

"java.security.NoSuchProviderException" Error Occurs when CloudCenter is Configured

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Introduction

This document helps you troubleshoot the error message related to **SunPKCS11-NSS**. This error appears when you start the tomcat services in CloudCenter Manager (CCM) and CloudCenter Orchestrator (CCO) machines.

Affected Version

- CloudCenter 4.7.1.1

Note: This error is observed during the new install of 4.7.1.1

Problem

When you try to configure CloudCenter, the user might see this error message in osmosix.log:

```
2017-05-20 20:07:15,153 ERROR config.GatewayConfigController [http-apr-8443-exec-8] -
com.osmosix.commons.crypto.CryptoException: com.osmosix.commons.crypto.CryptoException:
java.security.NoSuchProviderException: No such provider: SunPKCS11-NSS
java.lang.RuntimeException: com.osmosix.commons.crypto.CryptoException:
com.osmosix.commons.crypto.CryptoException: java.security.NoSuchProviderException: No such
provider: SunPKCS11-NSS
    at
com.osmosix.commons.convert.converter.CryptoJson2HttpMessageConverter.encrypt(CryptoJson2HttpMes
sageConverter.java:87
```

Solution

This error is due to the Network Security Services not configured in **Java 8**. Normally it is configured by the CloudCenter installer, but there are instances where this configuration is missing.

How to reconfigure NSS on the CloudCenter servers:

Go to this directory:

```
cd /usr/lib/jvm/java-8-sun/jre/lib/security
```

Verify the **java.security** configuration:

```
cat java.security | grep security.provider
```

If NSS is configured on the system, you should see it listed in **security.provider.10**, as shown here:

```
[root@localhost security]# cat java.security | grep security.provider
# security.provider.<n>=<className>
# named Sun appears in the sun.security.provider package. Thus, the
# security.provider.1=sun.security.provider.Sun
security.provider.1=sun.security.provider.Sun
security.provider.2=sun.security.rsa.SunRsaSign
security.provider.3=sun.security.ec.SunEC
security.provider.4=com.sun.net.ssl.internal.ssl.Provider
security.provider.5=com.sun.crypto.provider.SunJCE
security.provider.6=sun.security.jgss.SunProvider
security.provider.7=com.sun.security.sasl.Provider
security.provider.8=org.jcp.xml.dsig.internal.dom.XMLDSigRI
security.provider.9=sun.security.smartcardio.SunPCSC
security.provider.10=sun.security.pkcs11.SunPKCS11 /usr/lib/jvm/java-8-
sun/jre/lib/security/nss.cfg login.configuration.provider=sun.security.provider.ConfigFile
policy.provider=sun.security.provider.PolicyFile
```

If the highlighted line is missing, add it to the **java.security** file.

Create the **nss.cfg** file in the same directory with this content:

```
name = NSS
nssLibraryDirectory = /usr/lib64/
nssDbMode = noDb
attributes = compatibility
```

Verify whether the permission on the **java.security** and **nss.cfg** file are correct. The permission should be **644**.

Reboot the CloudCenter VM:

```
reboot
```

Now you should be able to configure CloudCenter.