance

- PROPERTIES (2)

data	↳ No description.	→ [required] Comercio
meta	↳ No description.	→ [required] _meta

- EXAMPLE

```
{
  "meta": {
    "_id": "some text",
    "_version": "some text",
    "_dateCreated": "2018-02-18T00:00Z",
    "_transactionId": "some text",
    "_length": 4,
    "_client": "some text"
  },
  "data": [
    {
      "comercio": "some text"
    }
  ]
}
```

taller01-00-info-publica

↳ Errors

Design SOURCE

- INFO

Description  
No description

This data type is currently a complex object.  
Switch to simple type

- INHERITANCE

Inheritance Type  
No inheritance

- PROPERTIES (2)

errors	↳ No description.	→ [required] Array of _error
meta	↳ No description.	→ [required] _meta

- EXAMPLE

```
{
  "meta": {
    "_id": "some text",
    "_version": "some text",
    "_dateCreated": "2018-02-18T00:00Z",
    "_transactionId": "some text",
    "_length": 45,
    "_client": "some text"
  },
  "errors": [
    {
      "status": "400"
    }
  ]
}
```

# Completar la definición del OpenAPI/Swagger

- GET /comercio respuesta 200 OK

taller01-00-info-publica

/usuario

Design Source

Paths (2)

/comercio

/usuario

Data Types (8)

↳ \_apiError

↳ \_error

↳ \_meta

↳ Comercio

↳ ComercioRs

↳ ErrorRs

↳ Usuario

↳ UsuarioRs

Responses

No reusable responses have been created. Add a response

HEADER PARAMETERS

REQUEST BODY

RESPONSES (4)

200 OK 400 Bad Request 401 Unauthorized 429 Too Many Requests

Description: Comportamiento exitoso

Response Type: Type: UserRs

Examples

Content Type	Example
application/json	{"meta":{"_msgid":"some text","_version":3,"com...}}

Add an example

- GET /comercio respuestas 4xx

taller01-00-info-publica

/usuario

Design Source

Paths (2)

/comercio

/usuario

Data Types (8)

↳ \_apiError

↳ \_error

↳ \_meta

↳ Comercio

↳ ComercioRs

↳ ErrorRs

↳ Usuario

↳ UsuarioRs

Responses

No reusable responses have been created. Add a response

HEADER PARAMETERS

REQUEST BODY

RESPONSES (4)

200 OK 400 Bad Request 401 Unauthorized 429 Too Many Requests

Description: Parametro mal incorrecto

Response Type: Type: ErrorRs

Examples

Content Type	Example
application/json	{"meta":{"_msgid":"some text","_version":3,"com...}}

Add an example

# Completar la definición del OpenAPI/Swagger

- GET /usuario respuesta 200 OK
- GET /usuario respuestas 4xx

taller01-00-info-publica

/usuario

Design Source

Paths (2)

/comercio  
/usuario

Data Types (8)

↳ \_apiError  
↳ \_error  
↳ \_meta  
↳ Comercio  
↳ ComercioRs  
↳ ErrorRs  
↳ Usuario  
↳ UsuarioRs

Responses

No reusable responses have been created. Add a response.

HEADER PARAMETERS

REQUEST BODY

RESPONSES (4)

200 OK 400 Bad Request 401 Unauthorized 429 Too Many Requests

Description: Comportamiento exitoso

Response Type: Type: UserRs

Examples

Content Type	Example
application/json	{"meta": {"_msgid": "some text", "_version": "some..."}}

Add an example.

taller01-00-info-publica

/usuario

Design Source

Paths (2)

/comercio  
/usuario

Data Types (8)

↳ \_apiError  
↳ \_error  
↳ \_meta  
↳ Comercio  
↳ ComercioRs  
↳ ErrorRs  
↳ Usuario  
↳ UsuarioRs

Responses

No reusable responses have been created. Add a response.

HEADER PARAMETERS

REQUEST BODY

RESPONSES (4)

200 OK 400 Bad Request 401 Unauthorized 429 Too Many Requests

Description: Parametro mal incorrecto

Response Type: Type: ErrorRs

Examples

Content Type	Example
application/json	{"meta": {"_msgid": "some text", "_version": "some..."}}

Add an example.

# Revisar la documentación del Swagger

The screenshot shows the Swagger UI interface for a "/comercio" endpoint. The left sidebar includes sections for Authentication, comercio (selected), Datos públicos por dominio, usuario, and Documentación Powered by Redoc. The main content area has a search bar and the title "comercio". Below it is a section titled "Datos públicos por dominio" with a description: "Consulta datos públicos por el dominio del comercio". It shows an "AUTHENTICATION" field set to "apikey" and a "QUERY PARAMETERS" field with a "dominio" parameter of type "string" described as "Es el dominio DNS del comercio". The "Responses" section lists three items: "200 Comportamiento exitoso" (green background), "400 parámetros incorrectos" (pink background), and "429 control de Plan" (light pink background).

The screenshot shows the Swagger UI interface for a "/comercio" endpoint. The top navigation bar shows "GET /comercio". The "Response samples" section displays three sample responses: 200, 400, and 429. The 200 response is selected and shows a JSON object with "meta" and "error" fields. The 400 response shows a JSON object with "status", "title", "detail", and "source" fields. The 429 response shows a JSON object with "status" and "error" fields. The "Content type" is set to "application/json". There are "Copy", "Expand all", and "Collapse all" buttons at the bottom.

```
{
  "meta": {
    "_esgrid": "some text",
    "_version": "some text",
    "_createdAt": "2018-02-18T09:30Z",
    "_transactionId": "some text",
    "_length": 1,
    "_clientId": "some text"
  },
  "error": {
    "status": "400",
    "title": "some text",
    "detail": "some text",
    "source": { ... }
  }
}, {
  "status": "429"
}
```

# Descargar Swagger

The screenshot shows a web-based API management platform interface. At the top left, it says "APIs - taller01-00-info-publica". Below this, there's a card for "taller01-00-info-publica" with a green circular icon. The card contains the following information:

- Created on Apr 8, 2020
- Created by taller-epic@vcsoft.com
- 0 Other Collaborations

Tags: comercio, usuarios

At the top right of the card is a context menu with the following options:

- Edit...
- Preview Docs...
- Share Docs...
- Collaborate...
- Make a Copy...
- Published
- Download
- Generate Project
- Delete

The "Download" option is highlighted with a red rectangle.

A modal window titled "Download API Specification" is displayed in the foreground. It contains the following text:

Make a few choices below and then download the specification.

Format: **JSON** (radio button selected)

References: **JSON** (radio button selected)

YAML (radio button unselected)

At the bottom right of the modal are two buttons: "Close" and "Downloaded".

- Se creó un Contrato OpenAPI V2.
  - ❖ Interface de negocio
    - Se especificó de forma concreta que se espera del API
  - ❖ Se diseñó la mensajería adoptando elementos de gobierno
  - ❖ Se estructuraron las operaciones documentando aspectos funcionales y no funcionales que permiten que los consumidores logren un entendimiento completo del API
- Ya se tiene el insumo para registrar en APIC el Swagger base

# Taller 03

## Registro de API en API Manager

# Objetivo

---

- El API diseñado debe llamar a un proveedor que no cumple la misma definición de servicio REST.
- Se utilizará <https://api.fullcontact.com/v3/company.enrich>
- Este API requiere un APIkey que se debe enviar como header de Autorización Bearer 7gfNF2FJPtoVC3rFP2pWX1nrLWzgY0Zx
- Se debe lograr mapear la información ingresada al mensaje del proveedor y traducir la respuesta

# Precondición

- Realizar la invocación al servicio proveedor para conocer la mensajería de cada operación
- Para Comercio:

The screenshot shows the Postman application interface. At the top, there is a header bar with the URL `POST https://api.fullcontact.com/v3/...`, a '+' button, and an ellipsis button. To the right of the URL is a dropdown labeled "No Environment". Below the header, the title "Untitled Request" is displayed, along with a "Comments" section with a count of 0.

The main area shows a POST request to `https://api.fullcontact.com/v3/company.enrich`. On the right side of this row are "Send" and "Save" buttons. Below this, there are tabs for "Params", "Authorization", "Headers (11)", "Body", "Pre-request Script", "Tests", and "Settings". The "Headers (11)" tab is currently selected, indicated by an orange underline.

Under the "Headers" tab, there is a sub-section titled "Headers" with a note "(9 hidden)". A table lists two visible headers:

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
<input checked="" type="checkbox"/> Authorization	Bearer 7gfNF2FjPtoVC3rFP2pWX1nrLWzgY02x		...		
<input checked="" type="checkbox"/> Content-Type	application/json		...		

Below this table, there is a section for "Key", "Value", and "Description".

At the bottom left, the word "Response" is visible.

# Request Body

The screenshot shows the Postman application interface. At the top, there is a header bar with a POST method, the URL <https://api.fullcontact.com/v3/company.enrich>, and a status indicator showing 1 error. To the right of the URL are buttons for '+' and '...', and a dropdown menu set to 'No Environment'. Below the header is a title bar labeled 'Untitled Request' and a comments section with 0 messages.

The main workspace has a 'POST' method selected and the URL <https://api.fullcontact.com/v3/company.enrich>. To the right are 'Send' and 'Save' buttons. Below the URL, tabs for 'Params', 'Authorization', 'Headers (11)', 'Body', 'Pre-request Script', 'Tests', and 'Settings' are visible, with 'Body' being the active tab. A 'Cookies' and 'Code' tab are also present.

Under the 'Body' tab, several options are available: 'none', 'form-data', 'x-www-form-urlencoded', 'raw' (which is selected), 'binary', 'GraphQL', and 'JSON'. A 'Beautify' button is located to the right of these options. The 'raw' body section contains the following JSON code:

```
1 - {  
2   "domain": "vc-soft.com"  
3 }  
|
```

# Respuesta

Body Cookies Headers (15) Test Results Status: 200 OK Time: 630ms Size: 2.63 KB Save Response ▾

Pretty Raw Preview Visualize JSON  

```
1 []
2   "name": "VCSoft",
3   "location": "United States",
4   "twitter": null,
5   "linkedin": "https://www.linkedin.com/company/vcsoft",
6   "facebook": null,
7   "bio": "ConsultorÃa en Arquitectura SOA BPM, expertos en IBM y SAP SOA, Gobernabilidad SOA, Seguridad SOA, SOA Assessment, SOA Roadmap. Soluciones para SCM Cadena de Suministro, B2B Business to Business y para EMM Enterprise Marketing Management o AutomatizaciÃ³n de Marketing.",
8   "logo": "https://img.fullcontact.com/static/
9     fdb77ddc87eb960db1a7d1802045a555_b10243b47f3ded6d9d720204f10aad8306d9fc77e8b9cff36433d00eff72f2bc",
10  "website": "http://vc-soft.com",
11  "founded": null,
12  "employees": 25,
13  "locale": "es",
14  "category": "Other",
15  "details": {
```

- Almacene el mensaje de request y response

- ❖ comercioRq.json →
- ❖ comercioRs.json

```
{
  "domain": "vc-soft.com"
}
```

- Lo mismo con

- ❖ usuarioRq.json →
- ❖ usuarioRs.json

```
{
  "email": "jaimev@vc-soft.com"
}
```

Name	Size	Ex...
comercioRq.json	31	json
comercioRs.json	2,180	json
usuarioRq.json	37	json
usuarioRs.json	1,406	json

```
{
  "name": "Transbank",
  "location": "Muñoz Gamero 210 piso 10 Santiago Region Metropolitana, 8300000 Chile",
  "twitter": null,
  "linkedin": "https://www.linkedin/company/transbank",
  "facebook": null,
  "bio": "Transbank S.A., es una empresa de apoyo al giro bancario nacida en 1982.",
  "logo": "https://img.fulicontact.com/static/dc5413ca43c2116558d2f0385fc2514.be.png",
  "website": "http://www.transbank.cl",
  "founded": 1982,
  "employers": 750,
  "locale": "es",
  "category": "Other",
  "details": {
    "incains": [
      {
        "code": "VI",
        "name": "Spanish, Cantilien"
      }
    ],
    "categories": [
      {
        "code": "OTHER",
        "name": "Other"
      }
    ],
    "addresses": [
      {
        "type": "TIN",
        "name": "Depository Institutions",
        "code": "00"
      }
    ],
    "emails": [],
    "phones": []
  },
  "profiles": {
    "linkedincompany": {
      "service": "linkedincompany",
      "username": "transbank",
      "userid": 47954,
      "url": "https://www.linkedin.com/company/transbank",
      "bio": "Transbank S.A., es una empresa de apoyo al giro bancario nacida en 1982.",
      "followers": 13944
    }
  },
  "locations": []
}
```



Develop



APIs and Products

Add



You haven't added any APIs or Products

## ■ Adicionar API

The screenshot displays the API Designer interface with three main windows:

- Add API**: A sidebar menu with four options:
  - Create a new API proxy**: Create a new API proxy.
  - From existing WSDL service (SOAP proxy)**: Create a SOAP proxy based on a WSDL document.
  - From existing WSDL service (REST proxy)**: Create a REST proxy based on a WSDL document.
  - Parse OpenAPI**: Parse an external OpenAPI definition.
- Import API**:
  - Summary**: Shows a green checkmark icon and the message "Generated OpenAPI 2.0 definition".
  - Import**: A sub-section for importing OpenAPI definitions.
    - Existing OpenAPI**: An option to import an existing OpenAPI definition.
  - Next**: A blue button at the bottom right of the import dialog.
- Import API**: A detailed view of the imported API.
  - File**: Shows the file path "taller01-00-mbo-public.json".
  - Validation**: A green success message: "JSON has been successfully validated".
  - Cancel** and **Next**: Buttons at the bottom right.

# Revisar carga

IBM API Connect  
**API Designer**

Develop taller... 1.0.0 Design Source Assemble \* Stopped No Errors Save :

**API Setup**

Security Definitions  
Paths  
Definitions  
Properties  
Target Services  
Categories  
Activity Log

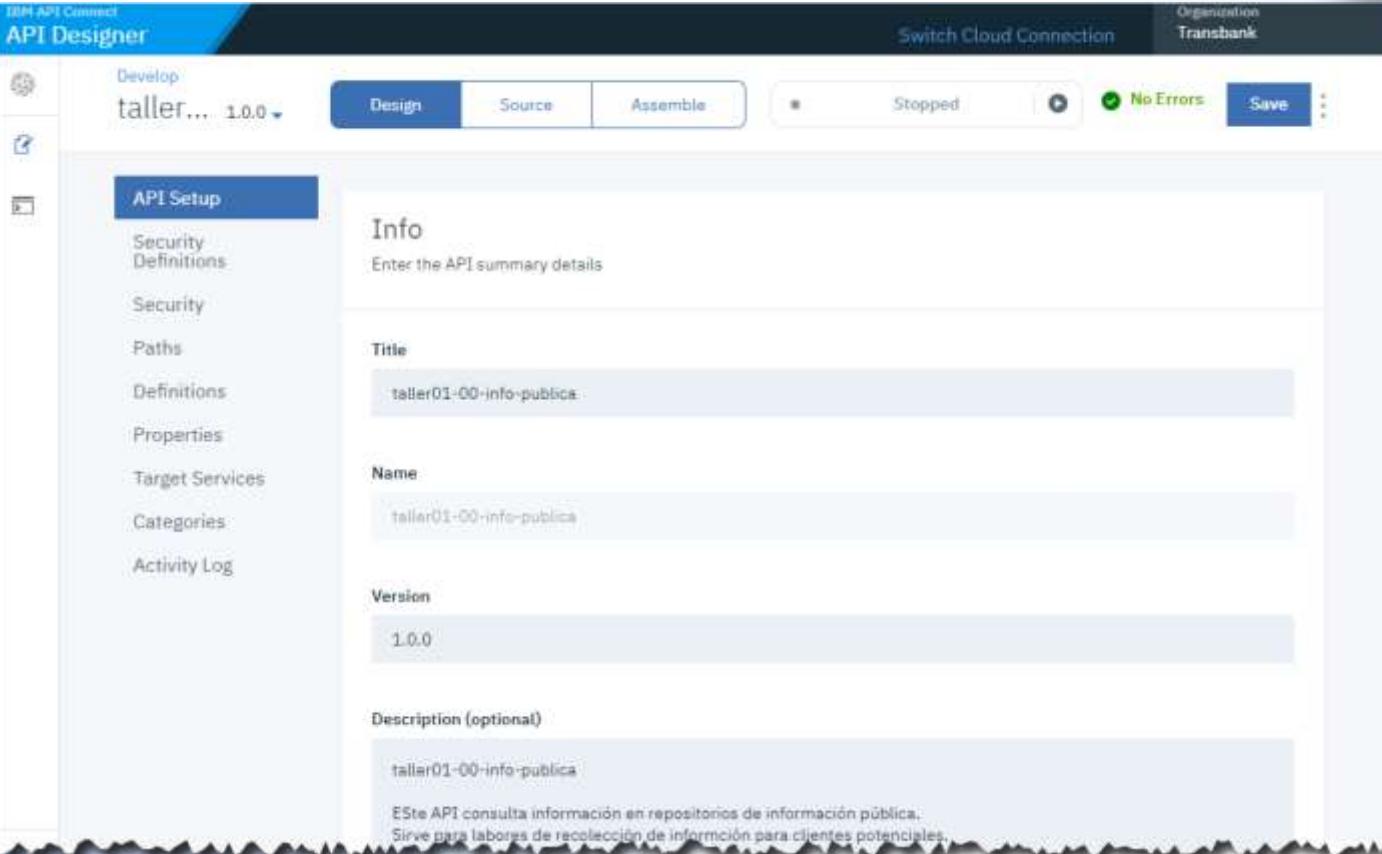
**Info**  
Enter the API summary details

**Title**  
taller01-00-info-publica

**Name**  
taller01-00-info-publica

**Version**  
1.0.0

**Description (optional)**  
Este API consulta información en repositorios de información pública.  
Sirve para labores de recolección de información para clientes potenciales.



# Adicionar prefijo para distinguir cada grupo

Address (optional)

## Base Path

The base path is the initial URL segment of the

Base path (optional)

/grupo00

# Definición de propiedades

- Se definirán tres propiedades
  - ❖ Apikey en fullcontact:
  - ❖ Cada catálogo podría tener su propio valor

Propiedad	Valores
<a href="#"><u>api-key-fullcontact</u></a>	7gfNF2FJPtoVC3rFP2pWX1nrLWzgY0Zx
<a href="#"><u>target-url-company</u></a>	The URL of the target service REAL: <a href="https://api.fullcontact.com/v3/company.enrich">https://api.fullcontact.com/v3/company.enrich</a> Mock Microcks: <a href="https://microcks_vc-soft_com:8080/rest/full-contact/1.0.0/v3/company.enrich">https://microcks_vc-soft_com:8080/rest/full-contact/1.0.0/v3/company.enrich</a> Mock Postman: <a href="https://9a7ae1f3-194d-4dbd-8d89-83bd72599933.mock.pstmn.io/v3/company.enrich">https://9a7ae1f3-194d-4dbd-8d89-83bd72599933.mock.pstmn.io/v3/company.enrich</a>
<a href="#"><u>target-url-user</u></a>	Servicio datos publicos persona por mail  REAL: <a href="https://api.fullcontact.com/v3/person.enrich">https://api.fullcontact.com/v3/person.enrich</a> Mock Microcks: <a href="https://microcks_vc-soft_com:8080/rest/full-contact/1.0.0/v3/person.enrich">https://microcks_vc-soft_com:8080/rest/full-contact/1.0.0/v3/person.enrich</a> Mock Postman: <a href="https://9a7ae1f3-194d-4dbd-8d89-83bd72599933.mock.pstmn.io/v3/person.enrich">https://9a7ae1f3-194d-4dbd-8d89-83bd72599933.mock.pstmn.io/v3/person.enrich</a>

## Properties

### Name

api-key-fullcontact

### Default value (optional)

7gNF2FJPtoVC3rFP2pWX1nrLWzgY0Zx

### Description (optional)

Encoded

Add

Define catalog specific values for this property

CATALOG	VALUE	DELETE
sandbox	7gNF2FJPtoVC3rFP2pWX1nrLWzgY0Zx	
publico	3QEci3wkZy84gFMI0EB6ifmbDkMkI73	

# Ajustar definición de seguridad

apikey

Description (optional)

Type

API Key  Basic  OAuth2

Located In

Header

Key Type

Client ID

Parameter Name

x-client-id



map



Input

+ input

+ PARAMETERS

## Provide a schema

Schema as YAML

Schema as JSON

Generate from sample JSON

consum

getUs

```
1  description: ''
2  type: object
3  properties:
4    domain:
5      type: string
6  example: "{\r\n  \"domain\": \"vc-soft.com\"\r\n}"
```

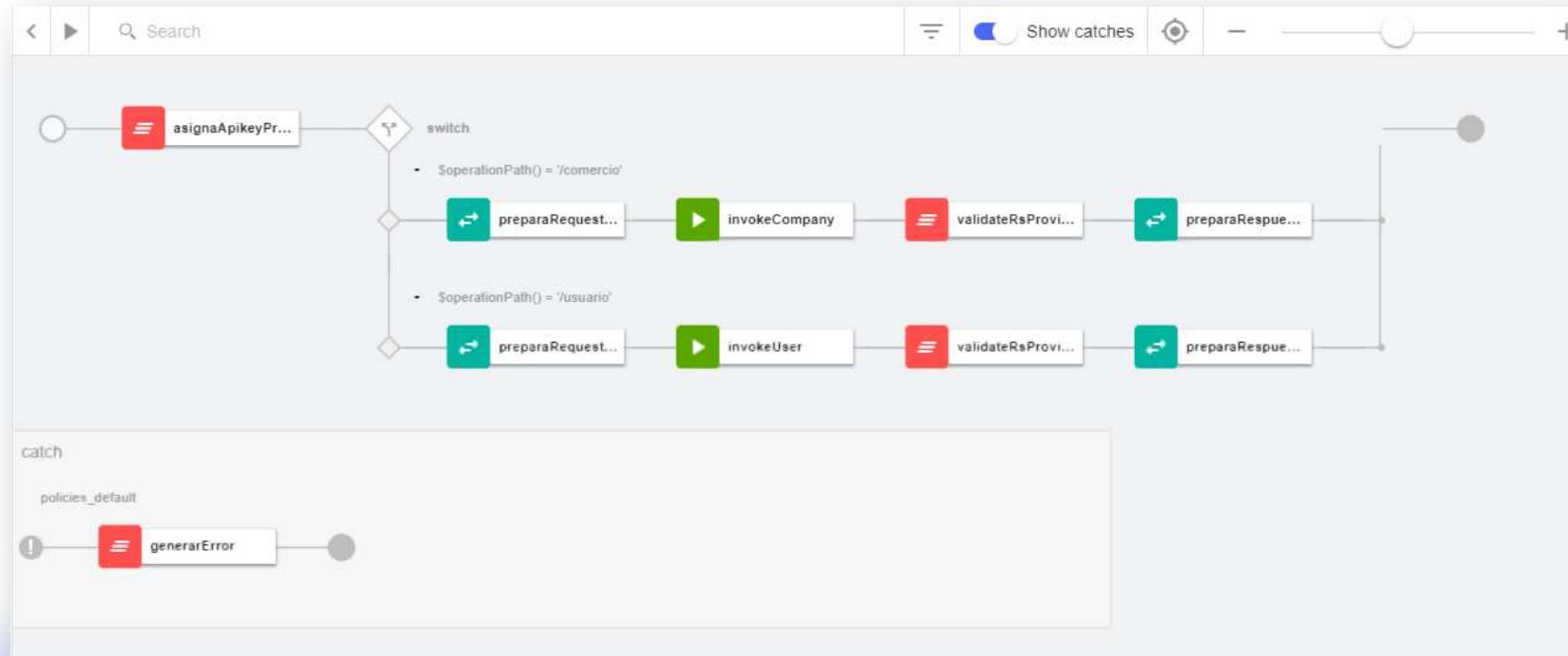
+ OUTPUTS FOR OPERATION...

Done

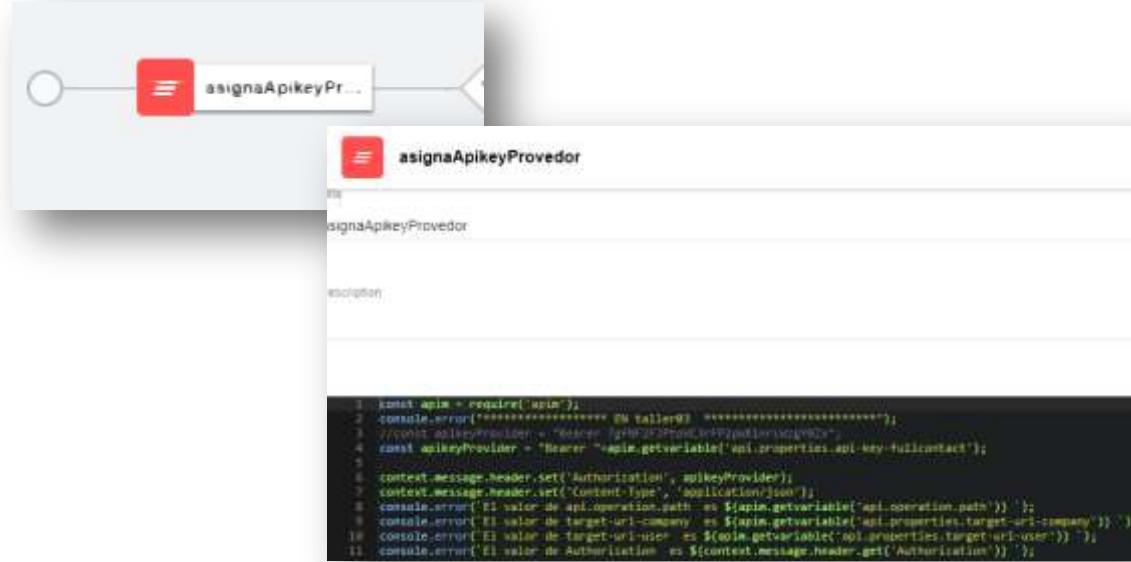
Done

# Ensamblaje

- Se debe construir un ensamblaje con los siguientes elementos:



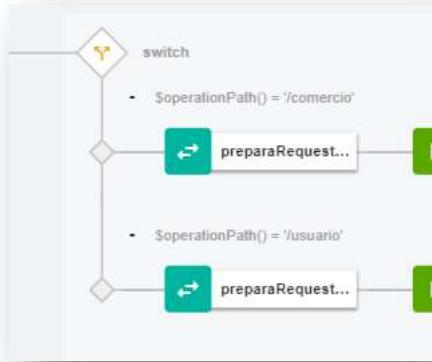
# GatewayScript



```
const apim = require('apim');
console.error("***** EN taller03 *****");
//const apikeyProvider = "Bearer 7gfNF2FJPtoVC3rFP2pWX1nrLWzgY0Zx";
const apikeyProvider = "Bearer "+apim.getvariable('api.properties.api-key-fullcontact');

context.message.header.set('Authorization', apikeyProvider);
context.message.header.set('Content-Type', 'application/json');
console.error(`El valor de api.operation.path es ${apim.getvariable('api.operation.path')}`);
console.error(`El valor de target-url-company es ${apim.getvariable('api.properties.target-url-company')}`);
console.error(`El valor de target-url-user es ${apim.getvariable('api.properties.target-url-user')}`);
console.error(`El valor de Authorization es ${context.message.header.get('Authorization')}`);
```

# switch



switch

Title: switch

Description:

Condition

case 0    `($operationPath() = '/comercio')`

[edit condition](#)

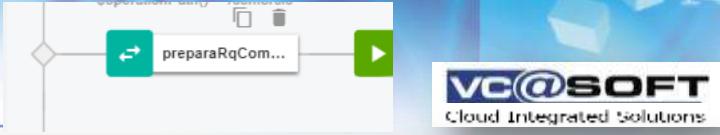
Condition

case 1    `($operationPath() = '/usuario')`

[edit condition](#)

[+ Case](#)    [+ Otherwise](#)

# Mapa: Preparar Rq a operación de comercio



map

Input Map Output

dominio string

preparaRqComercio

Context variable Name  
request.parameters.dominio dominio

Content type Definition \*  
none string

+ input + PARAMETERS FOR OPERATION

Done

Schema as YAML Schema as JSON

```
1 description: ''  
2 type: object  
3 properties:  
4   domain:  
5     type: string  
6     name: domain  
7 example: '{"domain":"vc-soft.com"}'
```

preparaRqComercio

Context variable Name  
message.body output

Content type Definition \*  
application/json Inline schema

+ output

Provide a schema

Schema as YAML Schema as JSON Generate from sample JSON

```
1 ["domain":"vc-soft.com"]
```

Generate Done Cancel

The diagram illustrates a mapping operation between two 'preparaRqComercio' steps. The first step has an input 'dominio string' and a context variable 'request.parameters.dominio' set to 'dominio'. Its schema is defined as a YAML object with a single 'domain' property of type string. The second step has an output 'domain string' and a context variable 'message.body' set to 'output'. Its schema is defined as 'application/json' with an 'Inline schema' containing a single array element: '["domain":"vc-soft.com"]'. A 'Provide a schema' dialog is open, showing the generated schema and a 'Generate' button.



URL \*

`$(target-url-company)`

The URL to be invoked.

HTTP Method \*

POST

The HTTP method to use for the invocation. If omitted or set to "Keep", then the method from the incoming request will be used.

Header control

Blacklist

Whitelist

`^x-client-id$`

[Add blacklist](#)

Parameter control

Blacklist

Whitelist

Response object variable

companyData

The name of a variable that will be used to store the response data from the request. This can then be referenced in other actions, such as "Map".

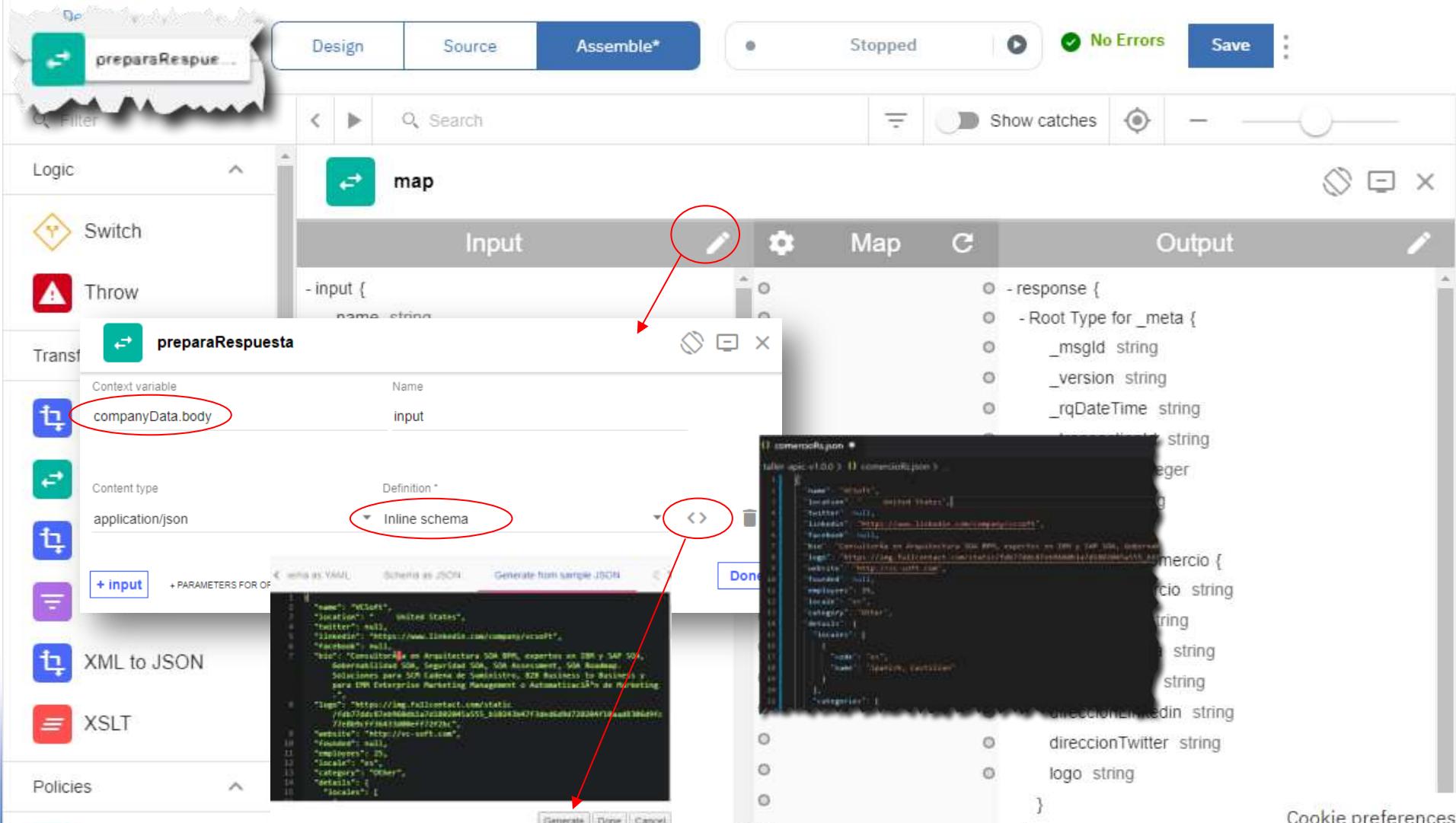
# GatewayScript



```
18 //=====
19 console.error("Inicio de validateResponse version Comercio.1.8.34");
20
21 const apim = require('apim');
22
23 const defaultErrorMsg = "Service unavailable";
24
25 const messageBody = apim.getvariable('companyData.body');
26 const statusCode = apim.getvariable('companyData.status.code');
27 console.error(" companyData.body", messageBody);
28 console.error("=====");
29 console.error(" companyData.status", apim.getvariable('companyData.status'));
30 console.error(" companyData.status.code", apim.getvariable('companyData.status.code'));
31 console.error(" companyData", apim.getvariable('companyData'));
32 console.error("=====");
33 let errors = [];
34
35 if(!messageBody){
36     setErrors(statusCode,
37             defaultErrorMsg,
38             ['El servicio interno no entregó resultado esperado']);
39 }
40 /*
41 if(statusCode!=200){
42     setErrors(statusCode,
43             defaultErrorMsg,
44             [ defaultErrorMsg ],true);
45 }
46 */
47
48 if(errors.length > 0 ){
49     throwError()
50 }
51
52 function throwError(){
53     apim.setvariable("ctx.errorData", errors);
54 }
```

# Código de verificaciones de respuesta

```
const apim = require('apim');
const defaultErrorMsg = "Service unavailable";
const messageBody = apim.getvariable('companyData.body');
const statusCode = apim.getvariable('companyData.status.code');
console.error(" companyData.body", messageBody);
console.error(" companyData.status.code", apim.getvariable('companyData.status.code'));
console.error("=====");
let errors = [];
if(!messageBody){
    setErrors(statusCode,
              defaultErrorMsg,
              ['El servicio interno no entregó resultado esperado']);
}
if(statusCode!=200){
    setErrors(statusCode,
              defaultErrorMsg,
              [ defaultErrorMsg ],true);
}
if(errors.length > 0 ){
    throwError()
}
function throwError(){
    apim.setvariable("ctx.errorData", errors);
    const minStatus = errors.reduce((min, err) => err.code < min ? err.code : min, errors[0].code);
    apim.error("ResponseException",minStatus,defaultErrorMsg,defaultErrorMsg);
}
/** registra objeto Error ***/
function setErrors(code, title, details, isImmediate){
    details.map(detail => {
        const error = {
            "code": code,
            "title": title,
            "detail": detail
        };
        errors.push(error);
        if(isImmediate){
            console.error("Entro con el codigo de error",code );
            throwError();
        }
    })
}
```



Filter

Search



Show catches



Logic



Switch

Throw

Transforms



JSON to XML

Map

Parse

Redaction

XML to JSON

XSLT

Policies



map

Input



Map



Output



```
- input {  
    name string  
    location string  
- twitter {  
    add property...  
}  
    linkedin string  
- facebook {  
    add property...  
}  
    bio string  
    logo string  
    website string  
    founded number  
    employees number  
    locale string  
    category string  
- details {
```

preparaRespuesta



Context variable

Name

message.body

response

Content type

Definition \*

application/json

#/definitions/ComercioRs

Done

+ output

+ OUTPUTS FOR OPERATION...

- direccionLinkedin string
- direccionTwitter string
- logo string

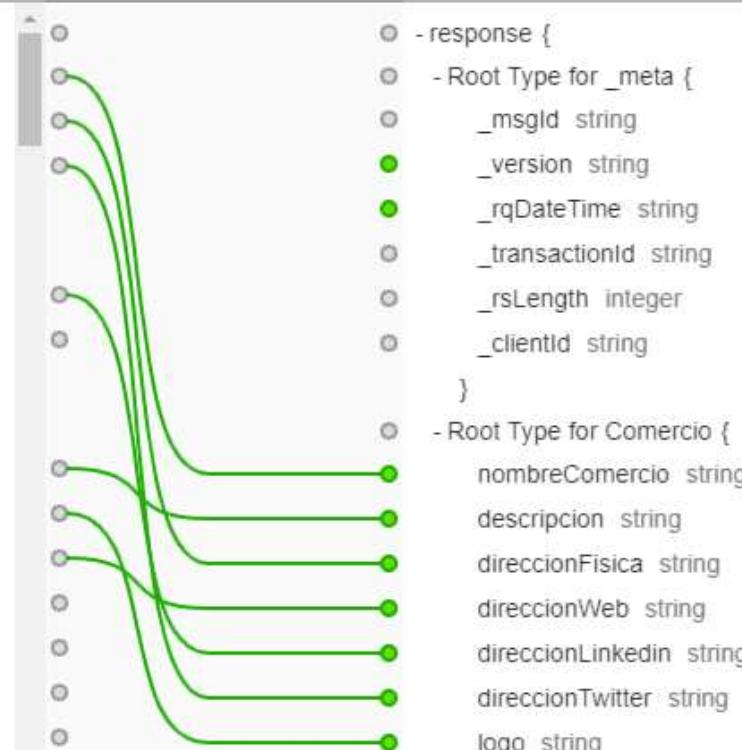
Cookie preferences

## Input

```
- input {
    name string
    location string
    - twitter {
        add property...
    }
    linkedin string
    - facebook {
        add property...
    }
    bio string
    logo string
    website string
    founded number
    employees number
    locale string
    category string
}
```

## Map

## Output



- Realice estos mapeos de valores "contexto"
  - ❖ \_version: apim.getvariable('api.version')
  - ❖ \_rqDateTime: apim.getvariable('system.datetime')

# Prueba previa

Develop taller... 1.0.0

Design Source Assemble Stopped No Errors Save :

Filter Search Show catches

Identification

Item ID: ca590d41999dde350b7598b570e1fda3

parameters

Content-Type: application/json

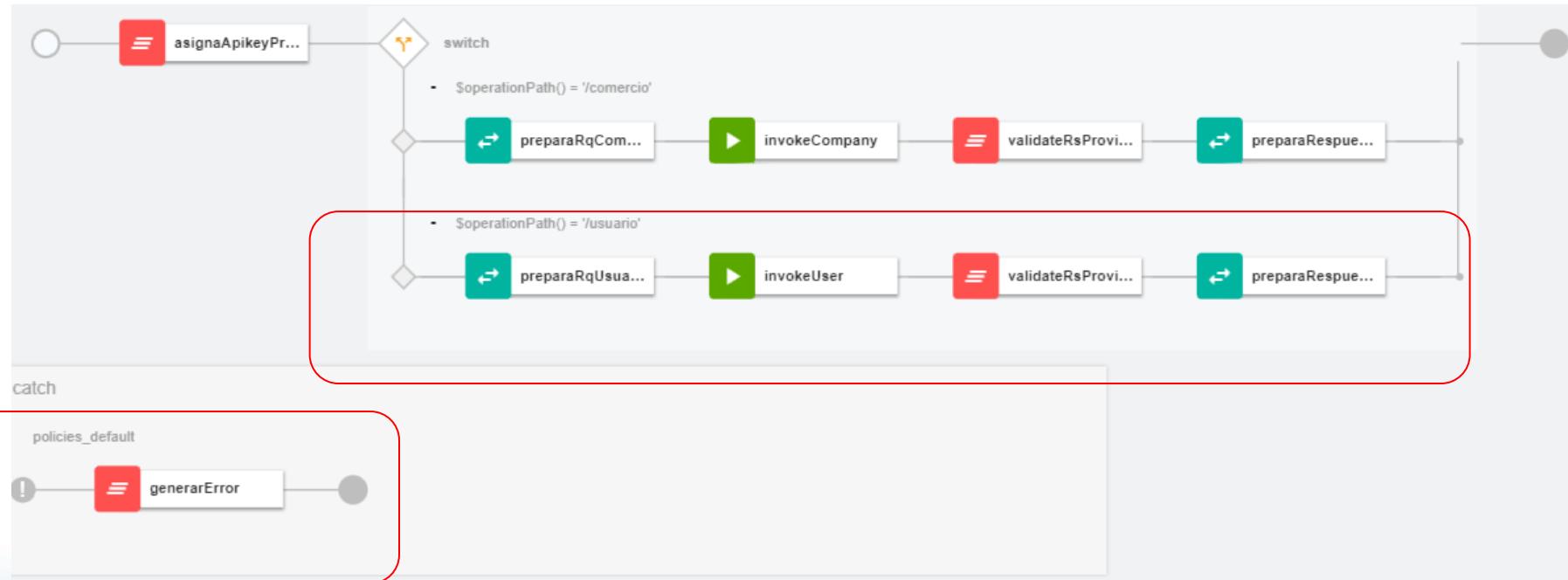
Accept: application/json

Es el dominio DNS del comercio

dominio\*: transbank.cl

```
graph LR; Start(( )) --> Switch{switch}; Switch -- "SoperationPath() = '/grupo00/comercio'" --> Assign1[assignApiKeyPr...]; Assign1 --> Map1[map]; Map1 --> Invoke[invokeFullCont...]; Invoke --> Map2[map]; Map2 --> End1(( )); Switch -- "SoperationPath() = '/grupo00/usuario'" --> End2(( ));
```

# Completar el flujo de usuario



- Se creó una implementación compleja de invocación a servicio REST.
  - ❖ Se realizaron asignaciones basadas en propiedades
  - ❖ Se utilizó el componente switch para definir flujos de actividades
  - ❖ Se utilizó GatewayScript para preparar entidades
  - ❖ Se demostró el uso de mapas para preparar mensajes de invocaciones
  - ❖ Se realizaron labores de validación con GatewayScript
- Se utilizó la herramienta interna de pruebas
  - ❖ Se evaluó el comportamiento del servicio
- Se introdujo el modelo de referenciación e invocación de elementos dentro del assembly de APIC.
- ¡FELICITACIONES!

## Taller 04 Analítica API

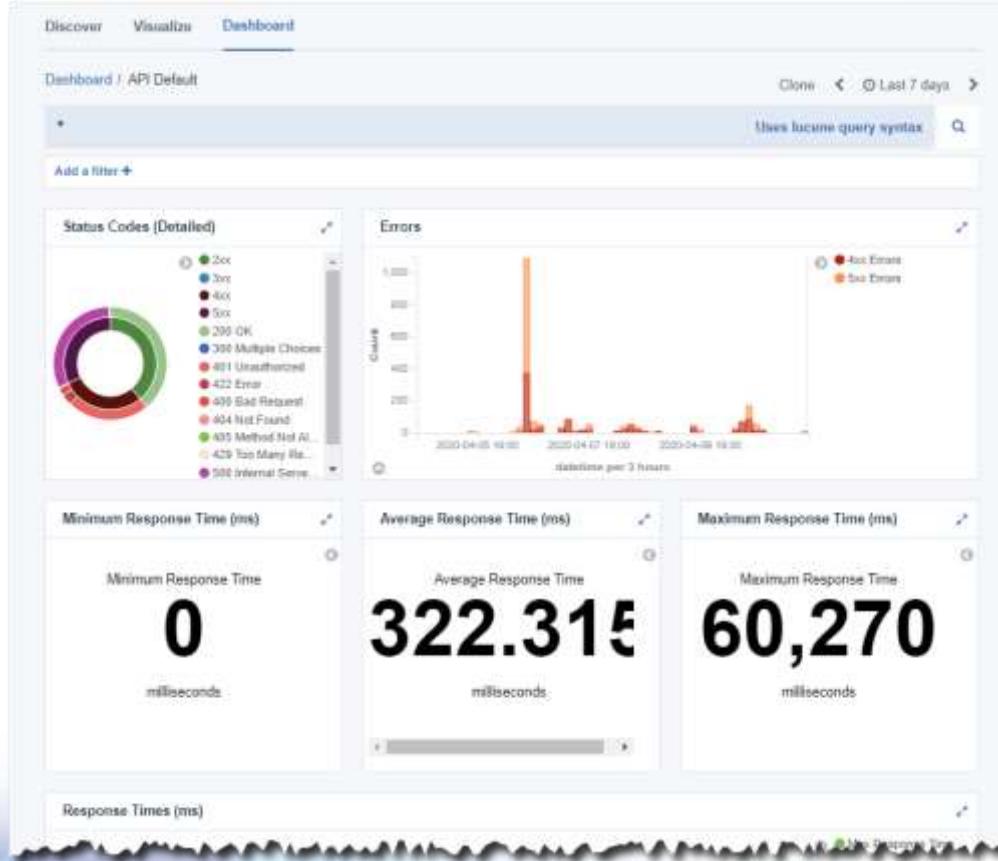
- Ingresar a Manage > Sandbox > Analytics

The screenshot shows the IBM API Connect API Manager interface. At the top, it says "IBM API Connect API Manager" and "Organization Transbank". The main navigation bar has "Manage / Sandbox" selected. Below that, there's a sub-navigation bar with "Analytics" highlighted. On the left, there's a sidebar with "Products", "Consumer Organizations", "Applications", "Tasks" (which has "Analytics" highlighted with a red box), "Members", "Settings", "Spaces", and "Faults". The main content area is titled "Analytics" and "Dashboard". It shows a table with six rows, each representing a different analytics category: "Overview of API calls, response times, and status codes", "Top 5 APIs and Products by daily usage", "Response times and data usage", "Success rates, status codes, and errors", "Success rates, data usage, and response times", and "Developer organizations and subscriptions". Each row has a "Description", "Tags" (all are "ADMIN"), and a "Fault" column.

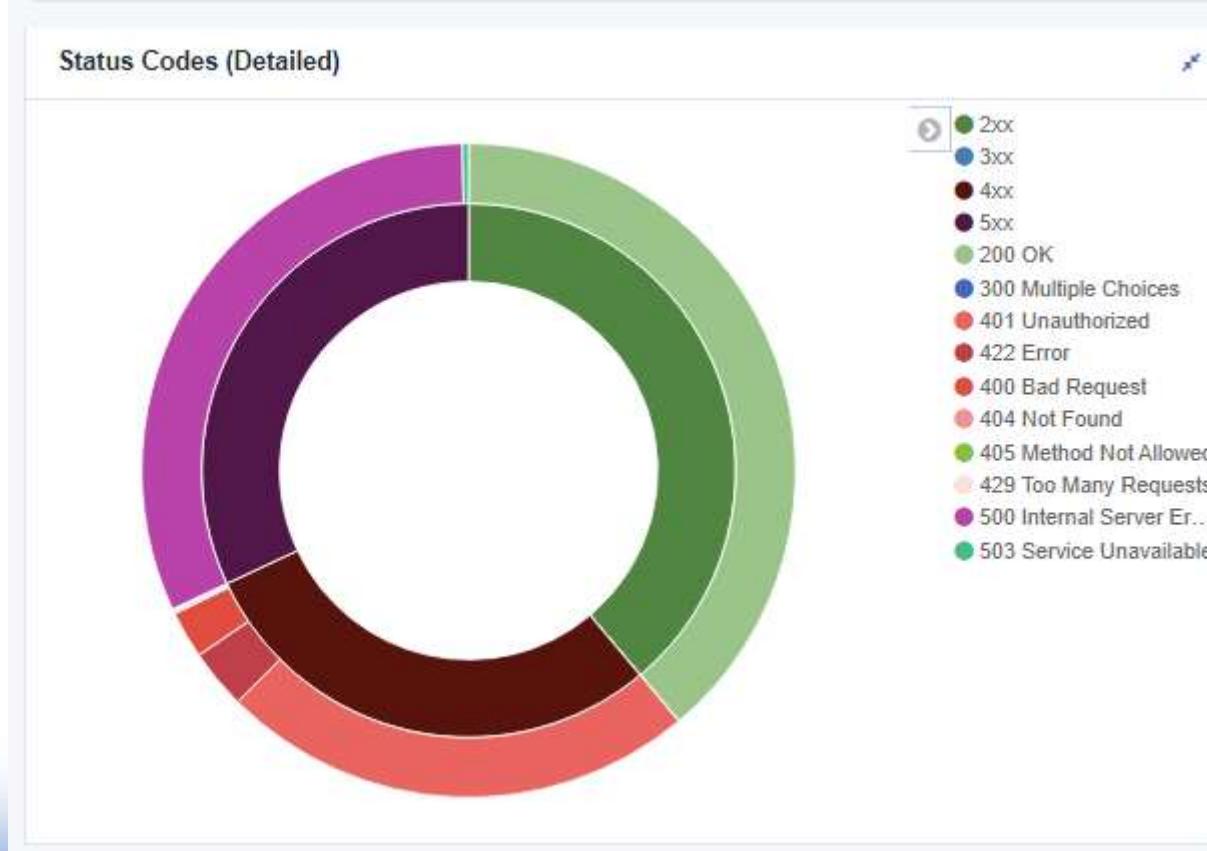
Description	Tags	Fault
Overview of API calls, response times, and status codes	ADMIN	
Top 5 APIs and Products by daily usage	ADMIN	
Response times and data usage	ADMIN	
Success rates, status codes, and errors	ADMIN	
Success rates, data usage, and response times	ADMIN	
Developer organizations and subscriptions	ADMIN	

Este taller se puede realizar de último, lo que permitiría que tenga mas información almacenada en el repositorio de analítica de APIC

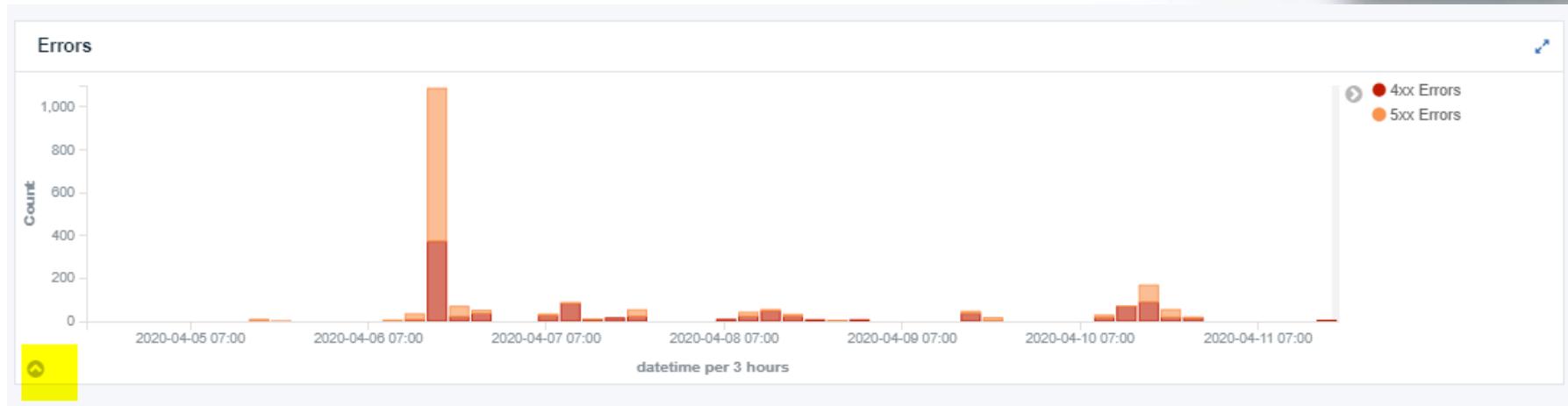
# Dashboard > API Default > Last 7 days



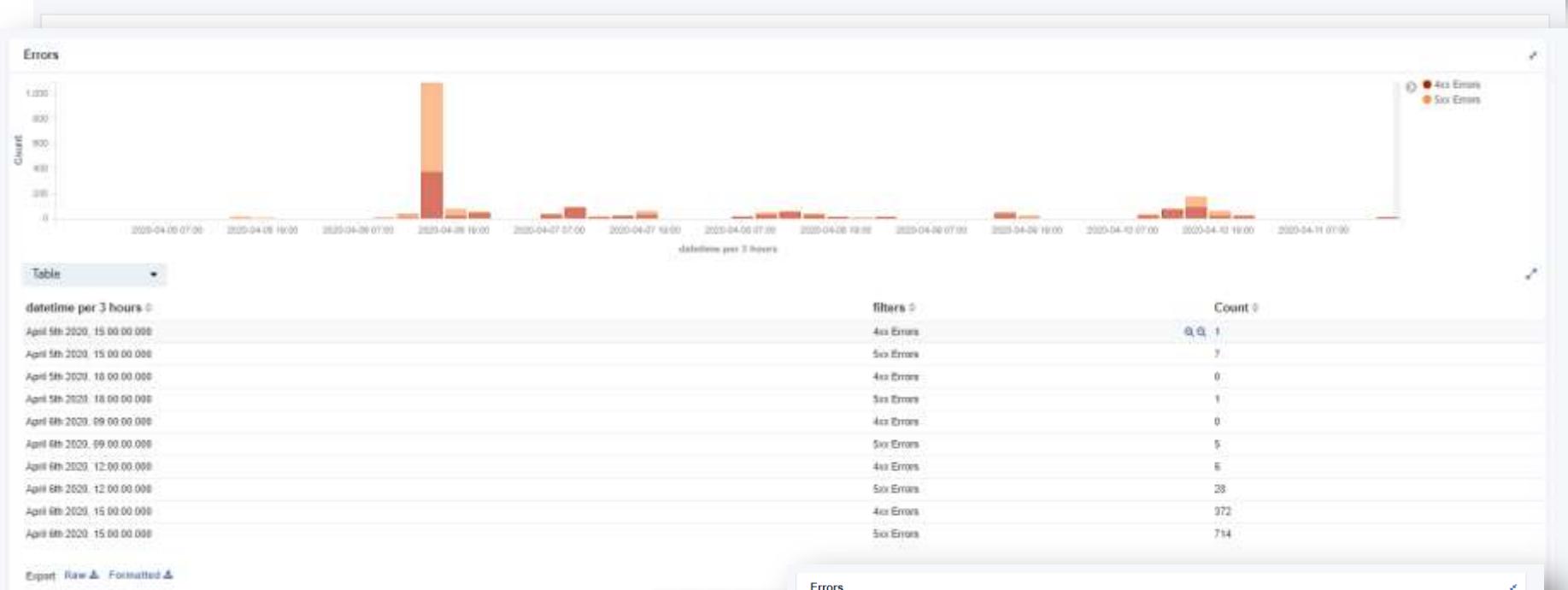
# Revisar Vistas:



# Cambiar a vista Tabla:



# Cambiar a vista Tabla:



Errors

Statistic	
Query Duration	21ms
Request Duration	775ms
Hits	3285
Index	apic-api-r
Id	apic-api-r

## **Revisar los dashboard predefinidos por el producto**



# Discover

- [https://apim.apic.dev1.tbk.cl/analytics/app/kibana#/searches? \\_g=\(\)](https://apim.apic.dev1.tbk.cl/analytics/app/kibana#/searches?_g=())
  - Es un Kibana con un Elasticsearch con un índice ya construido



# Crear una vista personalizada

- Se quieren conocer las invocaciones en catálogo Sandbox
  - ❖ Solo del comercio 89863300-3
  - ❖ Se requiere consultar los campos: api\_name, app\_name, developer\_org\_name, product\_name, rate\_limit.rate-limit.count, status\_code
- Seleccione un documento (evento)
  - ❖ Active el filtro localizando algún registro que cumpla la condición:

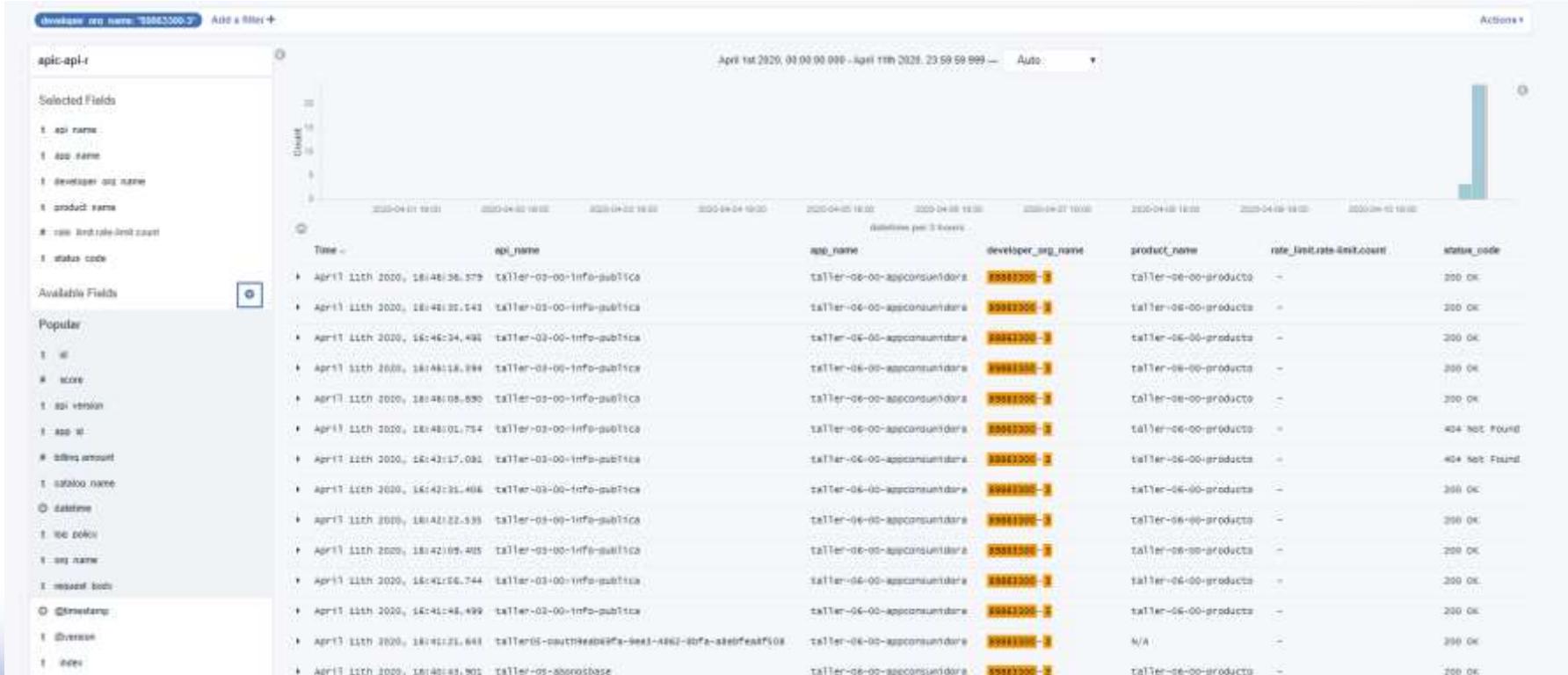
t developer_org_name	<input type="checkbox"/>	89863300-3
? developer_org_title	<input checked="" type="checkbox"/>	89863300-3
t endpoint_url	<input type="checkbox"/>	N/A
□ gateway_ip	<input type="checkbox"/>	10.212.25.82

- ❖ Busque los campos solicitados y marque el icono

Ejm:

t catalog_name	<input type="checkbox"/>	sandbox
t client_id	<input checked="" type="checkbox"/>	3dc0ffa06070d32caaae29da
□ client_ip	<input type="checkbox"/>	4.228
⌚ datetime	<input type="checkbox"/>	th 2020, 16:46:18.394

## Resultado esperado

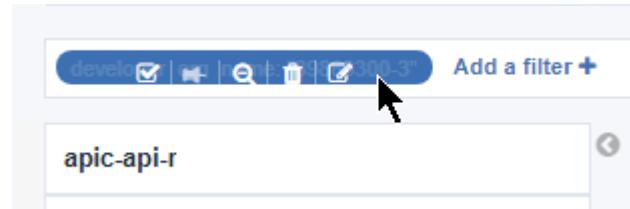


# Modificación de filtro

- Evalúe el actual valor del filtro

- ❖ Mouse sobre el filtro:

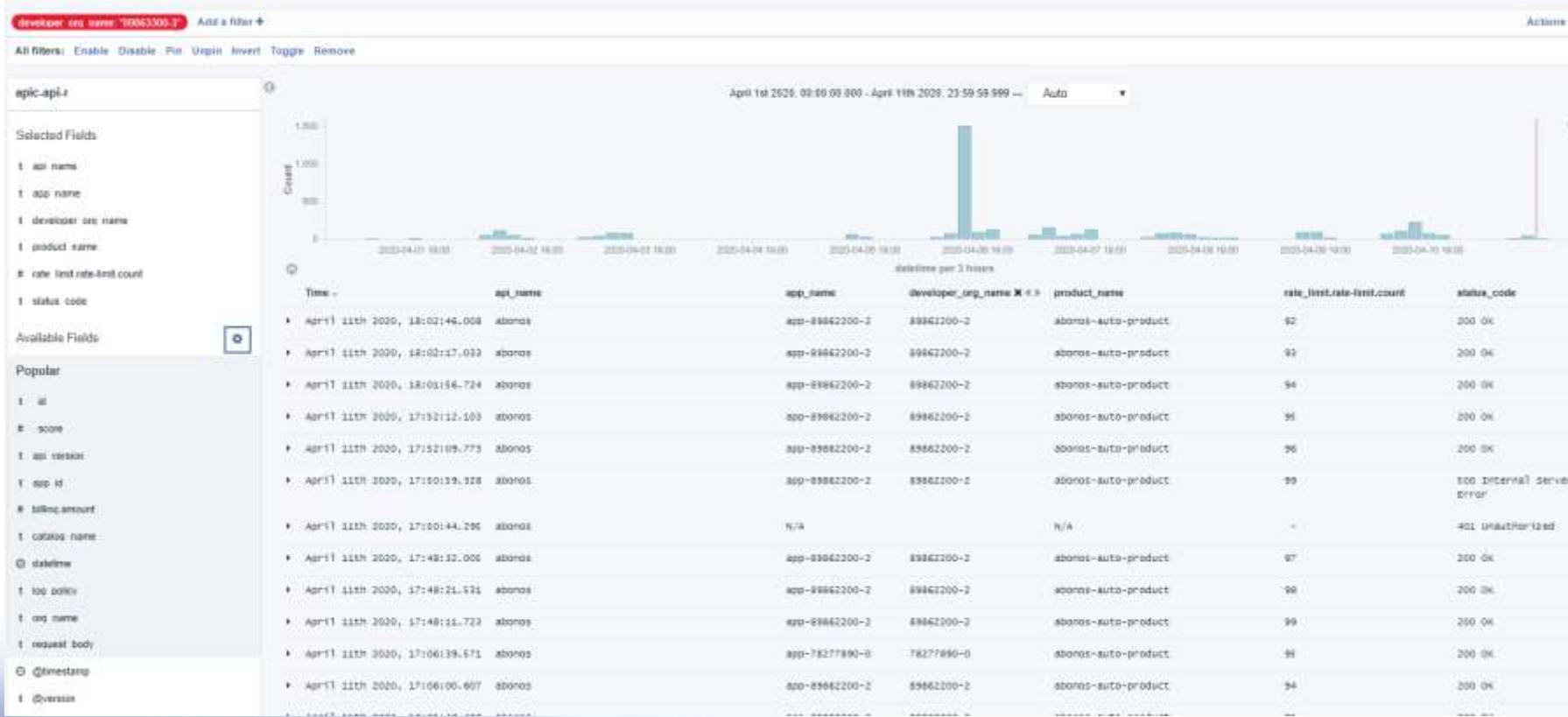
- ❖ Active el icono de edición 



- Modifique el filtro, cambie por “is not”



# Revise comportamiento



# Query DSL de Elasticsearch

- Nuevamente sobre edición de filtro
- Cambie a Query DSL:

developer org name: "89863300-3" Add a filter +

Edit filter

Filter

developer\_org\_name is 89863300-3

Label

Search filter values

Cancel Save

Filter

```
1 [ {  
2   "query": {  
3     "match": {  
4       "developer_org_name": {  
5         "query": "89863300-3",  
6         "type": "phrase"  
7       }  
8     }  
9   }  
10 }
```

Filters are built using the [Elasticsearch Query DSL](#).

Label

Optional

developer org name: "89863300-3" Add a filter +

Edit filter

Filter

developer\_org\_name is 89863300-3

Label

Edit Query DSL

Cancel Save

## Taller 05 OAuth2

# Objetivo

---

- Se creará una nueva versión del servicio Taller 03 con protección OAuth2
- Se utilizará flujo APP
  - ❖ El access token se entrega a quien solicite con APIkey y Secret (se define entorno confidencial)
  - ❖ Se sigue el estándar OAuth y se debe proteger una nueva versión del servicio con OAuth2
  - ❖ Se comprobará el funcionamiento correcto del API pero enviando token de acceso Oauth

# Creación de proveedor nativo

Native OAuth Provider

Title  
Taller05 OAuth

Name  
taller05-auth

Description (optional)  
Autorización OAuth-Flujo Application

Base path (optional)  
/taller05-grupo03

Gateway Type  
Select the gateway type for this OAuth provider

DataPower Gateway (v5 compatible)  
 DataPower API Gateway

[Cancel](#) [Next](#)

Scopes

Add scopes for this OAuth Provider.

[Add](#)

NAME	DESCRIPTION	DELETE
comercios-infoPublica:read:app	Permiso a información publica de	
usuarios-infoPublica:read:app	Permiso a información publica de	

[Cancel](#) [Back](#) [Next](#)

# Native OAuth Provider

## Native OAuth Provider Summary

### Title

Taller05\_OAuth

### Base path

/taller05-grupo00

### Gateway Type

Cloud API (HTTP, GraphQL)

### Description

Autorización OAuth-Flujo Application

### Authorize path

/oauth2/authorize

### Token path

/oauth2/token

### Supported grant types

Authorization

### Supported client types

Confidencial

### Scopes

NAME	DESCRIPTION
comercios-infPublicosReadApp	Permite la información pública de comercios. Lectura. Desde app.
usuarios-infPublicosReadApp	Permite la información pública de usuarios. Lectura. Desde app.

Cancel

Back

Finish

## Edit Native OAuth Provider

### Info

#### Configuration

#### Scopes

#### User Security

#### Tokens

#### Token Management

#### Introspection

#### Metadata

#### OpenID Connect

#### API Editor

## Native OAuth Provider

### Title

Taller05\_OAuth

### Name

taller05-oauth

### Description (optional)

Autorización OAuth-Flujo Application

### Gateway version

6.0.0.0

### Base path (optional)

/taller05-grupo00

Enable debug response headers

Cancel

Save

# Manage > Sandbox > Settings

The screenshot shows the API Manager interface with the following details:

- Left Sidebar:** Includes links for Products, Consumer Organizations, Applications, Tasks, Analytics, Members, Settings, and Spaces.
- Header:** Shows "Manage / Sandbox" and "Products".
- Table:** Displays a list of products with columns: NAME, STATE, and LAST STATE CHANGED.
  - Product 1: store-autos-product 1.0.0, published, Today at 8:42 PM
  - Product 001: taller-01-00-product001 1.0.0, published, Last Tuesday at 4:46 PM
  - Product 002: taller-01-00-where-is-my-car-to-product 1.0.0, published, Today at 8:31 PM
  - Product 003: taller-03-00-info-galaxy-auto-product 1.0.0, published, Yesterday at 9:31 PM
- Pagination:** Shows "1 of 1 pages" and navigation arrows.

The screenshot shows the Settings page with the following details:

- Left Sidebar:** Includes Overview, Gateway Services, Lifecycle Approval, Roles, Onboarding, API User Registered, and OAuth Providers.
- Header:** Shows "Settings" and "OAuth Providers".
- Table:** Displays a list of OAuth providers with columns: TITLE, TYPE, and NAME.
  - TallerID OAuth (highlighted with a red arrow)
  - Native
- Buttons:** Includes "Edit" (circled in red) and "Delete" buttons.

# Crear nueva versión del servicio

Design\*   Source   Assemble   Running   No Errors   Save

Title: taller-03-00-info-publica

Name: taller-03-00-info-publica

Version: 2.0.0

Description (optional): Version 2.0.0 protección por OAuth/grant  
taller03-00-info-publica  
  
Este API consulta información en repositorio para labores de reciclaje de informac

**API Update**  
Changing the name or version of an API will create a new API. Are you sure you want to save your changes?  
  
Cancel   Continue

OAuth Provider: Taller05 OAuth

Flow: Application

Token URL: https://\$(catalog.url)/taller05-grupo00/oauth2/token

Advanced Scope Check

Scopes

NAME	DESCRIPTION
comerCasasInfoPublicaReadApp	Permisos a información pública de comercios, Lectura, Create app
comerCasasInfoPublicaReadUser	Permisos a información pública de usuarios, Lectura, Delete app

**Security Definitions**  
Security definitions control client access to API endpoints, including API key validation, application user authentication, and OAuth. Learn more

Add

NAME	TYPE	LOCATED_IN
OAuth-GrantAPP	oauth2	
apikey	apiKey	header

# Activación de seguridad

- Se activará la configuración Oauth:

The screenshot shows a 'Security' configuration page. At the top, a note says: 'Security definitions selected here apply across the API, but can be overridden for individual operations.' Below this is a 'Learn more' link. A 'SECURITY DEFINITIONS' section contains three items: 'OAuth-GrantAPP' (selected), 'comercios-infoPublica:read:app' (selected), 'apikey' (not selected). The 'apikey' row has 'apiKey' written below it.

- Revisar la nueva versión de API, ingresar al assembly

The screenshot shows the 'taller-03-00-info-publica' assembly. It lists two API versions: 'taller-03-00-info-publica-1.0.0' and 'taller-03-00-info-publica-2.0.0'. Both are listed under the 'API (REST)' category and were created 'Today at 9:05 PM'.

API (REST)	
taller-03-00-info-publica-1.0.0	API (REST) Today at 9:05 PM
taller-03-00-info-publica-2.0.0	API (REST) Today at 9:05 PM

# Invocación de prueba

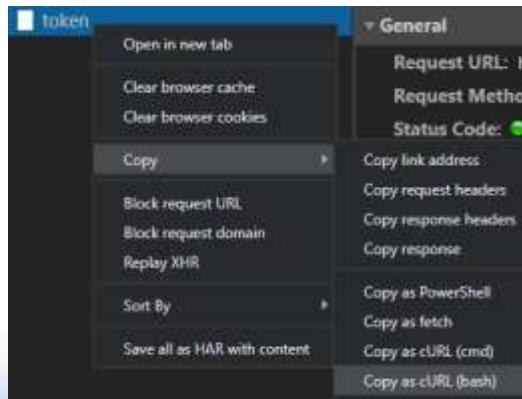
The screenshot shows a REST API testing interface with the following details:

- Test**: Operation `get /comercio`.
- Identification**: Client ID `ca590d41999dde350b7590b570e1fda3`.
- Client Secret**: A masked password.
- Authorization**: This operation is secured with application flow OAuth. Scopes selected are `comercios-infoPublica.read.app` and `usuarios-infoPublica.read.app`. Token URL is `https://api.apic.dev1.tbk.cl/transbank/sandbox/taller05-grupo00/oauth2/token`.
- Buttons**: **Authorize** (highlighted in blue) and **Access Token**.

- Ahora no solo pide el apikey, también el api-secret
- Presenta los scope para los que se solicita acceso
- Active la funcionalidad “inspect” del browser y seleccione “network”
  - ❖ Se quiere ver como se solicita token al presionar el botón “Authorize”
  - ❖ Presione “Authorize”

# ¿Que sucedió?

- Se ejecuto el flujo Application y se obtuvo el access\_token



```
curl "https://api.apic.dev1.tbk.cl/transbank/sandbox/taller05-grupo00/oauth2/token" -H "Connection: keep-alive" -H "Accept: application/json, text/plain, */*" -H "Sec-Fetch-Dest: empty" -H "Authorization: Basic Y2E1OTBkNDE50T1kZGUzNTBiNzU50GI1NzB1MWZkYTM6ZTYwNGY4N2M1NjgzYzQ1NDiNzQwYzIyNmEyNDQyZmE=" -H "Content-Type: application/x-www-form-urlencoded" -H "Origin: https://apim.apic.dev1.tbk.cl" --data "grant_type=client_credentials^&scope=comercios-infoPublica:read:app usuarios-infoPublica:read:app" --insecure
```

# Invocación al recurso

Access token

**Authorize**

parameters

Content-Type: application/json

Accept: application/json

Es el dominio DNS del comercio  
dominio \*

bancogalicia.com

Generate

Repeat

Repeat the API invocation a set number of times, or until the stop button is clicked

Stop after: 10

Stop on error

**Invoke**

Response

Status code: 200 OK

- El recurso se puede invocar, pero en este caso el request es:

curl -X GET "https://api.apic.dev1.tbk.cl/assembly.html?dominio=vc-soft.com" -H "Accept: application/json" -H "Accept-Encoding: gzip, deflate, br" -H "Accept-Language: en-US,en;q=0.9,es;q=0.8" -H "APIm-Debug: true" -H "Authorization: Bearer 7gRF2F3PtoVC3rFP2gW03nefNzgV02x" -H "Connection: Keep-Alive" -H "Content-Type: application/json" -H "Date: Sat, 11 Apr 2020 02:22:37 GMT" -H "Origin: https://api.apic.dev1.tbk.cl" -H "Referer: https://api.apic.dev1.tbk.cl/assembly.html" -H "Sec-Fetch-Dest: empty" -H "Sec-Fetch-Mode: cors" -H "Sec-Fetch-Site: same-site" -H "Transfer-Encoding: chunked" -H "User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/80.0.3987.163 Safari/537.36" -H "X-Client-IP: 10.212.25.82" -H "X-Global-Transaction-ID: e8eabefdf9e9129d800051251"

+ Request Headers [View source](#)

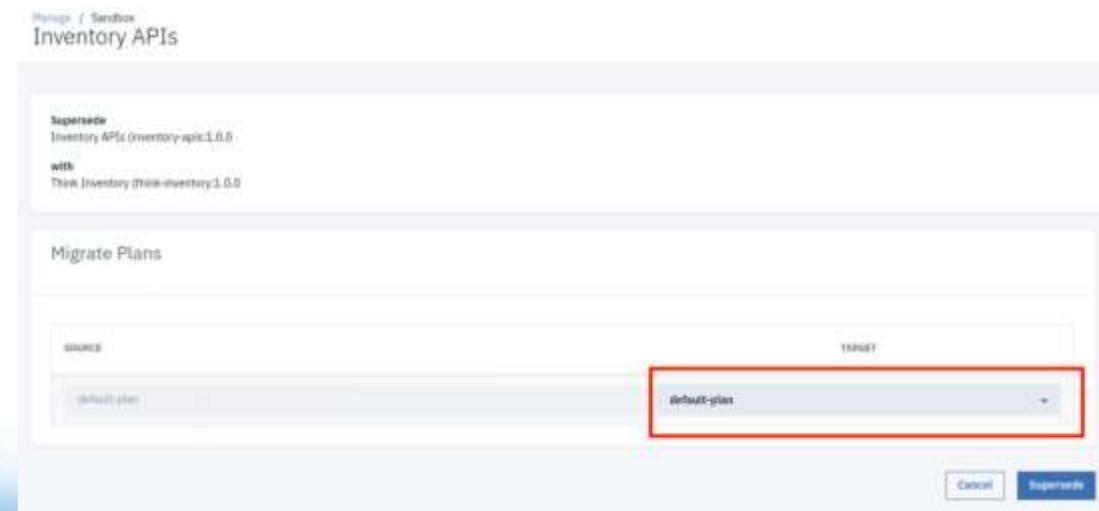
Accept: application/json  
Accept-Encoding: gzip, deflate, br  
Accept-Language: en-US,en;q=0.9,es;q=0.8  
APIm-Debug: true  
**Authorization: Bearer AA1gY2E10TBkND0SOT3kZGJzNTB1NzU5OGt1Nz8jPNwkyTnBBP13C8PXhJ-GYD805cp101SYEwAMqpdHc23pj30Ty\_EkhrQbtppBq13Fxel1TCOY3jv742qPtQ4539f3t0V2N0b2TEwMl31J3ionFend3ccKEIEclBg4PAa5xGQe0DZKA1FpBE**  
Connection: keep-alive  
Host: api.apic.dev1.tbk.cl  
Origin: https://api.apic.dev1.tbk.cl  
Referer: https://api.apic.dev1.tbk.cl/assembly.html  
Sec-Fetch-Dest: empty  
Sec-Fetch-Mode: cors  
Sec-Fetch-Site: same-site  
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/80.0.3987.163 Safari/537.36

+ Query String Parameters [View source](#) [View URL encoded](#)

dominio: vc-soft.com

- No se envía el Header del APIkey
- Se utiliza el access token en un Autorization tipo Bearer

- Actualmente en ambiente sandbox se pueden invocar las dos versiones
- En ambientes Productivos se requiere que se mantenga solo un servicio publicado
  - ❖ Funcionalidad de **supersede**
  - ❖ Permite que una nueva versión asuma los consumidores de la versión a ser reemplazada
  - ❖ Se deben migrar los planes
  - ❖ Finalmente el nuevo producto queda publicado y el anterior deprecado



- Se creó una versión del API REST.
  - ❖ Se logra entender que la plataforma ofrece la creación de nueva versión que permite tener configuraciones diferentes para el mismo API
- Se creó una implementación de OAuth que sirve como proveedor seleccionable para los API que necesiten control de este tipo
- En la nueva versión del API se modificó la configuración de definición de seguridad para indicar que se requiere control por OAuth
  - ❖ Se realizó la configuración utilizando el proveedor recién creado
- Se utilizó la herramienta interna de pruebas
  - ❖ Se evaluó el comportamiento del servicio con protección OAUTH
  - ❖ Se logró un análisis del tráfico interno para obtener el access token y para realizar la nueva invocación

# Taller 06

## Integración servicios SOAP

# Se adiciona un servicio AbonoBase/Swagger

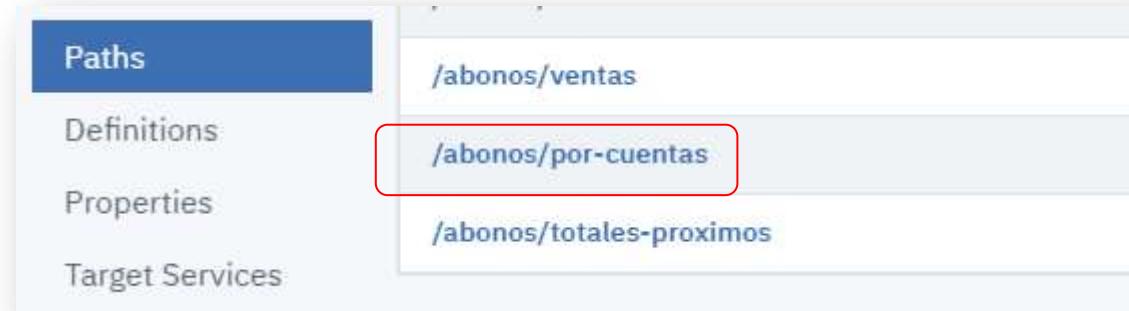
- Se utilizará la funcionalidad de integración de servicio SOAP
- Se inicia cargando un swagger completo sin ensamblaje: Taller-05-AbonosBase
- Modifique el base Path: /grupoxx

The screenshot shows the API Management interface with two API definitions:

- taller...**: Version 0.2.0. This API has the following details:
  - Title**: Taller-05-AbonosBase
  - Name**: taller-05-abonosbase
  - Version**: 0.2.0
  - Description (optional)**: # Abonos Transbank.  
API de abonos realizados en Transbank.  
Por medio de esta API se le ofrecen a los comercios de TBK los mecanismos de consultas "Abonos".
- abonos**: Version 0.1.0. This API has the following details:
  - Base Path**: The base path is the initial URL segment of the API and does not include the host name or any additional segments for paths or operations.
  - Base path (optional)**: /grupoxx
  - Consumes**:
    - Consumes (optional)**: application/json, application/xml
    - Add media type (optional)**: (button)

# Selección de Operación

- El API seleccionado tiene varias operaciones con mensajería compleja, solo se utilizará la operación **abonos/por-cuentas**



# GET /abonos/por-cuentas

## Parameters

REQUIRED	NAME	LOCATED IN	TYPE	DESCRIPTION	DELETE
<input checked="" type="checkbox"/>	fecha-desde	query	string	Fecha inicio del rango de la consulta YYYY	
<input checked="" type="checkbox"/>	fecha-hasta	query	string	Fecha inicio del rango de la consulta YYYY	

## Response

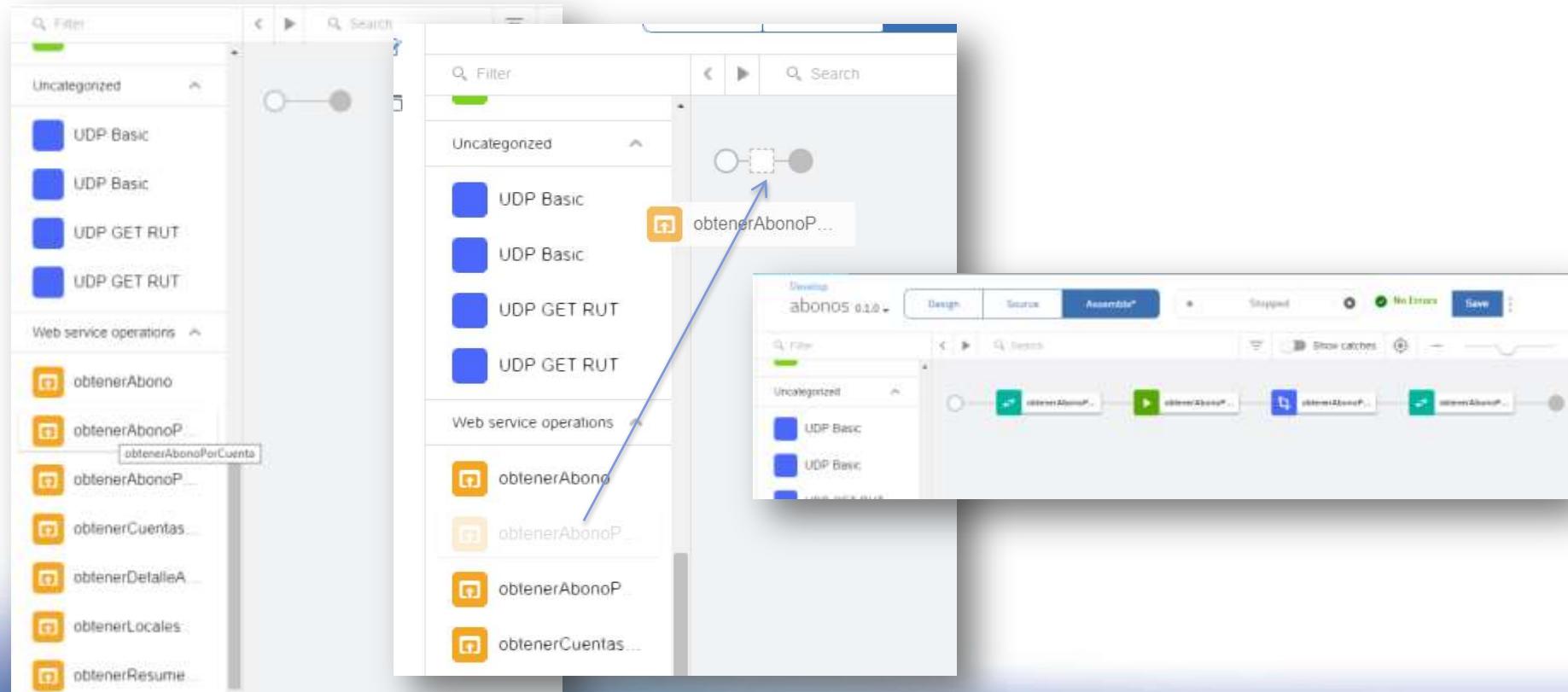
STATUS CODE	SCHEMA	DESCRIPTION	DELETE
200	TotalesPorCuentaRs	Resultado exitoso de lista de totales por cuenta	
400	_verificationError	Errores de Validación de mensajería y precondición	
422	ErrorRs	Consulta no procesable	
503	ErrorRs	Service Unavailable	

# Definir Target Service

The screenshot illustrates the process of defining a target service in a cloud integrated solution. The interface includes:

- Left Sidebar:** Contains links for API Setup, Security Definitions, Security Paths, Definitions, Properties, and Target Services (which is highlighted).
- Main Area:** A 'Target Services' list showing 'No items found'.
- Central Dialog:** 'Create Target Service' dialog with:
  - A green checkmark icon.
  - The URL 'wsdl:Abono.wsdl'.
  - A success message: 'Success Existing SOAP API has been validated.'
  - A 'Select Target Service' section where 'Abono' is selected.
  - Service methods listed: obtenerAbono, obtenerAbonoPorCuenta, obtenerAbonoPorLocal, obtenerAbono, obtenerCuentasAbono, obtenerDetalleAbono, obtenerLocalesAbono, obtenerResumenAbonoPorLocal.
  - Buttons: 'Cancel' and 'Submit'.
- Right Sidebar:** Shows a 'Devices' list with 'abonos' and a 'Design' tab.

# Definir Target Service



# Mapa inicial

The screenshot shows a WSDL editor interface with the following details:

- Toolbar:** Includes icons for back, forward, search, and various file operations.
- Title Bar:** Shows the operation name: "obtenerAbonoPorCu...".
- Input Tab:** Active tab, showing the XML structure of the input message.

```
<?xml version="1.0"?>
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header>
    <wsse:Security xmlns:wsse="http://schemas.xmlsoap.org/ws/2002/12/wssecurity&lt;!-- wsse:UsernameToken -->">
      <wsse:UsernameToken>
        <wsse:Username>string</wsse:Username>
        <wsse:Password>string</wsse:Password>
        <wsse:Nonce>string</wsse:Nonce>
        <wsse:Created>string</wsse:Created>
      </wsse:UsernameToken>
    </wsse:Security>
  </env:Header>
  <env:Body>
    <ns1:obtenerAbonoPorCuenta xmlns:ns1="http://tempuri.org/"></ns1:obtenerAbonoPorCuenta>
  </env:Body>
</env:Envelope>
```
- Map Tab:** Shows the mapping configuration.
- Output Tab:** Shows the XML structure of the output message.
- Operation Selection:** A dropdown menu titled "+ input" lists several operations:
  - obtenerAbonoPorCuenta (highlighted)
  - obtenerAbonosRealizados
  - obtenerMovimientoTransaccion
  - obtenerAbonosProximos



**obtenerAbonoPorCu...**

Title  
obtenerAbonoPorCuenta: invoke

Description

URL \*

[https://microcks\\_vc-soft\\_com:8080/soap/AbonoSOAP\\_HTTP\\_Binding+Mock/0.007](https://microcks_vc-soft_com:8080/soap/AbonoSOAP_HTTP_Binding+Mock/0.007)

The URL to be invoked.

TLS Profile

(none)

The TLS Profile to use for the secure transmission of data.

[https://microcks\\_vc-soft\\_com:8080/soap/AbonoSOAP\\_HTTP\\_Binding+Mock/0.007](https://microcks_vc-soft_com:8080/soap/AbonoSOAP_HTTP_Binding+Mock/0.007)

# Mapa respuesta

The screenshot shows a service mapping interface with the following details:

- Input:** Shows the input schema with fields:
  - input {
  - Envelope {
  - Body {
  - obtenerAbonoPorCuentaResponse {
  - encabezado {
    - canal string \*
    - ipCanal string \*
  - usuario string \*
  - ipUsuario string
  - aplicacion string
  - idTransaccionCanal string \*
  - idTransaccionMDW string
  - espacioNombre string \*
  - servicio string \*

- Map:** A column of circular icons representing different mapping operations.
- Output:** The output configuration panel.
- Icon:** A green icon with a double-headed arrow.
- Name:** obtenerAbonoPorCu...
- + output:** A button to add more outputs.
- Options:** Three small icons (refresh, settings, close).
- Content variable:** message.body
- Name:** response
- Content type:** application/json
- Definition:** #/definitions/TotalEsPorCuentaRs
- + output:** A button to add more outputs.
- Done:** A button in the bottom right corner.

obtenerAbonoPorCu...

**Input**

```
- listaAbonosPorCuenta {  
    - abonoPorCuenta [  
        - {  
            fechaAbono string  
            codigoBanco string  
            nombreBanco string  
            numeroCuenta string  
            tipoCuenta string  
            moneda string  
            ventas number  
            ventaCredito number  
            ventaDebito number  
            ventaPrepago number  
            relaciones number
```

**Map**

**C**

**Output**

```
- Resultado TotalesPorCuenta enlazado  
    nombreBanco string  
    numeroCuenta string  
    moneda string  
    montoAbono number  
    montoAbonoCredito number  
    montoAbonoDebito number  
    montoAbonoPrepago number  
}  
]  
- links {  
    self string  
    first string  
    prev string
```

# Test: Realice el invoke de pruebas

Develop taller... 0.2.0+ Design Source Assemble\* Running No Errors Save

Test

Invoke

Response

Status code: 200 OK

Response time: 1496ms

Headers:

content-type: application/json  
x-global-transaction-id: ebefbef5e9209d100051ca1

Body:

```
{  
    "data": [  
        {  
            "nombreBanco": "BANCO SANTANDER",  
            "numeroCuenta": "9000000000001332234",  
            "moneda": "CLP",  
            "montoAbono": "30011230443",  
            "montoAbonoCredito": "1005618999",  
            "montoAbonoDebito": "1005368332",  
            "montoAbonoPrepago": "3533172"  
        },  
        {  
            "nombreBanco": "BANCO SANTANDER",  
            "numeroCuenta": "90000000031038814",  
            "moneda": "USD",  
            "montoAbono": "2011178988.8",  
            "montoAbonoCredito": "1005544864",  
            "montoAbonoDebito": "1005293959.9",  
            "montoAbonoPrepago": "3405613"  
        }  
    ]  
}
```

```
graph LR; Start(( )) --> Get1[get obtenerAlumnoPorID]; Get1 --> Get2[get obtenerAlumnoPorID]; Get2 --> Get3[get obtenerAlumnoPorID]; Get3 --> End(( ));
```

Show catches

catch

parametersException

responseError

responseException

- Se definió un escenario donde el proveedor del API es un servicio SOAP
- Se cargó un Swagger complejo que incluye definiciones de modelo de mensajería definidas para la organización
- Se definió el proveedor utilizando “Target Service”
  - ❖ Se utilizó el mecanismo de construcción acelerada de target Service
  - ❖ Se utilizaron los maps planteados por la implementación base de target Service
  - ❖ Se realizó un mapeo de entidades con multiplicidad (listas)
- Se utilizó un servicio de Mock SOAP
  - ❖ Se utiliza la plataforma Mock Microcks en una instalación en ambiente VCSOFT
- Se realizó una prueba de ejecución correcta contra la plataforma de mock

# Taller 07

## Publicación Producto

# Publicar Productos

- Se requiere publicar los siguientes APIs en un producto:

The screenshot shows a product management interface. On the left, there is a list of products under the heading 'taller-03-00-Info-publica'. Three APIs are listed: 'taller-03-00-Info-publica-1.0.0' (API (REST)), 'taller-03-00-Info-publica-2.0.0' (API (REST)), and 'taller-05-AbonosBase-0.2.0' (API (REST)). The 'taller-03-00-Info-publica-2.0.0' API is highlighted with a yellow background. On the right, a 'Create New Product' dialog box is open. It has a title 'Create New Product' and a sub-section 'APIs' with the sub-instruction 'Select the APIs to add to this product'. Below this, a table lists the APIs with checkboxes next to their titles. The checkboxes for 'taller-03-00-Info-publica-2.0.0' and 'taller-05-AbonosBase-0.2.0' are checked. At the bottom of the dialog box, there are buttons for 'Back', 'Cancel', and 'Next'.

<input type="checkbox"/>	TITLE	VERSION	DESCRIPTION
<input type="checkbox"/>	Taller-01-00-where-is-my-ip	1.0.0	
<input checked="" type="checkbox"/>	taller-03-00-Info-publica	2.0.0	
<input checked="" type="checkbox"/>	Taller-05-AbonosBase	0.2.0	

Items per page: 10 < >

Back Cancel Next

Create New Product

Compose a new product by adding rate limits and plans.

Learn more

- Se definen dos planes:
  - ❖ Default: 3 invocaciones minuto
  - ❖ ContratoA: 30 invocaciones minuto
  - ❖ Tanto para normal como burst

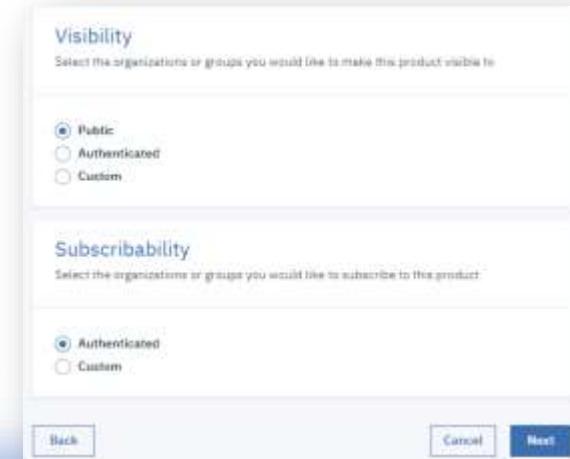


The screenshot shows a 'Plans' configuration screen. At the top right is a blue 'Add' button. Below it, the text 'Compose a new product by adding rate limits and plans' is displayed. Two plans are listed in a scrollable list: 'Default Plan' and 'ContratoA'. At the bottom are 'Back', 'Cancel', and 'Next' buttons.

- Visibilidad
  - ❖ Visibilidad pública
  - ❖ Capacidad de suscripción solo autenticados



The screenshot shows a 'Summary' page with a green checkmark icon and the message 'Created new product'. It also lists 'Added API' and 'Added rate limits'. At the bottom is an 'Edit Product' button.



The screenshot shows two configuration panels. The top panel is titled 'Visibility' with the sub-instruction 'Select the organizations or groups you would like to make this product visible to'. It contains three radio buttons: 'Public' (selected), 'Authenticated', and 'Custom'. The bottom panel is titled 'Subscribability' with the sub-instruction 'Select the organizations or groups you would like to subscribe to this product'. It also contains three radio buttons: 'Authenticated' (selected), 'Custom', and 'Public'. At the bottom are 'Back', 'Cancel', and 'Next' buttons.

# Detalles del producto

- Defina mail de contacto
- Texto de TyC: Busque en internet un texto de condiciones de servicio
- Ajuste límite de burst al mismo valor del plan
- Como del servicio Abonos solo se implementó una operación hay que retirar las no implementadas

Rate Limits				
NAME	CALLS	PER	UNIT	DELETE
default	1	1	minute	

Plan Burst Limits:				
NAME	CALLS	PER	UNIT	DELETE
default	1	1	minute	

Burst Limits:				
NAME	CALLS	PER	UNIT	DELETE
default	1	1	minute	

Customize the plan API list

APIs

Edit

TITLE	VERSION	NUMBER OF OPERATIONS	
taller-03-00-info-publica	2.0.0	2/2	
Taller-05-AbonosBase	0.2.0	1/4	

# Detalle Producto

- No se quiere utilizar el servicio de consulta de información de usuarios con la misma capacidad que las demás operaciones.
  - ❖ Modifique que el límite de la operación de consulta de usuario a 1 invocación por minuto
- Estado esperado:
- Categoría:

Talleres/06

The screenshot shows the 'Plan APIs' configuration page. It includes sections for 'Same as product' and 'Customize the plan API set'. Under 'APIs', there's a table showing operations like 'taller-03-00-info-publica' and 'Taller-03-4000date'. Below this is an 'Override plan rate limits' section with a checked checkbox for 'Override plan rate limits for individual operation'. At the bottom is an 'Override Rate Limits' table where 'getUsuario' is mapped to 'taller-03-00-info-publica.0.0' with a '1 Rate Limit'.

OPERATION	API	RATE LIMITS
getUsuario	taller-03-00-info-publica.0.0	1 Rate Limit

This dialog box is titled 'Override plan rate limits'. It shows an 'Operations' dropdown set to '/usuario:get', a 'Rate Limits' section with 'Rate Limits' selected, and a table with a single entry for 'usuario' with a limit of '1'. There are 'Cancel' and 'Add' buttons at the bottom.

NAME	CALLS	PER
usuario	1	1

# Publicar el producto en Catálogo

- Publique el Producto en Sandbox



- Manage>Sandbox

Taller-06-00-Producto	taller-06-00-producto 1.0.0	published
<b>PLANS</b>		
ContratoA		
Default Plan		
<b>GATEWAY SERVICES</b>		
DP-k8s	DataPower API Gateway	
TBKPAIIDG03	DataPower API Gateway	

# Ingresar como Consumidor de API en Developer Portal



API Developer Portal

## Sign in

Sign in with Sandbox Catalog User Registry      Continue with

Username

Password

or

<https://developer.apic.dev1.tbk.cl/transbank/sandbox/user/login>

# Listar Productos

API Center Developer Portal API Products Apps Blogs Forums Support

Búsqueda de Productos

Un producto inicial para agrupar los API creados en el taller

Taller-01-00-Producto0... 3.0.0 ★★★★  
Un producto inicial para agrupar los API creados en el taller

Taller-01-00\_where-is-my-ip 1.0.0 ★★★★★

taller-03-00\_info-publica... 2.0.0 ★★★★★

taller-03-00\_info-publica... 3.0.0 ★★★★★

Taller-05-AbonosBase ... 0.2.0 ★★★★★

1 2 3 List \*

Name	Category	Sort by	Order	Items per page	
Taller	Talleres	Name	ASC	5	<input type="button" value="Apply"/> <input type="button" value="Reset"/>
Taller-06-00-Producto	06				<input type="button" value="Edit"/>



Developer Portal API Products Apps Blogs Forums Support #VCAPI3300-3

### APIs

taller-03-00-info-publica 2.0.0	Taller-05-AbonosBase 0.2.0
---------------------------------	----------------------------

### Plans

APIs	ContratoA	Default Plan
	Contrato A	<input type="button" value="Subscribe"/>
wTaller-03-00-Info-publica 2.0.0	30 calls per minute	-
GET /comercio	30 calls per minute	2 rate limits *
GET /usuario	30 calls per minute	1 calls per minute
wTaller-05-AbonosBase 0.2.0	30 calls per minute	-
GET /abonos/por-cuentas	30 calls per minute	✗
GET /abonos/totales-realizados	30 calls per minute	✗
GET /abonos/ventas	30 calls per minute	✗
GET /abonos/totales-proximos	30 calls per minute	✗

Show Details ▾

Add new comment

# Suscribir > Creación de APP

- App > Create new app
  - ❖ Nombre: Taller-06-xx-AppConsumidora
- Almacene los valores de APIKey/Secret

 Application created successfully.

### API Key and Secret

The API Key and Secret have been generated for your application.

**Key**  
42a55ae90dc0ffa06070d32caaea29da  Show

**Secret**  
424edb68760e811a6a7c147de6135d2e  Show

The Secret will only be displayed here one time. Please copy your API Secret and keep it for your records.

[Continue](#)

### Create a new application

Title **\***  
Taller-06-00-AppConsumidora

Description  
Taller-06  
Grupo 00  
AppConsumidora

Application OAuth Redirect URL(s)

Add another item

[Cancel](#) [Submit](#)

APIKEY:  
42a55ae90dc0ffa06070d32caaea29da  
API Secret:  
424edb68760e811a6a7c147de6135d2e

# Suscripción

- Suscribir a ContratoA,
  - ❖ seleccione la APP recién creada (revise que es la de su grupo xx)

The image displays a user interface for managing subscriptions across multiple products and applications.

**Left Panel: Product Overview**

This panel shows the product "Taller-06-00-Producto". It includes:

- Tags:** Taller-06-00
- Summary:** producto taller 06
- APIs:** taller-03-00-info-publica 2.0.0, taller-05-AbonosBase 0.2.0
- Plans:** ContratoA (Contrato A), Default Plan

A red box highlights the "ContratoA" plan, and a red arrow points from this box to the "Select App" button in the middle panel.

**Middle Panel: Application Selection**

This panel shows the application "Taller-06-00-App..." with the description "Taller-06-Grupo03". A yellow box highlights the application name. A blue "Select App" button is visible at the bottom.

**Right Panel: Confirm Subscription**

This panel is a step in a wizard:

- Step 1: Select Application (done)
- Step 2: Subscribe (selected)
- Step 3: Summary (not yet reached)

The "Subscribe" step contains the following details:

- Product:** Taller-06-00-Producto
- Plan:** ContratoA
- Application:** Taller-06-00-AppConsumidor

Buttons for "Previous" and "Next" are at the bottom.

# Invocación desde Portal Developer

- Seleccione el API > Try it

The screenshot shows the Swagger UI for the 'Taller-05-AbonosBase' application. The main page displays the 'obtenerAbonoPorCuenta' endpoint. The 'Try It' button is highlighted with a yellow box. In the 'Client ID' input field, the value 'Taller-05-AppConsumidor' is entered. The 'Accept' header is set to 'application/json'. The 'fecha-desde' and 'fecha-hasta' query parameters are also visible.

# Invocación OAuth

taller-03-00-info-publica 2.0.0 ★★★★☆

Overview Details Try it

GET /comercio

GET /usuarios

Definitions

Datos públicos por dominio

Production, Development: https://api.spic.dev1.tbk.cl/transbank/sandbox/grupo0

Security

Identification

Client ID: Taller-03-00-AppConsumidor

Client secret:   
.....

Authorization

Scopes:

- comercios-infoPublica:read:app
- usuarios-infoPublica:read:app

Token URL: https://api.spic.dev1.tbk.cl/transbank/sandbox/taller03-grupo0

Access Token

Get Token

Access Token

Parameters

Header

- Accept: application/json
- Content-Type: application/json

Query

- scope: comercios-infoPublica:read:app
- grant\_type: client\_credentials

Request

```
curl https://api.spic.dev1.tbk.cl/transbank/sandbox/grupo0/comercios/infoPublica?scope=comercios-infoPublica:read:app&grant_type=client_credentials
```

Response

```
HTTP/2 200 OK
Date: Mon, 19 Jun 2023 14:45:14 GMT
Content-Type: application/json
x-global-transaction-id: eb8e6d4d4018179091441
x-transaction-lhash: reneebel0123
x-translator-priority: reneebel0123
{
  "token": {
    "access_token": "v0Wfr",
    "refresh_token": "united states",
    "expires_in": null,
    "scope": "comercios-infoPublica:read:app"
  }
}
```

- Se creó un elemento Producto que puede ser suscrito por los consumidores de API
- Se mostraron las capacidades de definición de publicación que ofrecen los planes
  - ❖ Control de tráfico
  - ❖ Control de operaciones que se ofrecen
  - ❖ Detalle por API o por operación
- Se realizó la labore de Publicación de Producto
  - ❖ Se publicó en un catálogo que no requiere aprobación para evitar que los asistentes requieran esperar por una actividad externa. En la realidad esta labor de publicación obliga una aprobación de un API Manager.
- Se realizaron las operaciones de identificación de API, suscripción y pruebas desde el Portal de Desarrollador

## **Comentarios Finales**

# Comentarios de cierre

- Comentarios y sugerencias al correo:
  - ❖ [taller-apic@vc-soft.com](mailto:taller-apic@vc-soft.com)
- Encuesta:
  - ❖ <https://forms.gle/BDSjsA8ZTuZqcYMs6>



**Taller Desarrollo de Configuraciones APIC**

Mil gracias por su participación en el taller de desarrollo de configuraciones en APIC. El temario y capacidades presentadas corresponde al producto APIC 2018.1.x.

Esperamos que:

+ Required

Email address: \*

Your email

Logró entender los conceptos de configuración de APIs en APIC. \*

1 2 3 4 5

Not very      Very much

# API Experts

**VC@SOFT**  
API Integrated Solutions

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