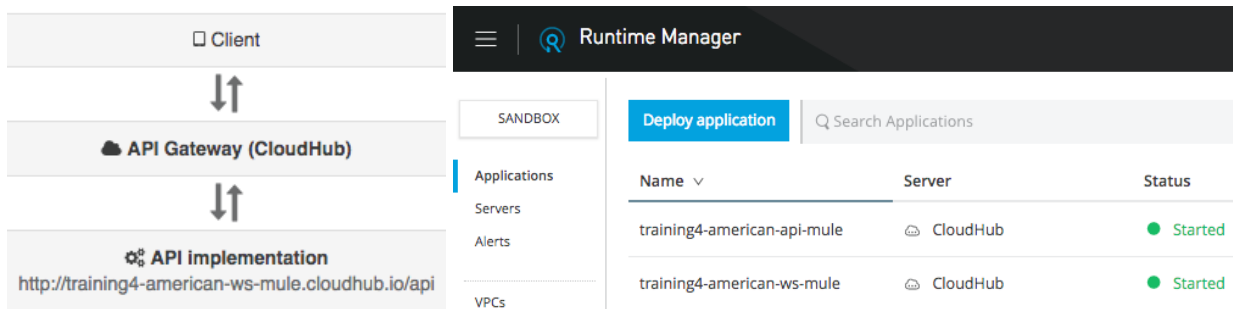


Walkthrough 5-2: Create and deploy an API proxy

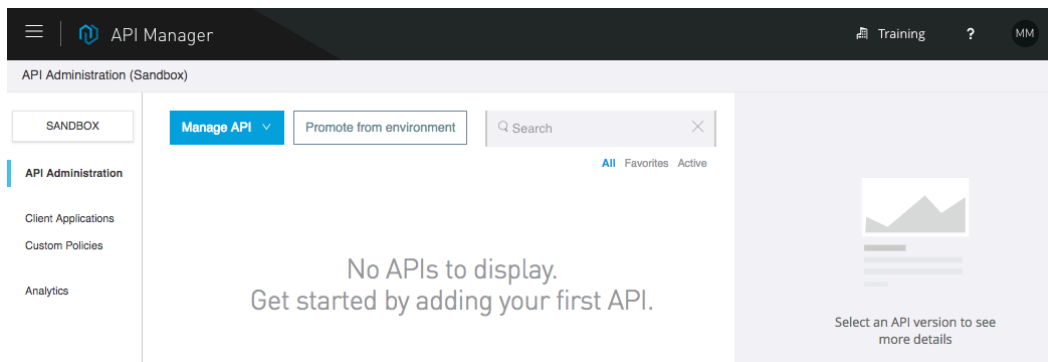
In this walkthrough, you create and deploy an API proxy for your API implementation on CloudHub. You will:

- Add an API to API Manager.
- Use API Manager to create and deploy an API proxy application.
- Set a proxy consumer endpoint so requests can be made to it from Exchange.
- Make calls to an API proxy from API portals for both internal and external developers.
- View API request data in API Manager.

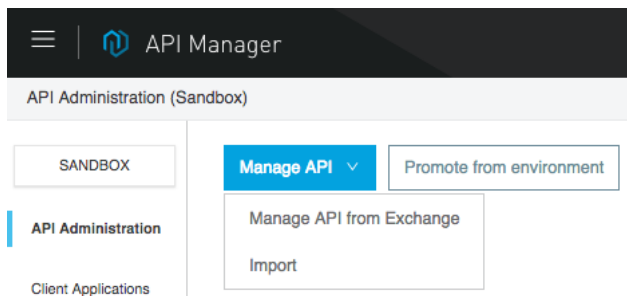


Create and deploy a proxy application

1. Return to Anypoint Platform.
2. In the main menu, select API Manager; you should see no APIs listed.



3. Click the Manage API button and select Manage API from Exchange.



4. For API name, start typing American in the text field and then select your American Flights API in the drop-down menu that appears.
5. Set the rest of the fields to the following values:
 - Asset type: RAML/OAS
 - API version: v1
 - Asset version: 1.0.1
 - Managing type: Endpoint with Proxy
 - Implementation URI: `http://training4-american-ws-{lastname}.cloudhub.io/api`
 - Proxy deployment target: CloudHub

The screenshot shows the 'Manage API from Exchange' interface in the MuleSoft API Manager. The top navigation bar includes a hamburger menu, the 'API Manager' logo, and links for 'Training', a help icon, and a user profile icon. Below the navigation bar, there are tabs for 'API Administration (Sandbox)' and 'Get from Exchange'. The left sidebar has a 'SANDBOX' button and a '← API Administration' link. The main content area is titled 'Manage API from Exchange' and contains a section for 'API Configurations'. The form fields are as follows: 'API name' is a text field with 'American Flights API' and a search icon; 'Asset type' is a dropdown menu with 'RAML/OAS'; 'API version' is a dropdown menu with 'v1' and a 'View API in Exchange' link; 'Asset version' is a dropdown menu with '1.0.1'; 'Managing type' has two radio buttons, 'Basic Endpoint' and 'Endpoint with Proxy' (which is selected); 'Implementation URI' is a text field with 'http://training4-american-ws-mule.cloudhub.io/api' and a copy icon; 'Proxy deployment target' has two radio buttons, 'CloudHub' (which is selected) and 'Hybrid'; 'Path' is a text field with '/'. At the bottom of the form, there is a checked checkbox with the text 'Check this box if you are managing this API in Mule 4 or above.'

6. Select the checkbox: Check this box if you are managing this API in Mule 4 or above.

This block shows a close-up of the 'Path' field and the checkbox. The 'Path' label is to the left of a text field containing '/'. Below the text field is a checked checkbox with the text 'Check this box if you are managing this API in Mule 4 or above.' Below the checkbox is the text 'Advanced options >'.

7. Click Save.
8. In the Deployment Configuration section, set the following values:
 - Runtime version: 4.x.x
 - Proxy application name: training4-american-api-*{lastname}*
9. Check Update application if exists.

Deployment Configuration ▾

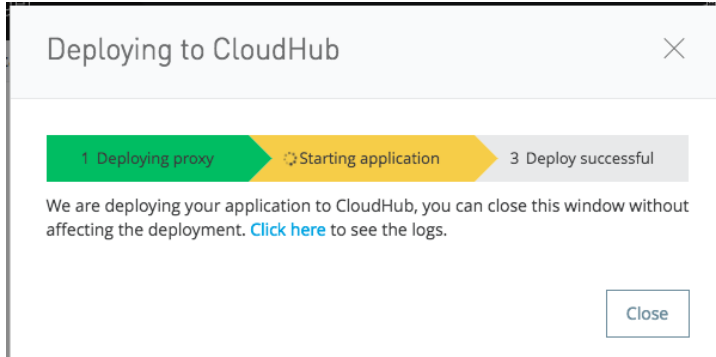
Runtime version: 4.x.x ▾

Proxy application name: ⓘ training4-american-api-mule .cloudhub.io

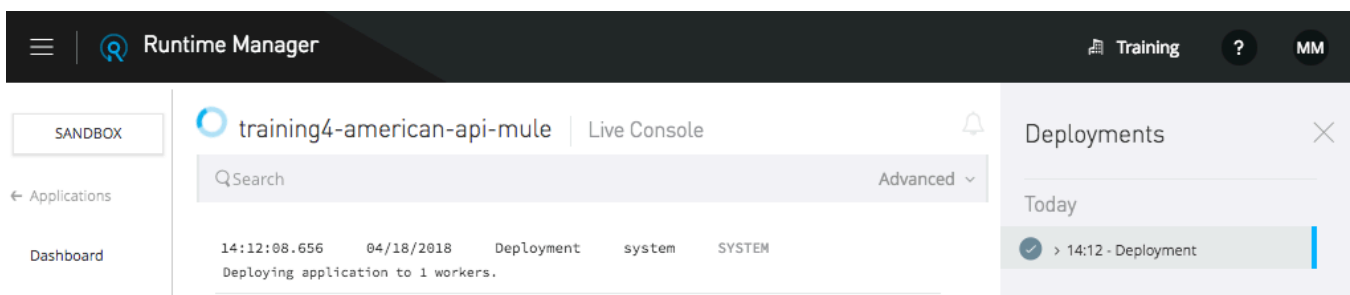
☒ Update application if exists

Deploy

10. Click Deploy.
11. In the Deploying to CloudHub dialog box, click the Click here link to see the logs.



12. In the new browser tab that opens, watch the logs in Runtime Manager.



13. Wait until the proxy application starts.

Note: If it does not successfully deploy, read the logs to help figure out why the application did not deploy. If you had errors when deploying, troubleshoot them, fix them, and then redeploy.

The screenshot shows the Runtime Manager interface. The main area displays the 'training4-american-api-mule' application in the 'Live Console' view. The console output shows a successful deployment message: 'Worker(18.219.16.104): Your application has started successfully.' The left sidebar shows 'Sandbox' and 'Applications' tabs. The right sidebar shows 'Deployments' with a list of deployments for today, including a deployment at 14:12.

14. In the left-side navigation, select Applications; you should see the proxy application.

15. Click the row for the proxy and review its information in the right section of the window.

The screenshot shows the Runtime Manager interface. The main area displays the 'training4-american-api-mule' application in the 'Applications' view. The application is listed with a status of 'Started'. The right sidebar shows the application details, including the runtime version (4.1.1), worker size (0.1 vCores), and workers (1). The left sidebar shows 'Sandbox' and 'Applications' tabs.

16. Close the browser tab.

View API details in API Manager

17. Return to the tab with API Manager and click the Close button in the Deploying to CloudHub dialog box.

18. Review the API proxy information at the top of the page.

The screenshot shows the 'Settings' page for the 'American Flights API v1' in the API Manager. The left sidebar contains a navigation menu with 'API Administration (Sandbox)' selected. The main content area displays the following information:

- API Status:** Active (green dot)
- Asset Version:** 1.0.1
- Type:** RAML/OAS
- Implementation URL:** <http://training4-american-ws-mule.cloudhub.io/api> (with a link to 'Add consumer endpoint')
- API Instance:** ID: 11655540, Label: [Add a label](#)
- Autodiscovery:** API ID: 11655540
- Proxy:** Proxy Application: training4-american-api-mule, Proxy URL: training4-american-api-mule.cloudhub.io

19. In the left-side navigation, click the API Administration link; you should now see your American Flights API listed.

20. Click in the row for the v1 version – but not on the v1 link.

21. Review the API version info that appears on the right side of the window; you should see there are no policies, SLA tiers, or client applications.

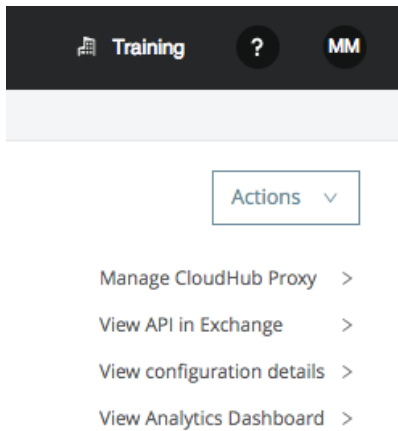
The screenshot shows the 'API Administration' page in the API Manager. The left sidebar has 'API Administration' selected. The main content area displays a table of APIs:

API Name	Version	Status	Client Applications	Creation Date
American Flights API	v1	Active	0	04-18-2018 14:11

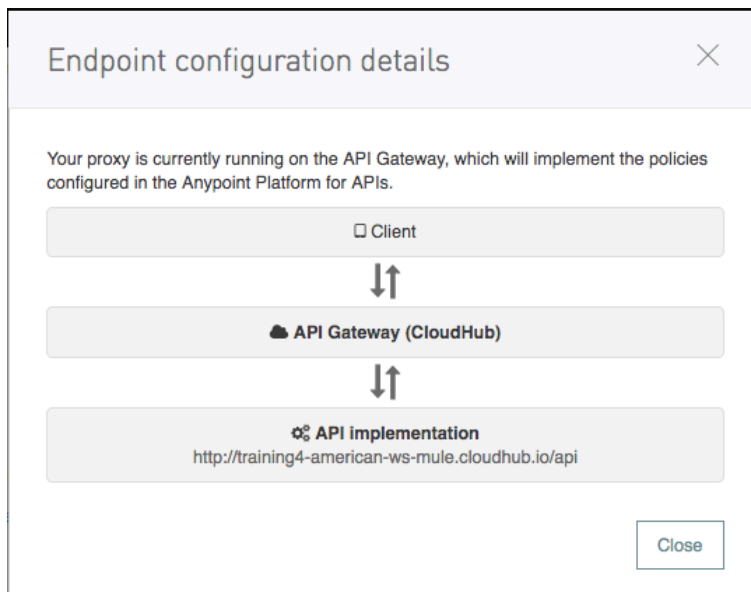
On the right side, the 'American Flights API v1' details are shown, including a 'Manage CloudHub Proxy' button and a 'View API in Exchange' button. The 'Policies' tab is selected, showing 'There are no policies configured for this API version.'

22. In the API list, click the v1 link for the API; you should be returned to the Settings page for the API.

23. Locate and review the links on the right side of the page.

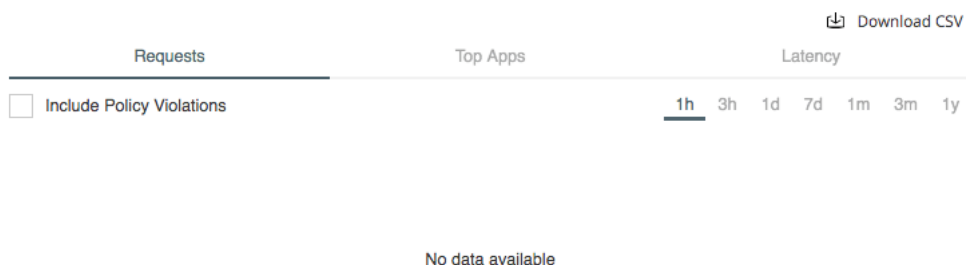


24. Click the View configuration details link.



25. In the Endpoint configuration details dialog box, click Close.

26. On the Settings page, look at the requests graph; you should not see any API requests yet.



View the new API proxy instance in Exchange

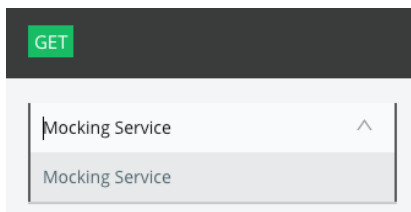
27. Return to the browser tab with Exchange.
28. Return to the home page for your American Flights API.
29. Locate the API instances now associated with asset version 1.0.1; you should see the Mocking Service instance and now the new proxy.

Asset versions for v1

Version	Instances
1.0.1	<div><div>Mocking Service</div><div>Sandbox - v1:5831632</div></div>
1.0.0	

Note: You may need to refresh your browser page.

30. Click the GET method for the flights resource.
31. In the API console, click the drop-down arrow next to Mocking Service; you should NOT see the API proxy as a choice.



32. In the left-side navigation, select API instances; you should see that the new proxy instance does not have a URL.

Exchange

American Flights API | v1

API instances

Instances	Environment	URL	Visibility
Mocking Service		https://mocksvc-proxy.anypoint.mulesoft.com/exchange/800b1585-b6be-4c62-82de-02d8c2adf413/american-flights-api/1.0.1	Public
v1:5831632	Sandbox		Private

[+ Add new instance](#)

Set a friendly label for the API instance in API Manager

33. Return to the browser tab with API Manager.
34. On the Settings page for your American Flights API, click the Add a label link.
35. Set the label to No policy and press Enter/Return.

API Instance ⓘ

ID: 5831632

Label: No policy ✎

Set a consumer endpoint for the proxy in API Manager

36. Locate the proxy URL.

Proxy

Proxy Application: training4-american-api-mule

Proxy URL: training4-american-api-mule.cloudhub.io

37. Right-click it and copy the link address.
38. Click the Add consumer endpoint link.

American Flights API v1

API Status: ● Active Asset Version: 1.0.1 Type: RAML/OAS

Implementation URL: <http://training4-american-ws-mule.cloudhub.io/api> ⊕ Add consumer endpoint

39. Paste the value of the proxy URL.
40. Press Enter/Return.

American Flights API v1

API Status: ● Active Asset Version: 1.0.1 Type: RAML/OAS

Implementation URL: <http://training4-american-ws-mule.cloudhub.io/api>

Consumer endpoint: <http://training4-american-api-mule.cloudhub.io/> ✎

Make requests to the API proxy from Exchange

41. Return to the browser tab with Exchange.

42. Refresh the API instances page for your American Flights API; you should see the new label and the URL.

The screenshot shows the MuleSoft Exchange interface. On the left is a navigation sidebar with 'Assets list', 'American Flights API', 'API summary', and 'API instances' (selected). The main area displays the 'American Flights API' details, including a version 'v1' and 'Public' status. Below this is the 'API instances' table:

Instances	Environment	URL	Visibility
Mocking Service		https://mocksvc-proxy.anypoint.mulesoft.com/exchange/74922056-9245-48e0-99df-a8141d1d3e9f/american4-flights-api/1.0.1	Public
No policy	Sandbox	http://training4-american-api-mule.cloudhub.io/	Private

Below the table is a link to '+ Add new instance'.

43. In the left-side navigation, select the name of the API to return to its main page.
44. Locate the API instances now associated asset version 1.0.1; you should see the new label for the API instance.

The screenshot shows the 'Asset versions for v1' page. It contains a table with the following data:

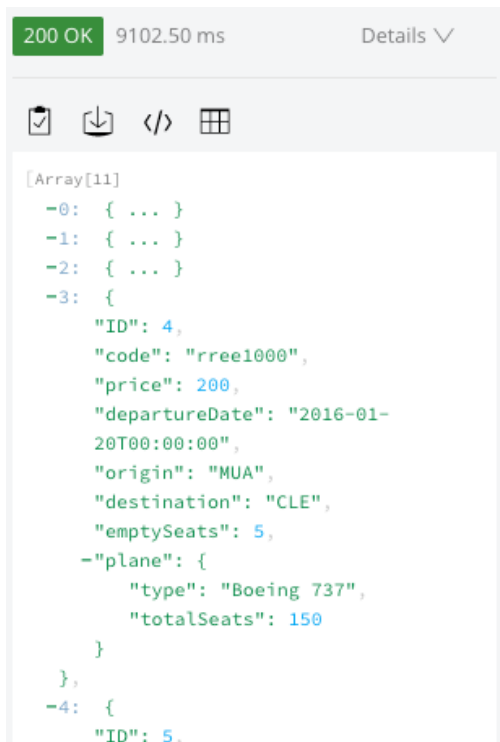
Version	Instances
1.0.1	Mocking Service Sandbox - No policy
1.0.0	

45. Click the GET method for the flights resource.
46. In the API console, click the drop-down arrow next to Mocking Service; you should now see your API proxy instance as a choice.

The screenshot shows a dropdown menu with the following options: 'Sandbox - No policy', 'Mocking Service', and 'Sandbox - No policy' (highlighted).

47. Select the Sandbox - No policy instance.

48. Click the Send button; you should now see the real data from the database, which contains multiple flights.



```
200 OK 9102.50 ms Details ▾  
  
[Array[11]]  
-0: { ... }  
-1: { ... }  
-2: { ... }  
-3: {  
  "ID": 4,  
  "code": "rree1000",  
  "price": 200,  
  "departureDate": "2016-01-20T00:00:00",  
  "origin": "MUA",  
  "destination": "CLE",  
  "emptySeats": 5,  
  "plane": {  
    "type": "Boeing 737",  
    "totalSeats": 150  
  }  
},  
-4: {  
  "ID": 5,
```

49. Make several more calls to this endpoint.

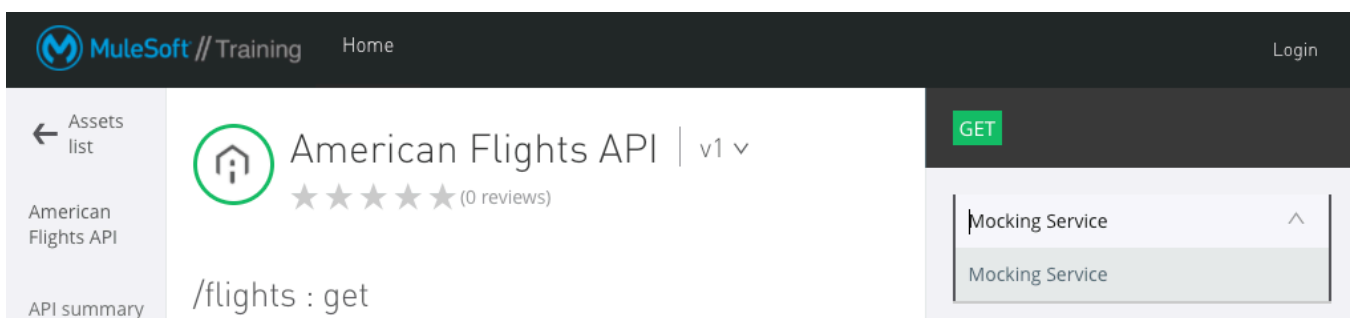
50. Make calls to different methods.

Make requests to the API proxy from the public portal

51. Return to the public portal in the private/incognito window.

52. Click the GET method for the flights resource.

53. In the API reference section, click the drop-down arrow next to Mocking Service; you should NOT see your API proxy instance as a choice.



Make an API instance visible in the public portal

54. Return to the browser with Exchange.
55. In the left-side navigation, select API instances.
56. Change the visibility of the No policy instance from private to public.

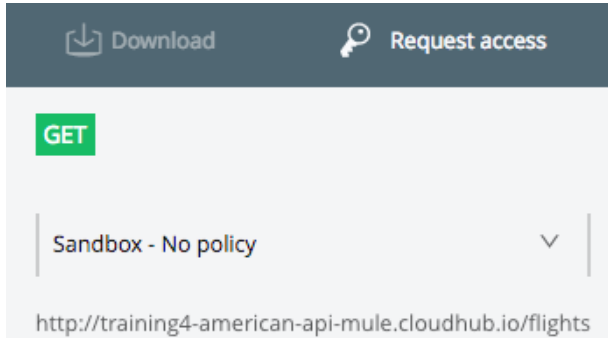


API instances

Instances	Environment	URL	Visibility
Mocking Service		https://mocksvc-proxy.anypoint.mulesoft.com/exchange/74922056-9245-48e0-99df-a8141d1d3e9f/american4-flights-api/1.0.1	Public
No policy	Sandbox	http://training4-american-api-mule.cloudhub.io/	Public

[+ Add new instance](#)

57. Return to the public portal in the private/incognito window.
58. Refresh the page.
59. In the API console, change the API instance from Mocking Service to Sandbox - No policy.

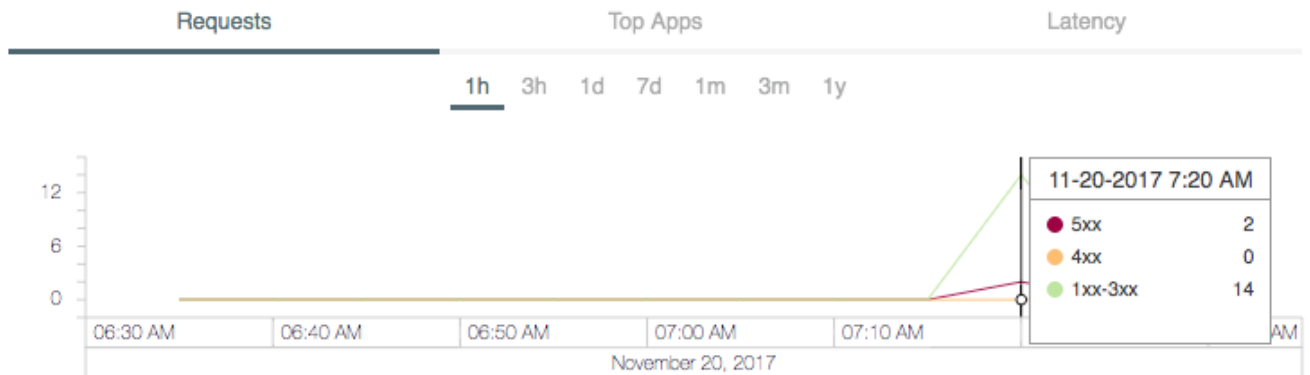


60. Click Send; you should a 200 response and flight data.

Look at the API request data

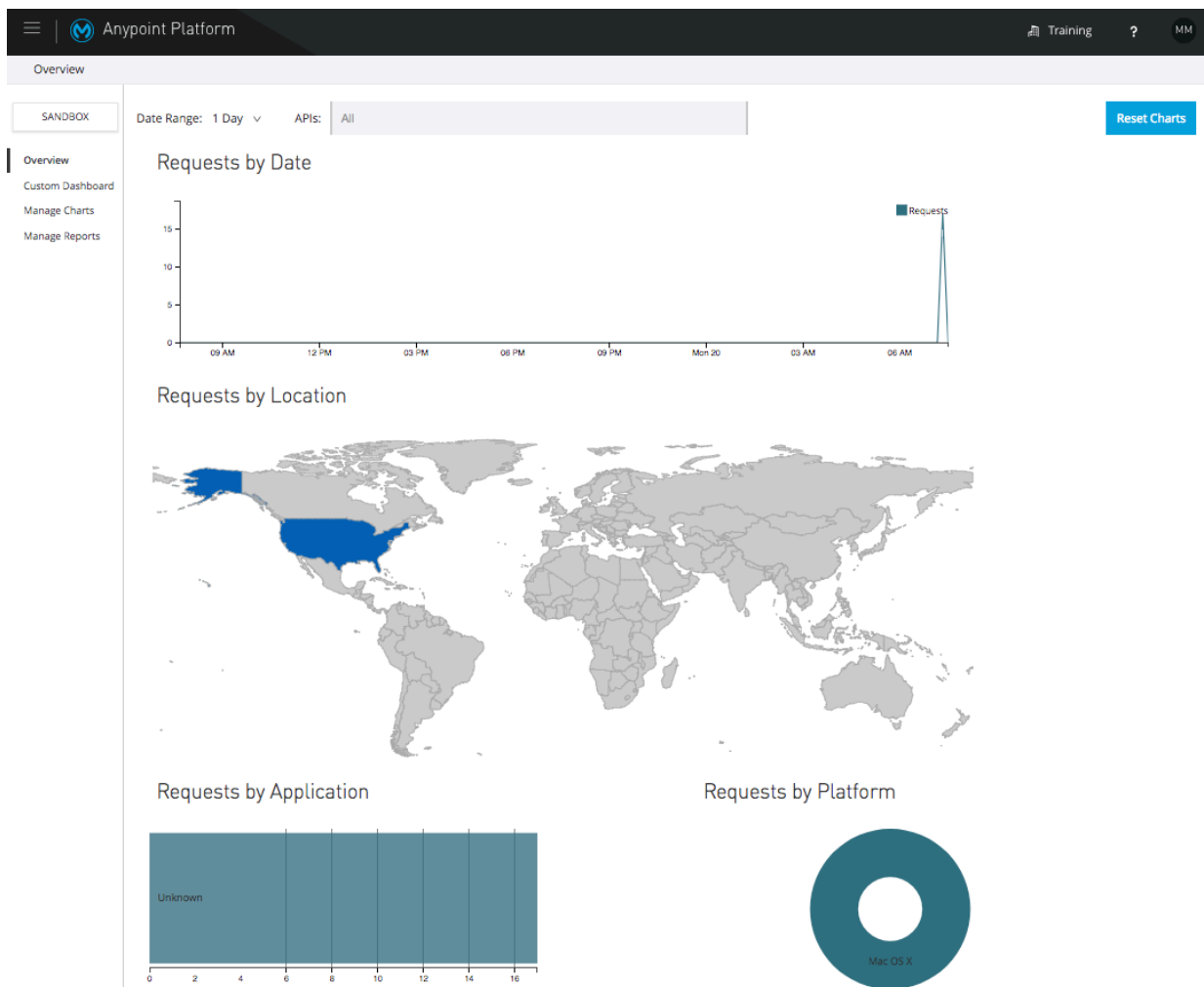
61. Return to the browser tab with API Manager.
62. Refresh the Settings page for you American Flights API.

63. Look at the Request chart again; you should now see data for some API calls.



64. Click the View Analytics Dashboard link located in the upper-right corner.

65. Review the data in the dashboard.



66. Close the browser tab.