



Module 8: Making APIs Discoverable

Goal



The screenshot displays the MuleSoft Exchange interface. The top navigation bar includes 'Exchange', 'Training', and 'MM'. The left sidebar shows 'All', 'MuleSoft', and 'Training'. The main content area is titled 'All assets' and features a search bar, a 'New' button, and a list of connectors: Salesforce Connector, Workday Connector, and ServiceNow Connector. Below these, there's a section for 'Mule ACME Bank'. The right sidebar shows 'Private', 'Themes', and 'Live portal'. The bottom section is an 'API Notebook' with a code editor showing a REST client example for creating a new client and getting customer details.

```
API.createClient('client', 'https://anypoint.mulesoft.com/apiplatform/repository/v2/organizations/fw154b4-8772-434c-bec8-8326ec382e/public/api/1234567890/version/131387/definition')

// Create a new code cell and type 'client.' to explore this API.

client.createClient()

client.createClient({
  body: {
    status: 200,
    headers: {
      'content-type': 'application/json'
    }
  }
})

client.createClient({
  body: {
    status: 200,
    headers: {
      'content-type': 'application/json'
    }
  }
})
```

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Objectives



- Publish API specifications and fragments to the Anypoint Exchange for discovery
- Customize API Portals with themes
- Create a sample use case with API Notebook inside the API Portal
- Gather feedback from API consumers

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Discovering APIs using Anypoint Exchange



Introducing Anypoint Exchange



- Anypoint Exchange is at the core of the Center for enablement concept
- It is a place where all the assets are published for self-service and reuse by different parts of the organization
 - Each asset is a Maven artifact that can be versioned
- Exchange can house how-to and best practices documentation, API specifications (OAS and RAML), API fragments, templates, connectors, example, directory for API definitions, fragments, templates, connectors and examples

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What does (and should) Exchange contain?



- MuleSoft-provided **public** assets available in all accounts to all users
 - You can work with MuleSoft to get connectors you build certified & added
- **Private** content only available to people in your org
 - Assets added by anyone in your org are added to your private Exchange
- Your organization should populate it to contain everything you need to build your integration projects
 - Including diagrams, videos, links, and more

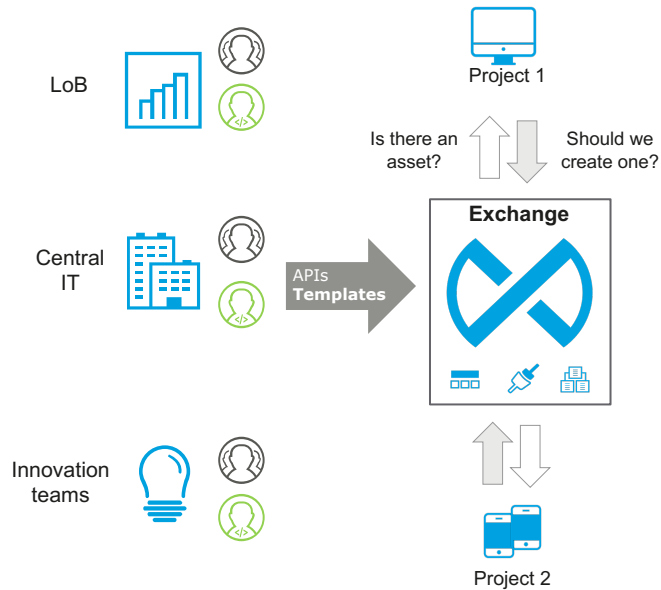
Filter clear

- All Types
- Connectors
- Templates
- Examples
- REST APIs
- SOAP APIs
- RAML fragments
- Custom

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Using Exchange: Success of C4E in action



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Walkthrough 8-1: Publish a RAML API fragment to Anypoint Exchange



- Create an API Fragment project in Design Center
- Publish an API Fragment to Anypoint Exchange
- Consume the fragment from Anypoint Exchange

The screenshot shows the Anypoint Design Center interface. The 'Files' panel on the left lists various RAML files. The main editor shows a RAML snippet for a 'Banking datatypes' object. A 'Publish to Exchange' button is visible. Below the editor, a 'Consume API Fragment' dialog is open, displaying a table of available API fragments.

Name	Date Modified	Rating	Created By
<input checked="" type="checkbox"/> Banking datatypes	Jul 18, 2017	★★★★★ (0 votes)	MM Max Mule
<input type="checkbox"/> REST Connect Library	Jul 18, 2017	★★★★★ (0 votes)	CA Connectivity Account

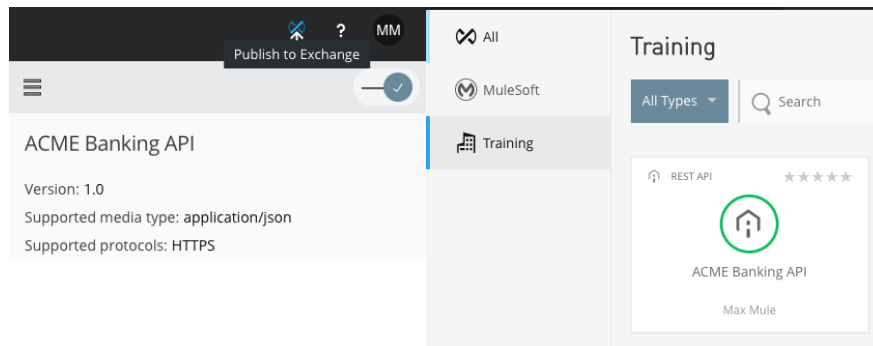
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Walkthrough 8-2: Publish a RAML API specification to Anypoint Exchange



- Publish a RAML API Specification to the private Exchange
- Add documentation to an Exchange asset to improve usability



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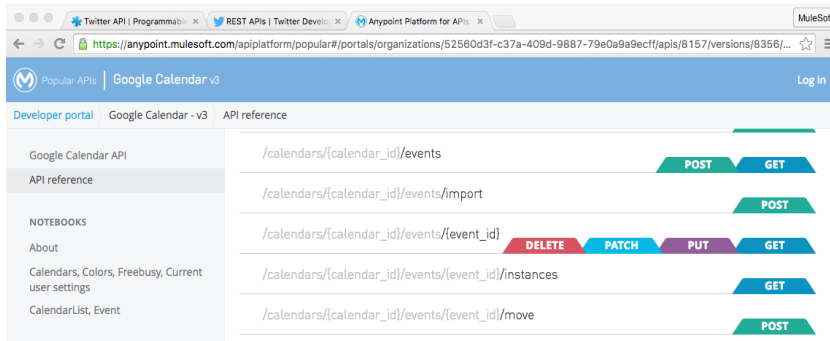
Discovering APIs using API Portal



Anypoint API Portals



- Display information, usage examples, and documentation for an API
- Can be viewed publicly, privately (only to users within your business organization), or both
- Can be customized by adding themes and logo



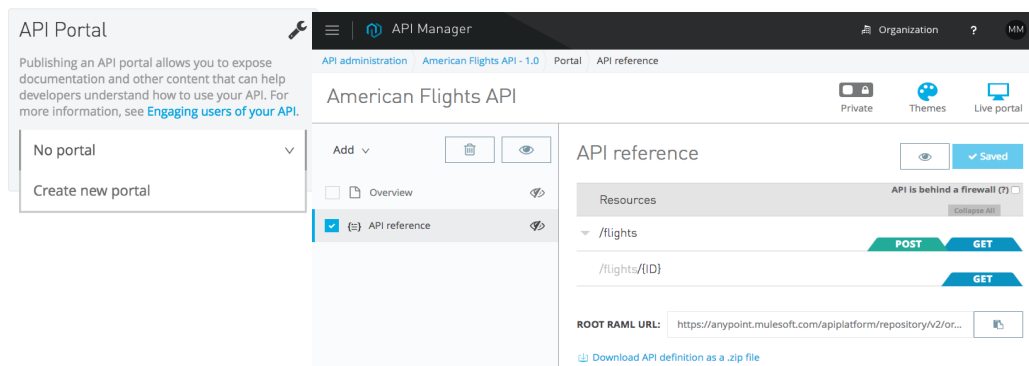
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Creating Anypoint API Portals



- API Portals can be auto-generated for an API from the API Manager
- The API Manager launches the API Portal Designer to design and customize the API Portal



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API Portal Designer

API Manager
Organization ? MM

API administration
American Flights API - 1.0
Portal
Overview

American Flights API

Public
Themes
Live portal

Add ▾

- ☒ Overview
- ☐ API reference
- ☐ Examples
- ☐ API Notebook
- ☐ Book a flight

Overview

Saved

The American Flights API is a system API for operations on the ****american**** table in the ***training*** database.

####Supported operations####

- Get all flights
- Get a flight with a specific ID
- Add a flight

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API Portal components

- Pages**
 - By default, a page called Home is included as the landing page
 - Accept [Github Flavored Markdown](#)
- API Reference**
 - If an API contains a RAML file the API Console automatically gets added to the API Portal
- API Notebook**
 - An interactive tool for writing tutorials about how to use the API and it's endpoint and how to integrate it with other services
- Headers**
 - For separating API Portal contents into sections
- External links**
 - Useful links to other websites/pages that are relevant to the API

Add ▾

- Page
- API Notebook
- API Reference
- Header
- External link

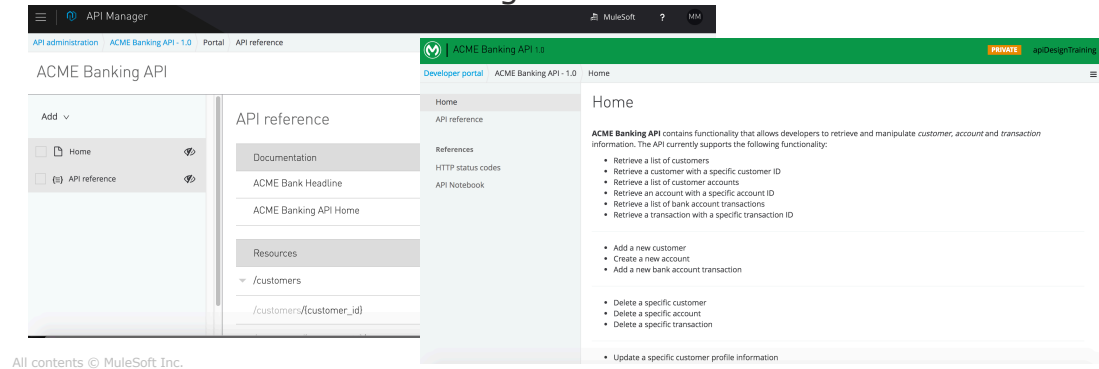
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Walkthrough 8-3: Create and customize an API Portal



- Create an API Portal in API Manager
- Add various types of content to an API Portal
- Define a color scheme
- Publish and view the resulting API Portal



Creating API Notebooks



Creating an API Notebook



- API Notebook is a web based tool to build interactive tutorials and use cases in JavaScript
- API Notebook can generate an API client based on a RAML API definition
 - The API client can call an API endpoint on a real server or a mocking server
- Helps creates a scenario/story by stringing together multiple API calls

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Walkthrough 8-4: Create a sample use case with API Notebook inside the API Portal



- Add an API Notebook in the API Portal designer
- Perform string manipulation on datatypes
- Create and use JavaScript functions inside API Notebook
- View the API Notebook in the Live Portal

Home

API reference

References

HTTP status codes

API Notebook

API Notebook

Create ACME Banking API Client to access it's methods and resources

```
1 API.createClient('acmeBankClient',
  'https://anypoint.mulesoft.com/apiplatform/repository/v2/organizations/a6fb4480-6e30-4248-ac23-6e7a751b5606/public/apis/11698133/versions/162026/definition');
```

Retrieve a list of customers

```
2 acmeBankClient.customers.get();
```

Hosted by API Notebook

Make your own

Play notebook

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Summary



Summary



- API Portals allow you to quickly rapidly share your API designs
- API Portals are generated automatically through the API Manager
- API Portals contains several pages to help API consumers to learn about the API
- API Notebook is a component inside the API Portal that makes JavaScript calls to API endpoints
- Publish your API definitions on the Exchange to allow other people to discover your APIs and provide feedback