

18 (Portal) Register Application and Use API Explorer

18.1 Description

This tutorial takes an application developer through the steps of registering an application to consume an api, how an API provider enables the API to be consumed with an API key and OAuth and how the application developer calls the API through the API Explorer.

18.2 Prerequisites

18.2.1 Environment

The Layer 7 API Management Combined Evaluation image provides gateway and portal instances in a single OVA image. This image allows you to get started quickly. Alternatively, you are required to provide your own instances configured and paired. This tutorial was designed using a version 7.0 of the Layer 7 SecureSpan Gateway and a version 2.1.2 of the Layer 7 API Developer portal.

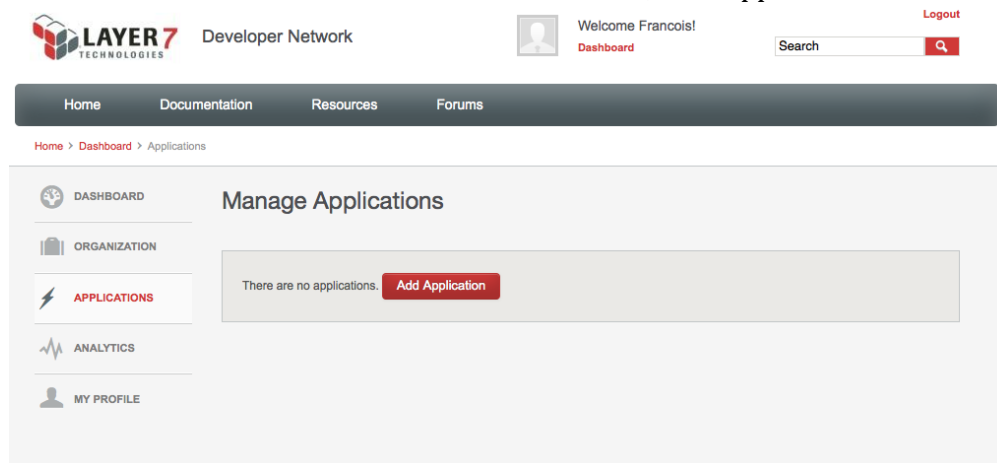
You will also need the Layer 7 Policy Manager (*this tutorial uses the Policy Manager software installation; the software installation version must match the gateway version; alternatively, users can use the Policy Manager browser-based version which always matches the gateway version that is connected to*).

18.2.2 Tutorials

1. 8 Basic Authentication
2. 13 Portal Sign-in
3. 14 Publish an API

18.3 Tutorial Steps

1. Log in to the API Developer Portal using the application developer account created in tutorial 13. From the Dashboard side bar, click Applications.



2. Click Add Application. In the Application Information tab, enter an Application Name "Warehouse Tutorial Application", select a Platform value and add a Description.

Application Information API Management Auth

Application Name *

Warehouse Tutorial Application

Platform *

iOS

Description

Application created as part of tutorial 15

body p

Cancel Next Step Save

3. In API Management tab, select the Warehouse REST Tutorials entry and accept the Terms and Conditions.

Application Information API Management Auth

Current APIs

Add APIs

Warehouse REST Tutorials

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed quis est est, sit amet eleifend lorem. Vivamus libero nibh, pulvinar a mattis ac, feugiat a dolor. Duis consectetur convallis fermentum. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Vivamus enim neque, fermentum eu feugiat id, rhoncus ut felis. Suspendisse placerat mollis tortor vel faucibus. Praesent sodales, dolor at tristique laoreet, lacus sapien gravida tortor, a suscipit massa risus ut justo. Ut eget mauris eu ante pellentesque tincidunt in at ligula. Praesent a ipsum nec velit malesuada ultrices. Vestibulum pulvinar semper ipsum, non varius erat semper a. Maecenas eu urna elit. Nunc sodales malesuada aliquam. Vestibulum pellentesque tincidunt urna, ut commodo nisl pretium eu. Maecenas eu massa enim. Vivamus vel nulla in mi mollis hendrerit. Aenean sit amet nulla vel tellus vulputate laoreet. Fusce hendrerit molestie augue. Nam nec lorem eget leo faucibus elementum. Donec nulla orci, tincidunt et rhoncus id, ullamcorper nec erat. Maecenas tincidunt sodales augue gravida aliquet. Cras fermentum

Accept the Terms and Conditions Cancel

Cancel Next Step Save

4. In the Auth tab, enter a Callback URL [http://\[your_portal_host_name\]/resources/oauthCallback.html](http://[your_portal_host_name]/resources/oauthCallback.html), for Scope select "warehouse" and for Type, select Confidential.

Manage Applications

There are no applications. [Add Application](#)

Application Information

API Management

Auth


Callback URL


Scope

Type

Cancel Next Step **Save**

- Click Save. Then, log out of the developer account and log in as an administrator. In the admin Dashboard, click Application Requests from the Tasks Widget.


Developer Network


 Welcome Admin!
Dashboard

[Home](#)
[Documentation](#)
[Resources](#)
[Forums](#)

Home > Dashboard

DASHBOARD

REQUESTS

ORGANIZATIONS

APIS

ANALYTICS

Dashboard

TASKS

- 0 Pending Accounts
- 0 Plan Change Requests
- 1 Application Requests**
- 0 Unpublished APIs

- In the Pending Application Requests, hover over the action button for the Warehouse Tutorial Application pending approval and click on Approve.

Pending Application Requests

Organization Filter: Platform Filter: API Filter:

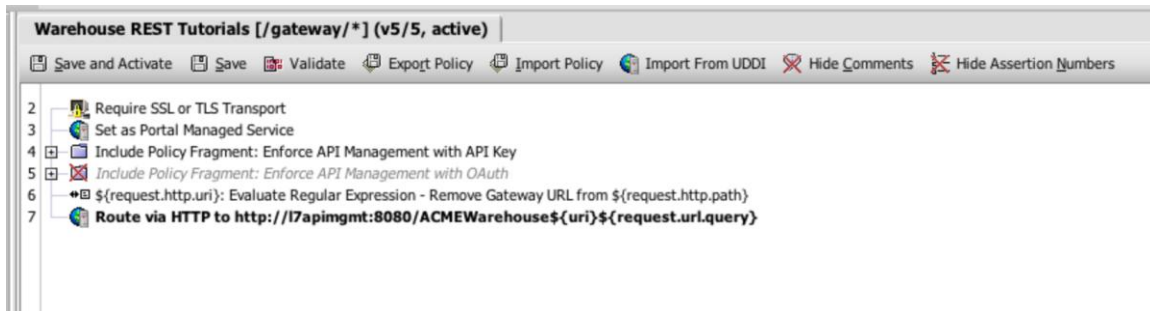
Display per page: Page 1 of 1

<input type="checkbox"/>	Application	Organization	Status	Platform
<input type="checkbox"/>	Warehouse Tutorial Application API Details	franco_org	Pending Approval	iOS

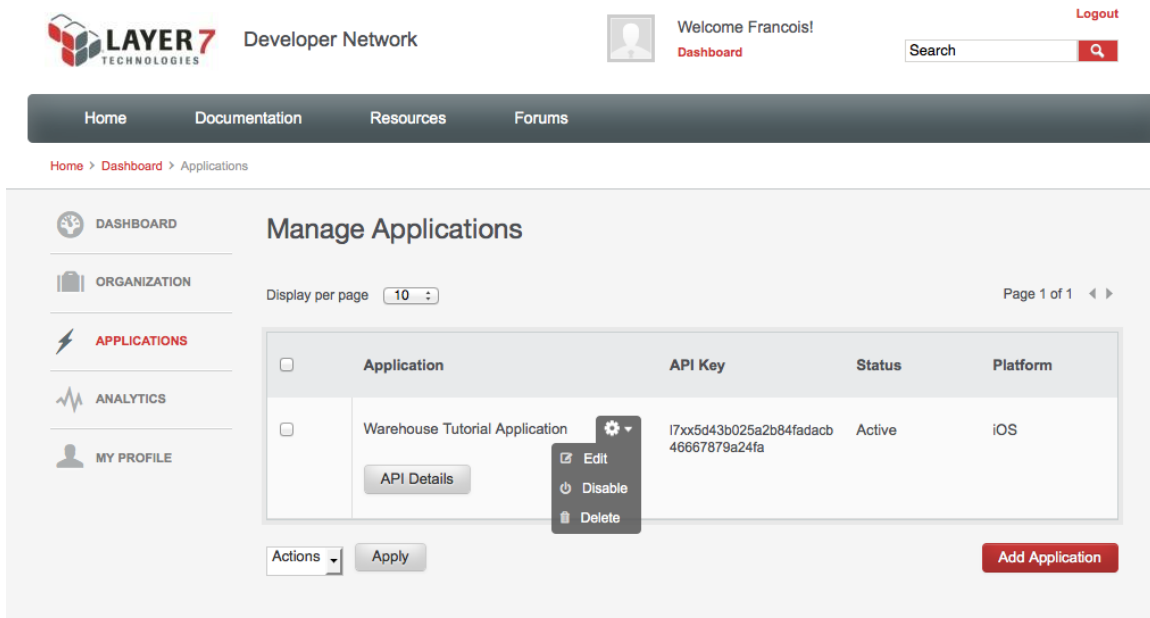
Actions:

- If this is not already the case, use the SecureSpan Manager to enable the fragment "Enforce API Management with API Key" from the Warehouse REST Tutorial service

policy and disable the “Enforce API Management with OAuth” fragment. See the Publish an API tutorial for more details.



- Using the application developer account, log in to the portal and navigate to the Applications section. The status of the Warehouse Tutorial Application should now read “Active”. Hover over the action link for the application and select Edit.



- Go to the Auth tab. Note the Api Key that has been assigned for the application.

Application Information API Management **Auth**

Key Secret

Api Key

17xx5d43b025a2b84fadacb46667879a24fa

Callback URL

http://17apimgmt/resources/oauthCallback.html

Scope

warehouse

Type

Confidential

Cancel Save

10. Click the Secret button, note the Api Key Secret issued. Click the cancel link.

Application Information API Management **Auth**

Key Secret

Key Secret

5fd31517cb334a75b46246b87b887d0d

Request a New Shared Secret

Callback URL

http://17apimgmt/resources/oauthCallback.html

Scope

warehouse

Type

Confidential

Cancel Save

11. Click the Api Explorer side bar link from the Resources top menu link.

12. In the list of APIs, select the Warehouse REST Tutorials. Select the /product resource and the Get Product List method.

RESOURCES

API EXPLORER

APP GALLERY

CODE SAMPLES

API
Warehouse REST Tutorials

Resource
/product

Method
Get Product List

Authentication (None)

Execute Request

Request Query Response

GET http://17apimgmt:8080/gateway/product

Add Parameter

13. Click Execute Request button. You should see an Invalid API Key response coming back from the gateway. This is because the policy is currently enforcing requesters to present a valid API key.

API
Warehouse REST Tutorials

Resource
/product

Method
Get Product List

Authentication (None)

Execute Request

Request Query Response

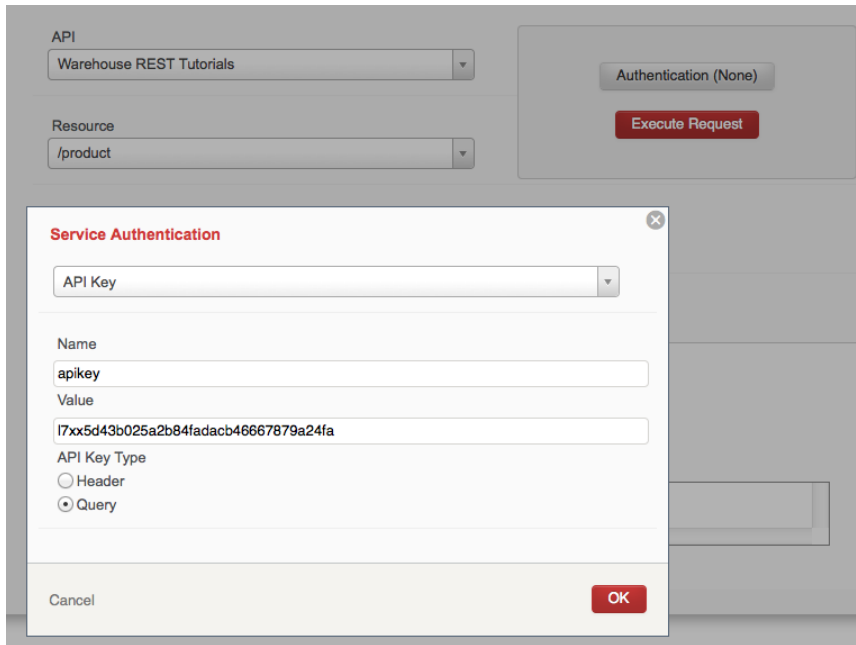
```

Date: Mon, 29 Apr 2013 23:10:10 GMT
Server: Apache-Coyote/1.1
Response-Status: HTTP/1.1 400 Bad Request
Content-Type: text/plain;charset=UTF-8
Content-Length: 15
Connection: close

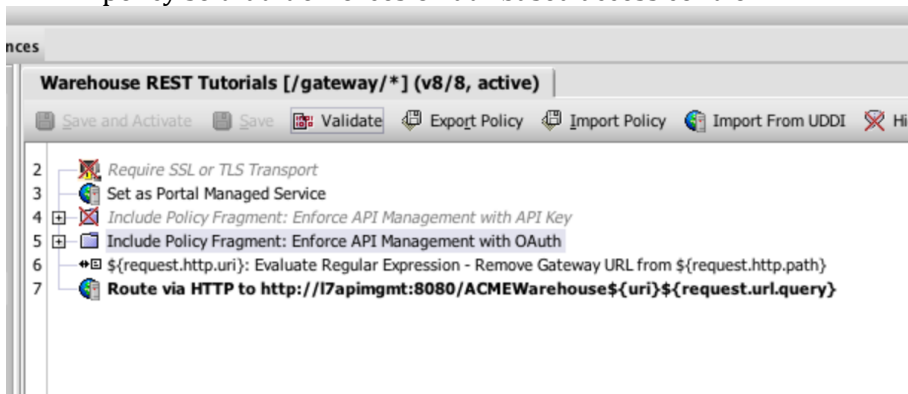
```

Invalid API Key

14. Click the Authentication button at the top right corner of the API Explorer. In Service Authentication, select API Key. For Name, select “apikey” and for Value, select the Api Key value noted in step 9, then click OK.



15. Execute request again. This time you should see the response from the gateway returned to the API Explorer.
16. Go back to the Policy Manager and adjust the Warehouse REST Tutorial service policy so that it enforces OAuth based access control.



17. Go back the API Explorer and execute the request once more. You should now get an error response back "Missing access token".

API
Warehouse REST Tutorials

Resource
/product

Method
Get Product List

Authentication (API Key)

Execute Request

Request Query **Response**

```

Date: Mon, 29 Apr 2013 23:19:24 GMT
Server: Apache-Coyote/1.1
Response-Status: HTTP/1.1 401 Unauthorized
Content-Type: application/json; charset=UTF-8
Content-Length: 77
Connection: close

```

```

{
  "error": "invalid_request",
  "error_description": "Missing access token"
}

```

18. Click the Authentication button again and this time, select OAuth 2.0. In Grant Type, select Authorization Code. For Client ID, select the Api Key noted in step 9, in Client Secret, select the Api Key Secret noted in step 10. For Scope, select warehouse. For Authorize Endpoint, enter [https://\[your_gateway_host_name\]:8443/auth/oauth/v2/authorize](https://[your_gateway_host_name]:8443/auth/oauth/v2/authorize) and for Token Endpoint, select [https://\[your_gateway_host_name\]:8443/auth/oauth/v2/token](https://[your_gateway_host_name]:8443/auth/oauth/v2/token).

Service Authentication

OAuth 2.0

Grant Type
Authorization Code

Client ID
l7xx5d43b025a2b84fadacb46667879a24fa

Client Secret
5fd31517cb334a75b46246b87b887d0d

Scope
warehouse

Authorize Endpoint
<https://l7apimgmt:8443/auth/oauth/v2/authorize>

Token Endpoint
<https://l7apimgmt:8443/auth/oauth/v2/token>

Cancel OK

19. Click OK, you are redirected to the authorization server. Log in using the user account created in Tutorial 8, then click grant.

OAuth 2.0 Authorization Server

OAuth version: 2.0 (RFC 6749)

A client with the following properties is seeking access to resources:

client_name: Warehouse Tutorial Application
client_id: I7xx5d43b025a2b84fadacb46667879a24fa
redirect_uri: http://I7apingmt/resources/oauthCallback.html
response_type: code
scope: warehouse

To grant or deny the request you need to provide your credentials

Username:
Password:

20. You should be automatically redirected to the API Explorer. Click Execute Request again and you should now see the success response for the API call authenticated using OAuth 2.0.

API

Warehouse REST Tutorials

Resource

/product

Method

Get Product List

Authentication (OAuth 2.0)

Execute Request

Request

Query

Response

Date: Mon, 29 Apr 2013 23:26:49 GMT
Server: Apache-Coyote/1.1
Response-Status: HTTP/1.1 200 OK
Content-Type: text/xml; charset=UTF-8
Content-Length: 403
Connection: close

```
<?xml version="1.0" encoding="UTF-8"?>
<products xmlns="http://warehouse.acme.com/ws"
  xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:ws="http://warehouse.acme.com/ws">
  <product name="hammer" xlink:href="/54112"/>
  <product name="drill" xlink:href="/54113"/>
  <product name="circular saw" xlink:href="/54114"/>
  <product name="jigsaw" xlink:href="/54115"/>
</products>
```

18.4 Additional Context

If you comment out both Api key and OAuth based enforcement in the Gateway policy, you can consume the API from the API Explorer without any Authentication.