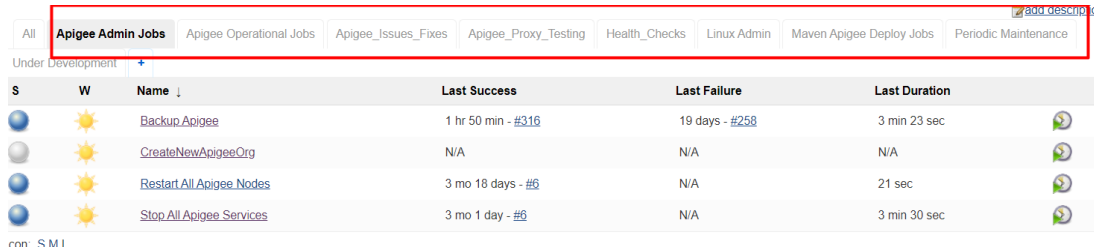


This article will introduce a set of the most common operational Apigee Activities with the help of Ansible scripts to manage & control multi Apigee on premise installations and Groovy codes & Apigee Management API's to dynamically load Apigee Organizations/ Environments



S	W	Name ↓	Last Success	Last Failure	Last Duration
		Backup Apigee	1 hr 50 min - #316	19 days - #258	3 min 23 sec
		CreateNewApigeeOrg	N/A	N/A	N/A
		Restart All Apigee Nodes	3 mo 18 days - #6	N/A	21 sec
		Stop All Apigee Services	3 mo 1 day - #6	N/A	3 min 30 sec

Prerequisite:

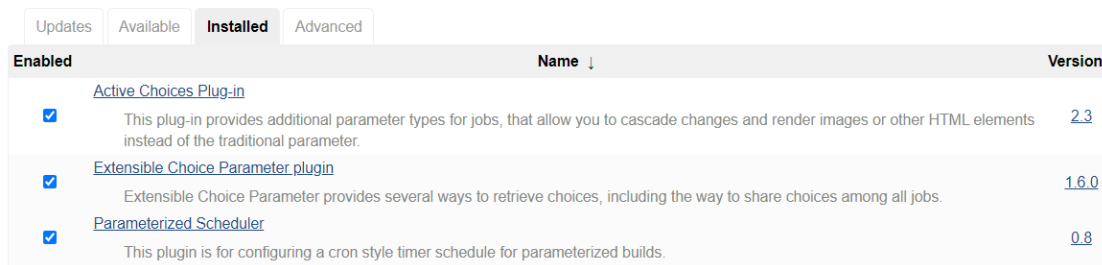
- 1- Jenkins Installation & Configuration
- 2- Ansible Installation & Configuration
- 3- Apigee Migration NodeJs Tool
- 4- Apigee Maven deploy plugin

Installation of all prerequisite components are not in the scope of this document

Jenkins Configuration

Required Jenkins Plugins

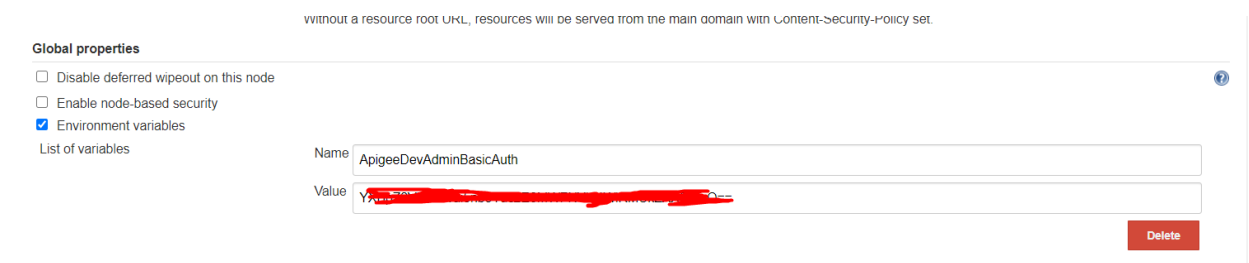
This is used to build dynamic job parameters using Groovy scripts



Enabled	Name ↓	Version
<input checked="" type="checkbox"/>	Active Choices Plug-in This plug-in provides additional parameter types for jobs, that allow you to cascade changes and render images or other HTML elements instead of the traditional parameter.	2.3
<input checked="" type="checkbox"/>	Extensible Choice Parameter plugin Extensible Choice Parameter provides several ways to retrieve choices, including the way to share choices among all jobs.	1.6.0
<input checked="" type="checkbox"/>	Parameterized Scheduler This plugin is for configuring a cron style timer schedule for parameterized builds.	0.8

Global Environment Variables

This is used to store the sysadmin credential to access Apigee Management API's



Without a resource root URL, resources will be served from the main domain with Content-Security-Policy set.

Global properties

☐ Disable deferred wipeout on this node

☐ Enable node-based security

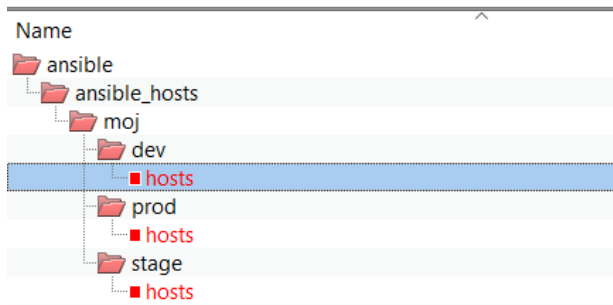
☒ Environment variables

List of variables

Name	Value	
ApigeeDevAdminBasicAuth	[REDACTED]	Delete

Ansible Configuration:

Jenkins Jobs Assume creation of Ansible hosts files for each infrastructure on premise Apigee installation



Example of Hosts File:

```
1 [all]
2 10.162.1.67
3 10.162.1.70
4 10.162.1.71
5 10.162.1.72
6 10.162.1.68
7 10.162.1.64
8 10.162.1.66
9 10.162.1.69
10 10.179.12.65
11 10.179.12.114
12 10.162.1.73
13 10.162.1.74
14 10.162.1.75
15 10.162.1.76
16 10.162.1.77
17
18 [edge_all]
19 10.162.1.67
20 10.162.1.64
21 10.162.1.66
22 10.162.1.69
23 10.179.12.65
24
25 # Edge Managment Server & Classic UI
26 [edge_ms]
27 10.162.1.66
28
29 [edge_ui]
30 10.162.1.66
31
32 # Edge Datastore
33 [edge_ds]
34 10.162.1.64
35 10.162.1.66
36 10.162.1.67
```

1. Admin Jobs

1.1. Apigee Backup

This Job is create a period backup for the entire Apigee Installation with a configurable retention period

Project Backup Apigee

This build requires parameters:

infra	<input type="text" value="dev"/>
backupPath	<input type="text" value="/etc/apigee/Backups/MOJ"/>
retentionPeriod	<input type="text" value="14"/>

Project Backup Apigee

This build requires parameters:

infra	<input type="text" value="dev"/>
-------	----------------------------------

1.2. Create New Organization

This Job Assume that there is a template configuration file for creating a new Organization after variable substitution from the user input form parameters

Project CreateNewApigeeOrg

This build requires parameters:

infra	<input type="text" value="dev"/>
OrgName	<input type="text" value="test01-conf"/>
OPERATIONS	<input type="text" value="CREATE"/>

1.3. Create New Product

This Job is to create a new Apigee Product (currently with a template configuration – for example: Quota is 10 tpm) and a configured Single Proxy as a product resource

Project CreateProduct

This build requires parameters:

ProductName	<input type="text" value="Product01"/>
Display Name	<input type="text"/>
ProxyName	<input type="text" value="SAMA/AccountValidationService"/>
profile	<input type="radio"/> moj-test <input type="radio"/> moj-stage <input checked="" type="radio"/> moj-prod <input type="radio"/> moj-control
org	<input type="text" value="moj-prod"/>
env	<input type="text" value="moj-internal-clients"/>

1.4. Restart Apigee Nodes

Project Restart All Apigee Nodes

This build requires parameters:

infra
B
prod

This simple job to restart All Apigee Nodes taking into consideration the proper sequence to shutdown and restart different Apigee components

2. Operational Jobs

2.1. Export Organization - Using Apigee Import/Export NodeJs Tool

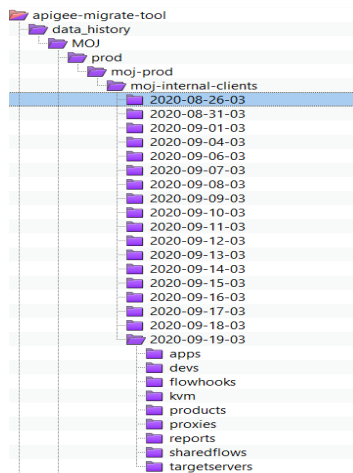
Project Export Organization Environment

This build requires parameters:

env
B

This Job Will Export All Apigee organization components – can be used as a backup

The resulted output :



2.2. Migrate Organization

Project Migrate Apigee Organization-Environment

This build requires parameters:

From_Infra ☐ Production
☒ DevTest
☐ Staging
☐ DevOpsTesting

Select The Infrastructure You Need To Import From

From_Org

Select The Organization You Will Import From

From_Env

Enter Environment Name

To_Infra ☐ Production
☐ DevTest
☒ Staging
☐ DevOpsTesting

Select The Infrastructure Destination

To_Org

To_Env

Enter Apigee Environment Name

Build

This Job Will Migrate - from Apigee Organization to another Apigee organization

3. Maven Deploy Jobs

These jobs assume that Apigee Maven Deploy plugin is installed on the Jenkins Server

3.1. Deploy Proxy – Using Apigee Maven Deploy Plugin

Proxy bundle is available in a predefined folder structure

Project Deploy Proxy

This build requires parameters:

ProxyName

profile

Profiles are configured in /etc/apigee/apigee-deploy-maven-plugin/samples/MOJ/src/gateway/shared-pom.xml

org

env

If You Can Not Find Your Apigee Environment Name Here, Please Contact Takamul@moj.gov.sa

options

validate : to validate the bundle before importing with a new revision created
update : to import with no new revision created

username

Build

3.2. Deploy Shared Flow

sharedflow bundle is available in a predefined folder structure

Project Deploy SharedFlow

This build requires parameters:

SharedFlowName	<input type="text" value="traffic_security_control"/>
<small>The SharedFlow Bundled used will be /etc/apigee/apigee-deploy-maven-plugin/samples/MOJ/src/sharedflows/\${SharedFlowName}/pom.xml</small>	
profile	<div><input type="radio"/> moj-test <input type="radio"/> moj-stage <input checked="" type="radio"/> moj-prod <input type="radio"/> moj-control</div>
<small>Profiles are configured in /etc/apigee/apigee-deploy-maven-plugin/samples/MOJ/src/gateway/shared-pom.xml</small>	
org	<input type="text" value="moj-prod"/>
env	<input type="text" value="moj-internal-clients"/>
<small>If You Can Not Find Your Apigee Environment Name Here, Please Contact Takamul@moj.gov.sa</small>	
options	<input type="text" value="validate"/>
<small>validate : to validate the bundle before importing with a new revision created update : to import with no new revision created</small>	
username	<input type="text" value="devops@moj.gov.sa"/>

Build

4. Periodic Maintenance Jobs

4.1. Purge Old Analytic Data

This job will purge analytic data for the given organization/environment and older that the required Period

This Job can be scheduled to run on a periodic basis

Project Purge_Old_Analytic_Data

This build requires parameters:

infra	<input type="text" value="dev"/>
org	<input type="text" value="Justice-lic-api"/>
<small>Apigee Organization</small>	
env	<input type="text" value="dev"/>
<small>If You Can Not Find Your Apigee Environment Name Here, Please Contact Takamul@moj.gov.sa</small>	
Period	<input type="text" value="180"/>
<small>Retention Period. This Process Will Delete all analytics older than this period</small>	

Build

4.2. Repair Cassandra

This Job can be scheduled to run on a periodic basis

Project RepairCassandra

This build requires parameters:

infra	<input type="text" value="dev"/>
<small>Select Apigee Infrastructure</small>	
edge_ds	<input type="text" value="edge_ds1"/>
<small>Select Cassandra Node</small>	

Build

5. Proxy Testing Jobs

5.1. Validate Proxy Code – Using ApigeeLint Tool

5.2. Test Proxy – Using Postman test Collection

6. Health Check Jobs

6.1. Period Check Apigee Servers Overall Status

6.2. Period Apigee Components Health Checks

7. Fast Fixes Jobs

7.1. Failure to trace proxy utilization session