Install ASTA Online on Debian/Ubuntu by Zip Package

Hardware requirements

- **Memory:** At least 8 GB recommended.
- **CPU:** Should be a modern processor with multiple cores.
- **DISK:** At least 30 GB for base and the rest depends on the volume of your data. The rough estimate is that it will take about 2 GB disk space for every million of archive units. So if there is 2 millions of data then 30 + (2 * 2) = 34 GB should be enough

> It is highly recommended to install Elasticsearh on a separate machine. For detail info about Elasticsearh hardware requirements see https://www.elastic.co/guide/en/elasticsearch/guide/current/hardware.html

OS requirements

Supported OSes are

- Debian 8 and later
- Ubuntu 16.04 and later

Asta requirements

At least Asta v5.4.3 is required.

Install Java

If not already installed need to download and install a Java SE Runtime Environment (JRE). At least Java 8 is needed.

First, update the package index.

- `sudo apt-get update`

Next, install Java. Specifically, this command will install the Java Runtime Environment (JRE) version 8.

- `sudo apt-get install openjdk-8-jre`

Many programs, such as Java servers, use the `JAVA_HOME` environment variable to determine the Java installation location. To set this environment variable, we will first need to find out where Java is installed. You can do this by executing the same command as in the previous section:

- `sudo update-alternatives --config java`

Copy the path from your preferred installation and then append to `/etc/environment`

- `sudo echo JAVA_HOME=/usr/lib/jvm/java-8-oracle >> /etc/environment`

Now, reload it.

- `source /etc/environment`

Install Elasticsearch

Elasticsearch v6.7 can be installed by following https://www.elastic.co/guide/en/elasticsearch/reference/6.7/deb.html

Now we need to change the elasticsearch cluster name. For doing that open */etc/elasticsearch/elasticsearch.yml* and change the followings

Uncomment cluster.name and set it to astaonline

- `cluster.name: astaonline`

Install ASTA Online

Download the package from https://asta-online.s3.eu-north-1.amazonaws.com/installer_zip

We will install the application in the `/opt/astaonline` directory. Let's Create the directory first

- sudo mkdir /opt/astaonline

Then change to the directory and extract the *astaonline-version.zip* file there

- cd /opt/astaonline
- sudo unzip -j /path/to/*astaonline_version.zip*

First copy the elasticsearch *dialect_synonym* file to elasticsearch config directory.

Let's fix the application properties now. Open the */opt/astaonline/application_prod.properties* and change to the appropriate values. Like

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/opt/astaonline/application-prod.properties

```
asta.origin=http://localhost:8088
asta.institute.id=asta
asta.service.requisition.enabled=true
oracle.host=localhost
oracle.port=1521
oracle.service=xe
oracle.username=
oracle.password=
es.host=localhost
server.ssl.enabled=false
server.ssl.key-store-type=JKS
server.ssl.key-store=path/to/key/file
server.ssl.key-store-password=
server.ssl.key-alias=
```

Next we will create systemd service files to manage the asta online and syncing applications.

Open a file called `astaonline.service` in the `/etc/systemd/system` directory by typing:

- `sudo nano /etc/systemd/system/astaonline.service`

Paste the following contents into your service file.

/etc/systemd/system/astaonline.service

```
[Unit]
Description=ASTA Online Application
After=syslog.target

[Service]
WorkingDirectory=/opt/astaonline
ExecStart=/opt/astaonline/astaonline.sh
User=asta
Group=asta
SuccessExitStatus=143

[Install]
WantedBy=multi-user.target
```

For syncing application open a file called `aosync.service` in the `/etc/systemd/system` directory by typing:

- `sudo nano /etc/systemd/system/aosync.service`

Paste the following contents into your service file.

/etc/systemd/system/aosync.service

```
[Unit]
Description=ASTA Online Syncing Application
After=syslog.target

[Service]
WorkingDirectory=/opt/astaonline
ExecStart=/opt/astaonline/aosync.sh sync
User=asta
Group=asta
SuccessExitStatus=143

[Install]
WantedBy=multi-user.target
```

We also need a log directory for the applications, so lets create one

- sudo mkdir -p /var/log/astaonline

For security purposes, these applications should be run as an unprivileged user (i.e. not root). We will create a new user and group that will run the services.

Create a new asta group and user

- `sudo adduser --system --no-create-home --group asta`

The `asta` user that we set up needs to have access to the installation. Give the `asta` user ownership over the entire installation and log directory:

- `sudo chown -R asta /opt/astaonline`
- `sudo chown -R asta /var/log/astaonline`

Now that everything is set up we can reload the services and start the application

- `sudo systemctl daemon-reload`
- `sudo service aosync start`
- `sudo service astaonline start`

Open http://your_server_host:9090 in the browser to start using ASTA Online.

Export to Elasticsearch

Although not necessary but it is recommended to stop the aosync service while doing this. Let's go into the application directory first

- cd /opt/astaonline

Now run the following command for a complete export of your data to elasticsearch

- sudo ./aoexport.sh

After the export is finished start the aosync service again if you have stopped it.

> Depending on the amount of data this process may take several hours to complete. It may also hamper the performance of ASTA Online as well as ASTA Engine/Client.

Alias of Elasticsearch

If you have not restarted aosync service after export necessary elasticsearch aliases are not created. In order to create them goto application directory

- cd /opt/astaonline

Then run the following command

- sudo ./aoesalias.sh

Necessary Ports

- 9090 for accessing AstaOnline (can be changed by *server.port* property)
- 47632 for syncing with oracle (can be changed by *asta.listener.port* property)