Thursday, March 29, 2018

INSTALLING a CA-SIGNED (WILDCARD) CERTIFICATE IN MAPR CLUSTER

ASSUMPTIONS
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1. 1-node cluster on mapr50.hadoopone.com is running in secure mode already. configure.sh was run setting mapr50.hadoopone.com (FQDN) as CLDB, ZK, HS, and RM.

3. cert generated from godaddy is a wildcard cert for *.hadoopone.com domain and contains a7d2eaede47dbc19.crt (wildcard host cert), gd_bundle-g2-g1.crt (cert chain), and hadoopone.key (RSA key). All files stored in home directory of root user.

4. an entry in hosts file of laptop was created for mapr50.hadoopone.com (so that MCS doesn't prompt "continue at your own risk?"), or this host resolves in DNS.

PROCEDURE (all commands run as root user)
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1. stop the cluster

service mapr-warden stop
service mapr-zookeeper stop

2. copy ssl_keystore and ssl_truststore to home directory

cp /opt/mapr/conf/ssl_* ~

3. check contents of certificate issued by godaddy

keytool -printcert -file ~/a7d2eaede47dbc19.crt
openssl x509 -noout -text -in ~/a7d2eaede47dbc19.crt

4. check cert chain issued by godaddy

keytool -printcert -file ~/gd_bundle-g2-g1.crt

5. check RSA key issued by godaddy

openssl rsa -noout -text -in hadoopone.key

6. create PKCS12 certificate to import

openssl pkcs12 -export -in ~/a7d2eaede47dbc19.crt -inkey ~/hadoopone.key -out ~/hadoopone_com.pk12 -name 'mapr50.hadoopone.com' -CAfile ~/gd_bundle-g2-g1.crt -chain -passout pass:mapr123

7. check PKCS12 certificate you just generated

keytool -list -keystore ~/hadoopone_com.pk12 -storepass mapr123 -storetype PKCS12

8. import PKCS12 certificate in keystore

keytool --importkeystore -noprompt -deststorepass mapr123 -destkeystore ~/ssl_keystore -srckeystore hadoopone_com.pk12 -srcstoretype PKCS12 -srcstorepass mapr123

9. list certs in the keystore

keytool -list -v -keystore ~/ssl_keystore -storepass mapr123

10. delete self-signed cert from keystore

keytool -delete -noprompt -alias my.cluster.com -keystore ~/ssl_keystore -storepass mapr123

11. list certs in the keystore

keytool -list -keystore ~/ssl_keystore -storepass mapr123

12. list certs in the trust store

keytool -list -keystore ~/ssl_truststore -storepass mapr123

13. import PKCS12 certificate in truststore

keytool --importkeystore -noprompt -deststorepass mapr123 -destkeystore ~/ssl_truststore -srckeystore hadoopone_com.pk12 -srcstoretype PKCS12 -srcstorepass mapr123

14. list certs in the trust store

keytool -list -keystore ~/ssl_truststore -storepass mapr123

15. delete self-signed cert from truststore

keytool -delete -noprompt -alias my.cluster.com -keystore ~/ssl_truststore -storepass mapr123
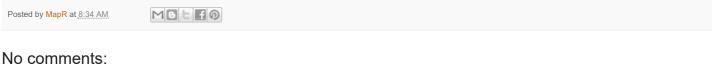
16. list certs in the trust store

keytool -list -keystore ~/ssl_truststore -storepass mapr123

17. copy the modified keystore and truststore back to /opt/mapr/conf

cp ~/ssl_keystore /opt/mapr/conf
cp ~/ssl_truststore /opt/mapr/conf

18. restart the cluster

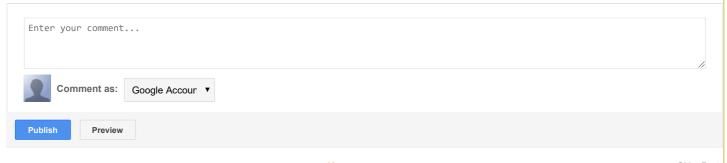service mapr-zookeeper start
service mapr-warden start

19. test

connect to MCS
submit yarn application
connnect to web ui's

Posted by MapR at 8:34 AM

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