HP Helion 1.3 Development Platform Preview Quick Start Developer Trial

The Quick Start Developer Trial is the fastest way to evaluate the HP Helion Development Platform for yourself. Download the files, create and configure your sandbox environment, and deploy one or more sample applications. We provide several sample applications to help you get started quickly, but you may also use your own.

To ensure your success, complete the installation steps in the order they are listed below.

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To ensure your success, complete the installation steps in the order they are listed below.

1. Register for your free Helion Public Cloud Account.

- Register for a Helion Public Cloud (http://www.hpcloud.com/cloud-credit) account.
  Keep your username and password handy as you will be asked for them during installation.

Registering provides you with:

- A Cloud Credit to help cover hosting costs for your sandbox environment
- Access to the Helion Development Platform download repositories

Note: Ensure that you review HP Public Cloud pricing (http://www.hpcloud.com/pricing) to understand what charges may be incurred if the use limits of the free credit offer are exceeded.

2. Download Tools

Download the Configuration Tool

Use the ALS management tool (*cf-mgmt.exe*) to construct, manage, update, or delete ALS clusters. Click the download link that is appropriate for your operating system.

- Windows®: http://clients.als.hpcloud.com/cf-mgmt-1.3.0-windows-x86_64.zip
- Linux x64: http://clients.als.hpcloud.com/cf-mgmt-1.3.0-linux-x86_64.zip
- Mac OS X®: http://clients.als.hpcloud.com/cf-mgmt-1.3.0-osx-x86_64.zip

Note: After installation, you may run the *cf-mgmt update* command at any time to check for and install the most recent version.

Download the ALS Client

Use the ALS client to push application code up to the server, start and stop applications, link Helion OpenStack® services to applications, and perform other application management operations. Download this tool if you intend to push applications to your quick-start trial environment.

Click the download link that is appropriate for your operating system.

- Windows®: http://clients.als.hpcloud.com/helion-1.3.0-win32-ix86.zip
- Linux x64: http://clients.als.hpcloud.com/helion-1.3.0-linux-glibc2.3-x86_64.zip
- Mac OS X®: http://clients.als.hpcloud.com/helion-1.3.0-macosx10.5-i386-x86_64.zip

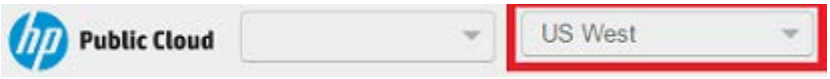
The Command Reference (http://docs.hpcloud.com/#devplatform/1.3/helion/user/reference/client-ref.html) has full descriptions of all ALS Client commands and options.

3. Create the Sandbox Environment

During this step, you will log in to the Helion Public Cloud and use the web-based console, called Horizon, to create the sandbox environment.

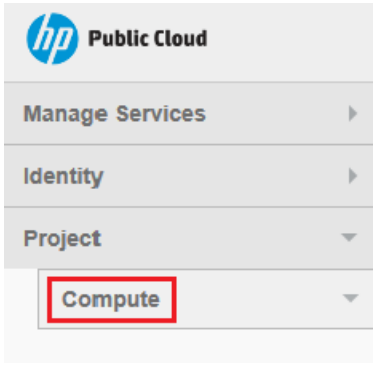
1. Log into the Horizon console (https://horizon.hpcloud.com/) using the HP Helion Public Cloud username and password that you created during registration.

2. Change the Horizon Console to the **US West Region**.

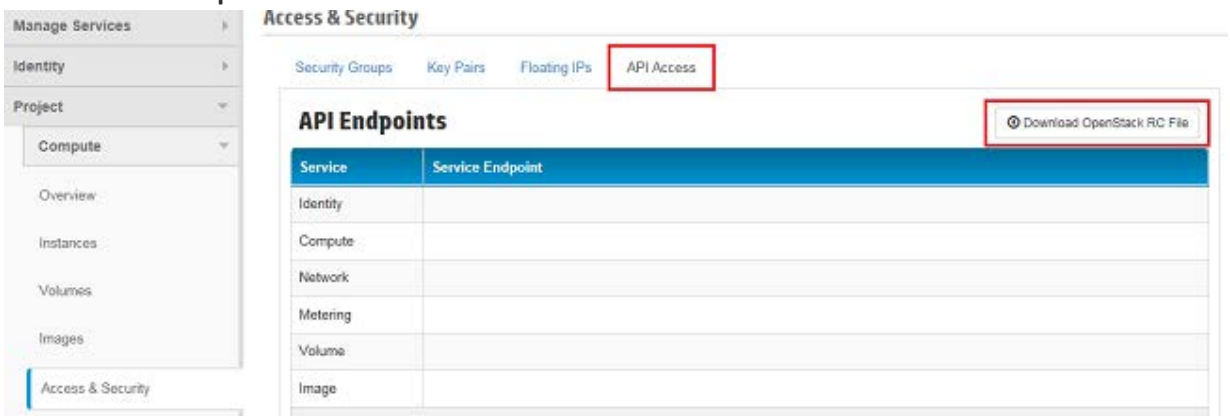


3. In the **US East section**, in the **Compute** row, click **Activate** to activate the Compute service. Activating the Compute service is required for creating VM instances.

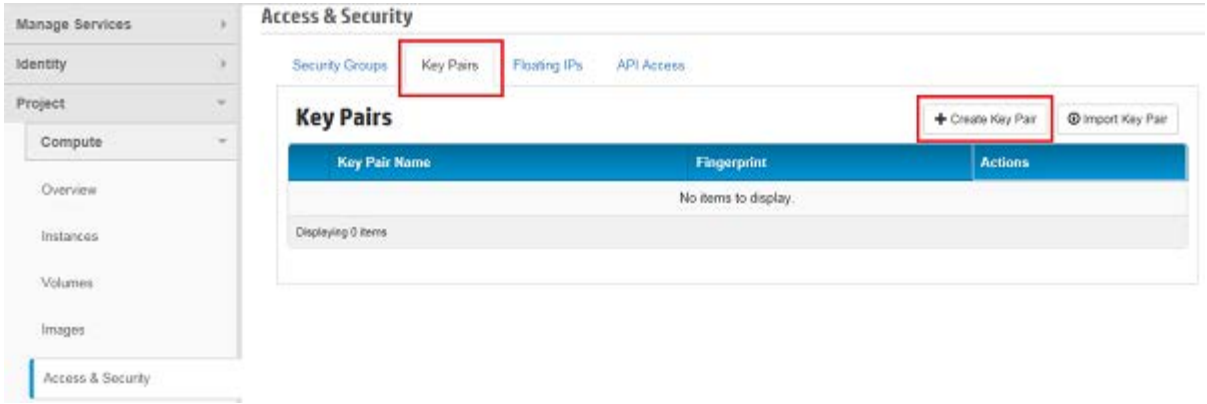
4. Click the **Project** panel and then the **Compute** sub-panel.



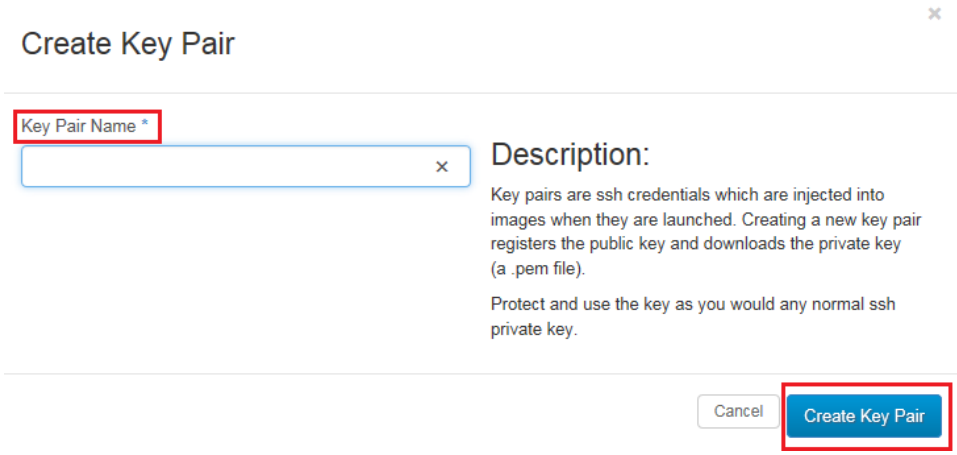
5. Download the configuration file (RC file).
   RC files contain information about a hosted service, including region, tenant, and other information required to create a cluster. This RC file has been pre-configured for this sandbox project.
   a. Click **Access & Security** and then click the **API Access** tab.
   b. Click **Download OpenStack RC file**.



6. Create a key pair.
   a. Click on the **Compute** sub-panel and then click **Access & Security**.
   b. Click on the **Key Pairs** tab and then click **+ Create Key Pair**.



   c. Enter a name in the **Key Pair Name** field and then click **Create Key Pair**.



   d. Save the *keyPairName.pem* file somewhere convenient. If you are not automatically prompted to save the file, click the link to download it. This file contains the RSA private key that you will need when you SSH into your VM instance.

4. Create a Cluster

For convenience, copy the command sets and paste them into a text editor. You can edit them there and then paste that information into the *cf-mgmt* tool as necessary.

1. Open a terminal window and change directory to the location where you installed the *cf-mgmt* command-line tool.
2. Run the following set of commands using the *cf-mgmt* tool to create the cluster. In the unlikely event that the cluster creation fails, refer to the Troubleshooting section later in this document.

    a. For Windows®:
    Open the RC file you downloaded earlier in a text editor, as you will need to enter values from that file.

```
cf-mgmt.exe ^
   --os-auth-url <OS_AUTH_URL from openstackrc> ^
   --os-username <OS_USERNAME from openstackrc> ^
   --os-password <OpenStack password> ^
   --os-tenant-id <OS_TENANT_ID from openstackrc> ^
   --os-tenant-name <OS_TENANT_NAME from openstackrc> ^
   --os-region-name <OS_REGION_NAME from openstackrc> ^
create-cluster ^
   --keypair-name <name of keypair created earlier> ^
   --admin-email <your login for the quick-start> ^
   --admin-password <your password for the quick-start> ^
   --load http://clients.als.hpcloud.com/1.3/config/trial.yml
```

    b. For Mac/Unix:
    You do not need to open the RC file; the *source* command will retrieve the necessary values from that file automatically.

```
source <path to openstackrc file>
cf-mgmt create-cluster \
  --keypair-name <name of keypair created earlier> \
  --admin-email <your login for the quick-start> \
  --admin-password <your password for the quick-start> \
  --load http://clients.als.hpcloud.com/1.3/config/trial.yml
```

3. After the *cf-mgmt* tool creates the cluster, it displays the ALS Console URL. This URL will have the form *http://api.<ipaddress>.xip.io* For example: *htttp://api.255.255.255.255.xip.io*

4. Enter the Console URL in your web browser to navigate to the Management Console.
Note: You may be "warned" that the Console has a self-signed certificate or that the site is "not trusted". These "warnings" can be safely ignored.

5. Log in to the Console using the email and password you specified when you created the cluster.

Congratulations! You are now ready to begin deploying apps to your new micro-cloud environment.

5. Add Windows DEA and SQL Server

This step is optional, but it provides you with early access to the new functionality that will be made available in the next version of the Helion Development Platform.

- Open a terminal window and change directory to the location where you installed the *cf-mgmt* command-line tool.
- Run the appropriate set of commands in the *cf-mgmt* tool to add a DEA role and then add a service. In the unlikely event that the cluster creation fails, refer to the Troubleshooting section later in this document.
  a. For Windows®:
     i. Add the Windows DEA Role

```
cf-mgmt.exe ^
--os-auth-url <OS_AUTH_URL from openstackrc> ^
--os-username <OS_USERNAME from openstackrc> ^
--os-password <OpenStack password> ^
--os-tenant-id <OS_TENANT_ID from openstackrc> ^
--os-tenant-name <OS_TENANT_NAME from openstackrc> ^
--os-region-name <OS_REGION_NAME from openstackrc> ^
add-role dea ^
--keypair-name <name of keypair created earlier> ^
--load http://clients.als.hpcloud.com/1.3/config/trial-windea.yml
```

     ii. Add the SQL Server 2014 Service

```
cf-mgmt.exe ^
--os-auth-url <OS_AUTH_URL from openstackrc> ^
--os-username <OS_USERNAME from openstackrc> ^
--os-password <OpenStack password> ^
--os-tenant-id <OS_TENANT_ID from openstackrc> ^
--os-tenant-name <OS_TENANT_NAME from openstackrc> ^
--os-region-name <OS_REGION_NAME from openstackrc> ^
add-service mssql2014 ^
--keypair-name <name of keypair created earlier> ^
 --load http://clients.als.hpcloud.com/1.3/config/trial-mssql2014.yml
```

  b. For Mac / Unix:
     i. Add the Windows DEA Role

```
cf-mgmt add-role dea \
--keypair-name <name of keypair created earlier> \
--stack "win2012r2" \
  --load http://clients.als.hpcloud.com/1.3/config/trial-windea.yml
```

     ii. Add the SQL Server 2014 Service

```
cf-mgmt add-service mssql2014 \
--keypair-name <name of keypair created earlier> \
  --load http://clients.als.hpcloud.com/1.3/config/trial-mssql2014.yml
```

6. Explore Sample Applications

Congratulations! You are now ready to begin deploying apps to your new micro-cloud environment.

We have provided some sample applications in multiple programming languages (http://docs.hpcloud.com/#devplatform/1.3/devplatform.appdev.html) for you to examine and deploy. These very simple applications provide insight on how to push applications and connect those applications to HP Helion OpenStack® services.

If you are interested in exploring the new functionality, you can jump right into deploying Windows® applications. (http://docs.hpcloud.com/#devplatform/1.3/windows/windows_firstapp.html)

- If you have **encountered problems** with this installation, refer to the Troubleshooting section later in this document.
- If you are ready to **take down** your sandbox environment, refer to the Termination section later in this document.

7. Troubleshooting

- Copy the provided commands into a text editor, change the values, and paste them back into the command-line client.
- If the cluster creation process displays errors, make sure all the variables have a value and that the value is correct.
- If you cannot connect to public cloud, ensure that your connection has no proxy settings.
- If you receive the following error, return to the Horizon console and create a public-facing network. (https://community.hpcloud.com/article/how-create-or-delete-network#create)

```
Error has occurred creating the cluster:
Parameter validation failed - No networks found.
Please add a network and rerun the tool.
```

- If you have a timeout error while deploying, first verify that you have public-facing network. (https://community.hpcloud.com/article/how-create-or-delete-network#create) You may also change the default timeout value using the wait time command in the *cf-mgmt* tool. Example:

```
--max-corenode-wait-duration "10m"
```

- If you want to deploy more than one cluster, you need to manually edit the cluster title and cluster prefix in the *trial.yml* file after you download it.
- If you have used this HP Public Cloud account previously, make sure that you have at least 13 GB of quota space available for deploying the trial cluster.
- Check to make sure that you have at least three security groups.
- To ensure that all resources are properly released, terminate the cluster using the Horizon console, not from the command line.

8. Termination

To ensure that all resources are properly released, use the Horizon console.

Terminate the Instance

1. Log into the Horizon console. (https://horizon.hpcloud.com/)
2. In the **Project** panel, select **Compute** and then select **Instances**.
3. Click the checkbox next to the instance named *cluster1-core*.
4. If you added a Windows® DEA node or a SQL Server service, you will have additional instances to delete. The names will all start with *cluster1-*. Check the checkboxes next to those instances.
5. Click **Terminate Instances**.

Terminate the Security Groups

1. Log into the Horizon console. (https://horizon.hpcloud.com/)
2. In the **Project** panel, select **Compute** and then select **Access & Security**.
3. Click the checkbox next to the groups named *cluster1-SSH*, *cluster1-Router*, and *cluster1-Internal*.
4. Click **Delete Security Groups**.