IBM API Connect on IBM Cloud Pak
(API Connect on Cloud Pak for Integration)

IBM Cloud Pak is a Multi-Cloud, Secure, Enterprise-proven Platform, which gives clients an open, secure and faster way to move your core business applications.
IBM Cloud Pak for Integration

IBM Cloud Pak is a Multi-Cloud, Secure, Enterprise-proven Platform, which gives clients an open, secure and faster way to move your core business applications to cloud like AWS, Microsoft Azure, Google Cloud, and IBM Cloud. IBM Cloud Pak runs on Red Hat OpenShift on IBM Cloud and Red Hat Enterprise Linux and includes containerized IBM middleware and common software services for data management, business process automation, and integration.

Benefits of IBM Cloud Pak:

The significant benefits of IBM Cloud Pak are portability, increase in efficiency, adds flexibility, provides security, and fulfills all needs of hardware as well as software requirements.

Creating, managing, and monitoring all integrations across applications, messages, events, APIs are the powerful integration capabilities of IBM Cloud Pak, and it is a single solution for all enterprise integration needs.

API lifecycle, application, and data integration messaging and events, high-speed transfer, and integration security are the pre-integrated set of capabilities in IBM Cloud Pak.
Instance Reservation

This exercise is performed, by reserving a VM instance on the IBM blue demo site. To reserve an instance in the IBM Blue demos, click here.

We have followed the demo guide for the basic configuration steps. But we have created a new ACE service and the API on the Cloud Pak.

The Cloud Integration runs over IBM Cloud Private as an application; it’s a platform for developing and managing on-premises, containerized applications.
Environment Overview

We can access the machine directly via the Skytap UI.

Login to the Master VM, using the credentials root/Passw0rd!

SSH into the Master Node, using ssh master command.
Environment Overview

In the home directory of root (/root) there is a script called icpStopStart.sh. Run this script by typing in "./icpStopStart.sh start". It takes around 30 minutes for the ICP Services to come up completely.

Login to the Developer VM, using the credentials student/Passw0rd!
Execute a `cloudctl login` command, from the command line.

It will prompt us for credentials (admin/admin).
Environment Overview

- IBM Cloud Pak for Integration
- Instance Reservation
- Environment Overview
- IBM Cloud Integration
- API Configuration
- Creating a Product
- Application Subscription
- Postman Test

Select the apic namespace.

```
student@developer:~$ sudo cloudctl login
[sudo] password for student:
API endpoint: https://10.0.0.1:8443
Username> admin
Password> admin
Authenticating...
OK
Targeted account mycluster Account (id-mycluster-account)
Select a namespace:
1. ace
2. acemq
3. apic
4. cert-manager
5. default
6. eventstreams
7. ibncom
8. lclip
9. istio-system
10. kube-public
11. kube-system
12. platform
13. rook-ceph
14. rook-ceph-system
15. services
```
IBM Cloud Integration

Navigate to IBM Cloud Integration Page on the Google Chrome Browser. The URL for the navigator was set up in this environment as https://10.0.0.5/icip1-navigator1

Login to the Platform Navigator using the credentials admin/admin.
IBM Cloud Integration

Navigate to Home -> API Lifecycle and secure access, and select the apic namespace created.
API Configuration

Click on “Develop APIs and Products”.

Develop an API from scratch.
API Configuration

Add the API name in the Title field.

In the **Security Definitions**, add the **Client Id** and **Client Secret** as the API Key, located in the **Headers** section.
API Configuration

Under the Paths, add the method name and click Save.
API Configuration

Add the operation name under operations.

Select the API input and output media types, of the API.
API Configuration

In the Definitions, add the response schema of the method.
API Configuration

In the Response, add the response status codes.
In the Response schema, select the Response definition, and add the Description.

<table>
<thead>
<tr>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED</td>
</tr>
<tr>
<td>Response</td>
</tr>
<tr>
<td>STATUS CODE</td>
</tr>
<tr>
<td>200</td>
</tr>
</tbody>
</table>
API Configuration

Navigate to the Assemble Section.

Add the *invoke* action and click *Save*.

ACE service is configured in APP Connect Enterprise on Cloud Pak. From APIC on Cloud Pak, we are trying to invoke the ace service.

Configure the ace service endpoint URL in the *URL* field, and the timeout seconds in the *Timeout* field.
API Configuration

Add the Method name in the HTTP Method field.
API Configuration

Click on Invoke Button, and the Assemble action will be invoked.
API Configuration

Click on **Source** tab, the swagger will be updated automatically as below.
Creating a Product

Navigate to **Develop -> Products**. Create a Product and add API to the Product.
Creating a Product

Click on Check Product -> and add Loan API to the Product and click on the Save button.

Add Plans to Product. By default, we have a default plan.
Application Subscription

Navigate to Manage -> Sandbox Catalog -> Applications.
Create an application and subscribe to the API to that application.

Open the Credentials tab and note down the client id and client secret. (Note: Client secret will be displayed only once for security purpose).
Postman Test

From APIC on Cloud Pak, we successfully invoked the ACE Service, configured in Cloud Pak. The same has been tested in the Postman tool, and the response from ACE Service is displayed below.

Add the client id and client secret in the Headers section and test the API.
Postman Test
Royal Cyber | Simplifying IT for Customers & Partners

Royal Cyber Inc. Headquartered in Naperville, IL is a leading software organization that provides services ranging from application development and deployment to training and consultancy. We commenced the operations in the year 2002 as a specialized Technology provider striding in as a software deployment service provider, assisting clients to meet the standards and demands of doing business in the rapidly changing marketplace.

Today we stand tall as a One Stop Shop for all your IT needs.