

# PACIFIC INTERNATIONAL LINES ISD



## PIL API Developer Guide

PACIFIC INTERNATIONAL LINES

# ONBOARDING PROCESS - SANDBOX

## Start your API Exploration

Contact relevant PIL representative or API Administrator



## Client Application

Login in Sandbox Portal, create Client App to obtain API Key and Secret Key



## Register & Explore API

Register your organization in PIL [Sandbox Developer Portal](#).



## API Product Subscription

Subscribe to API Product using your Org and Client App



# ONBOARDING PROCESS - PRODUCTION

## Production Onboarding

Contact relevant PIL representative or API Administrator



## Client Application

Login in Production Portal, Create Client App to obtain API Key and Secret Key



## Register for Production API

Register your organization in PIL [Production Developer Portal](#).



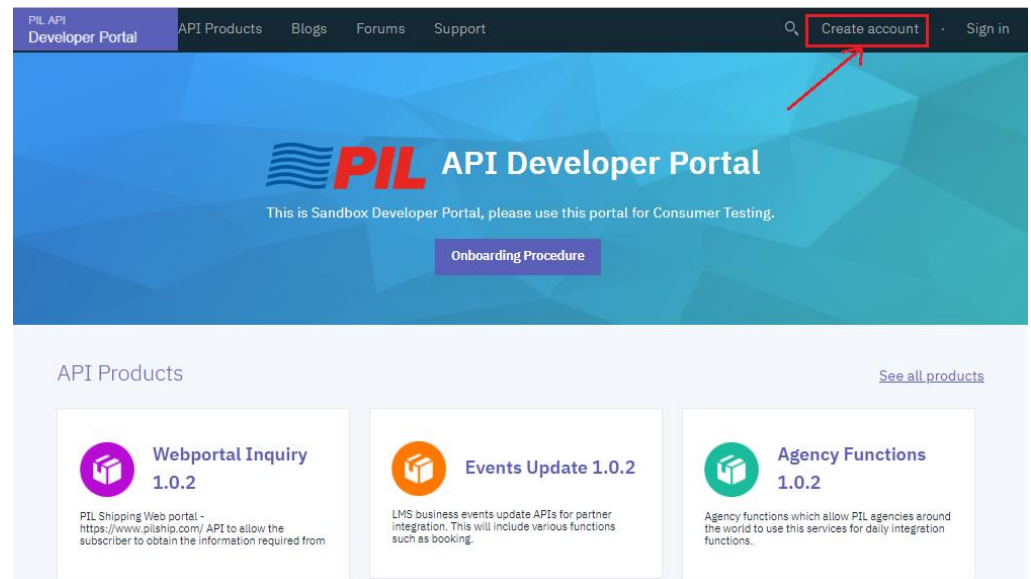
## API Product Subscription

Subscribe to API Product using your Org and Client App



# USER & ORGANIZATION REGISTRATION

- Sandbox API Developer Portal  
<https://api.pilship.com/pil/sandbox/>
- Production API Developer Portal  
<https://api.pilship.com/pil/prd/>
- Click on Create Account link on the right hand corner of the web page



# USER & ORGANIZATION REGISTRATION

- Select Sign up with Sandbox user registry for Sandbox onboarding
- Fill in the user name, email address, name, consumer organization, password.
- Account created is an administrator account for your Consumer Organization
- An activation email will be sent to email address specified above.
- Click on the URL to activate Consumer account with PIL.

API Developer Portal

## Sign up

**Sign up with Sandbox Catalog User Registry** Select a different registry

Username \*  
edyarto

Email address \*  
edyarto@gmail.com

First Name \*  
Edy

Last Name \*  
Arto

Consumer organization \*  
Pacific International Lines

Password \* or  
.....  
Password strength: Good

Confirm password \*  
.....

**PIL-LDAP**

# CLIENT APPLICATION - CREATION

- Before subscribe to API Product, Consumer need to create Client Application.
- Login to Developer Portal, select App Tab menu
- Create new client Application.
- Write down the App API Key and Secret Key, they will be used for calling the API in authentication process.

The image shows two screenshots from the API Developer Portal. The top screenshot is the login page, titled "API Developer Portal Sign in". It features a "Sign in with Sandbox Catalog User Registry" link and a "Continue with" section with two options: "PIL-LDAP" and "admin". A red box highlights these two options, with a red arrow pointing to a note: "do not use these options for login, they are for PIL developers login, not for consumer login". Another red arrow points to the "Sign in with Sandbox Catalog User Registry" link with the note: "consumer should use Sandbox Catalog User Registry login". Below the login fields are links for "Forgot password?" and "Don't have an account? Sign up".

The bottom screenshot shows the "Apps" page in the developer portal. The "Apps" tab is highlighted in the navigation bar (labeled with a red "1"). The page displays "No Applications found." and a "Create new app" button, which is highlighted with a red box and labeled with a red "2".

# CLIENT APPLICATION CREATION

Create a new application

Title \*

PIL Track & Trace

Description

PIL Track & Trace Client Application

Application OAuth Redirect URL(s)

|

Add another item

Cancel Submit

- Copy API Key and Secret & keep it for your record, later to be used for API Authentication.

Application created successfully.

## API Key and Secret

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

Key

1f37e2e1cc156da558f... Show

Secret

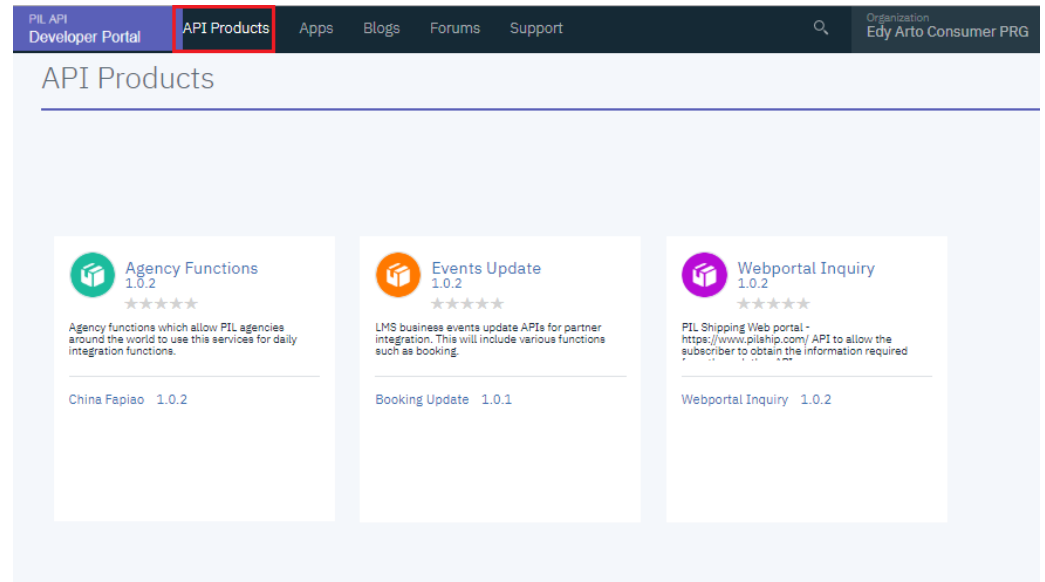
11a78cd35a8eb503fa... Show

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

Continue

# API PRODUCT SUBSCRIPTION

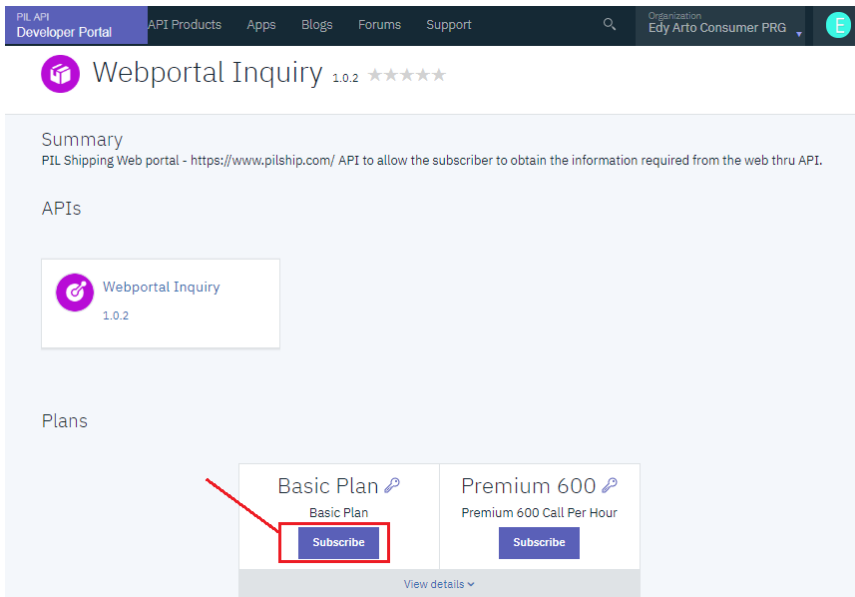
- Login to Developer Portal and browse API Products available for subscription.
- Use Client App created previously to subscribe to API Product
- Before start calling the API, consumer must subscribe to API first.
- Select API Product and Plan to subscribe. In this guide, consumer will subscribe to Webportal Inquiry API Product





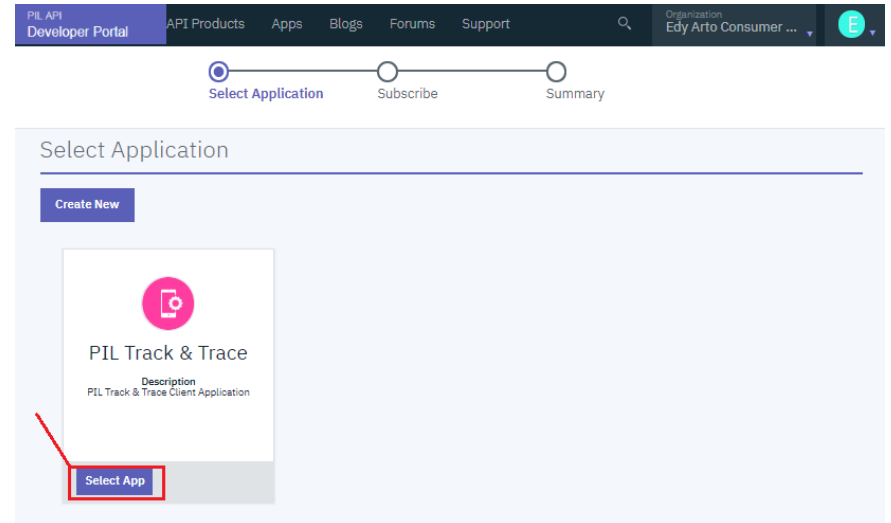
# API PRODUCT SUBSCRIPTION

- Select Basic Plan and click Subscribe



The screenshot shows the 'Webportal Inquiry' product page in the API Developer Portal. The page includes a navigation bar with 'API Products', 'Apps', 'Blogs', 'Forums', and 'Support'. The product name 'Webportal Inquiry 1.0.2' is displayed with a five-star rating. Below the product name, there is a 'Summary' section and a list of 'APIs' containing 'Webportal Inquiry 1.0.2'. Under the 'Plans' section, two plans are shown: 'Basic Plan' and 'Premium 600'. The 'Basic Plan' has a 'Subscribe' button highlighted with a red box and a red arrow pointing to it.

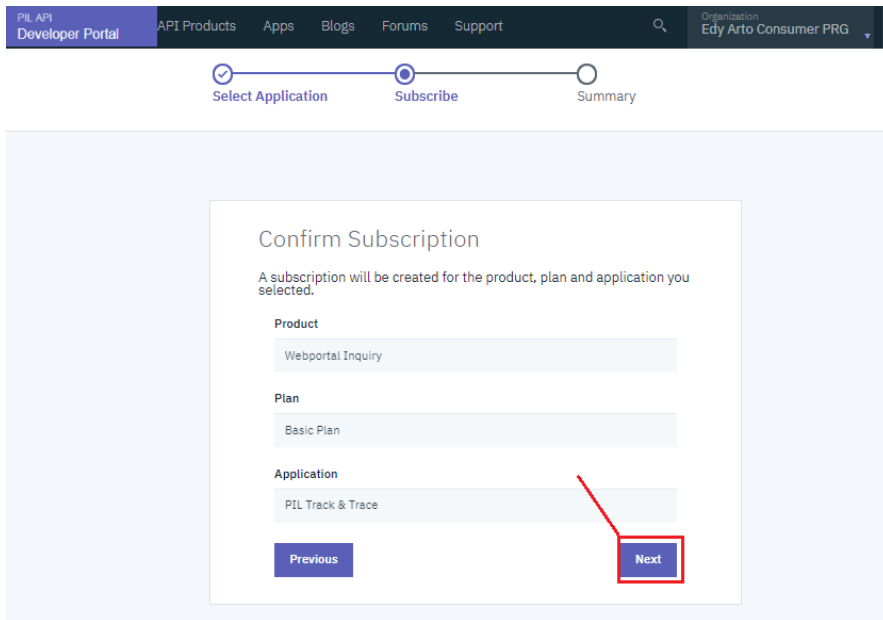
- Select client App created on previous step to subscribe



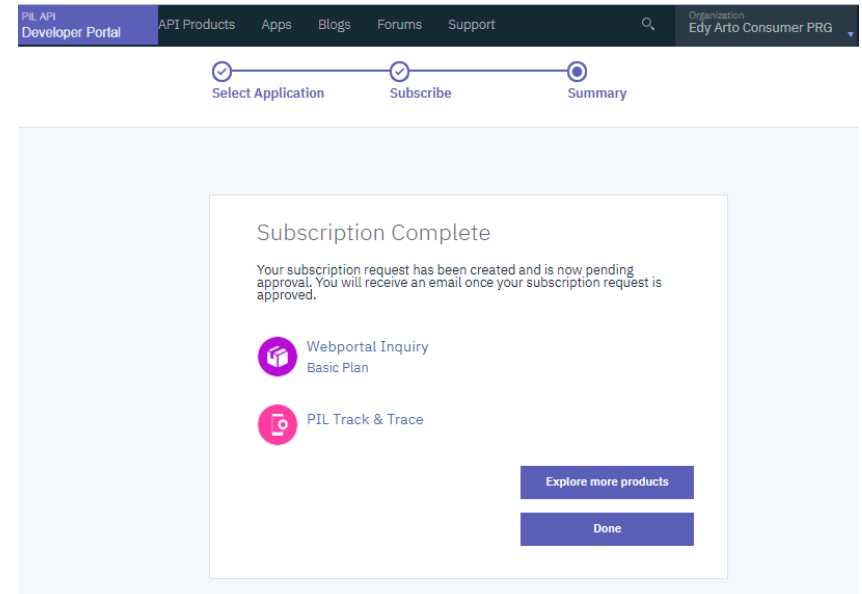
The screenshot shows the 'Select Application' page in the API Developer Portal. The page includes a navigation bar with 'API Products', 'Apps', 'Blogs', 'Forums', and 'Support'. A progress indicator shows three steps: 'Select Application', 'Subscribe', and 'Summary'. Below the progress indicator, there is a 'Create New' button and a list of applications. The 'PIL Track & Trace' application is selected, and its 'Select App' button is highlighted with a red box and a red arrow pointing to it.

# API PRODUCT SUBSCRIPTION

- Confirmation

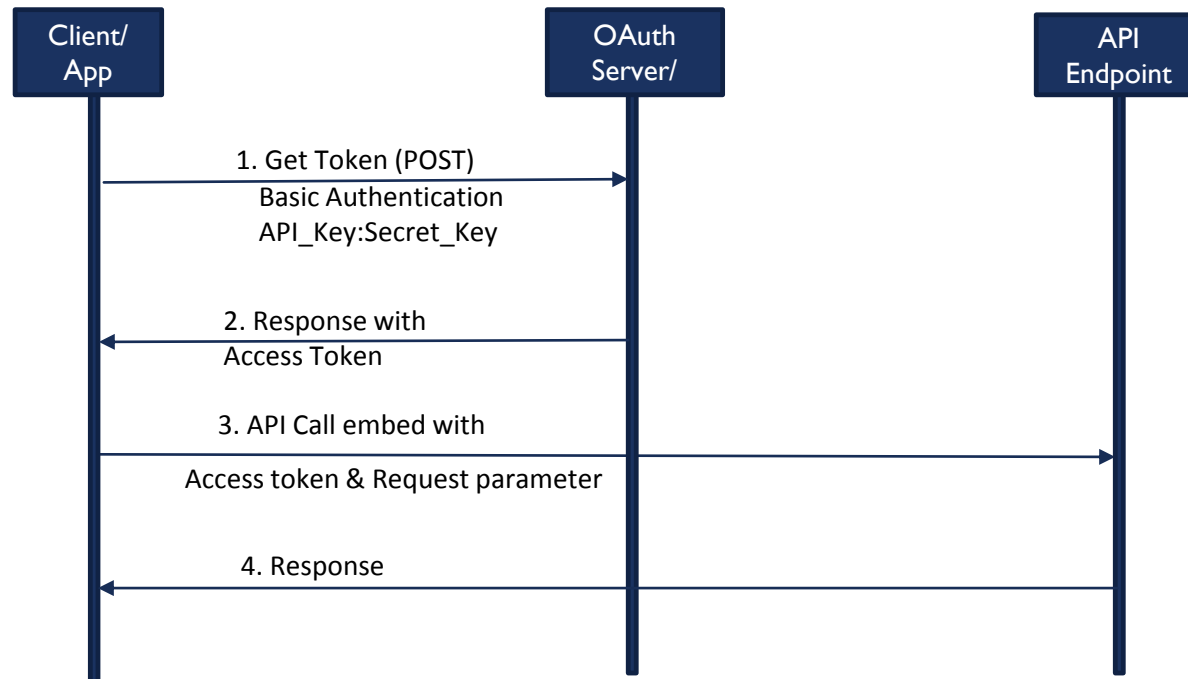


- Subscription completed
- Email confirmation sent and wait for approval from PIL



# API AUTHENTICATION & TOKEN

- PIL is using OAUTH2.0 to secure API, Client App must acquire token before call API



# API AUTHENTICATION & TOKEN

- Acquiring Access Token

Token URL (Sandbox): <https://apigw.pilship.com/pil/sandbox/native-op/oauth2/token>

Token URL (PRD): <https://apigw.pilship.com/pil/prd/native-op/oauth2/token>

HTTP Method: POST

Authentication Type: Basic Authentication API\_Key:Secret

Request Header: Authorization: Basic base64Encode(APIKey:Secret)

Request Header: Content-Type: application/x-www-form-urlencoded

Request Body: grant\_type=client\_credentials&scope=default\_scope

- Example Access Token request using CURL

```
curl -v -u YourAPIKey:YourSecret \  
-H "Content-Type: application/x-www-form-urlencoded" --request POST \  
--data 'grant_type=client_credentials&scope=default_scope' \  
https://apigw.pilship.com/pil/sandbox/native-op/oauth2/token
```

# API AUTHENTICATION & TOKEN

- Notes:

**YourAPIKey** is Client App API Key copied and recorded stated in page 7

**YourSecret** is Client App Secret Key copied and recorded stated in page 7

- Example Access Token request using Postman

Authentication

Username → API Key

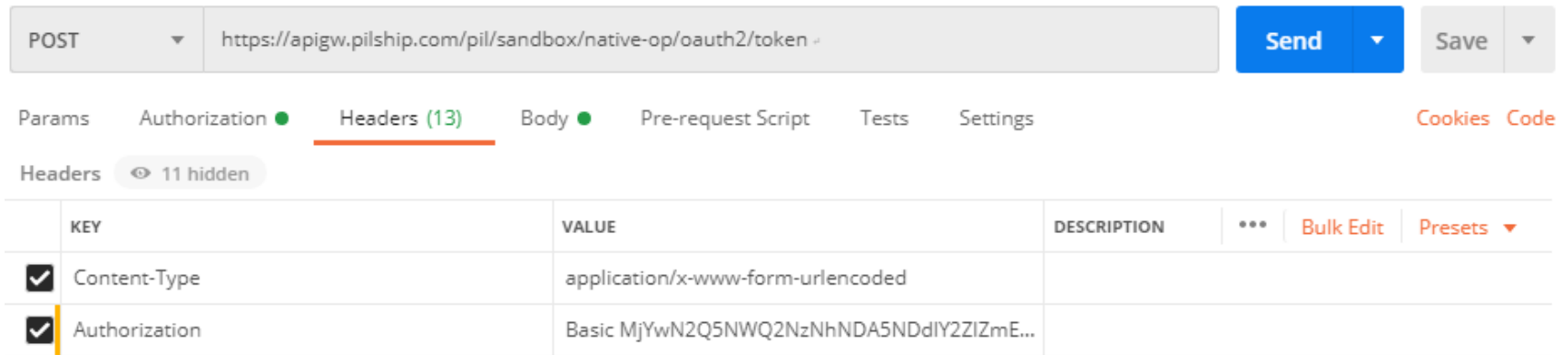
Password → API Secret Key

The screenshot shows the Postman interface for a POST request to `https://apigw.pilship.com/pil/sandbox/native-op/oauth2/token`. The 'Authorization' tab is selected, showing 'Basic Auth' as the type. The 'Username' field contains the API key `1f37e2e1cc156da5586...` and the 'Password' field is masked with dots. A 'Show Password' checkbox is present and unchecked. The interface also includes tabs for Params, Headers (13), Body, Pre-request Script, Tests, Settings, Cookies, and Code.

# API AUTHENTICATION & TOKEN

- Example Access Token request using Postman

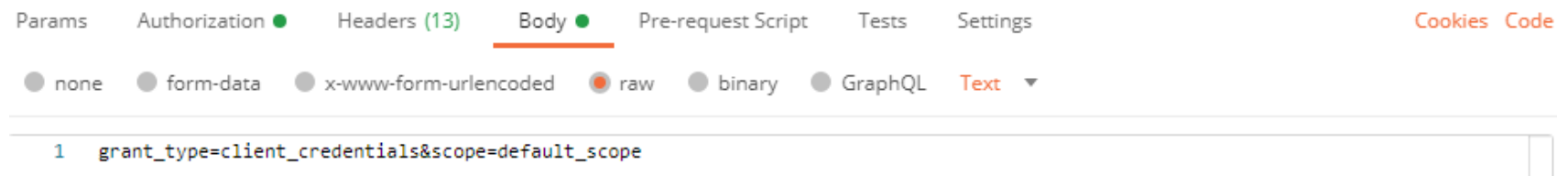
Headers:



The screenshot shows the Postman interface for a POST request to `https://apigw.pilship.com/pil/sandbox/native-op/oauth2/token`. The 'Headers' tab is selected, showing 11 hidden headers. Two headers are visible:

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> Content-Type	application/x-www-form-urlencoded	
<input checked="" type="checkbox"/> Authorization	Basic MjYwN2Q5NWQ2NzNhNDA5NDdY2ZlZmE...	

Request Body:



The screenshot shows the Postman interface for the same request, with the 'Body' tab selected. The body type is set to 'Text'. The request body content is:

```
1 grant_type=client_credentials&scope=default_scope
```

# API AUTHENTICATION & TOKEN

- Access Token response to be used for authentication while calling API endpoint

Access Token response :

```
{
  "token_type": "Bearer",
  "access_token": "AAIgMWYzN2UyZTFjYzE1NmRhNTU4NjM3YTM4Yzc5OWFmOTHm86WpDebG1ShZ2T1cSnV
Q8s2hMF4A38zoCOaWbZYxKA_wrZcBcD1X8rG2XUN15U27aMMAbUE4J-
vaMabXJLpKJ1kCSEeKQifrwlXAHSP9V8GuRBXvZYsxKCVaKXP2Sq8",
  "scope": "default_scope",
  "expires_in": 3600,
  "consented_on": 1611736313
}
```

# MAKING API ENDPOINT CALL

- Before making API Call, Consumer required to subscribe to API Product with available plan for subscription, otherwise API call will be rejected with HTTP Error code 401 (Un-Authorized).
- While making API call, embed request header with access token value (retrieved in request token step in page 15).
- Put access token value in Authorization request header with Bearer Authorization type.

Example API endpoint call using curl:

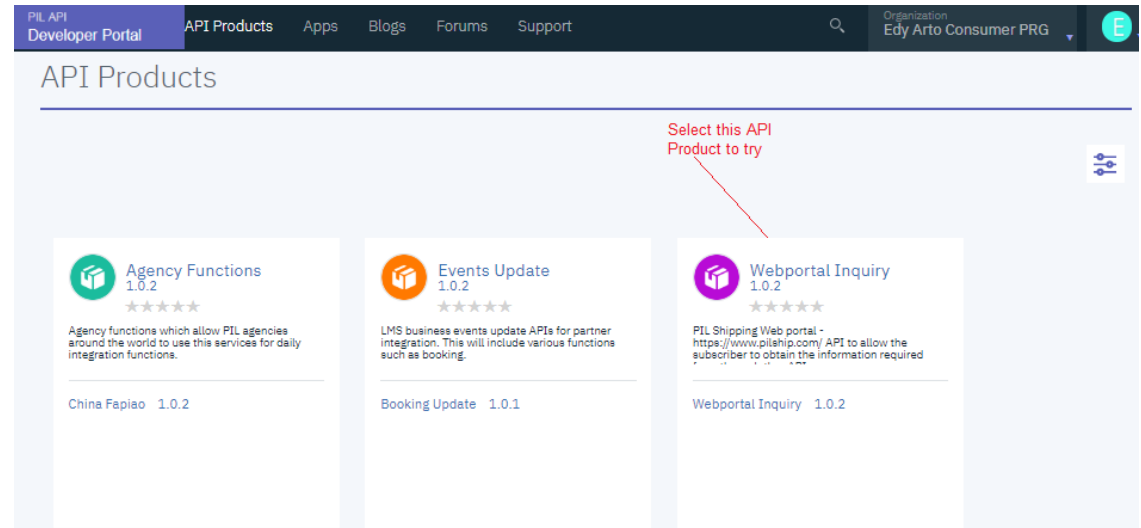
```
curl --request GET \ --url  
'https://apigw.pilship.com/pil/sandbox/liner/lms/webportal/vsk/v1/portschedule?portCode=SGSIN&startDate=2020-07-25&weeks=2' \  
--header 'accept: application/xml' \  
--header 'authorization: Bearer REPLACE_WITH_BEARER_ACCESS_TOKEN'
```

- Please note that **REPLACE\_WITH\_BEARER\_ACCESS\_TOKEN** is Access token valued retrieved from Access Token Request call.



# MAKING API CALL FROM DEVELOPER PORTAL

- After subscribe to API Product and get approval from PIL, consumer can try to make API call directly from Developer Portal.
- Select the subscribed API Product to try



# MAKING API CALL FROM DEVELOPER PORTAL

The screenshot shows the 'PIL API Developer Portal' navigation bar with links for API Products, Apps, Blogs, Forums, and Support. Below the navigation, there is a 'Summary' section for 'PIL Shipping Web portal' and an 'APIs' section. A red arrow points from the text 'Select this API' to a card for 'Webportal Inquiry 1.0.2'.

The screenshot shows the 'Webportal Inquiry 1.0.2' API details page. The 'Overview' section lists several endpoints, with 'GET /vsk/v1/portschedule' highlighted by a red box. A red arrow points from the text 'select this API to try' to this endpoint. The 'Details' section shows the endpoint 'GET : /vsk/v1/portschedule' with a 'Try it' button also highlighted by a red box. Below this, there is a 'Security' section with an 'Identification' form containing a 'Client ID' dropdown menu (set to 'PIL Track & Trace') and a 'Client secret' input field.

# MAKING API CALL FROM DEVELOPER PORTAL

Webportal Inquiry 1.0.2 ★★★★★ Subs

GET Production, Development: https://apigw.pilship.com/pil/sandbox/liner/lms/webportal/vsk/v1/portschedule

Security

Identification

Client ID  
PIL Track & Trace

Client secret  
[Redacted]

Authorization

Scopes  
 default\_scope

Token URL https://apigw.pilship.com/pil/sandbox/native-op/oauth2/token

Access Token

Get Token

click Get Token

enter with Secret Key generated in step page 7

Webportal Inquiry 1.0.2 ★★★★★ Subs

Parameters

Header

Accept  
application/xml

Query

portCode\*  
SGSIN

startDate\*  
2020-07-25

weeks\*  
2

Generate

Generate

Generate

Reset Send

click to generate parameter value automatically

# MAKING API CALL FROM DEVELOPER PORTAL

- XML Response from API after click send request

- XML Response from API after click send request

Webportal Inquiry 1.0.2 ★★★★★ Subs

Filter

Request

```
GET https://apigw.pilship.com/pil/sandbox/linez/lms/webportal/vsk/v1/portschedule?portCode=SGSIN&startDate=2020-07-25&weeks=2
Headers:
Accept: application/xml
Authorization: Bearer AAIgMwVzN2UyZTFjYzE1NmRnNTU4NjM3YTM4Yzc5OWFmOTM0YzIzWkx0YzE0YzE1E60XyCnvZjMyzcEsgKXDA1vaXs305oCWUzjoQLlDqIn3w1CknX4Ds8kT8l1IF4DHf95vKCmm-StX14Hy7_vHM-yAYFVvepp0
```

Filter

Response

```
Code: 200 OK
Headers:
cache-control: max-age=3600
content-type: text/xml; charset=UTF-8
x-ratelimit-limit: name=Basic,300;
x-ratelimit-remaining: name=Basic,299;
<apiReply>
<etool><schedule_port</etool>
<error>0</error>
<params>
<port_of_loading>SINGAPORE</port_of_loading>
<port_of_load_code>SGSIN</port_of_load_code>
<start_date>2020-07-25</start_date>
<duration_weeks>2</duration_weeks>
<schedule_list>
<schedule>
<voyage>2006E</voyage>
<arrival>2020-07-25</arrival>
<berthing>2020-07-25</berthing>
<departure>2020-07-25</departure>
<vessel>KOTA NELAYAN</vessel>
<vessel_code>KNEL</vessel_code>
</schedule>
</schedule_list>
</apiReply>
```

Webportal Inquiry 1.0.2 ★★★★★ Subs

Filter

Overview

```
GET /vsk/v1/portschedule
GET /vsk/v1/listports
GET /vsk/v1/vesselschedule
GET /tracktrace/v1/container
GET /tracktrace/v1/bkgrf
GET /tracktrace/v1/bl
GET /tracktrace/v1/po
GET /vsk/v1/point2point
```

```
<schedule>
<voyage>0004N</voyage>
<arrival>2020-08-08</arrival>
<berthing>2020-08-08</berthing>
<departure>2020-08-09</departure>
<vessel>SARERA</vessel>
<vessel_code>MSAR</vessel_code>
</schedule>
<schedule>
<voyage>0014E</voyage>
<arrival>2020-08-08</arrival>
<berthing>2020-08-08</berthing>
<departure>2020-08-09</departure>
<vessel>COSCO SHIPPING THAMES</vessel>
<vessel_code>VCST</vessel_code>
</schedule>
<schedule>
<voyage>0218W</voyage>
<arrival>2020-08-08</arrival>
<berthing>2020-08-11</berthing>
<departure>2020-08-12</departure>
<vessel>KOTA RAJIN</vessel>
<vessel_code>KRJN</vessel_code>
</schedule>
<schedule>
<voyage>0166N</voyage>
<arrival>2020-08-08</arrival>
<berthing>2020-08-08</berthing>
<departure>2020-08-09</departure>
<vessel>SINAR BALI</vessel>
<vessel_code>VSBI</vessel_code>
</schedule>
</schedule_list>
</params>
</apiReply>
```