



Installation and Configuration Document



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1 Introduction

1.1 Purpose

This document provides the detailed steps to be followed for Installation, configuration and debug Plexa Application in AWS environment.

1.2 Scope

This document covers the following areas.

- Plexa Installation
- Configuration / Monitoring

2 Installation

The following section explain detailed steps to be followed for installing Plexa

2.1 Pre-requisites

The following are the pre-requisites for installing Plexa Application.

- Active AWS Account

2.2 Installation Steps

- Select “Launch Instance” in AWS Console.
- In “AWS Marketplace” search for “Plexa” and select the AMI
- Below are the recommended instance types for Plexa

Family	Type
General Purpose	M4.2xlarge
Compute Optimized	C4.4xlarge
Memory Optimized	R4.2xlarge

- Its recommended to have 500 GB Root volume
- The following ports need to be opened for Plexa

Port	Description	Required	Comments
8080	Web application access point	Mandatory	

80	Idapadmin application access point	Mandatory	
22	SSH Access to server	Optional	

2.3 User Management

- To Manage application users,
 - SSH to the server
 - Sudo su
 - Run the following command in /root
 - sh getCredentials.sh
 - The following output will be displayed

Find below login details

User Management Portal: <http://<<ip>>/phpldapadmin/>

username: XXXXXX

password: XXXXXX

Plexa Portal: <http://<<ip>>:8080/plexa>

2.4 Admin User Management

- Login to User Management Portal, with the generated credentials
<http://<<ip>>/phpldapadmin/>

The screenshot shows the web interface for phpldapadmin. The page title is "phpldapadmin" and the breadcrumb is "Home | Purge caches | Show Cache". The main content area is titled "Authenticate to server Plexa LDAP Server". A warning message states "Warning: This web connection is unencrypted." Below this, there is a login form with the following fields:

- Login DN:** A text input field containing "cn=Manager,dc=plexa,dc=com".
- Password:** A password input field with masked characters (dots).
- Anonymous:** A checkbox that is currently unchecked.
- Authenticate:** A button to submit the login information.

- Login to User Management Portal, with the generated credentials
- Navigate to “cn=plexa_admin” under “cn=plexa_administrators”
- Update the value of password. This would be the administrator credentials for plexa application.

The screenshot shows a web form for updating a user object. It features several sections:

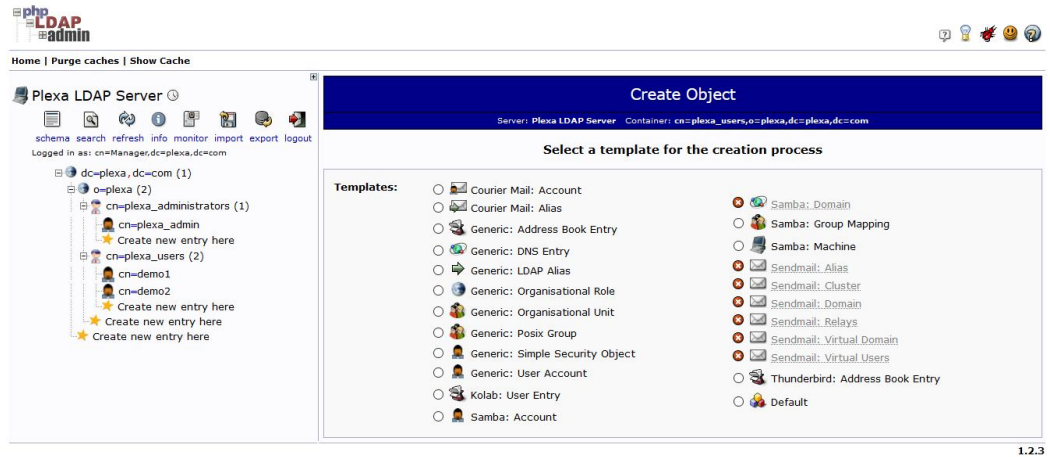
- inetOrgPerson** (structural): A list of values including 'organizationalPerson', 'person', and 'top', each with an 'add value' link.
- Password** (alias): A text input field, a dropdown menu set to 'md5', and a 'Check password...' link with an 'add value' link below it.
- sn** (required): A text input field containing 'plexa_admin' and an 'add value' link below it.
- User Name** (alias): A text input field containing 'plexa_admin' and an 'add value' link below it.

An 'Update Object' button is located at the bottom right of the form.

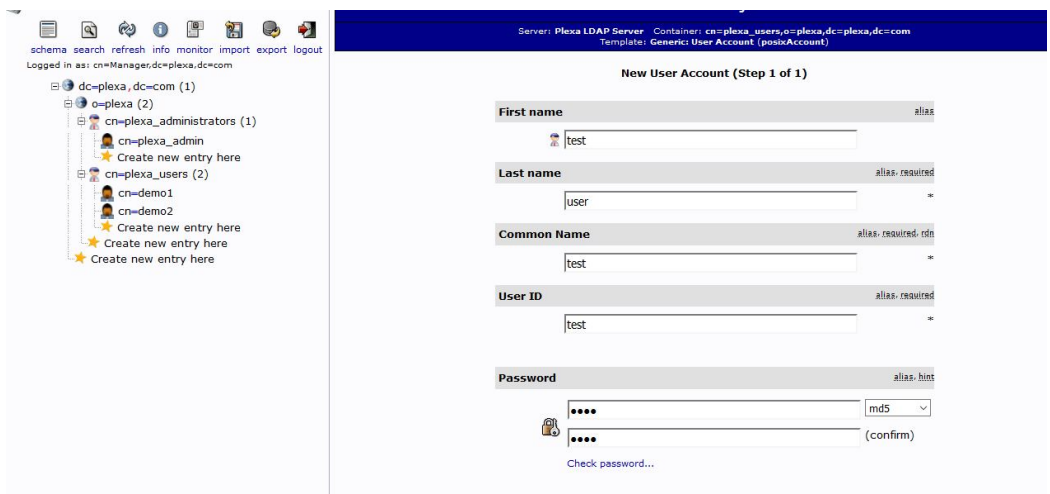
- Login to Plexa application with the below details.
<http://<<ip>>:8080/plexa>
 username: plexa_admin
 password: <<value set in the previous step>>

2.5 Plexa User Management

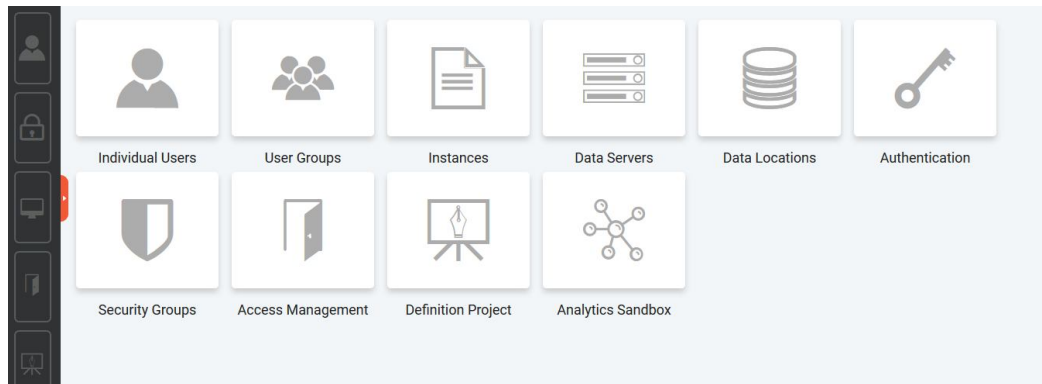
- Login to User Management Portal, with the generated credentials
<http://<<ip>>/phpldapadmin/>
- Navigate to cn=plexa_users, and select “Create an entry here”
- Select “Generic: user Account”



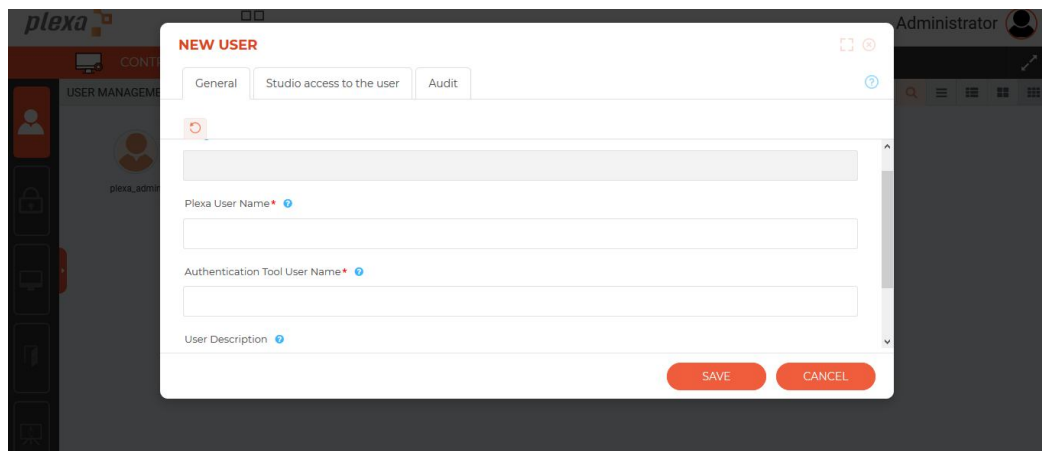
- Enter “first name”, “last name”
- Add same “Common Name” and “User Id”. Avoid space in this field. This will be the user name to login to plexa application
- Enter “Password” and select “md5” in the drop down
- Use “Create Object” to add user.



- User is added to user management tool and this user need to be authorized in plexa
- Login to plexa as administrator.
- Navigate to “controls studio”



- Select “Individual Users” and use “Create New User” option
- Enter “Plexa user name” which would be the username to login to the plexa application.
- Enter “Authentication tool user name” with the user name added in user management tool
- Use “Studios access to the user” to manage studio access for user.



2.6 Cluster Management

- To Configure Hadoop Cluster,
 - SSH to the server
 - Copy Hadoop Cluster configuration to the following folder.

- /opt/spark-2.2.0-bin-hadoop2.7/conf/yarn-conf
- Minimum configuration files
 - yarn-site.xml
 - core-site.xml
 - hdfs-site.xml
 - mapred-site.xml
- Depends on cluster configuration, additional configuration files need to be copied. i.e.
 - ssl-server.xml
 - ssl-client.xml
 - capacity-scheduler.xml
 - hadoop-policy.xml
- Firewall between Hadoop nodes and Plexa server to be opened
- Components need to be re-started for the changes to reflect. (Section 2.5)

2.7 Application Start-up

- Once the server is started all the components are automatically loaded.
- Additional Details:
 - All the components are loaded by invoking /opt/startPlexaComponents using crontab.
 - It takes around 5 minutes for all components to get started.
 - The status of this process can be monitored in file /var/log/cron
- To stop the components:
 - Components can be stopped by invoking /opt/stoptPlexaComponents

2.8 Driver Management

Standard drivers are available in Plexa to connect with its data sources.

- To add additional drivers,
 - SSH to the server

- Copy drivers to the following folder locations
/opt/spark-2.2.0-bin-hadoop2.7/jars
/opt/livy-0.4.0-incubating-bin/repl_2.11-jars/

3 Monitoring

3.1 *Troubleshooting*

- If the application is not accessible, the components can be stopped and started using the following script

Stop Script:

```
/opt/stopPlexaComponents
```

Start Script:

```
/opt/startPlexaComponents
```

4 Support

4.1 *Contact Information*

Our support team can be contacted using the following channels

Plexa.support@plexa.io

M: 224-633-9354