

Auto Installation Guide - v1.3-R

- 1 [Purpose](#)
- 2 [Software Used](#)
- 3 [OS Requirements](#)
- 4 [Standalone Installation](#)
 - 4.1 [4Sight Server](#)
 - 4.1.1 [Install Ansible](#)
 - 4.1.2 [Install dos2unix](#)
 - 4.1.3 [Install unzip](#)
 - 4.1.4 [Copy Release Package](#)
 - 4.1.5 [Install & Deploy 4Sight-Server and 4Sight-UI](#)
 - 4.1.5.1 [vars used in install_4sight_server.yml](#)
 - 4.2 [4Sight ML Server](#)
 - 4.2.1 [Install Ansible](#)
 - 4.2.2 [Install dos2unix](#)
 - 4.2.3 [Install unzip](#)
 - 4.2.4 [Copy Release Package](#)
 - 4.2.5 [Install & Deploy 4Sight-ML](#)
 - 4.2.5.1 [vars used in install_4sight_mlserver.yml](#)
- 5 [HA Installation](#)
 - 5.1 [MariaDB Master Setup for 4Sight Server](#)
 - 5.1.1 [Disable SELINUX](#)
 - 5.1.2 [Install Ansible](#)
 - 5.1.3 [Install dos2unix](#)
 - 5.1.4 [Install unzip](#)
 - 5.1.5 [Copy Release Package](#)
 - 5.1.6 [Install MariaDB and setup HA for 4Sight Server](#)
 - 5.1.6.1 [vars used in install_4sight_mariadb_hasetup1.yml](#)
 - 5.2 [MariaDB Master Setup for 4Sight ML & Server](#)
 - 5.2.1 [Disable SELINUX](#)
 - 5.2.2 [Install Ansible](#)
 - 5.2.3 [Install dos2unix](#)
 - 5.2.4 [Install unzip](#)
 - 5.2.5 [Copy Release Package](#)
 - 5.2.6 [Install MariaDB and setup HA for 4Sight ML & Server](#)
 - 5.2.6.1 [vars used in install_4sight_mariadb_hasetup2.yml](#)
 - 5.3 [4Sight Server](#)
 - 5.3.1 [Install & Deploy 4Sight-Server and 4Sight-UI](#)
 - 5.3.1.1 [vars used in install_4sight_hasetup1.yml](#)
 - 5.4 [4Sight ML & Server](#)
 - 5.4.1 [Install & Deploy 4Sight-Server, 4Sight-ML and 4Sight-UI](#)
 - 5.4.1.1 [vars used in install_4sight_hasetup2.yml](#)

Purpose

This document gives the details on how to install 4Sight on a *Centos 7/RHEL 8.4* distribution.

Software Used

The below softwares are used in 4Sight

Software	Version
Java	jdk-11.0.13+8
MariaDB	10.4
Nginx	1.20.1
Python	3.6.12
Gunicorn	20.0.4

OS Requirements

Supported Operating system

- Centos 7
- RHEL 8.4

Standalone Installation

4Sight Server

This section contains installation steps to be executed in 4Sight Server instance

Install Ansible

1. Login as root user
2. Execute the below command to install Ansible
 - a. For Centos 7

```
yum install epel-release  
yum install ansible
```

- b. For RHEL 8.4

```
dnf install https://dl.fedoraproject.org/pub/epel/epel-release-  
latest-8.noarch.rpm  
yum install ansible
```

Install dos2unix

Dos2unix has to be installed for the shell scripts available in the release package. If it is already installed skip this step

1. Login as root user
2. Execute the below command

```
yum install dos2unix
```

Install unzip

Unzip has to be installed to extract release package. If it is already installed skip this step

1. Login as root user
2. Execute the below command

```
yum install unzip
```

Copy Release Package

1. Copy the release package **4sight_v1.3-R.zip** to the "/tmp" directory of 4Sight Server instance
2. Extract using the below commands

```
cd /tmp
unzip 4sight_v1.3-R.zip
```

Note: Provide password if prompted

Install & Deploy 4Sight-Server and 4Sight-UI

1. Update the vars in “/tmp/4sight/Installation_Scripts/install_4sight_server.yml” file. Refer the section “**vars used in install_4sight_server.yml**” for details

Note: Uncomment the line under “**Install python**” section based on the OS for the installation of Python in install_4sight_server.yml

2. Update the placeholders in below property files

```
/tmp/4sight/4Sight-Server/properties/4sight.cfg
/tmp/4sight/Installation_Scripts/deliverables/nginx
/nginx_4sight_server.conf
```

3. Execute the below commands to update a file /etc/yum.repos.d/MariaDB.repo
 - a. For Centos 7, update the below lines

```
cp /tmp/4sight/Installation_Scripts/mariadb_centos_repo.txt
/etc/yum.repos.d/MariaDB.repo
```

- b. For RHEL 8.4, update the below lines

```
cp /tmp/4sight/Installation_Scripts/mariadb_rhel_repo.txt /etc
/yum.repos.d/MariaDB.repo
```

4. Please provide port access and privileges to the MariaDB server, if MariaDB is installed in remote server
5. Execute the below commands to install

```
cd /tmp/4sight/Installation_Scripts
ansible-playbook install_4sight_server.yml
```

vars used in install_4sight_server.yml

Variable	Description	Default value
installation_scripts_folder	Path of the ansible scripts folder. Since the package will be extracted to tmp, default value is /tmp/4sight/Installation_Scripts	/tmp/4sight/Installation_Scripts
installation_directory	Installation directory or partition	/4sight
java_installation_directory	Directory where java has to be installed	/4sight
keycloak_installation_directory	Directory where keycloak has to be deployed	/4sight

installation_dir_4sightserver	Directory where 4Sight-Server has to be deployed	/4sight/4sightserver
user_4sightserver	User to be created and used for 4Sight-Server	4sight
db_4sight	Database name to be used for 4Sight-Server. Please note, database will be created during the installation process. So the specified database name should not exist in the MariaDB while executing the “ <i>install_4sight_server.yml</i> ” script	4sight
mariadb_host	Host details of the MariaDB instance.	localhost
mariadb_port	MariaDB port	3306
mariadb_password	MariaDB password	There is no default value. Placeholder <password> has to be updated.
mariadb_encrypt_password	Mariadb Encrypt Password	There is no default value. Placeholder <mariadb_encrypt_password> has to be updated.
keycloak_user	Keycloak User	There is no default value. Placeholder <keycloak_user> has to be updated.
keycloak_password	Keycloak Password	There is no default value. Placeholder <keycloak_password> has to be updated.

4Sight ML Server

This section contains installation steps to be executed in 4Sight ML Server instance

Install Ansible

1. Login as root user
2. Execute the below command to install Ansible

```
yum install epel-release
yum install ansible
```

Install dos2unix

Dos2unix has to be installed for the shell scripts available in the release package. If it is already installed skip this step

1. Login as root user
2. Execute the below command

```
yum install dos2unix
```

Install unzip

Unzip has to be installed to extract release package. If it is already installed skip this step

1. Login as root user
2. Execute the below command

```
yum install unzip
```

Copy Release Package

1. Copy the release package **4sight_v1.3-R.zip** to the "/tmp" directory of 4Sight ML Server instance
2. Extract using the below commands

```
cd /tmp  
unzip 4sight_v1.3-R.zip
```

Note: Provide password if prompted

Install & Deploy 4Sight-ML

1. Update the vars in "/tmp/4sight/Installation_Scripts/install_4sight_mlserver.yml" file. Refer the section "**vars used in install_4sight_mlserver.yml**" for details

- Note:** Uncomment the line under "**Install python**" section based on the OS for the installation of Python in install_4sight_mlserver.yml
2. Update the placeholders in below property files

```
/tmp/4sight/4Sight-ML/properties/4sight_ml.cfg  
/tmp/4sight/Installation_Scripts/deliverables/nginx  
/nginx_4sight_mlserver.conf
```

3. Execute the below commands to update a file /etc/yum.repos.d/MariaDB.repo
 - a. For Centos 7, update the below lines

```
cp /tmp/4sight/Installation_Scripts/mariadb_centos_repo.txt  
/etc/yum.repos.d/MariaDB.repo
```

- b. For RHEL 8.4, update the below lines

```
cp /tmp/4sight/Installation_Scripts/mariadb_rhel_repo.txt /etc  
/yum.repos.d/MariaDB.repo
```

4. Please provide port access and privileges to the MariaDB server, if MariaDB is installed in remote server
5. Execute the below commands to install

```
cd /tmp/4sight/Installation_Scripts  
ansible-playbook install_4sight_mlserver.yml
```

vars used in *install_4sight_mlserver.yml*

Variable	Description	Default value
installation_scripts_folder	Path of the ansible scripts folder. Since the package will be extracted to tmp, default value is /tmp/4sight/Installation_Scripts	/tmp/4sight/Installation_Scripts
installation_directory	Installation directory or partition	/4sight
installation_dir_4sightmlserver	Directory where 4Sight-ML Server has to be deployed	/4sight/4sightmlserver
user_4sightmlserver	User to be created and used for 4Sight-ML Server	4sightml
db_4sightml	Database name to be used for 4Sight-ML. Please note, database will be created during the installation process. So the specified database name should not exist in the MariaDB while executing the "install_4sight_mlserver.yml" script	4sightml
mariadb_host	Host details of the MariaDB instance.	There is no default value. Placeholder <mariadb host> has to be updated.
mariadb_port	MariaDB port	3306
mariadb_password	MariaDB password	There is no default value. Placeholder <password> has to be updated.

HA Installation

MariaDB Master Setup for 4Sight Server

Disable SELINUX

1. Login as root user
2. Replace the value of 'SELINUX' from **enforcing** to **disabled** in file /etc/selinux/config for disabling SE Linux and re-login to the instance

Install Ansible

1. Login as root user
2. Execute the below command to install Ansible
 - a. For Centos 7

```
yum install epel-release
yum install ansible
```

- b. For RHEL 8.4

```
dnf install https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm
yum install ansible
```

Install dos2unix

Dos2unix has to be installed for the shell scripts available in the release package. If it is already installed skip this step

1. Login as root user

2. Execute the below command

```
yum install dos2unix
```

Install unzip

Unzip has to be installed to extract release package. If it is already installed skip this step

1. Login as root user
2. Execute the below command

```
yum install unzip
```

Copy Release Package

1. Copy the release package **4sight_v1.3-R.zip** to the "/tmp" directory of 4Sight Server instance
2. Extract using the below commands

```
cd /tmp  
unzip 4sight_v1.3-R.zip
```

Note: Provide password if prompted

Install MariaDB and setup HA for 4Sight Server

1. Update the vars in "/tmp/4sight/Installation_Scripts/install_4sight_mariadb_hasetup1.yml" file. Refer the section "**vars used in install_4sight_mariadb_hasetup1.yml**" for details
2. Please provide port access and privileges to the MariaDB server, if MariaDB is installed in remote server
3. Execute the below commands to update a file /etc/yum.repos.d/MariaDB.repo
 - a. For Centos 7, update the below lines

```
cp /tmp/4sight/Installation_Scripts/mariadb_centos_repo.txt  
/etc/yum.repos.d/MariaDB.repo
```

- b. For RHEL 8.4, update the below lines

```
cp /tmp/4sight/Installation_Scripts/mariadb_rhel_repo.txt /etc  
/yum.repos.d/MariaDB.repo
```

4. Execute the below commands to install

```
cd /tmp/4sight/Installation_Scripts  
ansible-playbook install_4sight_mariadb_hasetup1.yml
```

vars used in install_4sight_mariadb_hasetup1.yml

Variable	Description	Default value
installation_scripts_folder	Path of the ansible scripts folder. Since the package will be extracted to tmp, default value is /tmp/4sight/Installation_Scripts	/tmp/4sight/Installation_Scripts
mariadb_password	MariaDB password	There is no default value. Placeholder <password> has to be updated.
wsrep_provider	Have to give path for the libgalera_smm,so file.	There is no default value. Placeholder has </usr/lib64/galera-4/libgalera_smm.so> to be updated
wsrep_cluster_address	Have to provide cluster address for the cluster connectivity	There is no default value. Placeholder has <ip address of MariaDB first server>,<ip address of MariaDB second server> to be updated
wsrep_node_address	Wsrep node address has to be private ip of the instance	There is no default value. Placeholder has <ip address of MariaDB first server> to be updated
bind_address	Bind address has to be private ip of the instance	There is no default value. Placeholder has <ip address of MariaDB first server> to be updated

MariaDB Master Setup for 4Sight ML & Server

Disable SELINUX

1. Login as root user
2. Replace the value of 'SELINUX' from **enforcing** to **disabled** in file /etc/selinux/config for disabling SE Linux and re-login to the instance

Install Ansible

1. Login as root user
2. Execute the below command to install Ansible
 - a. For Centos 7

```
yum install epel-release
yum install ansible
```

- b. For RHEL 8.4

```
dnf install https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm
yum install ansible
```

Install dos2unix

Dos2unix has to be installed for the shell scripts available in the release package. If it is already installed skip this step

1. Login as root user
2. Execute the below command


```
yum install dos2unix
```

Install unzip

Unzip has to be installed to extract release package. If it is already installed skip this step

1. Login as root user
2. Execute the below command

```
yum install unzip
```

Copy Release Package

1. Copy the release package **4sight_v1.3-R.zip** to the "/tmp" directory of 4Sight Server instance
2. Extract using the below commands

```
cd /tmp
unzip 4sight_v1.3-R.zip
```

Note: Provide password if prompted

Install MariaDB and setup HA for 4Sight ML & Server

1. Update the vars in "/tmp/4sight/Installation_Scripts/install_4sight_mariadb_hasetup2.yml" file. Refer the section "**vars used in install_4sight_mariadb_hasetup2.yml**" for details
2. Please provide port access and privileges to the MariaDB server, if MariaDB is installed in remote server
3. Execute the below commands to update a file /etc/yum.repos.d/MariaDB.repo
 - a. For Centos 7, update the below lines

```
cp /tmp/4sight/Installation_Scripts/mariadb_centos_repo.txt
/etc/yum.repos.d/MariaDB.repo
```

- b. For RHEL 8.4, update the below lines

```
cp /tmp/4sight/Installation_Scripts/mariadb_rhel_repo.txt /etc
yum.repos.d/MariaDB.repo
```

4. Execute the below commands to install

```
cd /tmp/4sight/Installation_Scripts
ansible-playbook install_4sight_mariadb_hasetup2.yml
```

vars used in install_4sight_mariadb_hasetup2.yml

Variable	Description	Default value
installation_scripts_folder	Path of the ansible scripts folder. Since the package will be extracted to tmp, default value is /tmp/4sight/Installation_Scripts	/tmp/4sight/Installation_Scripts
mariadb_password	MariaDB password	There is no default value. Placeholder <password> has to be updated.
wsrep_provider	Have to give path for the libgalera_smm,so file.	There is no default value. Placeholder has </usr/lib64/galera-4/libgalera_smm.so> to be updated
wsrep_cluster_address	Have to provide cluster address for the cluster connectivity	There is no default value. Placeholder has <ip address of MariaDB first server>,<ip address of MariaDB second server> to be updated
wsrep_node_address	Wsrep node address has to be private ip of the instance	There is no default value. Placeholder has <ip address of MariaDB second server> to be updated
bind_address	Bind address has to be private ip of the instance	There is no default value. Placeholder has <ip address of MariaDB second server> to be updated

4Sight Server

This section contains installation steps to be executed in 4Sight Server instance

Install & Deploy 4Sight-Server and 4Sight-UI

1. Update the vars in “/tmp/4sight/Installation_Scripts/install_4sight_hasetup1.yml” file. Refer the section “**vars used in install_4sight_hasetup1.yml**” for details

Note: Uncomment the line under “**Install python**” section based on the OS for the installation of Python in install_4sight_hasetup1.yml

2. Update the placeholders in below property files

```
/tmp/4sight/4Sight-Server/properties/4sight.cfg
/tmp/4sight/Installation_Scripts/deliverables/nginx
/nginx_4sight_server.conf
```

3. Please provide port access and privileges to the MariaDB server, if MariaDB is installed in remote server
4. Execute the below commands to install

```
cd /tmp/4sight/Installation_Scripts
ansible-playbook install_4sight_hasetup1.yml
```

Note: Before executinG the above command please check the file “/var/lib/mysql/grastate.dat” change **safe_to_bootstrap** to 1 if it is 0.

vars used in install_4sight_hasetup1.yml

Variable	Description	Default value
installation_scripts_folder	Path of the ansible scripts folder. Since the package will be extracted to tmp, default value is /tmp/4sight/	/tmp/4sight/Installation_Scripts

installation_directory	Installation directory or partition	/4sight
java_installation_directory	Directory where java has to be installed	/4sight
keycloak_installation_directory	Directory where keycloak has to be deployed	/4sight
installation_dir_4sightserver	Directory where 4Sight-Server has to be deployed	/4sight/4sightserver
user_4sightserver	User to be created and used for 4Sight-Server	4sight
db_4sight	Database name to be used for 4Sight-Server. Please note, database will be created during the installation process. So the specified database name should not exist in the MariaDB while executing the “ <i>install_4sight-Server.yml</i> ” script	4sight
mariadb_host	Host details of the MariaDB instance.	localhost
mariadb_port	MariaDB port	3306
mariadb_password	MariaDB password	There is no default value. Placeholder <password> has to be updated. Use the same password given in <i>install_4sight_mariadb_hasetup1.yml</i> .
mariadb_encrypt_password	Mariadb Encrypt Password	There is no default value. Placeholder <mariadb_encrypt_password> has to be updated.
keycloak_user	Keycloak User	There is no default value. Placeholder <keycloak_user> has to be updated.
keycloak_password	Keycloak Password	There is no default value. Placeholder <keycloak_password> has to be updated.
keycloak_bind_address	Keycloak bind address has to be private ip of the instance	There is no default value. Placeholder has <ip address of MariaDB first server> to be updated

4Sight ML & Server

This section contains installation steps to be executed in 4Sight ML & Server instance

Install & Deploy 4Sight-Server, 4Sight-ML and 4Sight-UI

1. Update the vars in “/tmp/4sight/Installation_Scripts/install_4sight_hasetup2.yml” file. Refer the section “**vars used in install_4sight_hasetup2.yml**” for details

Note: Uncomment the line under “**Install python**” section based on the OS for the installation of Python in install_4sight_hasetup2.yml

2. Update the placeholders in below property files

```
/tmp/4sight/4Sight-Server/properties/4sight.cfg
/tmp/4sight/4Sight-ML/properties/4sight_ml.cfg
/tmp/4sight/Installation_Scripts/deliverables/nginx/nginx_4sight.conf
```

3. Please provide port access and privileges to the MariaDB server, if MariaDB is installed in remote server
4. Execute the below commands to install

```
cd /tmp/4sight/Installation_Scripts
ansible-playbook install_4sight_hasetup2.yml
```

vars used in install_4sight_hasetup2.yml

Variable	Description	Default value
HA_Installation_Scripts_folder	Path of the ansible scripts folder. Since the package will be extracted to tmp, default value is /tmp/4sight/HA_Installation_Scripts	/tmp/4sight/Installation_Scripts
installation_directory	Installation directory or partition	/4sight
java_installation_directory	Directory where java has to be installed	/4sight
keycloak_installation_directory	Directory where keycloak has to be deployed	/4sight
installation_dir_4sightserver	Directory where 4Sight-Server has to be deployed	/4sight/4sightserver
user_4sightserver	User to be created and used for 4Sight-Server	4sight
installation_dir_4sightmlserver	Directory where 4Sight-ML Server has to be deployed	/4sight/4sightmlserver
user_4sightmlserver	User to be created and used for 4Sight-ML Server	4sightml
db_4sightml	Database name to be used for 4Sight-ML. Please note, database will be created during the installation process. So the specified database name should not exist in the MariaDB while executing the "install_4sight-Server_ML.yml" script	4sightml
db_4sight	Database name to be used for 4Sight-Server. Please note, database will be created during the installation process. So the specified database name should not exist in the MariaDB while executing the "install_4sight-Server_ML.yml" script	4sight
mariadb_host	Host details of the MariaDB instance.	localhost
mariadb_port	MariaDB port	3306
mariadb_password	MariaDB password	There is no default value. Placeholder <password> has to be updated. Use the same password given in install_4sight_mariadb_hasetup2.yml .
mariadb_encrypt_password	Mariadb Encrypt Password	There is no default value. Placeholder <mariadb_encrypt_password> has to be updated.
keycloak_user	Keycloak User	There is no default value. Placeholder <keycloak_user> has to be updated.
keycloak_password	Keycloak Password	There is no default value. Placeholder <keycloak_password> has to be updated.
keycloak_bind_address	Keycloak bind address has to be private ip of the instance	There is no default value. Placeholder has <ip address of MariaDB second server> to be updated