Upgrade Nexus version

Thursday, June 15, 2023   5:50 PM

After Upgrade RHEL from 7 --> 8 the Nexus application cannot start and when check the logs found issue about file missing.

less sonatype-work/nexus3/log/nexus.log

```
Caused by: java.io.FileNotFoundException: /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.362.b08-1.el7_9.x86_64/jre/lib/security/cacerts (No such file or directory)
```

Production

```
[root@spnxsombkcatp1 (PROD) /usr/lib/jvm]# ls -ltr
total 0
drwxr-xr-x. 3 root root 17 Jan 14 05:20 java-1.8.0-openjdk-1.8.0.362.b08-1.el7_9.x86_64
lrwxrwxrwx. 1 root root 51 May 25 21:05 jre-1.8.0-openjdk-1.8.0.362.b08-1.el7_9.x86_64 -> java-1.8.0-openjdk-1.8.0.362.b08-1.el7_9.x86_64/jre
lrwxrwxrwx. 1 root root 21 May 25 21:05 jre -> /etc/alternatives/jre
lrwxrwxrwx. 1 root root 29 May 25 21:05 jre-openjdk -> /etc/alternatives/jre_openjdk
lrwxrwxrwx. 1 root root 27 May 25 21:05 jre-1.8.0 -> /etc/alternatives/jre_1.8.0
lrwxrwxrwx. 1 root root 35 May 25 21:05 jre-1.8.0-openjdk -> /etc/alternatives/jre_1.8.0_openjdk
[root@spnxsombkcatp1 (PROD) /usr/lib/jvm]#

[root@spnxsombkcatp1 (PROD) /etc/pki/java]# ls -ltr
total 0
lrwxrwxrwx. 1 root root 40 May 25 21:04 cacerts -> /etc/pki/ca-trust/extracted/java/cacerts
[root@spnxsombkcatp1 (PROD) /etc/pki/java]#
[root@spnxsombkcatp1 (PROD) /etc/pki/java]# ls -ltr /etc/pki/ca-trust/extracted/java/cacerts
-r--r--r--. 1 root root 165497 May 25 21:04 /etc/pki/ca-trust/extracted/java/cacerts
```



```
[root@spnxsombkcatp1 (PROD) /usr/lib/jvm]# yum list installed | grep -i java
java-1.8.0-openjdk.x86_64                1:1.8.0.362.b08-1.el7_9      @rhel-7-server-rpms
java-1.8.0-openjdk-headless.x86_64
javapackages-tools.noarch                3.4.1-11.el7                 @rhel-7-server-rpms
python-javapackages.noarch               3.4.1-11.el7                 @rhel-7-server-rpms
tzdata-java.noarch                       2022g-1.el7                  @rhel-7-server-rpms
[root@spnxsombkcatp1 (PROD) /usr/lib/jvm]#
```

UAT

```
[root@spnxsombkcatu1 (PROD) /usr/local]# ls -ltr /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.362.b08-1.el7_9.x86_64/jre/lib/security/cacerts
ls: cannot access '/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.362.b08-1.el7_9.x86_64/jre/lib/security/cacerts': No such file or directory

[root@spnxsombkcatu1 (PROD) /usr/local]# ls -ltr /etc/pki/java
total 0
lrwxrwxrwx. 1 root root 40 Jul 29  2022 cacerts -> /etc/pki/ca-trust/extracted/java/cacerts

[root@spnxsombkcatu1 (PROD) /usr/local]# ls -ltr /etc/pki/ca-trust/extracted/java/cacerts
-r--r--r--. 1 root root 167353 Jun 15 15:56 /etc/pki/ca-trust/extracted/java/cacerts
```



```
[root@spnxsombkcatu1 (PROD) /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.372.b07-1.el8_7.x86_64/jre/lib/security]# yum list installed | grep -i java
java-1.8.0-openjdk.x86_64                                1:1.8.0.372.b07-1.el8_7      @rhel-8-for-x86_64-appstream-rpms
java-1.8.0-openjdk-headless.x86_64                       1:1.8.0.372.b07-1.el8_7      @rhel-8-for-x86_64-appstream-rpms
javapackages-filesystem.noarch                          5.3.0-1.module+el8+2447+6f56d9a6  @System
javapackages-tools.noarch                               5.3.0-1.module+el8+2447+6f56d9a6  @System
tzdata-java.noarch                                      2023c-1.el8                  @rhel-8-for-x86_64-appstream-rpms
[root@spnxsombkcatu1 (PROD) /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.372.b07-1.el8_7.x86_64/jre/lib/security]#
```

```
[root@spnxsombkcatu1 (PROD) /usr/local/nexus-3.37.3-02]# cat ../nexus-3.37.3-02/bin/nexus.vmoptions

-Xms2703m
-Xmx2703m
-XX:MaxDirectMemorySize=2703m
-XX:+UnlockDiagnosticVMOptions
-XX:+LogVMOutput
-XX:LogFile=../sonatype-work/nexus3/log/jvm.log
-XX:-OmitStackTraceInFastThrow
-Djava.net.preferIPv4Stack=true
-Dkaraf.home=.
-Dkaraf.base=.
-Dkaraf.etc=etc/karaf
-Djava.util.logging.config.file=etc/karaf/java.util.logging.properties
-Dkaraf.data=../sonatype-work/nexus3
-Dkaraf.log=../sonatype-work/nexus3/log
-Djava.io.tmpdir=../sonatype-work/nexus3/tmp
-Dkaraf.startLocalConsole=false
-Djdk.tls.ephemeralDHKeySize=2048
#
# additional vmoptions needed for Java9+
#
# --add-reads=java.xml=java.logging
# --add-exports=java.base/org.apache.karaf.specs.locator=java.xml,ALL-UNNAMED
# --patch-module java.base=${KARAF_HOME}/lib/endorsed/org.apache.karaf.specs.locator-4.3.2.jar
# --patch-module java.xml=${KARAF_HOME}/lib/endorsed/org.apache.karaf.specs.java.xml-4.3.2.jar
# --add-opens java.base/java.security=ALL-UNNAMED
# --add-opens java.base/java.net=ALL-UNNAMED
# --add-opens java.base/java.lang=ALL-UNNAMED
# --add-opens java.base/java.util=ALL-UNNAMED
# --add-opens java.naming/javax.naming.spi=ALL-UNNAMED
# --add-opens java.rmi/sun.rmi.transport.tcp=ALL-UNNAMED
# --add-exports=java.base/sun.net.www.protocol.http=ALL-UNNAMED
# --add-exports=java.base/sun.net.www.protocol.https=ALL-UNNAMED
```

```
# --add-exports=java.base/sun.net.www.protocol.jar=ALL-UNNAMED
# --add-exports=jdk.xml.dom/org.w3c.dom.html=ALL-UNNAMED
# --add-exports=jdk.naming.rmi/com.sun.jndi.url.rmi=ALL-UNNAMED
# --add-exports java.security.sasl/com.sun.security.sasl=ALL-UNNAMED
#
# comment out this vmoption when using Java9+
#
-Djava.endorsed.dirs=lib/endorsed

#-Djavax.net.ssl.trustStore=/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.362.b08-1.el7_9.x86_64/jre/lib/security/cacerts
-Djavax.net.ssl.trustStore=/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.372.b07-1.el8_7.x86_64/jre/lib/security/cacerts
-Djavax.net.ssl.trustStorePassword=changeit
[root@spnxsombkcatu1 (PROD) /usr/local/nexus-3.37.3-02]#
```

```
[root@spnxsombkcatu1 (PROD) /usr/local]#
[root@spnxsombkcatu1 (PROD) /usr/local]# ls -ltr
total 205600
drwxr-xr-x.  2 root  root         6 Jun 21  2021 src
drwxr-xr-x.  5 root  root        49 Jun 21  2021 share
drwxr-xr-x.  2 root  root         6 Jun 21  2021 sbin
drwxr-xr-x.  2 root  root         6 Jun 21  2021 libexec
drwxr-xr-x.  2 root  root         6 Jun 21  2021 lib
drwxr-xr-x.  2 root  root         6 Jun 21  2021 include
drwxr-xr-x.  2 root  root         6 Jun 21  2021 games
drwxr-xr-x.  2 root  root         6 Jun 21  2021 etc
drwxr-xr-x.  2 root  root         6 Jun 21  2021 bin
drwxr-xr-x.  3 nexus nexus       20 Feb 14  2022 sonatype-work
lrwxrwxrwx.  1 root  root        15 Feb 14  2022 nexus -> nexus-3.37.3-02
drwxr-xr-x. 10 nexus nexus      208 Mar  1  2022 nexus-3.37.3-02
drwxrwx---.  3 root  root        25 Oct 28  2022 qualys
-rw-r--r--.  1 root  root 210531214 May 30 19:02 nexus-3.54.1-01-unix.tar.gz
drwxr-xr-x.  3 root  root        17 Jun 15 15:54 lib64
[root@spnxsombkcatu1 (PROD) /usr/local]#
[root@spnxsombkcatu1 (PROD) /usr/local]# tar -xpvf nexus-3.54.1-01-unix.tar.gz

[root@spnxsombkcatu1 (PROD) /usr/local]# ls -ltr
total 205600
drwxr-xr-x.  2 root  root         6 Jun 21  2021 src
drwxr-xr-x.  5 root  root        49 Jun 21  2021 share
drwxr-xr-x.  2 root  root         6 Jun 21  2021 sbin
drwxr-xr-x.  2 root  root         6 Jun 21  2021 libexec
drwxr-xr-x.  2 root  root         6 Jun 21  2021 lib
drwxr-xr-x.  2 root  root         6 Jun 21  2021 include
drwxr-xr-x.  2 root  root         6 Jun 21  2021 games
drwxr-xr-x.  2 root  root         6 Jun 21  2021 etc
drwxr-xr-x.  2 root  root         6 Jun 21  2021 bin
drwxr-xr-x.  3 nexus nexus       20 Feb 14  2022 sonatype-work
lrwxrwxrwx.  1 root  root        15 Feb 14  2022 nexus -> nexus-3.37.3-02
drwxr-xr-x. 10 nexus nexus      208 Mar  1  2022 nexus-3.37.3-02
drwxrwx---.  3 root  root        25 Oct 28  2022 qualys
-rw-r--r--.  1 root  root 210531214 May 30 19:02 nexus-3.54.1-01-unix.tar.gz
drwxr-xr-x.  3 root  root        17 Jun 15 15:54 lib64
drwxr-xr-x. 10 root  root       181 Jun 19 10:04 nexus-3.54.1-01
[root@spnxsombkcatu1 (PROD) /usr/local]#

[root@spnxsombkcatu1 (PROD) /usr/local]# chown -R nexus: nexus-3.54.1-01
```

```
[root@spnxsombkcatu1 (PROD) /usr/local]# systemctl status nexus
? nexus.service - nexus service
   Loaded: loaded (/etc/systemd/system/nexus.service; enabled; vendor preset: disabled)
   Active: active (running) since Thu 2023-06-15 19:52:49 +07; 3 days ago
  Process: 53906 ExecStart=/usr/local/nexus-3.37.3-02/bin/nexus start (code=exited, status=0/SUCCESS)
 Main PID: 54108 (java)
    Tasks: 125 (limit: 23493)
   Memory: 1.3G
   CGroup: /system.slice/nexus.service
           +-54108 /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.372.b07-1.el8_7.x86_64/jre/bin/java -server -Dinstall4j.jvmDir=/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.372.b07-1.el8_7.x86_64/jre -Dexe>

Warning: Journal has been rotated since unit was started. Log output is incomplete or unavailable.
[root@spnxsombkcatu1 (PROD) /usr/local]#

[root@spnxsombkcatu1 (PROD) /usr/local]# ls -ltr
total 205600
drwxr-xr-x.  2 root  root         6 Jun 21  2021 src
drwxr-xr-x.  5 root  root        49 Jun 21  2021 share
drwxr-xr-x.  2 root  root         6 Jun 21  2021 sbin
drwxr-xr-x.  2 root  root         6 Jun 21  2021 libexec
drwxr-xr-x.  2 root  root         6 Jun 21  2021 lib
drwxr-xr-x.  2 root  root         6 Jun 21  2021 include
drwxr-xr-x.  2 root  root         6 Jun 21  2021 games
drwxr-xr-x.  2 root  root         6 Jun 21  2021 etc
drwxr-xr-x.  2 root  root         6 Jun 21  2021 bin
drwxr-xr-x.  3 nexus nexus       20 Feb 14  2022 sonatype-work
lrwxrwxrwx.  1 root  root        15 Feb 14  2022 nexus -> nexus-3.37.3-02
drwxr-xr-x. 10 nexus nexus      208 Mar  1  2022 nexus-3.37.3-02
```

```
drwxrwx---.  3 root  root       25 Oct 28  2022 qualys
-rw-r--r--.  1 root  root 210531214 May 30 19:02 nexus-3.54.1-01-unix.tar.gz
drwxr-xr-x.  3 root  root       17 Jun 15 15:54 lib64
drwxr-xr-x. 10 root  root      181 Jun 19 10:04 nexus-3.54.1-01
[root@spnxsombkcatu1 (PROD) /usr/local]#
[root@spnxsombkcatu1 (PROD) /usr/local]# rm -f nexus
[root@spnxsombkcatu1 (PROD) /usr/local]# ln -s nexus-3.54.1-01 nexus
[root@spnxsombkcatu1 (PROD) /usr/local]# ls -ltr
total 205600
drwxr-xr-x.  2 root  root        6 Jun 21  2021 src
drwxr-xr-x.  5 root  root       49 Jun 21  2021 share
drwxr-xr-x.  2 root  root        6 Jun 21  2021 sbin
drwxr-xr-x.  2 root  root        6 Jun 21  2021 libexec
drwxr-xr-x.  2 root  root        6 Jun 21  2021 lib
drwxr-xr-x.  2 root  root        6 Jun 21  2021 include
drwxr-xr-x.  2 root  root        6 Jun 21  2021 games
drwxr-xr-x.  2 root  root        6 Jun 21  2021 etc
drwxr-xr-x.  2 root  root        6 Jun 21  2021 bin
drwxr-xr-x.  3 nexus nexus      20 Feb 14  2022 sonatype-work
lrwxrwxrwx.  1 root  root       15 Feb 14  2022 nexus -> nexus-3.37.3-02
drwxrwx---.  3 root  root       25 Oct 28  2022 qualys
-rw-r--r--.  1 root  root 210531214 May 30 19:02 nexus-3.54.1-01-unix.tar.gz
drwxr-xr-x.  3 root  root       17 Jun 15 15:54 lib64
drwxr-xr-x. 10 root  root      181 Jun 19 10:04 nexus-3.54.1-01
drwxr-xr-x. 10 nexus nexus     231 Jun 19 10:13 nexus-3.37.3-02
[root@spnxsombkcatu1 (PROD) /usr/local]#
```

Only on UAT
vim /etc/zabbix/zabbix_agentd.conf

```
# vim /etc/systemd/system/nexus.service
[Unit]
Description=nexus service
After=network.target

[Service]
Type=forking
LimitNOFILE=65536
ExecStart=/usr/local/nexus-3.54.1-01/bin/nexus start
ExecStop=/usr/local/nexus-3.54.1-01/bin/nexus stop
User=nexus
Restart=on-abort
TimeoutSec=600

[Install]
WantedBy=multi-user.target

[root@spnxsombkcatu1 (PROD) /usr/local]# systemctl daemon-reload
[root@spnxsombkcatu1 (PROD) /usr/local]# systemctl start nexus
[root@spnxsombkcatu1 (PROD) /usr/local]# systemctl status nexus
? nexus.service - nexus service
   Loaded: loaded (/etc/systemd/system/nexus.service; enabled; vendor preset: disabled)
   Active: active (running) since Mon 2023-06-19 10:17:12 +07; 21s ago
 Main PID: 533389 (java)
    Tasks: 60 (limit: 23493)
   Memory: 2.1G
   CGroup: /system.slice/nexus.service
           +-533389 /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.372.b07-1.el8_7.x86_64/jre/bin/java -server -Dinstall4j.jvmDir=/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.372.b07-1.el8_7.x86_64/jre -Dex>

Jun 19 10:17:12 spnxsombkcatu1.bred-it-prod.ad.production.local systemd[1]: Starting nexus service...
Jun 19 10:17:12 spnxsombkcatu1.bred-it-prod.ad.production.local systemd[1]: Started nexus service.
[root@spnxsombkcatu1 (PROD) /usr/local]#
```

```
# Nexus log location
/usr/local/sonatype-work/nexus3/log

2023-06-19 10:25:28,592+0700 ERROR [jetty-main-1]  *SYSTEM org.sonatype.nexus.bootstrap.jetty.JettyServer- Failed to start
2023-06-19 10:25:32,355+0700 ERROR [quartz-10-thread-1]  *SYSTEM org.quartz.core.ErrorLogger - Unable to notify JobListener(s) of Job that was executed: (error will be ignored). trigger= nexus.cf4e042d-
ca87-4113-a59d-0462fd50d7d4 job= nexus.cf4e042d-ca87-4113-a59d-0462fd50d7d4
2023-06-19 10:41:14,290+0700 ERROR [jetty-main-1]  *SYSTEM org.sonatype.nexus.bootstrap.jetty.JettyServer- Failed to start
2023-06-19 10:41:17,689+0700 ERROR [quartz-10-thread-1]  *SYSTEM org.quartz.core.ErrorLogger - Unable to notify JobListener(s) of Job that was executed: (error will be ignored). trigger=
DEFAULT.6da64b5bd2ee-62c87306-b248-4482-b1c3-84ddfbe3b9e3 job= nexus.cf4e042d-ca87-4113-a59d-0462fd50d7d4
2023-06-19 10:50:31,559+0700 ERROR [jetty-main-1]  *SYSTEM org.sonatype.nexus.bootstrap.jetty.JettyServer- Failed to start
2023-06-19 10:50:35,138+0700 ERROR [quartz-10-thread-1]  *SYSTEM org.quartz.core.ErrorLogger - Unable to notify JobListener(s) of Job that was executed: (error will be ignored). trigger= DEFAULT.6da64b5bd2ee-
fd78b9b5-5c8b-4d51-9a1c-4d7ab0288d80 job= nexus.cf4e042d-ca87-4113-a59d-0462fd50d7d4

# Backup original configure
[root@spnxsombkcatu1 (PROD) /usr/local/sonatype-work/nexus3/log]# cp /usr/local/nexus-3.54.1-01/etc/jetty/jetty-https.xml /usr/local/nexus-3.54.1-01/etc/jetty/jetty-https.xml.backup

# Modify configure
[root@spnxsombkcatu1 (PROD) /usr/local/sonatype-work/nexus3/log]# cp /usr/local/nexus-3.37.3-02/etc/jetty/jetty-https.xml /usr/local/nexus-3.54.1-01/etc/jetty/jetty-https.xml

# Start Nexus
[root@spnxsombkcatu1 (PROD) /usr/local]# systemctl start nexus; systemctl status nexus

# The different point between 2 files
[root@spnxsombkcatu1 (PROD) /usr/local/nexus-3.54.1-01/etc/jetty]# diff jetty-https.xml.backup jetty-https.xml
6c6
```

```
<   ==== HTTPS ====
---
>       ==== HTTPS ====
31,35c31,36
<   <Set name="KeyStorePath"><Property name="ssl.etc"/>/keystore.jks</Set>
<   <Set name="KeyStorePassword">password</Set>
<   <Set name="KeyManagerPassword">password</Set>
<   <Set name="TrustStorePath"><Property name="ssl.etc"/>/keystore.jks</Set>
<   <Set name="TrustStorePassword">password</Set>
---
>   <Set name="certAlias">spnxsombkcatp1.bred-it-prod.ad.production.local</Set>
>   <Set name="KeyStorePath"><Property name="ssl.etc"/>/spnxsombkcatp1.bred-it-prod.ad.production.local.jks</Set>
>   <Set name="KeyStorePassword">1WYQmVDbNB6k</Set>
>   <Set name="KeyManagerPassword">1WYQmVDbNB6k</Set>
>   <Set name="TrustStorePath"><Property name="ssl.etc"/>/spnxsombkcatp1.bred-it-prod.ad.production.local.jks</Set>
>   <Set name="TrustStorePassword">1WYQmVDbNB6k</Set>
[root@spnxsombkcatu1 (PROD) /usr/local/nexus-3.54.1-01/etc/jetty]#
```

Summaries

1. Unarchive file by this command # tar -xpvzf /usr/local/nexus-3.55.0-01-unix.tar.gz -C /usr/local/ ; ls -ltr /usr/local
2. Backup original "nexus.vmoptions" file then add this line into that. # cp nexus.vmoptions nexus.vmoptions.backup.ori; echo -e "-Djavax.net.ssl.trustStore=/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.372.b07-1.el8_7.x86_64/jre/lib/security/cacerts" >> nexus.vmoptions ; tail nexus.vmoptions
3. Backup "jetty-https.xml" file then copy jetty https configure from the current configure to replace it. # cp /usr/local/nexus -3.37.3-02/etc/jetty/jetty-https.xml /usr/local/nexus-3.55.0-01/etc/jetty/jetty-https.xml
4. Check nexus service status then stop it # systemctl status nexus ; systemctl stop nexus
5. Remove old link and create new link # rm -f nexus && ln -s nexus-3.55.0-01 nexus ; ls -ltr /usr/local
6. Change owner of the directory # chown -R nexus: /usr/local/nexus-3.55.0-01
7. Modify nexus service before start # vim /etc/systemd/system/nexus.service ; ExecStart=/usr/local/nexus -3.55.0-01/bin/nexus <-- nexus-3.55.0-01
8. Reload demon service after modify # systemctl daemon-reload
9. Start nexus service # systemctl start nexus
10. Check nexus version on server # curl --include --silent http://localhost:8081/ | grep Server