apigee

Apigee™

Apigee Edge for Private Cloud

v4.16.05

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Developer Channel Services Installation and Configuration Guide

Contact Information

Contents

Overview

Apigee Developer Channel Services is a template portal for content and community management. It is based on the open source Drupal (www.drupal.org) project. The default setup allows creating and managing API documentation, forums, and blogs. A built-in test console allows testing of APIs in real time from within the portal.

Apart from content management, Developer Channel Services has various features for community management such as manual/automatic user registration and moderating user comments. Role-Based Access Control (RBAC) model controls the access to features on the Developer Channel Services. For example, you can enable controls to allow registered user to create forum posts, use test consoles, and so on.

This version of this document has details specific to **version 4.16.01**. Any references that are specific to previous versions are oversights and should be reported as bugs.

Access the Apigee Community for your questions

The Apigee Community is a free resource where you can contact Apigee as well as other Apigee customers with questions, tips, and other issues. Before posting to the community, be sure to first search existing posts to see if your question has already been answered.

Supported Network Topologies

The components of the Apigee Developer Channel Services can be installed in several different network configurations, or *topologies*, including:

- **Single machine** - All Apigee Developer Channel Services components installed on a single machine.

- **Small** - The Drupal MySQL database is installed on a separate machine from the other components.

- **Medium** - Multiple Apache Servers installed with a sync script to keep them updated.

- **Large** - Multiple Apache Servers installed with NFS, GlusterFS, S3, or other type of syncing mechanism.

Note: These four topologies are the only topologies supported by Apigee. If you use a different network topology, Apigee might not be able to support it.

The following figure shows the single-machine topology where all components of the Apigee Developer Channel Services are installed on a single machine:
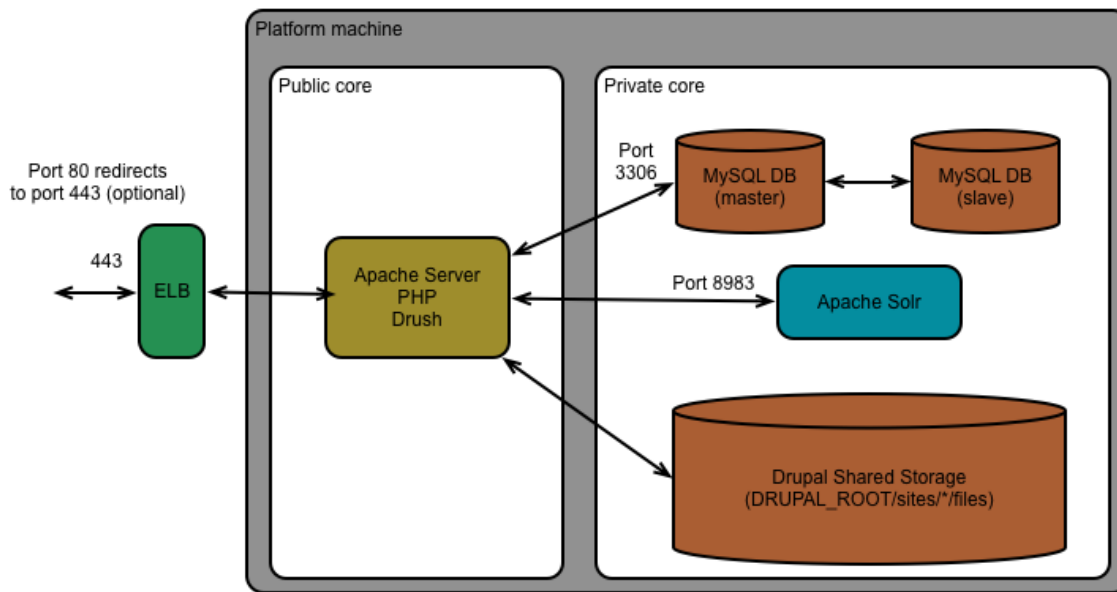
Figure 1: Single-machine topology

Note: If you install the portal on RedHat 7 or CentOS 7, then the installation script installs MariaDB and not MySQL. MariaDB is functionally equivalent to MySQL.

In this figure, the Public core contains the components that are publicly accessible. The Private core contains components that are not publicly accessible.

Table 2: Apigee Developer Channel Services components

Component	Description	Installed by
ELB	An Enterprise Load Balancer (ELB).	Your network provider. For example, both Amazon and Rackspace provide Enterprise load balancers for use with their instances.
Apache Server Version 2.2	Depending on your topology, you can have a single Apache server instance (single machine and small) or multiple (medium and large). For medium and large, you must provide a way to synchronize the instances.	Apigee
Apache Solr	The Drupal search server. Apache Solr uses the Apache Lucene search library.	Apigee

Component	Description	Installed by
MySQL 5.0.15 or later	The database used by Drupal. For the small, medium, and large topologies, the MySQL instance is on a different machine from the other components.	Apigee, or connect to an existing installation. If MySQL is installed by the Apigee installer, it installs the latest version available for your OS. If you want to connect to a remote MySQL installation, it must be version 5.0.15 or later.
MariaDB 5.1.38 or later	If you install the portal on RedHat 7 or CentOS 7, then the installation script installs MariaDB and not MySQL. MariaDB is functionally equivalent to MySQL.	Apigee, or connect to an existing installation. If MariaDB is installed by the Apigee installer, it installs the latest version available for your OS. If you want to connect to a remote MariaDB installation, it must be version 5.1.38 or later.
Drupal shared storage	The shared storage area used by Drupal for uploaded files, static scripts, and other information.	Apigee
Drush 6.2	The Drupal command line interface.	Apigee
PHP 5.3.6	Server-side scripting engine.	Apigee

Shown below is the small topology where the MySQL servers resides on a separate machine:
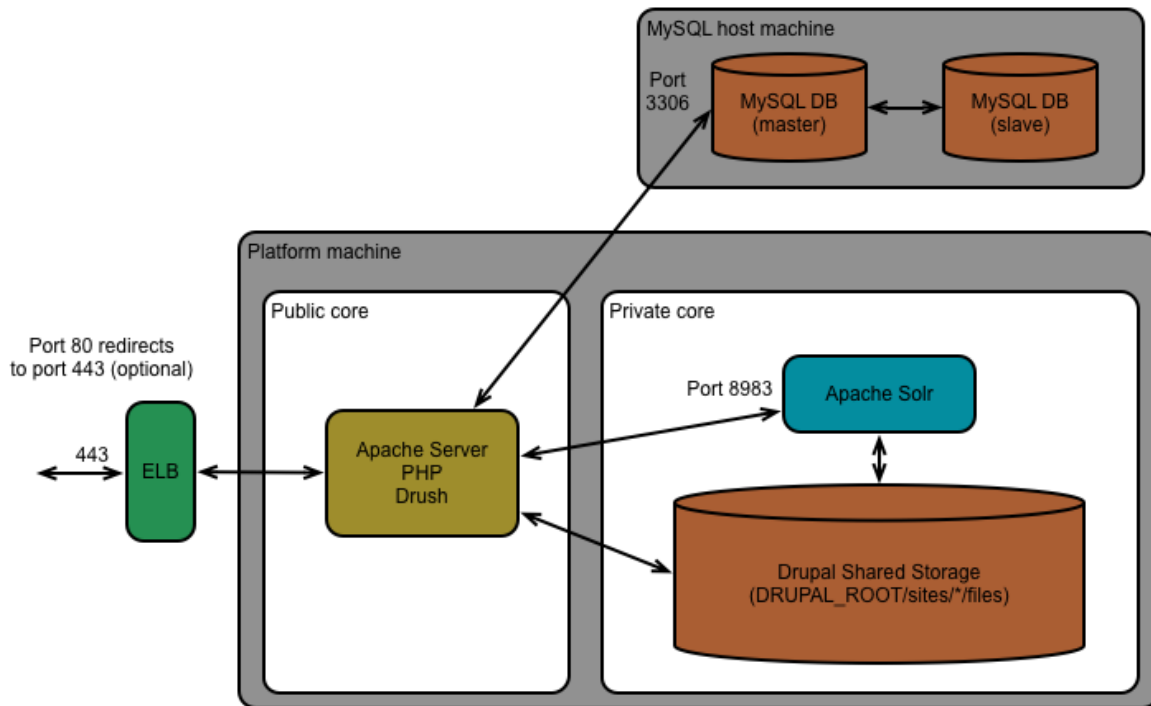
Figure 2: Small topology

The medium topology useS multiple Apache Server instances and multiple MySQL host machines:
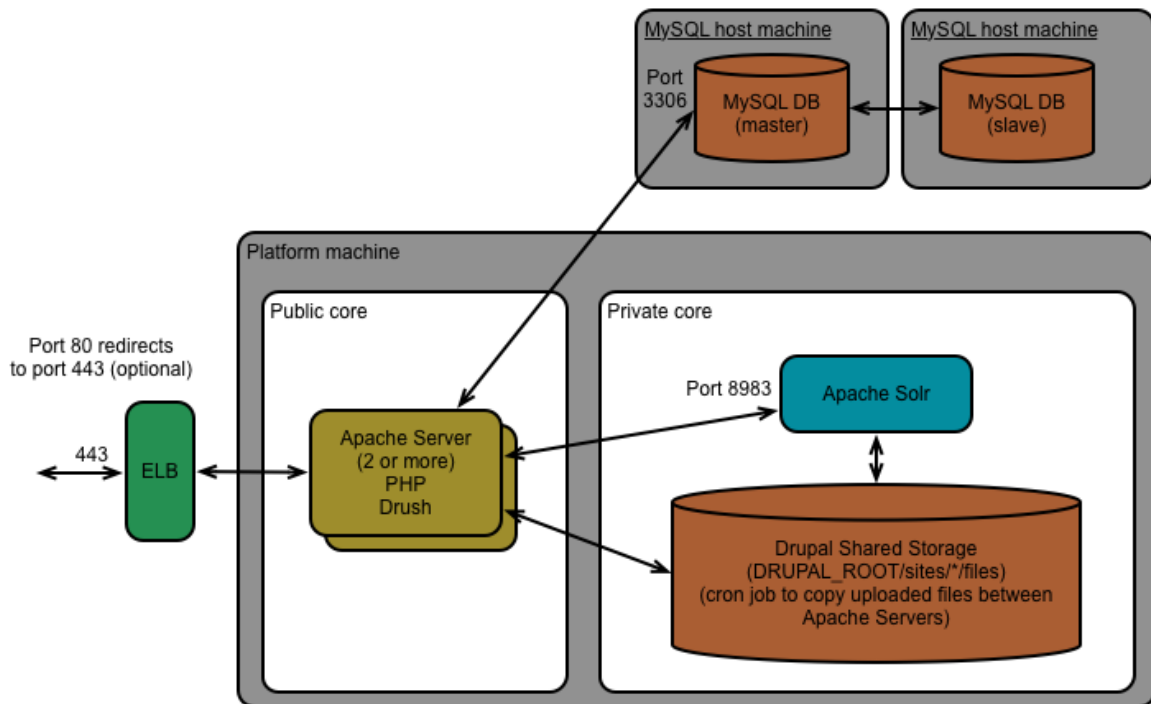
Figure 3: Medium topology

In the large topology, use NFS, GlusterFS, S3, or other type of syncing mechanism to sync the WEBROOT/sites/default/files/:
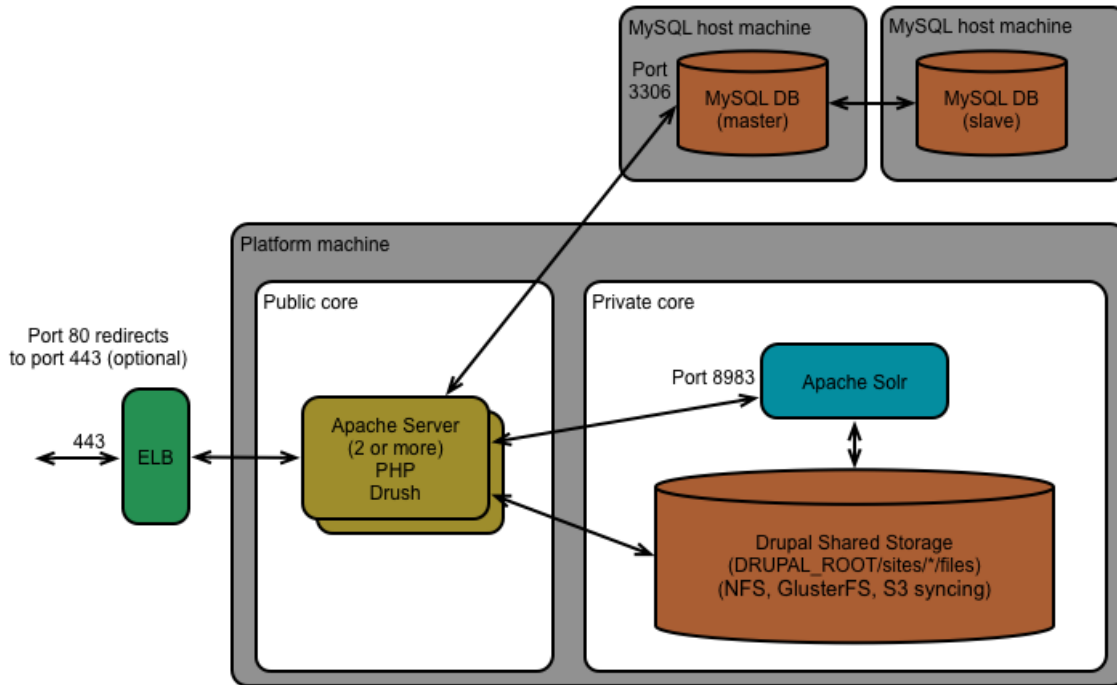
Figure 4: Large topology

Requirements

Following are the hardware and software requirements for installation.

Table 3: Requirements

Hardware	Requirement
Operating system	These installation instructions and the supplied installation files have been tested on the operating systems listed here: https://apigee.com/docs/api-services/reference/supported-software
RAM	1 GB
Hard disk	10 GB
Network interface	Active internet connection required. 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, then your proxy must be configured to correctly handle redirected requests that might occur during a download. For example, a request to `https://drupal.org/` returns an HTTP 301 status code and redirects to `https://www.drupal.org/`. Your proxy should be configured to return an HTTP 200 status code with the requested content from the redirect. For SAP installations, if your environment is set up to proxy outgoing HTTPS requests, then your proxy must support TLSv1.0. OpenSSL 0.9.8 does not support TLSv1.1 or TLSv1.2, only TLSv1.0.

MySQL Database Requirements

If you choose to install the MySQL Server on the same machine as the Developer Channel Services, the single-machine topology, the Developer Channel Services installer prompts you to enter the database name and database user, and then installs MySQL Server and creates the database schema for you. The version installed is the latest version available for your OS.

Note: If you install the portal on RedHat 7 or CentOS 7, then install MariaDB 5.1.38 or later and not MySQL. MariaDB is functionally equivalent to MySQL. The procedure below works for both types of databases.

If you want the MySQL Server installed on a separate system, you must have already installed MySQL Server on that system before starting the Developer Channel Services installer. You must have installed MySQL 5.0.15 or later.

The Developer Channel Services installer requires that MySQL Server contains a database with an empty database schema. The Developer Channel Services installer prompts you for the database hostname, database name, and database user. The installer then connects to the database to create the default database tables and data.

The database user is used by Developer Channel Services to connect to the database, and must have the following privileges: SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, INDEX, ALTER, CREATE TEMPORARY TABLES, LOCK TABLES.

For example, to create a database named `devportal`, and a user named `devportal`:

1. Install MySQL Server on the system.

2. Log into MySQL as root user by using the command:

    ```
    > mysql -u root -p
    ```

3. Enter the root password when prompted.

4. At the `mysql>` prompt, enter the following to create the `devportal` user:

    ```
    mysql>create user 'devportal'@'localhost' identified by
    'devportal';
    mysql> grant all privileges on *.* to 'devportal'@'localhost';
    mysql> flush privileges;
    mysql> quit
    ```

5. At the system prompt, create the `devportal` database:

    ```
    > mysqladmin -u devportal -p create devportal
    ```

    Enter the `devportal` password.

6. Log in to MySQL and grant access to `devportal` from the IP of the portal server:

    ```
    mysql> GRANT ALL ON devportal.* TO devportal@'portalIP' IDENTIFIED
    BY 'devportalPW';
    ```

    where *portalIP* is the IP address of the portal server, and *devportalPW* is the password of the `devportal` user.

7. Edit `/etc/my.cnf` to set `bind-address` to the IP address of the MySQL server.

8. Restart MySQL:

    ```
    > /etc/init.d/mysqld restart
    ```

9. Make sure port 3306 is open on the MySQL server. This procedure is based on your operating system. For example, for Linux, use the command:

```
> /sbin/iptables -A INPUT -i eth0 -p tcp --destination-port 3306 -j ACCEPT
```

When you install Developer Channel Services, specify not to install MySQL Server locally. You will then be prompted to enter the IP address, username, and database name of the remote database.

Red Hat Enterprise Linux (RHEL) Requirements

RHEL has extra requirements due to a subscription needed to access software downloads from Red Hat. The server must be able to connect to the Internet to download RPMs via yum. If using RHEL, the server must be registered on the Red Hat Network (RHN) and registered to the server optional channel.

The Red Hat requirements are checked during the install and the portal installer prompts you if RHEL is not already registered. If you already have Red Hat login credentials, you can use the following command to register RHEL before beginning the installation process:

```
> subscription-manager register --
username=my_username --password=my_password --auto-attach
```

Replace *my_username* and *my_password* with your Red Hat credentials.

If you have a trial version of RHEL, you can obtain a 30-day trial license. See https://access.redhat.com/solutions/32790 for more information.

SUSE Enterprise Linux Server Requirements

Note: Non-networked installation is not supported for SUSE Linux Enterprise Server at this time.

On SUSE 12 and above, you need to have the following extensions and modules enabled:
*   SUSE Linux Enterprise Software Development Kit
*   Web and Scripting Module

The extensions and modules can be installed during server installation or by using the YaST tool after the server is installed.

Additional Requirements

In order to perform the installation, the user installing the software must have root access.

Deployment Architecture Requirements

Developer Channel Services has a single interface with the Apigee Management Server via a REST API in order to store and retrieve information about a user's applications. Developer Channel Services will need to be able to connect to the Management Server via HTTP or HTTPS, depending on your installation.
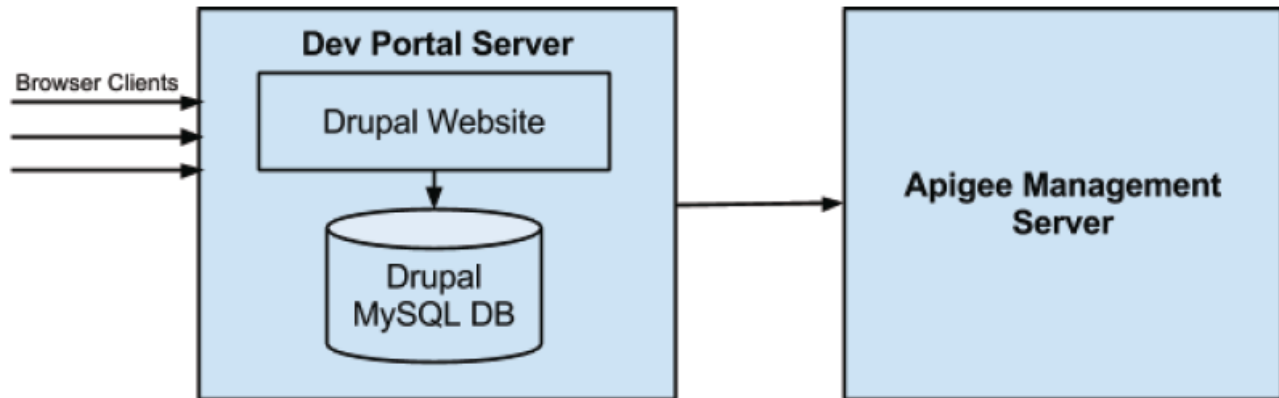
Figure 5: Dev Portal HTTP/S connection flow

Information Required Before You Start the Install

Before starting the install, you must have the following information available:

1. Which platform are you configuring: Red Hat or CentOS? If this is a Red Hat install, the machine must be registered on the Red Hat Network to download RPMs.

2. Do you plan on installing MySQL on the local machine? Some HA installations require MySQL to be on a different machine than the one serving the portal web pages. If this is the case, do not install MySQL locally. If you want a simple install with everything on the same machine, then install MySQL locally.

3. If you intend to access a remote MySQL server, the hostname, port, database name, username, and password of the remote MySQL server. The remote MySQL server should already be configured before you start the installation.

4. What is the fully-qualified domain name of the web server? (This information will be added to /etc/hosts.) This should be an IP address or hostname, such as portalserver.example.com. The default value is localhost.

5. Do you want to use Apigee's default configuration for Apache's virtual host? One virtual host is created with the hostname you've specified above in Step 7.

6. There are three pieces of information that allow your portal to communicate with the Apigee Edge management server. This information is as follows:

    a. **URL of the Apigee Management API Endpoint:** This will be either a hostname or an IP address. This is the REST endpoint to which all calls are made to create apps and register developers for app keys. The default endpoint is https://api.enterprise.apigee.com/v1.

    For an Edge for Private Cloud installation, the URL is in the form:

    ```
    http://EdgeIp:8080/v1
    ```

    or:

    ```
    https://EdgeIp:SSLport/v1
    ```

Where *EdgeIp* is the IP address of the Edge management server and ***SSLport*** is the SSL port for the Edge management API. For example, 8443.

b. **Apigee Organization name**: There is a relationship between portals and Apigee Edge organizations. You will set up the default organization when you set up the Management API Endpoint. The default value is my-org.

c. **Username and password for the management API endpoint**: The calls from the portal to Edge must be performed by an administrator for your organization.

This username/password is for an administrator on your organization and should be used only for connecting to Edge from the portal. For example, if you specify the credentials of a user, and that user is ever deleted on Edge, then the portal will no longer be able to connect to Edge. Therefore, create an administrator on your organization just for this connection.

For example: dc_devportal+ORGNAME@apigee.com:MyP@ssw0rd

Installation

Follow these steps to install Developer Channel Services with an Internet connection.

Note: For existing installations, if you have modified any code in Drupal core or in any non-custom modules, your modifications will be overwritten. This includes, among other things, any changes you may have made to `.htaccess`. You should assume that anything outside the `/sites` directory is owned by Drupal. An exception to this rule is `robots.txt`; if this file exists in the web root, it will be preserved for you.

Before proceeding with the installation, make a backup of your entire Drupal web root directory. The default install location is `/var/www/html`, but you might have changed it at install time. After performing the installation steps described below, you can restore your customizations from the backup.

1. Get the Developer Channel Services bundle

Go to http://community.apigee.com/content/apigee-customer-support and select Login to your Support Portal to request the Developer Channel Services .tar file in one of two ways:

- Request access to the Edge for Private Cloud download directory.
- Request a URL to the Developer Channel Services .tar file.

Note: If you do not have an account on the Support Portal, select **Login to your Support Portal** and then on the sign in page select **In a hurry? Raise a support ticket here**.

2. Ensure your system meets the system requirements

Before you install the portal, your server must meet the following requirements:

1. Ensure that you are performing the install on the 64-bit version of a supported version of Red Hat Enterprise Linux, CentOS, or Oracle. See the list of supported versions here http://docs.apigee.com/api-services/reference/supported-software - apigeedeveloperportaldrupal.

2. Ensure that Yum is installed.

3. **(For an installation on a server without an Internet connection)** You must first download all necessary files onto a server with an Internet connection as a single .tar.gz file. You then copy that .tar.gz file to the server without an Internet connection to perform the install.

   a. Log in to a server with an Internet connection as root or as superuser.

   b. Create a directory for the install files, such as `portal_tar`.

   c. CD to the new directory and download the Developer Channel Services `DeveloperServices_`**`x.y.z`**`.tar` file, where **x.y.z** corresponds to the portal version number.

d. Extract the contents of the Developer Channel Services .tar file by using the command:

```
> tar -xvf <tar file>
```

e. CD to `DeveloperServices-4.x.y.z`.

f. Create the portal .tar.gz file by using the command:

```
> ./non-networked-install.sh
```

That command downloads all the necessary files and them into a single .tar.gz file. You then copy that .tar.gz file to your server that has no Internet connection to complete the install.

4. Test your connection to the Edge management server by executing the following cURL command from a command prompt on the portal server:

```
> curl -u {EMAIL}:{PASSWORD}
https://{hostname}:8080/v1/organizations/{ORGNAME}
```

Where `EMAIL` and `PASSWORD` are the email address and password of the administrator for `ORGNAME`.

Make sure to specify the hostname and port number specific to your installation of Edge. Port 8080 is the default port used by Edge. If you are connecting to an organizationi n the cloud, then the request URL is:

```
https://api.enterprise.apigee.com/v1/organizations/{ORGNAME}
```

If successful, this command returns a response similar to the following:

```
{
  "createdAt" : 1348689232699,
  "createdBy" : "USERNAME",
  "displayName" : "cg",
  "environments" : [ "test", "prod" ],
  "lastModifiedAt" : 1348689232699,
  "lastModifiedBy" : "foo@bar.com",
  "name" : "cg",
  "properties" : {
    "property" : [ ]
  },
  "type" : "trial"
}
```

3. Install Developer Channel Services using the automated install script

Use the following procedure to install the portal by using the automated install script. This procedure works for servers with or without an external Internet connection.

1. Log in to the server as root or as superuser.

2. Create a directory for the install files, such as `portal`.

3. **On a server with an Internet connection**:

   a) CD to the new `portal` directory and download the Developer Channel Services `DeveloperServices_`**`x.y.z`**`.tar` file, where **x.y.z** corresponds to the portal version number.

      You can download a file from the link sent to you by Apigee in a browser or by copying it and then adding it to the following cURL command:

      ```
      > curl -kOL <paste link here>
      ```

   b) Extract the contents of the Developer Channel Services .tar file by using the command:

      ```
      > tar -xvf <tar file>
      ```

   c) CD to `DeveloperServices-4.x.y.z`.

   d) Run the install script by using the following command:
      ```
      > ./networked-install.sh
      ```

4. **On a server without an Internet connection:**

   a. Copy the .tar.gz file that you created above in the section 2. Ensure your system meets the system requirements.

   b. Extract the contents of the .tar.gz file by using the command:
      ```
      > tar -xvf <tar file>
      ```

   c. CD to the directory created by the tar command.

   d. Set the permissions on the `install-from-rpm-bundle.sh` script:

      ```
      > chmod 755 install-from-rpm-bundle.sh
      ```

   e. Run the `install-from-rpm-bundle.sh` script by using the command:

      ```
      > ./install-from-rpm-bundle.sh
      ```

5. Answer the prompts.

6. After the installation completes, navigate to the server URL in a browser, such as:

   http://localhost

   or, if you have a specific IP or DNS configured, go to `http://IP_address` or `http://DNS_name`.

You are redirected to the Apigee profile Database configuration page.

Note: Typically, you will have already configured a hostname and registered it with your DNS server so that you do not have to use `http://localhost`.

7. Configure the connection to MySQL. If MySQL is on a remote machine, expand the **Advanced Options** section and enter the connection information to that machine, then Select Save and continue.

8. Configure the connection to the Apigee Endpoint by entering the following information, and then select Save:

   For more information on these values, see Information Required Before You Start the Install.

   a. **Dev Portal Org**

   b. **Dev Portal Endpoint URL**

   c. **Endpoint Authenticated User**

   d. **Authenticated Users' Password**

9. When prompted, select the **Install Sample SmartDocs WADL** button to install the sample SmartDocs WADL. If you skip this step, then the example SmartDocs API will not appear on your portal.

   Note: If your portal connects to an installation of Apigee Edge for Private Cloud, and that installation of Edge has no external internet connection, then you must perform additional configuration of the SmartDocs module before you can use SmartDocs. For more information on SmartDocs, see http://apigee.com/docs/developer-services/content/using-smartdocs-document-apis (or http://apigee.com/docs/content/documentation-archives to find the docs that correspond to earlier versions of the product).

10. Configure the **SMTP Server Settings**. Apigee requires that you configure an SMTP server to send email messages from the portal.

   For more information, see http://apigee.com/docs/developer-services/content/configuring-email (or http://apigee.com/docs/content/documentation-archives to find the docs that correspond to earlier versions of the product)

11. Configure the administrator user by entering the following information, and then select Save. Note that Drupal create an admin user named 'admin' by default, so do not use 'admin' as the username.

   If you skip this step, you can still use Drush to create an administrator as described below in 4. Create an admin user.

   a. **Developer's first and last name**

    b. **Developer's portal username**

    c. **Password**

    d. **Email address**

12. After the installation completes, set the permissions on the `settings.php` file:

```
> chmod 640 /var/www/html/sites/default/settings.php
```

13. Navigate to the portal home page at `http://localhost/` or to the DNS name of your portal.

14. Log in to the portal using the administrator credentials.

4. Create an admin user

Use Drush to create an administrative user for your Developer Channel Services installation. Drupal automatically creates an admin user named 'admin' by default, so do not use 'admin' as the username.

Note: This step is only required if you skipped the step to create an admin user in the automated install script when you installed the portal. If you already created the admin user, skip this step.

1. CD to your *drupal_root*/sites/default directory. The standard location for the Drupal root directory is /var/www/html:

```
> cd <drupal_root>/sites/default
```

2. Ensure that you have write permissions on the private Drupal files:

```
> drush vget file_private_path
```

    This command returns the path to the private Drupal files, for example:

```
file_private_path: 'sites/default/private'
```

    Corresponding to /var/www/html/sites/default/private/. Use the following command to ensure that this directory is writable by the owner and the group:

```
chmod -R g+w dirPathAndName
chmod -R o+r dirPathAndName
```

3. Enter the following commands to create an admin user, replacing the commands in "< >" with your values:

```
> drush user-create <username> --mail="<email-address>" --password="<password>"
```

```
> drush user-add-role Administrator <username>
```

4. Log in to the developer portal as an admin by using the username and password specified above.

5. Set the MySQL root password

If you installed MySQL as part of the portal installation, the installation script leaves the MySQL root password set to its default value, which is blank.

Use the following command to set the root password:

```
> mysqladmin -u root password NEWPASSWORD
```

If you have previously set the root password and want to change it, use the following command:

```
> mysqladmin -u root -p'OLDPASSWORD' password NEWPASSWORD
```

You must also update the password in the /var/www/html/sites/default/settings.php file.

6. Ensure that the Update manager module is enabled

To receive notifications of Drupal updates, ensure that the Drupal Update manager module is enabled. From the Drupal menu, select **Modules** and scroll down to the **Update manager** module. If it is not enabled, enable it.

Once enabled, you can see the available updates by using the **Reports > Available Updates** menu item. You can also use the following Drush command:

```
> drush pm-info update
```

Note: You have to run this command from the root directory of the site. By default, the Developer Portal is installed at /var/www/html. Therefore, you should first change directory to /var/www/html before running the command. If you did not install the portal in the default directory, change to your installation directory.

Use the **Reports > Available Updates > Settings** menu item to configure the module to email you when updates are available and to set the frequency for checking for updates.

7. Optional - Deploying on a production server

If you are deploying the portal on a production server, you should perform additional security steps, including:

1. Run the following script to secure your MySQL installation:

    ```
    > /usr/bin/mysql_secure_installation
    ```

    This script sets the root password and gives you the option to restrict root access to just the

> localhost and to remove the test databases and anonymous user created by default.
> Running this script is strongly recommended for production servers.

2. If required by your corporate policies, enable and configure SELinux.

8. Optional - Configure the Apache Solr search engine

By default, the Drupal modules that connect to the Apache Solr search engine are disabled when you install the portal. Most portals use the internal Drupal search engine, and therefor do not require the Drupal Solr modules.

If you decide to use Solr as your search engine, you must install Solr locally on your server and then enable and configure the Drupal Solr modules on the portal.

To enable the Drupal Solr modules:

1. Log in to your portal as a user with admin or content creation privileges.

2. Select **Modules** in the Drupal menu.

3. Enable the **Apache Solr Framework** module and the **Apache Solr Search** module.

4. Save your changes.

5. Configure Solr as described at https://drupal.org/node/1999280.

9. Optional - Install mod_ssl to support HTTPS

The mod_ssl module is used by the Apache HTTP Server to serve web pages over HTTPS. If you want to use HTTPS, use the following command to install mod_ssl:

```
> yum install mod_ssl
```

For more information on configuring the portal to use SSL, see http://apigee.com/docs/developer-services/content/using-ssl-portal (or http://apigee.com/docs/content/documentation-archives to find the docs that correspond to earlier versions of the product).

10. Optional - Install SmartDocs

SmartDocs lets you document your APIs on the Developer Services portal in a way that makes the API documentation fully interactive. However, to use SmartDocs with the portal, you must first install SmartDocs on Edge.

•   If you are connecting the portal to an Edge Cloud installation, SmartDocs is already installed and no further configuration is necessary.

•   If you are connecting the portal to an Edge for Private Cloud installation, you must ensure that SmartDocs is installed on Edge. For more on installing Edge and SmartDocs, see *Apigee Edge Operations Guide,* available on the Apigee ftp site: ftp://ftp.apigee.com/.

For more information on SmartDocs, see Using SmartDocs to document APIs.

11. What next?

Your next steps after you install the Developer Services portal are to configure and customize it for your specific requirements. The documentation on the Apigee web site contains all of the information on configuring, styling, and managing a portal. Access the documentation at http://apigee.com/docs/developer-services/content/what-developer-portal (or http://apigee.com/docs/content/documentation-archives to find the docs that correspond to earlier versions of the product).

The following table lists some of the most common tasks that you perform after installation, and includes links to the Apigee documentation where you can find more information:

Table 4: Additional tasks

Task	Description
Configure the theme	The theme defines the appearance of the portal, including colors, styling, and other visual aspects.
Configure the home page	The home page includes the main menu, welcome message, header, footer, and title.
Configure the registration process	The registration process controls how new developers register an account on the portal. For example, do new developers get immediate access to the portal, or do they have to be verified by an administrator. This process also controls how a portal administrator is notified when a new account is created.
Configure email	The portal sends emails in response to certain events. For example, when a new developer registers on the portal and when a developer loses their password.
Set terms and conditions	Add a Terms & Conditions page that developers must accept before being allowed to access the portal.
Set user roles and permissions	The portal implements a role-based authorization model. Before allowing developers to register, define the permissions and roles used by the portal.
Configure blogs and forums	The portal has built-in support for blogs and threaded forums. Define the permissions required to view, add, edit, and delete blog and forum posts.
Ensure you are doing database backups	Ensure that you are backing up the Drupal database. Note that because every installation is different, it is up to you to determine how best to back up the database.

Task	Description
Set up a hostname	If you do not set up a hostname in your DNS server, you can always access the site via the server's IP address. If you want to use a hostname, you can configure DNS for the server, which should work correctly without any other configuration on a basic setup. If you set up a load balancer or are getting incorrect URLs on your site for some other reason, you can set `$base_url` in the Dev Portal **settings.php** file, which by default is located in the **/var/www/html/sites/default** directory.

Set the HTTP port used by the portal

By default, the Apache server installed with the portal listens for request on port 80. Use the procedure below to configure Apache to use a different port:

1) Open `httpd.conf` in an editor:

```
> vi /etc/httpd/conf/httpd.conf
```

2) Search for 'Listen 80' and replace '80' with the desired port number.

3) Save the file.

4) Restart Apache:

```
> service httpd restart
```

Starting, stopping or restarting the portal

To start, stop, or restart the portal, you actually start, stop, or restart the Apache web server. For example, to restart Apache on RedHat and CentOS, use the following command:

```
> service httpd restart
```

To stop or start Apache on RedHat and CentOS, use the commands:

```
> service httpd stop
> service httpd start
```

For more information, see http://www.apache.org/.

Commonly used Drush commands

Drush is the Drupal command line interface. You can use it to perform many tasks as a Drupal administrator. Drush is installed for you when you install the portal.

How to run Drush commands

You have to run Drush commands from the root directory of the portal site. By default, the Developer Portal is installed at `/var/www/html`. Therefore, you should first change directory to `/var/www/html` before running Drush commands:

```
> cd /var/www/html
```

If you did not install the portal in the default directory, change to your installation directory.

Determining the portal root directory

If you do not know the installation directory, use the following command to locate the `devportal.conf` file:

```
>  apachectl -S
```

That command displays a line showing the location of the `devportal.conf` file:

```
*:80    192.168.52.155 (/etc/httpd/conf/vhosts/devportal.conf:1)
```

Use the `cat` command to view the file:

```
> cat /etc/httpd/conf/vhosts/devportal.conf
```

The output from this command lists the installation directory:

```
<VirtualHost *:80>

 DocumentRoot "/var/www/html"
```

Example Drush Commands

The following table lists common Drush commands:

Command	Use
drush status	Check Drupal status.
drush archive-dump --destination=../tmp/dc.tar	Backup Drupal to a specific location.
drush dc-getorg	Return the Edge organization associated with the portal.
drush dc-setorg {ORGNAME}	Set the Edge organization associated with the portal.

`drush dc-getauth`	Get the Edge organization administrator user name (email address) and password associated with the portal.
`drush dc-setauth {orgAdminEmail}`	Set the Edge organization administrator user name (email address). You will be prompted to set the password.
`drush dc-getend`	Get the Edge endpoint associated with the portal.
`drush dc-setend http://{SERVERENDPOINT:8080/v1`	Set the Edge endpoint associated with the portal.
`drush dc-test`	Test the connection from the portal to the Edge organization using the organization administrator's credentials.

Configuring the portal to use HTTPS

All Apigee recommended Private Cloud installations of the portal require the portal to be behind a load balancer. Therefore, you configure SSL on the load balancer itself, and not on the portal. The procedure that you use to configure SSL is therefore dependent on the load balancer.

See Using SSL on the portal for an overview of using SSL on the portal.

However, if necessary, you can configure SSL on the web server that hosts the portal. By default, Apigee installs the Apache web server.

1) Obtain your SSL key and certificate.

2) Ensure that you install mod_ssl as described above by using the command:

```
> yum install mod_ssl
```

3) Update `/etc/httpd/conf/httpd.conf`:

   a) If you want to disable HTTP access on port 80, search for '`Listen 80`' and comment it out.

   b) Add the following lines at the end of file:

```
LoadModule ssl_module modules/mod_ssl.so
Listen 443
```

4) Setup a virtual host by editing `/etc/httpd/conf/vhosts/devportal.conf` to add the following:

```
<VirtualHost *:443>
  ServerName localhost
  SSLEngine on
  SSLCertificateFile "<public cert path>"
  SSLCertificateKeyFile "<private key path>"
  DocumentRoot "/var/www/html"
  <Directory "/var/www/html">
    Options Indexes FollowSymLinks MultiViews
    AllowOverride All
    Order allow,deny
    Allow from all
  </Directory>
</VirtualHost>
```

Also, comment out the existing `VirtualHost` definition if you do not want to use HTTP.

5) Because SSL is configured in `httpd.conf`, you do not need `ssl.conf`:

```
> mv /etc/httpd/conf.d/ssl.conf /etc/httpd/conf.d/ssl.conf.orig
```

6) Restart Apache:

```
> service httpd restart
```

You might be prompted to enter the passphrase for your key file.

You should be able to access the portal over SSL.

Upgrade installation

This procedure describes how to upgrade an existing Apigee Developer Channel Services on-premise installation.

Note: This procedure performs a complete upgrade of Drupal and of the Apigee software that ships with the portal. You might want to upgrade just Drupal itself, possibly because a new version of Drupal is available. A new Drupal version can mean a Drupal feature release, patch, security update, or other type of Drupal update. If you only want to perform an upgrade of Drupal, see Upgrading the Drupal version.

Default installation directory

The upgrade process assumes that the Developer Portal was installed at `/var/www/html`. If you did not install the portal in the default directory, modify the paths in the procedure below to use your installation directory.

If you do not know the installation directory, you can determine it as described in Determining the portal root directory.

Supported upgrade versions

This upgrade procedure is supported for the following versions of the portal:

- pantheon-4.24.216
- pantheon-4.24.246
- pantheon-14.02.x
- pantheon-14.03.x
- pantheon-14.04.x
- pantheon-14.07.x
- pantheon-15-01.x
- OPDK-15-04.x
- OPDK-15-07.x

To determine your portal version, open the following URL in a browser:

http://*yourportal.com*/buildInfo

Note: If nothing is displayed or a version other than one listed above is displayed, then you cannot use this upgrade process. For information on upgrading from any other portal version, contact Apigee Support at http://apigee.com/about/support/portal.

Note: If for some reason you removed the `buildInfo` file, then you can determine the version from the `profiles/apigee/apigee.info` file. The default install location is

`/var/www/html/profiles/apigee/apigee.info`, but you might have changed it at install time if you installed the portal in a directory other than `/var/www/html`. The `apigee.info` file contains a line in the form below containing the version:

```
version = "OPDK-4.16.01"
```

Upgrading Apigee Developer Channel Services to a new release

1. Backup of your Drupal MySQL instance.

   For more information, see http://www.thegeekstuff.com/2008/09/backup-and-restore-mysql-database-using-mysqldump/

   ### Option 1: Use Drush

   a. The Drush command `sql-dump` creates a copy of the database. From your Drupal directory, `/var/www/html` by default, run the command:

   ```
   > drush sql-dump > /path/to/backup_dir/database-backup.sql
   ```

   Use `drush help sql-dump` for more information.

   ### Option 2: Use MySQLdump

   a. Use the `mysqldump` command to create a copy of the database:

   ```
   mysqldump -u USERNAME -p'PASSWORD' DATABASENAME >
   /path/to/backup_dir/database-backup.sql
   ```

   There should be no space between the `-p` option and the password. Single quotes around the password are required if the password contains special characters.

   You set the `USERNAME` and `DATABASENAME` when you installed the portal. By default, both are `devportal`.

2. Make a backup of your entire Drupal web root directory. The default install location is `/var/www/html`, but you might have changed it at install time.

3. Download the Developer Channel Services `DeveloperServices_`**`x.y.z.`**`tar` file, where **x.y.z** corresponds to the portal version number.

   You can download a file from the link sent to you by Apigee in a browser or by copying it and then adding it to the following cURL command:

   ```
   > curl -kOL <paste link here>
   ```

   Note: If your portal is on a server with no external Internet connection, perform this step on a server with access.

Go to http://community.apigee.com/content/apigee-customer-support and select **Login to your Support Portal** to request the Developer Channel Services upgrade .tar file. If you do not have an account on the Support Portal, select **Login to your Support Portal** and then on the sign in page select **In a hurry? Raise a support ticket here**.

4. **For an upgrade on a server with an Internet connection:**

    a. Extract the portal upgrade file:

    ```
    > tar -xvf <tar file>
    ```

    This command extract creates a new directory called `DeveloperServices-4.x.y.z`.

    b. Change to the `DeveloperServices-4.x.y.z` directory.

    c. Download the latest Drupal version by using the following command:

    ```
    > drush dl drupal
    ```

    This command creates a directory named `drupal-`**x.y**, where **x.y** corresponds to the current version of Drupal.

    d. Run the `networked-update.sh` script:

    ```
    > ./networked-update.sh
    ```

    Depending on file permissions, you might have to use sudo to run this command, or run it as an administrator.

    e. To receive notifications of Drupal updates, ensure that the Drupal Update manager module is enabled. From the Drupal menu, select **Modules** and scroll down to the **Update manager** module. If it is not enabled, enable it.

    Once enabled, you can see the available updates by using the **Reports > Available Updates** menu item.

    Use the **Reports > Available Updates > Settings** menu item to configure the module to email you when updates are available and to set the frequency for checking for updates.

5. **For an upgrade on a server with no Internet connection:**

    a. On the server where you downloaded the Developer Channel Services DeveloperServices_x.y.z.tar file, extract the portal upgrade file:

    ```
    > tar -xvf <tar file>
    ```

This command extract creates a new directory called `DeveloperServices-4.x.y.z.`

b. Change to the `DeveloperServices-4.x.y.z` directory.

c. Run the `non-networked-update.sh` script:

```
> ./non-networked-update.sh
```

Depending on file permissions, you might have to use sudo to run this command, or run it as an administrator.

This command downloads all the necessary update files and packages them into a single file named devportal-update.tgz and writes the file to a location of your choosing.

d. Copy `devportal-update.tgz` to the target server, the one running the portal.

Note: Do **not** copy the devportal-update.tgz to the web root of the target server.

e. Untar the `devportal-update.tgz` file to the current directory:

```
> tar -xzf /path/to/devportal-update.tgz
```

f. Change to the `developer-update` directory.

g. Run the following command to install the update:
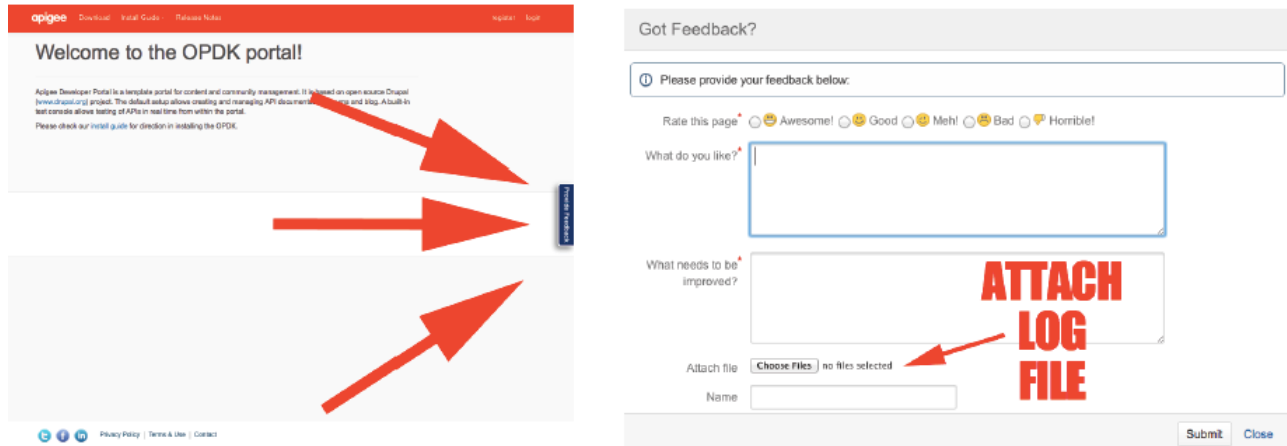
```
> ./install-update.sh
```

h. Answer the prompts.

The upgrade is now complete.

Contact us

For the most up-to-date information and to report bugs, contact Apigee Customer Support at:

http://community.apigee.com/content/apigee-customer-support

If the installer exits prematurely because of an error, it will give you a log file. Please submit this log file with any bugs you report.

Figure 6: Attaching a log file to a feedback report

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