



# **Configure the CA Certificate for the SnapCenter SAP HANA Plug-ins service on Linux host**

## **SnapCenter Software**

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# Configure the CA Certificate for the SnapCenter SAP HANA Plug-ins service on Linux host

You should manage the password of the custom plug-ins keystore and its certificate, configure the CA certificate, configure root or intermediate certificates to the custom plug-ins trust-store, and configure CA signed key pair to custom plug-ins trust-store with SnapCenter Custom Plug-ins service to activate the installed digital certificate.

Custom plug-ins uses the file 'keystore.jks', which is located at `/opt/NetApp/snapcenter/scc/etc` both as its trust-store and key-store.

## Manage password for custom plug-in keystore and alias of the CA signed key pair in use

### Steps

1. You can retrieve custom plug-in keystore default password from custom plug-in agent property file.

It is the value corresponding to the key 'KEYSTORE\_PASS'.

2. Change the keystore password:

```
keytool -storepasswd -keystore keystore.jks
```

3. Change the password for all aliases of private key entries in the keystore to the same password used for the keystore:

```
keytool -keypasswd -alias "alias_name_in_cert" -keystore keystore.jks
```

Update the same for the key KEYSTORE\_PASS in *agent.properties* file.

4. Restart the service after changing the password.



Password for custom plug-in keystore and for all the associated alias password of the private key should be same.

## Configure root or intermediate certificates to custom plug-in trust-store

You should configure the root or intermediate certificates without the private key to custom plug-in trust-store.

### Steps

1. Navigate to the folder containing the custom plug-in keystore: `/opt/NetApp/snapcenter/scc/etc`.
2. Locate the file 'keystore.jks'.
3. List the added certificates in the keystore:

```
keytool -list -v -keystore keystore.jks
```

4. Add a root or intermediate certificate:

```
keytool -import -trustcacerts -alias myRootCA -file  
/root/USERTrustRSA_Root.cer -keystore keystore.jks
```

5. Restart the service after configuring the root or intermediate certificates to custom plug-in trust-store.



You should add the root CA certificate and then the intermediate CA certificates.

## Configure CA signed key pair to custom plug-in trust-store

You should configure the CA signed key pair to the custom plug-in trust-store.

### Steps

1. Navigate to the folder containing the custom plug-in keystore /opt/NetApp/snapcenter/scc/etc.
2. Locate the file 'keystore.jks'.
3. List the added certificates in the keystore:

```
keytool -list -v -keystore keystore.jks
```

4. Add the CA certificate having both private and public key.

```
keytool -importkeystore -srckeystore /root/snapcenter.ssl.test.netapp.com.pfx  
-srcstoretype pkcs12 -destkeystore keystore.jks -deststoretype JKS
```

5. List the added certificates in the keystore.

```
keytool -list -v -keystore keystore.jks
```

6. Verify that the keystore contains the alias corresponding to the new CA certificate, which was added to the keystore.
7. Change the added private key password for CA certificate to the keystore password.

Default custom plug-in keystore password is the value of the key KEYSTORE\_PASS in agent.properties file.

```
keytool -keypasswd -alias "alias_name_in_CA_cert" -keystore keystore.jks
```

8. If the alias name in the CA certificate is long and contains space or special characters ("\*",",",), change the alias name to a simple name:

```
keytool -changealias -alias "long_alias_name" -destalias "simple_alias"  
-keystore keystore.jks
```

9. Configure the alias name from CA certificate in agent.properties file.

Update this value against the key SCC\_CERTIFICATE\_ALIAS.

10. Restart the service after configuring the CA signed key pair to custom plug-in trust-store.

## Configure certificate revocation list (CRL) for SnapCenter Custom Plug-ins

### About this task

- SnapCenter Custom Plug-ins will search for the CRL files in a pre-configured directory.
- Default directory for the CRL files for SnapCenter Custom Plug-ins is 'opt/NetApp/snapcenter/scc/etc/crl'.

### Steps

1. You can modify and update the default directory in agent.properties file against the key CRL\_PATH.

You can place more than one CRL file in this directory. The incoming certificates will be verified against each CRL.

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