System Requirements

Prerequisites

- Install sshpass before executing the script file.

  - On Debian/Ubuntu and its derivatives:

    - sudo apt-get install sshpass

  - In RedHat/CentOS based systems:

    - yum install sshpass

    - dnf install sshpass [On Fedora 22+ versions]

- RAM requirement: 4 GiB

- CPU requirement: 4 CPUs

- Storage Class free space requirement: Minimum of 40 GB. I

Configuring HX Profiler for Kubernetes Environments

1. Download the `Cisco-Profiler-2.1-CSI.tar` file from https://hyperflexsizer.cloudapps.cisco.com.

   - **DOWNLOAD HX TOOLS** > **HyperFlex Profiler** > **Kubernetes**
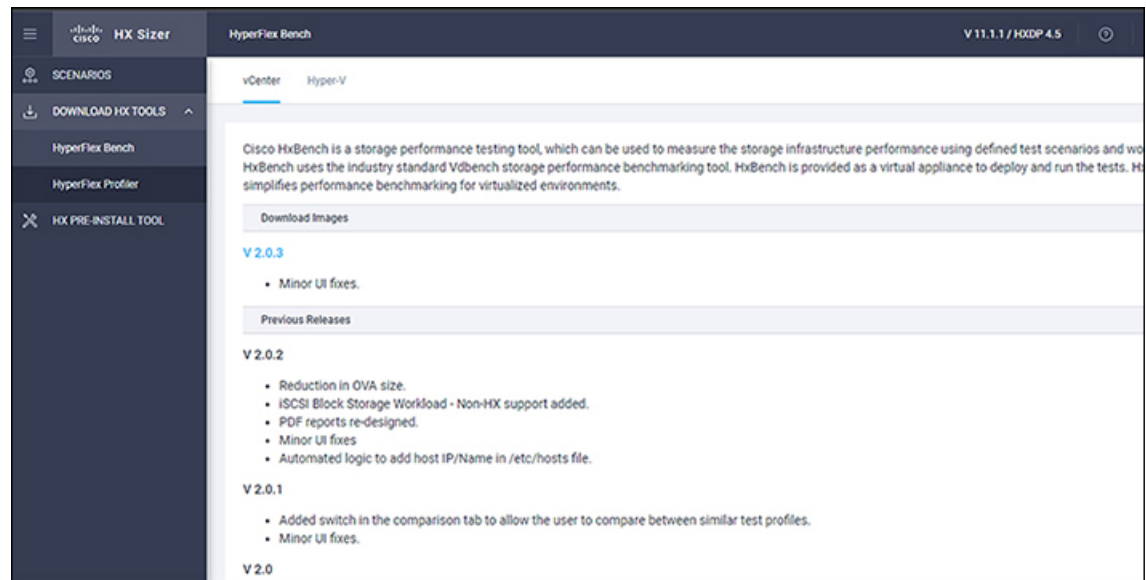
2. Untar `Cisco-HxProfiler-CSI-4.1.tar.gz` with `tar -zxf Cisco-HxProfiler-CSI-4.1.tar.gz`.

3. Run the `cd Cisco-HxProfiler-CSI-4.1/Script_files` to access the `directory Script_files`

4. Run the **bash profiler_deployment.sh** script to execute the script.

5. When prompted, type your storage class name and press the enter button.

Note If you enter wrong storage class name, you will see an error response. If you enter wrong storage name 3 times, the deployment process ends and returns you to the config prompt. Return to step 1 and restart the process.

6. Deploy profiler image in worker nodes: Answer the "Do you want to deploy profiler image in all worker nodes (Recommended) Y/N:" question.

   • If you want to deploy the profiler to all worker nodes, type **Y** and press the **Enter** button and return to Step 8a.

   • If you do not want to deploy image in all worker nodes, type **N** and press the **Enter** button and skip to Step 9.

```
cisco@jvdmade-M:~/profiler_upgraded_rel$ cd Cisco-HxProfiler-CSI-4.1
cisco@jvdmade-M:~/profiler_upgraded_rel/Cisco-HxProfiler-CSI-4.1$ ls
Deployment_yaml_files  Docker_Image  Script_files
cisco@jvdmade-M:~/profiler_upgraded_rel/Cisco-HxProfiler-CSI-4.1$ cd Script_files/
cisco@jvdmade-M:~/profiler_upgraded_rel/Cisco-HxProfiler-CSI-4.1/Script_files$ ls
profiler_deployment.sh
cisco@jvdmade-M:~/profiler_upgraded_rel/Cisco-HxProfiler-CSI-4.1/Script_files$ bash profiler_deployment.sh
----------------------
Enter storage class name: csi-hxcsi-default
Do you want to deploy profiler image in all worker nodes(recommended) -Y/N-: y
```

a. When prompted, type the worker node **username** and password and press the **Enter** button. Make sure that you receive the `Image deployed successfully` message.

```
profiler_deployment.sh
cisco@jvdmade-M:~/prabhu/Cisco-HxProfiler-CSI-4.1/Script_files$ bash profiler_deployment.sh
----------------------
Enter storage class name: csi-hxcsi-default
Do you want to deploy profiler image in all worker nodes(recommended) -Y/N-: Y
Enter 10.2.14.251 username : cisco
Enter 10.2.14.251 password :
Copying docker Images
Loading docker Images
Connection to 10.2.14.251 closed.
Image deployed Successfully
Enter 10.2.14.252 username : 
```

b. Repeat step 8a to deploy the image in all worker nodes.

```
Enter storage class name: csi-hxcsi-default
Do you want to deploy profiler image in all worker nodes(recommended) -Y/N-: y
Enter 10.2.14.251 username : cisco
Enter 10.2.14.251 password :
Copying docker Images
Loading docker Images
Connection to 10.2.14.251 closed.
Image deployed Successfully
Enter 10.2.14.252 username : cisco
Enter 10.2.14.252 password :
Copying docker Images
Loading docker Images
Connection to 10.2.14.252 closed.
Image deployed Successfully
Enter 10.2.14.253 username : cisco
Enter 10.2.14.253 password :
Copying docker Images
Loading docker Images
Connection to 10.2.14.253 closed.
Image deployed Successfully
The namespace used for deployment is profiler do you want to change -Y/N-: y
```

7. If you do not want to deploy image in all worker nodes, then type **N** and press the **Enter** button. Type IP, username and password of the worker node if you want to deploy image in any specific node.

```
------------------------
Enter storage class name: csi-hxcsi-default
Do you want to deploy profiler image in all worker nodes(recommended) -Y/N-: n
Enter workernode ip : 10.2.14.252
Enter 10.2.14.252 username : cisco
Enter 10.2.14.252 password :
Copying docker Images
Loading docker Images
Connection to 10.2.14.252 closed.
Image deployed Successfully
Do you want to deploy image in any worker node -Y/N-: n
```

8. **Deployment Namespace:** The default namespace used for deployment is `profiler`.

In the provided namespace, it will check if Elasticsearch and postgres pods deployed in the namespace, if yes:

   • Delete the entire namespace and deploy fresh namespace, continue to step 11.

   a. If you want to delete and create a new then type **Y** and press the enter button. The default profiler namespace is deleted, and the new namespace named `profiler` is created, type **Y** and press the enter button to confirm the action.

```
------------------------
Enter storage class name: csi-hxcsi-default
Do you want to deploy profiler image in all worker nodes(recommended) -Y/N-: n
Enter workernode ip : 10.2.14.251
Enter 10.2.14.251 username : cisco
Enter 10.2.14.251 password :
Copying docker Images
Loading docker Images
Connection to 10.2.14.251 closed.
Image deployed Successfully
Do you want to deploy image in any worker node -Y/N-: n
The namespace used for deployment is profiler do you want to change -Y/N-: n
Pods Elasticsearch and Postgres are running do you want to delete ns profiler-deploy1 and create them -Y/N-: y
The namespace profiler-deploy1 will be deleted and created freshly do you want to continue -Y/N-: y
```

   b. If you want to deploy in any other namespace type **Y** and type the desired namespace.

```
------------------------
Enter storage class name: csi-hxcsi-default
Do you want to deploy profiler image in all worker nodes(recommended) -Y/N-: n
Enter workernode ip : 10.2.14.251
Enter 10.2.14.251 username : cisco
Enter 10.2.14.251 password :
Copying docker Images
Loading docker Images
Connection to 10.2.14.251 closed.
Image deployed Successfully
Do you want to deploy image in any worker node -Y/N-: n
The namespace used for deployment is profiler do you want to change -Y/N-: y
namespace must consist of lower case alphanumeric characters or '-', and must start and end with an alphanumeric chara
Enter the namespace: profiler-deploy1
Pods Elasticsearch and Postgres are running do you want to delete ns profiler-deploy1 and create them -Y/N-: y
The namespace profiler-deploy1 will be deleted and created freshly do you want to continue -Y/N-: y
```

9. Enter the new namespace name and press the **Enter** button.

Note Namespace name requirements: lower case alphanumeric characters and "-" (dash). The name must start and end with an alphanumeric character.

Deployment of Elasticsearch and Postgres yaml file in all nodes are created.

```
The namespace used for deployment is profiler do you want to change -Y/N-: y
namespace must consist of lower case alphanumeric characters or '-', and must start and end with an alphanumeric character
Enter the namespace: new-profiler-test
namespace/new-profiler-test created
configmap/elasticsearch created
persistentvolumeclaim/elasticsearch-pvc created
deployment.apps/elasticsearch created
service/elasticsearch created
persistentvolumeclaim/postgres-pvc created
configmap/postgres-config created
deployment.apps/postgres created
service/postgres created
serviceaccount/mymonitoring created
Error from server (AlreadyExists): error when creating "../Deployment_yaml_files/create_cluster_role.yaml": clusterroles.rbac.autho
on.k8s.io "mymonitoring-clusterrole" already exists
clusterrolebinding.rbac.authorization.k8s.io/mymonitoring-clusterrole-binding-new-profiler-test created
```

10. At the prompt for the current UNIX password, type the password for the appadmin GUI account (default password is **password**) and press the **Enter** button.

```
(current) UNIX password:

Enter new UNIX password:

Retype new UNIX password:
Success
```

11. At the prompt for the new UNIX password, type your new user defined password and press the **Enter** button.

```
(current) UNIX password:

Enter new UNIX password:

Retype new UNIX password:
Success
```

12. At the prompt to retype your new UNIX password, type your new password and press the Enter button. Now deployment of profiler will be created.

```
Success
secret/secret-monitoring-auth created
persistentvolumeclaim/profiler-pvc created
deployment.apps/profiler created
service/profiler created
```

13. The result is the final profiler-ip with the port number. Copy the IP address and paste it in the browser to fetch the UI

```
----------------------profiler-ip----------------------
10.2.14.251:32042
```

Using the Profiler Service

The HX Workload Profiler start and stop services use the `profiler_service.sh` command.

The following table shows the high-level steps for using the profile service.

Task	See
Starting the Profiler Service	
Stopping the Profiler Service	

Logging in to the Profiler

The HX Workload Profiler user interface (UI) uses system credentials for authentication.

Step 1 To access the UI, launch a browser window and enter `http://< IP:PORT_NUMBER >` or `http://< IP:PORT_NUMBER >` or `http://< IP:PORT_NUMBER >/profiler/index.html` or `http://< IP:PORT_NUMBER >/profiler/index.html`, where the IP:PORT_NUMBER is the output of deployment script.
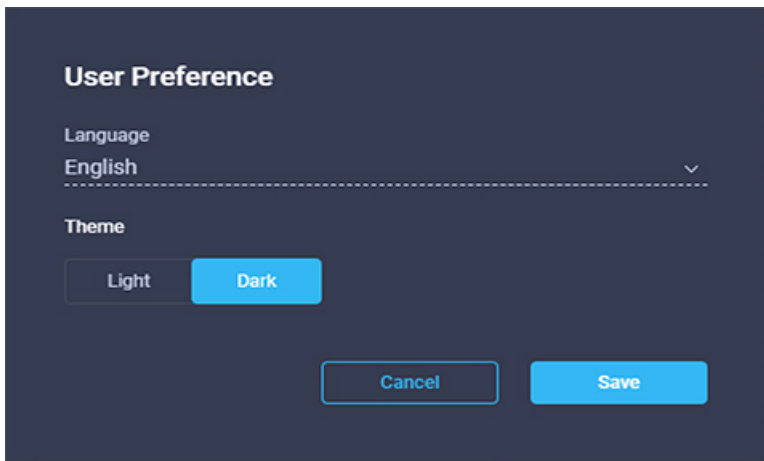
The HX Profiler UI appears:
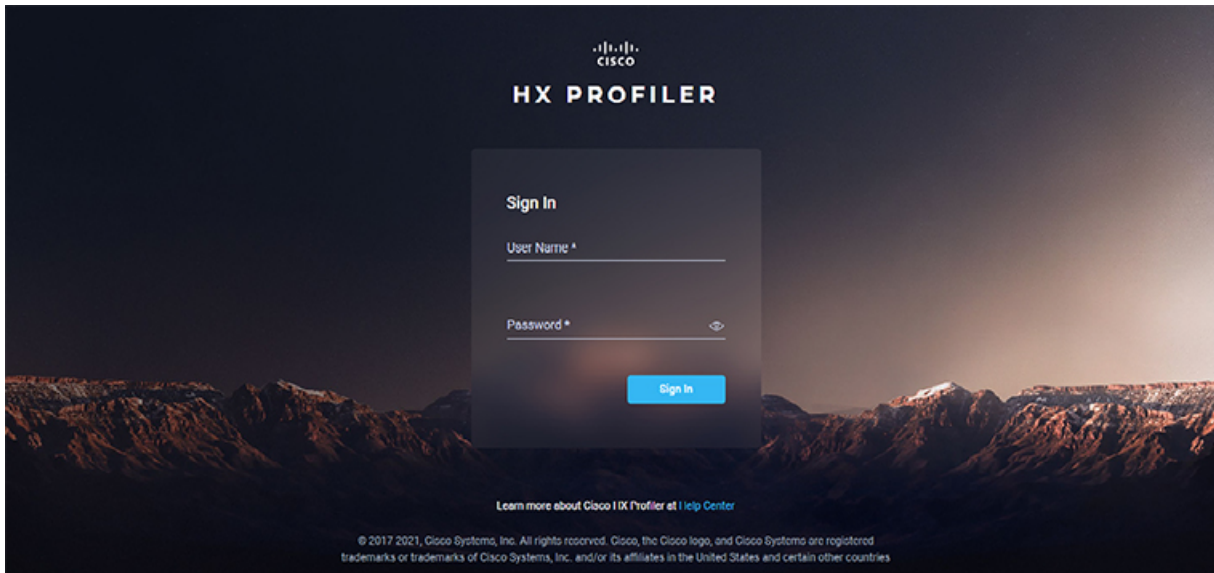
Step 2   When prompted, log in to the UI with the following credentials:

User name: `monitoring`

Password: `<new password set during the deployment workflow>`

Step 3   You can use the User Preference option in the top right corner of the UI to configure **Language** or **Theme**.

Click **Cancel** or **Save** to continue.

Step 4   When finished, you can end the user session by clicking **Logout** at the top right of the page.

Starting the Profiler Service

To start the profiler service run the below commands inside profiler pod:

Run the following command: `sh podscript.sh.`

Stopping the Profiler Service

Complete the following steps inside profiler pod to stop the profiler service:

Step 1   Run the following command: `cd profiler_scripts/.`

Step 2   Run the following command: `sudo sh profiler_service.sh stop.`

Locating the Kubernetes Application Logs

You can find HX Workload Profiler logs in the following locations:

Table 1: Application Logs

Log	Path
Server	`/home/monitoring/monitor/server.log`
Controller	`/home/monitoring/controller/logs/*`
Monitor	`/home/monitoring/monitor/monitor/monitor.log`