Title : The many hidden benefits of the Adobe API Manager to unlock the power of API's

Date: Wednesday April 10 – 2:10 PM – 3:00PM

In this session, you will be provided a look, with examples, on how to utilize the many hidden features of the Adobe API manager. You will gain a full understanding of the many benefits of using the native API's which power the API Manager. Whether you are migrating from an existing platform, automating your workflows, or integrating with third-party sites, this session will give you the ability to enhance your development experience. As an added benefit, I will give you a real-world example of a custom Word Press Plugin, that was built to integrate with our internal and external API's utilizing the Native Adobe Manager API's.

The many hidden benefits of the Adobe API Manager

to unlock the power of API's

Brian Sappey

Key Areas of Focus on the Adobe API Manager

1 **Native APIs**
- /Api
- /Application
- /Consumer
- /Publisher
- /Login
- /User

2 **Workflow/Use**
- Login
- Get
- Post
- Swagger

3 **Microservices**
- Swagger Generation
- Adobe Image
- CI/CD

4 **Real World**
- Code review
- Extensible
- Multi Language
- WordPress

5 **Enhancements**
- Multiple Endpoints
- Latency
- Oauth API Connector

Native APIs
API, Application, Consumer, Publisher, Login, User

!

Everything is an API

Any function that can be accomplished via the UI can be done with an API in the Adobe API Manager

API

Native Endpoint Details

APIs to Manage APIs

You can easily manage all of your API's via these endpoints

SLA Management

You can manage all of the throttling and metering around your API's.

Security and Lifecycle

Security and lifecycle management can easily be automated by utilizing these set of API's.

API

Application Details

Create an Application

Create custom applications to interact and subscribe to API's

Generate Keys

Generate Oauth, Basic, and api keys via the API's without having to log into the UI.

Delete an Application

Delete an existing application that is no longer needed.

API

Consumer Details

Subscribe to an API

Subscribe to an API using any API. This will allow you to generate keys and create notifications if the API ever changes.

Get all Subscriptions

Quickly and easily get all existing subscriptions for a publisher.

Importance

Although not required your should always subscribe to an API. This will allow for better metrics, throttling, and logging.

API

Publisher Details

Publisher Subscribers

See all API's you have published and which Subscribers have subscribed.

Publisher Subscribed

Which API's are you as the Publisher subscribed.

Manage Subscribers

Manage all of the users that are subscribed to your API's

API

Login Details

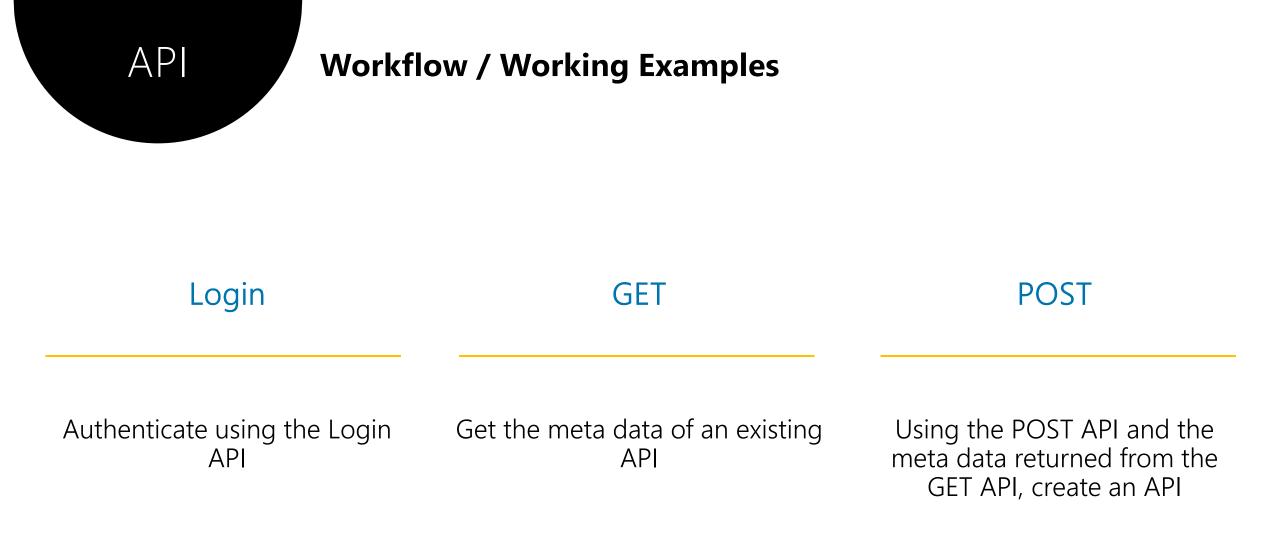## Login Endpoint

Simply passing in your user name and password will begin the authentication process.

No Cookies

By using the headers returned from a successful login you can begin making any API call.

Secured Ownership

You have the ability to manage anything you own, and cannot see any other Publishers API.
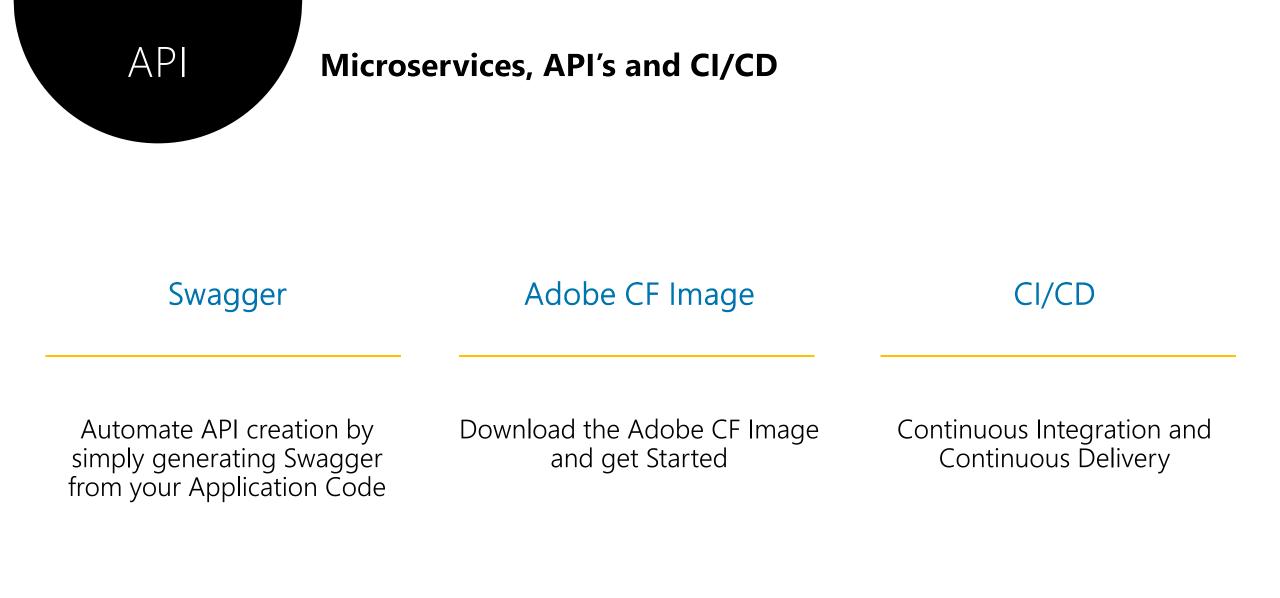
API

User Details

CRUD Operations

Create, Update and Delete a User.

External Users

Add a user to a user store.

Search

Search for users by username.

API

Workflow / Working Examples

Login

Authenticate using the Login API

GET

Get the meta data of an existing API

POST

Using the POST API and the meta data returned from the GET API, create an API

Microservices

Swagger, Adobe Image, CI/CD

!

Utilize the API Manager API's and Microservice Architecture

CI/CD is a culture, a set of operating principles, and collection of practices. This allows an organization to make more changes frequently and seamlessly with consistency.

API

Microservices, API's and CI/CD

Swagger

Automate API creation by simply generating Swagger from your Application Code

Adobe CF Image

Download the Adobe CF Image and get Started

CI/CD

Continuous Integration and Continuous Delivery

API

Swagger, Adobe CF Image + Docker, CI/CD

Swagger

Annotate your code to automate the generation of Swagger JSON

Adobe CF Image + Docker

Combine the power of the Adobe CF Image, Docker, and Open Shift to deploy containers of code

CI/CD

Automate your integrations and deployment with the combination of Adobe API Manager API's, Swagger, and Docker

Real World Usage
Code Review, Extensible, Multi Language, WordPress

!

Putting My Money Where My Mouth Is!

Of all the items mentioned today, lets see some examples of real world usage

Adobe API Manager – Real World Usage

1

Code Review
- Automation of API's
- Moving between environments has now been automated
- Developers can build Swagger or a local API and deploy to any environment

2

Extensible
- Meta Data has many options and can be extended for a variety of services
- Easily modified or extended to work for many internal functions

3

Multi Language
- ColdFusion
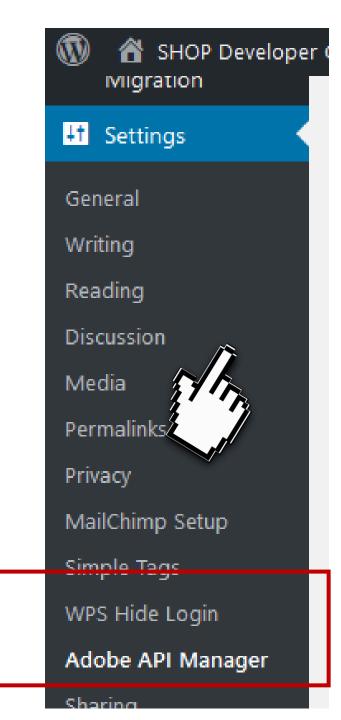- Java
- Universe
- Native Apps
- JS
- Python
- PHP

4

Developer Portal
- WordPress
- API's
- Business Management

Selected file content:

```
 6
 7  add_action( "admin_menu", "adobe_api_manager_plugin_menu_func" );
 8  function adobe_api_manager_plugin_menu_func() {
 9      add_submenu_page( "options-general.php",        // Which menu parent
10                      "Adobe API Manager",            // Page title
11                      "Adobe API Manager",            // Menu title
12                      "manage_options",               //
13                      "adobe_api_manager",            // Menu slug
14                      "adobe_api_manager_plugin_options"    // Callback that prints the markup
15              );
16  }
17
18
19  function adobe_api_manager_plugin_options() {
20      if ( !current_user_can( "manage_options" ) )  {
21          wp_die( __( "You do not have sufficient permissions to access this page." ) );
22      }
23      echo "";
```

```
20    if ( !current_user_can( "manage_options" ) ) {
21       wp_die( __( "You do not have sufficient permissions to access this page." ) );
22    }
23    echo "";
24 }
25
26 function adobe_api_manager_api_lists_function( $atts ) {
27
28    $api_request    = 'https://████████████████████████v1/getallpublicapis';
29    $api_response = wp_remote_get( $api_request );
30    $api_data = json_decode( wp_remote_retrieve_body( $api_response ), true );
31       //start create a template part for shortcode styling to avoid inline build
32       ob_start();
33       get_template_part('block-api-lists-inline');
34       return ob_get_clean();
35
36 }
37 add_shortcode( "adobe_api_lists", "adobe_api_manager_api_lists_function" );
38
```

API List

This table lists the public APIs offered from SHOP.COM. To subscribe to one or more of these services, please visit the "Getting Started" tab of this site.

Show 50 ∨ entries

Search:

Version ⇕	Name ⇕	Description ⇕	Tags ⇕	Resources ⇕	Method ⇕
v1	▓▓▓▓▓	SHOP.COM Customer Directory Service	general	▓▓▓▓▓	get
v1	▓▓▓▓▓▓▓		general	▓▓▓▓▓	get
v1	▓▓▓▓		general	▓▓▓▓▓▓▓	get
v1	▓▓▓▓		general	▓▓▓▓	get
v2	▓▓▓		general	▓▓▓▓	get
v1	▓▓		general	▓▓▓	get

Manage

Enhancements
Multiple Endpoints, Latency, Oauth Connector

!

Adobe API Manager Enhancements

Last year the CF Engineering team made a commitment to enhance the API Manager Product. The committed and succeeded on delivering many enhancements. Lets review just a few!
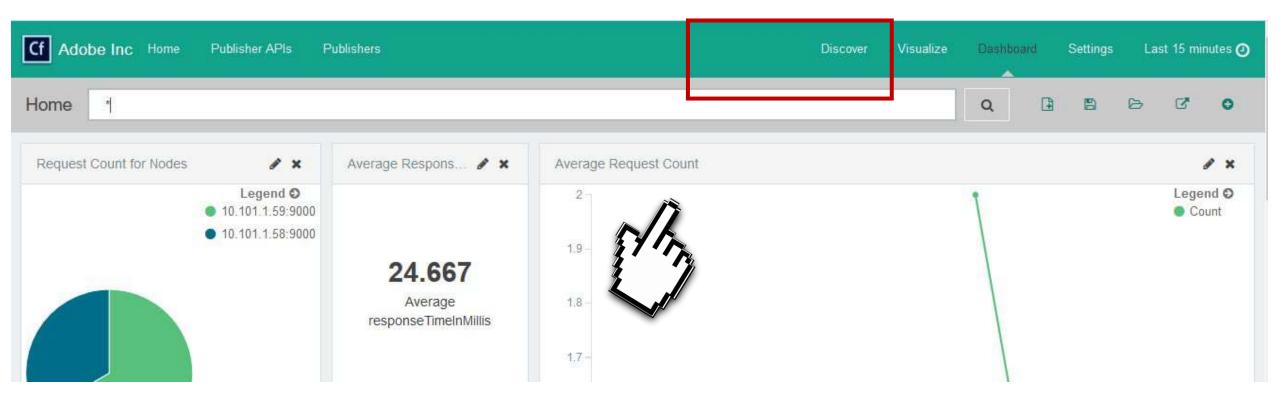
Endpoints

The ability to create multiple endpoints per resource!

POST ▾   http://cfapi-d01:9000/amp/portal/api   **Send** ▾   Sa

Params   Authorization   Headers (3)   **Body** ●   Pre-request Script   Tests   Cook

○ form-data   ○ x-www-form-urlencoded   ● raw   ○ binary   JSON (application/json) ▾

```
32        sandboxendpoint : null,
33 ▾        "apiEndpointCollection": {
34 ▾            "somecoolnameforthis": {
35                "endpointtype": "HTTP",
36                "httpendpointtype": "failover",
37                "loadbalanceralgo": null,
38 ▾              "endpoints": [
39 ▾                  {
40                        "url": "http://devapi.unfranchise.com/api/content/v1",
41                        "weight": 1,
42                        "chunkedEncodingAllowed": false
43                    }
44                ],
45                "sandboxendpoint": null,
46                "endpointauthtype": "NONE",
47                "clientauthkeystorename": null,
48                "clientauthkeyalias": null,
```

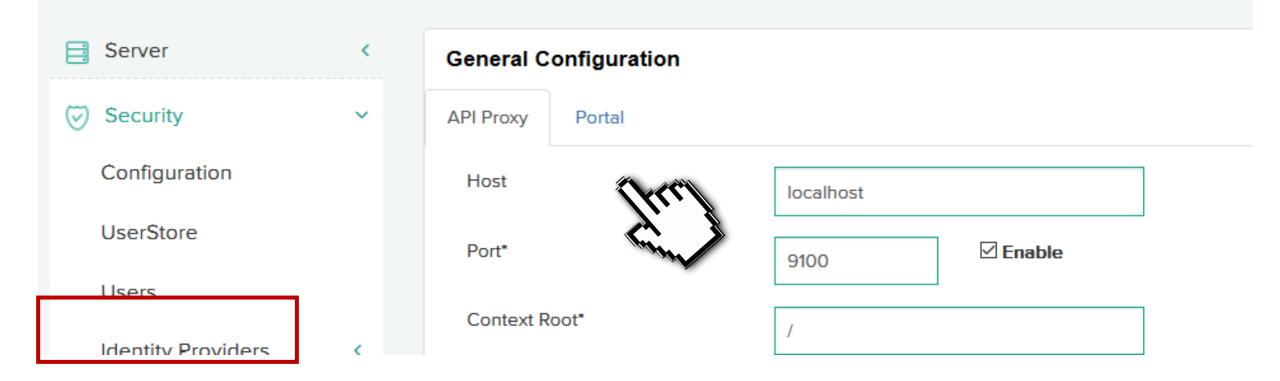| Time ▾	_source
▸ October 1st 2018, 19:44:09.148	subscriber: responseTimeInMillis: 1 resourcePath: /cashback publisherOrganization: httpMetho status: error _source: {"subscriber":null,"responseTimeInMillis":1,"resourcePath":"/cashback","pub /json","plan":null,"statusCode":401,"subscriberOrganization":null,"status":"error"} _id: AWYyA_Yxqx
▸ October 1st 2018, 19:41:48.682	subscriber: responseTimeInMillis: 73 resourcePath: /track publisherOrganization: httpMethod: status: error _source: {"subscriber":null,"responseTimeInMillis":73,"resourcePath":"/track","publi /json","plan":"TryOut","statusCode":503,"subscriberOrganization":null,"status":"error"} _id: AWYyAb
▸ October 1st 2018, 19:41:4?.537	subscriber: responseTimeInMillis: 0 resourcePath: publisherOrganization: httpMethod: OPTIO {"subscriber":null,"responseTimeInMillis":0,"resourcePath":null,"publisherOrganization":null,"httpMe _id: AWYyAb_Eqx71fAXOPpnO _type: metrics _index: groot-runtime-2018.10

t plan	🔍 🔍	TryOut
t publisher	🔍 🔍	coldfusion
t publisherOrganization	🔍 🔍	
t requestContentType	🔍 🔍	application/json
t resourcePath	🔍 🔍	/track
t responseContentType	🔍 🔍	text
# responseTimeInMillis	🔍 🔍	73
? responseTimeInMillisActualEndpoint	🔍 🔍	⚠ 4
t status	🔍 🔍	error
# statusCode	🔍 🔍	503
t subscriber	🔍 🔍	
t subscriberOrganization	🔍 🔍	
? throttlingRatio	🔍 🔍	⚠ 0
t version	🔍 🔍	v1

Server

Security

Configuration

UserStore

Users

Identity Providers

General Configuration

| API Proxy | Portal |

Host

localhost

Port*

9100   ☑ Enable

Context Root*

/

Server

Security

Configuration

UserStore

Users

Identity Providers

Service Providers

Key Stores

Organizations

SLA

CustomerAuthentication

Javascript Connector

Details   Scripts

◉ Script Mode   ○ Events Mode

```
1   var pool = require("http",{});
2   var log = require("log", {});
3
4       //this allows us to scrape for any url variables
5       function getRequestParameter(name) {
6           var context = Java.type("io.undertow.servlet.handlers.ServletRequestContext").current();
7           if(context) {
8               var request = context.    tOr       lRequest();
9               return  request.getPar
10          }
11      }
12
13
14
15
```

```javascript
// initialize
var pool = require("http",{});
var log = require("log", {});

   //this allows us to scrape for any url variables
   function getRequestParameter(name) {
       var context = Java.type("io.undertow.servlet.handlers.ServletRequestContext").current();
       if(context) {
           var request = context.getOriginalRequest();
           return  request.getParameter(name);
       }
    }
```

```
17    //this is the function that performs the validation to an existing endpoint
18    function auth(username, password) {
19        try{
20            var reqBody = "email="+username+"&password="+password+"&siteId="+getRequestParameter("siteId");
21            //only needed if you want to turn on request logging
22            if(log.isDebugEnabled()){
23                log.debug("request: " + reqBody);
24            }
25            log.debug("request: " + reqBody);
26        var response = pool.post("http://dev-services.shop.com:          ")
27            .header("accept","application/json")
28            .header("Content-Type","application/x-www-form-urlencoded")
29            .body(reqBody).asString();
30            if(response.status == 401) {
31                log.debug("request: " + reqBody);
32
33                return false;//throw new Error("Invalid Username/Password");
34            }
35            if(response.status == 200) { //parse Response
36                return true;
37            }
38            else {
39                log.debug("request: " + reqBody);
40            throw new Error("Internal Server Error");
41        }
```

Closing Remarks

Call to Action.

Adapt and Grow

Utilize the native API's to automate and improve your SDLC

Improve your Business

Better control and manage your API's. Keep tabs on usage and areas of pain.

What will be your story?

The possibilities are endless. It can channel new sources of revenue, increase creativity and productivity, and most of all help define your future.

Questions

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