



Developer Portal Installation

Andy Trickett
Technical Solutions Consultant, Google



The Apigee API platform for private cloud includes a developer portal.

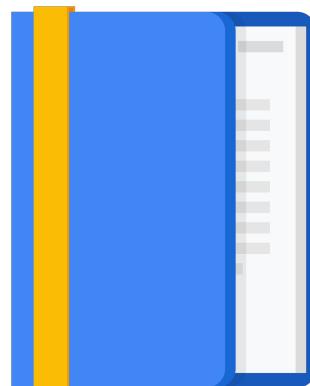
This web application is used by application developers to learn about your APIs and register their apps that will consume them.

Agenda

[Role of the developer portal](#)

Prerequisites and dependencies

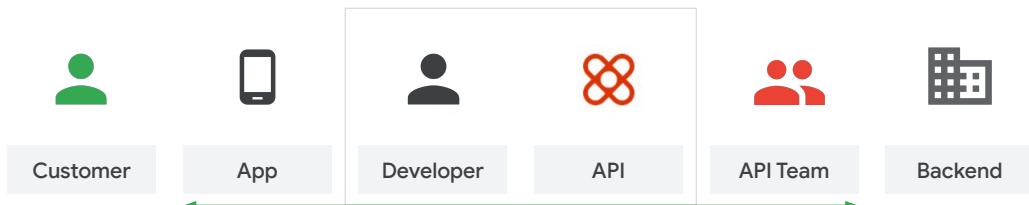
Installation process



In this module you learn about the developer portal installation process and its prerequisites and dependencies.

Before we discuss the installation process, it is important to first understand the role that the developer portal plays in the Apigee ecosystem.

App developers are customers



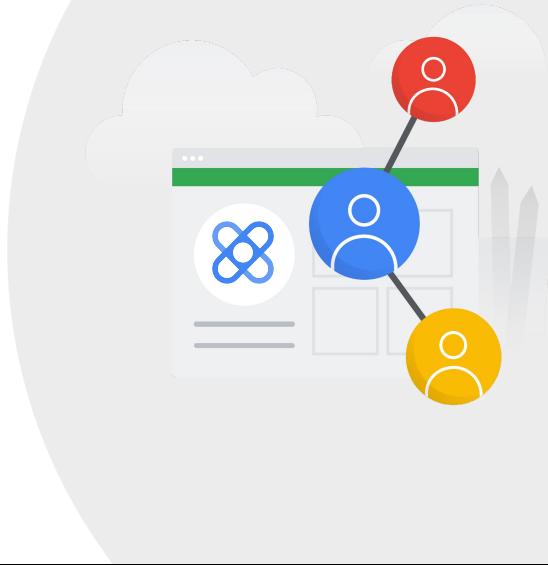
Application developers can be internal or external to your organization, or they can belong to partner organizations.

Design your APIs based on what app developers need. App developers are customers of your APIs.

Your APIs should have a consistent interface, be well-documented, and enable app developers to build great applications.

Developer portals enable app developers to...

- 1 Learn about your service offerings.
- 2 Learn how to use your APIs by reviewing comprehensive documentation.
- 3 Register using a self-service process in order to build apps that use your APIs.
- 4 Minimize time to their first "Hello, World!" app.



A developer portal enables app developers to discover your API offerings and teaches them how to use your APIs by providing comprehensive documentation.

An API provides functionality so that developers can:

- a) easily self-register applications to use your API products and
- b) quickly build their applications.

Types of developer portals

Drupal 8/9 portal

- Fully customizable self-service portal using Drupal, an enterprise-level content management system (CMS)
- Integrates with Apigee using Apigee-supported Drupal modules
- Highly flexible
- Requires knowledge and experience with Drupal

Do-it-yourself (DIY) custom portal

- Build on any platform and integrate with Apigee using Apigee Management APIs
- Higher level of effort required

Apigee for Private Cloud supports two types of developer portal solutions.

The Drupal fully customizable portal is based on the open source Drupal content management system and is integrated with Apigee using modules.

The do-it-yourself portal is also fully customizable and implemented using Apigee APIs.

The Drupal and DIY developer portals are hosted by you and require a reasonable level of effort to implement, with the DIY portal requiring the most effort.

Developer portal requirements

To provide a great developer experience, the developer portal must provide the following capabilities to your app developers:

- Seamless self-service and easy onboarding
- A well-cataloged list of API products
- Interactive API documentation
- Custom-branded developer experience
- API testing in real time
- Developer community services



A well-designed developer portal provides a great developer experience.

To accomplish this, a developer portal must have self-service registration features for developers and their applications, thus providing a seamless onboarding experience.

It should include a catalog of your available API products that the app developer can browse and view documentation in.

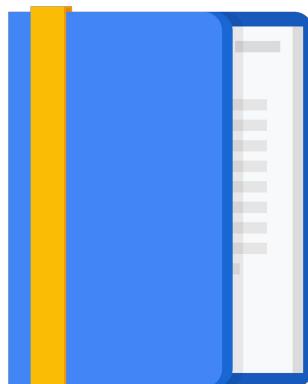
A developer portal should also provide testing of your APIs in real time and community services like forums and moderation of user comments.

Agenda

Role of the developer portal

[Prerequisites and dependencies](#)

Installation process



Let's now discuss the prerequisites and dependencies to install the Apigee developer portal.

Building the Drupal portal

- Apigee supports [Drupal](#), which is an open source, enterprise-level content management system (CMS).
- Using the Drupal portal tools and Apigee-developed Drupal modules, you can build a fully customizable developer portal.
- [Apigee Developer Portal Kickstart](#) is a Drupal distribution that enables you to quickly create an Apigee developer portal.



Using Drupal modules developed by Apigee, you can build a fully customizable developer portal based on Drupal.

The Apigee Developer Portal Kickstart for private cloud is a Drupal distribution that enables you to quickly create an Apigee developer portal.

You are responsible for developing, hosting, and managing the developer portal.

Developer portal

Prerequisites 1/2



[Portal requirements | Edge for Private Cloud](#)

Hardware specifications

- 2 cores, 4 GB RAM, 120 GB storage

Operating system

- Multiple versions of Red Hat Enterprise Linux, CentOS, and Oracle Linux are supported.

Network interface

- An active internet connection is required to download resources.
- Internet proxy servers must correctly handle redirect requests and return HTTP 200 status code.

A developer portal has some hardware and operating system requirements.

The physical or virtual server that you install it on should have at least two CPU cores, 4 GB memory, and 120 GB storage.

The preferred operating system is Linux with enterprise grade support, such as Red Hat Enterprise Linux, Oracle Linux, or CentOS.

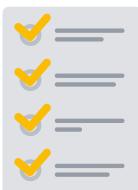
As part of the installation process, the installer downloads resources from the web.

If your environment is set up to proxy outgoing HTTP and HTTPS requests, your proxy must be configured to correctly handle redirect requests that might occur during a download.

Your proxy should be configured to return an HTTP 200 status code with the requested content from the redirect.

Developer portal

Prerequisites 2/2



Drupal

- On-premises deployment of Drupal 8 or Drupal 9

SMTP requirements

- SMTP server to send email messages from the portal
- Drupal access to the necessary port on the SMTP server (TLS: port 465; non-TLS: port 25)

PHP

- Install supported PHP version on RHEL/Centos by adding a third-party repository.

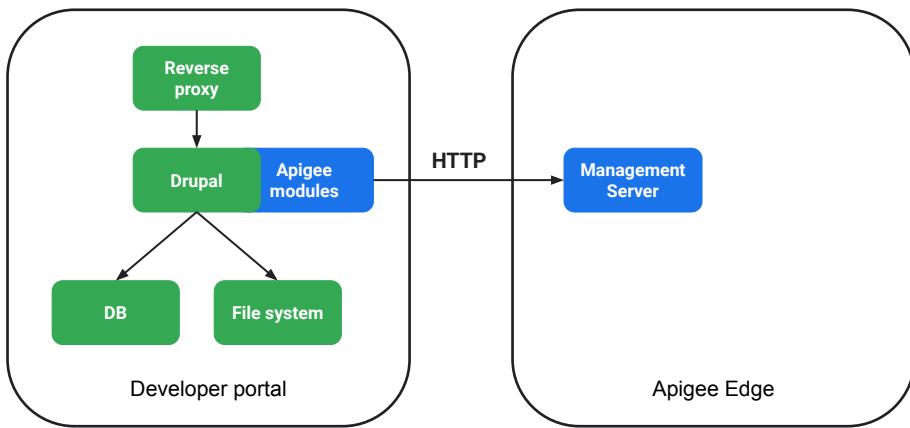
You are responsible for installing, hosting, and maintaining your Drupal developer portal.

Drupal requires you to configure an SMTP server to send email messages from the portal so you must ensure that Drupal can access the necessary port on the SMTP server.

For non-TLS SMTP, the port number is typically 25. For TLS-enabled SMTP, it is often 465, but you should confirm with your SMTP provider.

The RHEL/Centos 7 default php version is 5.x. In order to upgrade to the minimum required version PHP 7.4, you should add a third-party repository.

Edge integration



Google provides open source Apigee Drupal modules.

The modules enables you to connect your Drupal 8/9 developer portal site with the Apigee Edge organization.

Integration between the developer portal and Apigee Edge is based on the management server API.

Edge integration requirements

As part of the developer portal setup, the following configuration information is required to connect to Edge:

- **Edge Management Server URL:** `http://<ms_IP>:8080/v1`
 - This can be the direct URL to the management server or the URL of the load balancer, assuming more than one management server is present on the planet serving the same organization.
 - The URL can be HTTP or HTTPS, depending on your management server configuration.
- **Organization name:**
 - The developer portal captures/displays information for a single organization. During the setup process, you must specify which organization is associated to the developer portal.
- **Organization administrator credentials:**
 - Username
 - Password

ms_IP: is the IP address of the management server.

One developer portal can manage one Apigee Edge organization.

To establish connectivity between your developer portal and Apigee Edge, you need to provide access to the Management Server API port.

You also have to create an organization admin user for the developer portal in the organization that you want to manage.

Validate connectivity

Confirm that you can connect to the management server from the developer portal VM by using the command:

```
$ curl -v -u <sysAdminEmail> http://<ms_IP>:8080/v1/o/<orgname>
```

where:

sysAdminEmail is the system administrator email used to install Apigee for Private Cloud.

ms_IP is the IP address of the management server.

orgname is the Apigee organization name.

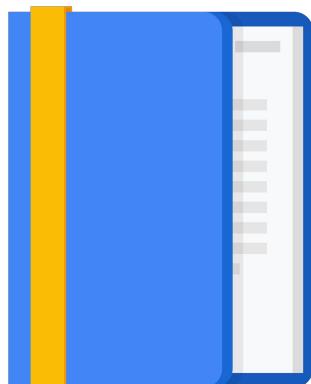
You will be prompted to provide the system administrator password.

You must validate the connectivity between your developer portal and the Apigee Edge Management Server before you attempt to install the developer portal.

To validate connectivity, make a management API call from the developer portal server to the management server.

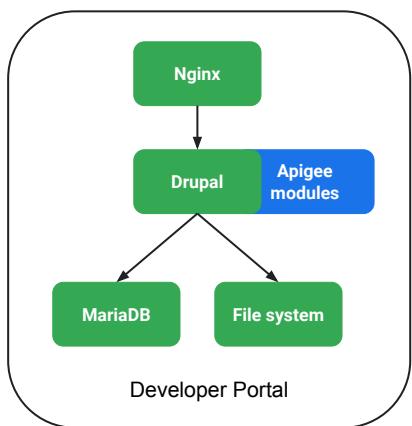
Agenda

- Role of the developer portal
- Prerequisites and dependencies
- [Installation process](#)



We will now review the developer portal installation process.

Drupal 8/9 Kickstart Project



The project uses the following components:

- Drupal 8/9 as a content management system
- Nginx as a reverse proxy
- MariaDB as a database to store data
- Apigee Drupal Modules, which provides connectivity to the Apigee Edge Management API

We will use the Apigee Kickstart Project which is one of the easiest ways to install a Drupal-based developer portal on-premises.

The Kickstart Project provides a step-by-step guide for installation of all developer portal components, such as MariaDB, Nginx, PHP Drupal, and the Apigee Drupal Modules.

Drupal 8/9 Kickstart Project

Apigee Kickstart's functionality includes:

- Installation of the Apigee Edge module for integration with Apigee Edge orgs
- Integration of the Apigee API Catalog module for API documentation
- Configurable landing page template
- Sixteen demo nodes with preloaded content, accessible at /admin/content
- Custom-themed, filterable API documentation landing page with demo content and vocabulary
- FAQ, blog and forums features for community support and discussion
- Customizable site theme for alignment with your brand

The Kickstart project provides a fully functional developer portal that can be customized if needed.

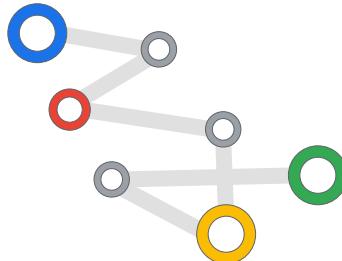
Some of the features include:

- Integration with Apigee Edge
- API catalog and documentation
- Application developer self-service portal
- Customizable theme
- Blog, forum, and frequently asked questions for community support

Installation order

Overview

1. CentOS 7/RHEL 7 operating system
2. Required utilities: git, zip, unzip
3. PHP 7.4
4. MariaDB/MySQL database
5. Nginx web server
6. Download the Apigee Developer Portal Kickstart distribution
7. Run the Drupal site installer



Full Installation instructions are available online:

<https://www.drupal.org/docs/contributed-modules/apigee-developer-portal-kickstart/use-kickstart-with-apigee-edge-for>

Here is the general process that is used to install the Apigee developer portal.

After provisioning a node with the required operating system, you install the necessary utilities and PHP.

You then install the developer portal database and the nginx web server.

Finally, download the portal kickstart distribution and run the Drupal site installer tool to install the portal.

Always make sure to read the documentation before attempting installation.



Review: Developer Portal Installation

Andy Trickett
Technical Solutions Consultant, Google



In this module, we discussed the role of the developer portal in the API management ecosystem.

You learned about the prerequisites and dependencies needed to install the developer portal.

You also learned the portal installation process using the Drupal Kickstart project for Apigee private cloud.

