

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

SnapCenter Software

Nirupama Sriram, Soumik Das June 10, 2021

Table of Contents

C	onfigure the CA Certificate for the SnapCenter SAP HANA Plug-ins service on Linux host
	Manage password for custom plug-in keystore and alias of the CA signed key pair in use
	Configure root or intermediate certificates to custom plug-in trust-store
	Configure CA signed key pair to custom plug-in trust-store
	Configure certificate revocation list (CRL) for SnapCenter Custom Plug-ins

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 plugin trust-store

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

Steps

- Navigate to the folder containing the custom plug-in keystore: /opt/NetApp/snapcenter/scc/etc.
- 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.
- 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.

Copyright Information

Copyright © 2021 NetApp, Inc. All rights reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means-graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system- without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

Trademark Information

NETAPP, the NETAPP logo, and the marks listed at http://www.netapp.com/TM are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.