

# **Pioneer Deployment Guide**

## **Database / CyberArk Integration**



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## Overview

This guide provides instructions for deploying Pioneer for your organization and integrating it with databases and CyberArk. The deployment consists of these main steps:

1. Install and configure Docker
2. Setup Pioneer's Database
3. Request and download the Pioneer image archive and license
4. Install and configure the Pioneer web application (Docker container)
5. Verify Pioneer can discover and onboard database accounts

## 1 Install and Configure Docker

See Docker's [website](#) for documentation for installing Docker on your system.

## 2 Setup Pioneer's Database

Pioneer requires a PostgreSQL database to be created before running the application. This database is used to store onboarding database information, configuration, and audit events. Connection information to this database will be required when starting Pioneer and running the wizard. A Docker Postgres instance may be created on the same server. See [https://hub.docker.com/\\_/postgres](https://hub.docker.com/_/postgres) for documentation on setup. An example Docker Compose file is provided below.

```
version: '2'
services:
  postgresql:
    image: "postgres:latest"
    container_name: 'postgresql'
    environment:
      - DB_NAME=production
      - DB_PASS=password
      - POSTGRES_PASSWORD=password
      - DB_USER=postgres
    ports:
      - "5432:5432"
    volumes:
      - ./postgres-data:/var/lib/postgresql/data
    restart: on-failure
```

Figure 1. Docker Compose example for PostgreSQL

### 3 Download Pioneer

To obtain a download link for the Pioneer image archive, fill out and submit the Pioneer request form located here: <https://clango.com/request-download-pioneer/>

The download link will contain the Pioneer installation files, the Pioneer user manual and a trial license.

### 4 Install Pioneer Web Application

The Pioneer web application is designed to run on Docker. The following deployment instructions assume a Red Hat Enterprise Linux 8 VM is provisioned for Pioneer deployment and Docker is installed. The deployment instructions are mostly agnostic of OS if the OS is compatible with Docker. If deploying on an OS other than RHEL 8, it's compatibility and instructions are available upon request. Windows is supported, but Linux containers must be used.

#### 4.1 Load the Pioneer image into Docker

The Pioneer image is delivered as a tar file which must be loaded into Docker. To load the Pioneer image into Docker, copy the file to the Docker server via FTP or another method and run:

```
sudo docker load < pioneer.tar
```

Verify the image is available to be used by running

```
sudo docker images
```

Create a *docker-compose.yml* file in the same directory as the image archive and set your certificate path, certificate file name, and password. You may also specify a different port for HTTPS if desired.

```
version: '2'
services:
  pioneer:
    image: "clango/pioneer:v1.0"
    ports:
      - "443:443"
    environment:
      - ASPNETCORE_HTTPS_PORT=443
      - ASPNETCORE_Kestrel__Certificates__Default__Password={password}
      - ASPNETCORE_Kestrel__Certificates__Default__Path=/app/cert/{certificate.pfx}
    volumes:
      - {path/to/certificate/directory}:/app/cert/
    container_name: 'pioneer'
    restart: always
```

Figure 2. Docker Compose example for Pioneer

## 4.2 SSL Certificates

Before running the installer, you must prepare the SSL certificate files. Pioneer requires a pfx and its associated password. If you have both of these, you can configure them in the stack file. Put the certificate on the Docker server and set the path and certificate name in `docker-compose.yml`. Start the Pioneer Application:

From the terminal run:

```
sudo docker-compose up
```

## 4.3 Configure Pioneer Web Application

Complete the Pioneer configuration wizard to configure the connection information, notification, license, and user accounts. Note that because of connection prerequisites each connection configuration is verified before continuing to the next step and steps can not be skipped.

In a web browser, navigate to **`https://{docker_server_address}`**. You should see the configuration wizard.

### 4.3.1 CCP Connection

Specify if CyberArk Central Credential Provider should be used to retrieve passwords. If so, specify the URL, timeout, and test connection information.

### 4.3.2 Database Connection

Using the connection information from the database created in step 2, specify the Database connection information. If CCP is desired to be used for credential retrieval, then select that option and the enter the App ID, Safe Name, and Object Name for the credentials.

### 4.3.3 LDAP Connection

Specify the configuration for the LDAP connection. If CCP is desired to be used for credential retrieval, then select that option and the enter the App ID, Safe Name, and Object Name for the credentials.

### 4.3.4 CyberArk REST Connection

Specify the configuration for the CyberArk REST API Configuration. Enter the CyberArk REST API Base URL, timeout, and Authentication Method. Ignore SSL Certificate Errors and Include Request Payload in Debug Log are optional. Supported authentication methods are CyberArk and LDAP. If CCP is desired to be used for credential retrieval, then select that option and the enter the App ID, Safe Name, and Object Name for the credentials.

### 4.3.5 Notifications

Optionally, specify if exception notifications should be sent via email. Specify the SMTP host, port, Notification From Email, Notification To Email (used to test if email is received) and Notification Subject.

#### 4.3.6 License

Enter the license provided from Clango.

#### 4.3.7 User Accounts

Click the green plus button and enter the default Administrator's Active Directory username and select the Administrator role. Other user may be added at this time or after completing the wizard through User Management. Access to Pioneer and privileges will be initially limited to these users.

Click **Finish**.

#### 4.4 Restart Pioneer

From the terminal run:

```
ctrl + c  
sudo docker start pioneer
```

### 5 Verify Pioneer Access

Refresh the page and you should be presented with a login form. Using a username configured when setting up User Accounts, login into Pioneer.

### 6 Troubleshooting

Contact Clango's Pioneer Support team via [pioneer-support@clango.com](mailto:pioneer-support@clango.com) for any questions or issues.