**TOMCAT APR CONFIGURATION:**

**https://www.fatalerrors.org/a/the-apr-library-was-not-found-on-the-java.library.path.html**

**1, Installation under Windows**

Directly copy the tcnative-1.dll to the TOMCAT\_HOME/bin directory and start it

Download address: <http://archive.apache.org/dist/tomcat/tomcat-connectors/native/>

**2, Installation under Linux**

2.1 download the installation package  
apr-1.6.2.tar.gz  
apr-iconv-1.2.1.tar.gz  
apr-util-1.6.0.tar.gz  
openssl-1.0.2l.tar.gz

Download address:  
<http://apr.apache.org/>  
<http://www.openssl.org/>

2.2 install the APR plug-in

1) install APR

tar zxvf apr-1.6.2.tar

cd apr-1.6.2

./configure --prefix=/usr/local/apr

make

make install

2) install apr-iconv

tar -zxvf apr-iconv-1.2.1.tar.gz

cd apr-iconv-1.2.1

./configure --prefix=/usr/local/apr-iconv --with-apr=/usr/local/apr

make

make install

3) install apr-util

tar zxvf apr-util-1.6.0.tar.gz

cd apr-util-1.6.0

./configure --prefix=/usr/local/apr-util --with-apr=/usr/local/apr --with-apr-iconv=/usr/local/apr-iconv/bin/apriconv

make

make install

4) install tomcat-native

this package comes with tomcat, under the bin directory.

tar zxvf tomcat-native.tar.gz

cd tomcat-native-1.2.12-src/native

./configure --with-apr=/usr/local/apr --with-java-home= /opt/jdk1.8.0\_271 --with-ssl=/usr/local/openssl

make

make install

mark: if compiling with OpenSSL version problem, please check the solution below.

5) add environment variables

vi /etc/profile

Add the following variablein at the end of the file

# apr

export LD\_LIBRARY\_PATH=/usr/local/apr/lib

Immediate effect

source /etc/profile

Using "./catalina configtest" to detect, the error has disappeared.

The normal information is shown below:

02-Aug-2017 18:17:13.908 INFO [main] org.apache.catalina.core.AprLifecycleListener.lifecycleEvent Loaded APR

based Apache Tomcat Native library [1.2.12] using APR version [1.6.2].

02-Aug-2017 18:17:13.908 INFO [main] org.apache.catalina.core.AprLifecycleListener.lifecycleEvent APR

capabilities: IPv6 [true], sendfile [true], accept filters [false], random [true].

02-Aug-2017 18:17:13.908 INFO [main] org.apache.catalina.core.AprLifecycleListener.lifecycleEvent APR/OpenSSL

 configuration: useAprConnector [false], useOpenSSL [true]

02-Aug-2017 18:17:13.922 INFO [main] org.apache.catalina.core.AprLifecycleListener.initializeSSL OpenSSL

successfully initialized [OpenSSL 1.0.2l 25 May 2017]

**Troubleshooting**

1. Still wrong after the above deployment?

Copy the files under

/usr/local/apr/lib/

to any of these folders

/usr/java/packages/lib/amd64:/usr/lib64:/lib64:/lib:/usr/lib

2. SEVERE: Failed to initialize the SSLEngine?

SEVERE: Failed to initialize the SSLEngine.

org.apache.tomcat.jni.Error: 70023: This function has not been implemented on this platform

Please turn off SSL listening unless you do use it.

<Listener className="org.apache.catalina.core.AprLifecycleListener" SSLEngine="off" />

3. OpenSSL version problem?

When compiling native, there is a problem with the OpenSSL version, so must solve the OpenSSL problem first at this point.

Error occurred:

configure: error: Your version of OpenSSL is not compatible with this version of tcnative

solution:

tar zxf openssl-1.0.2l.tar.gz

./config –prefix=/usr/local/openssl –fPIC

Do add **-fPIC** parameter, otherwise this error will occur

A compiler error: Native

/usr/local/openssl/lib/libssl.a(s3\_meth.o): relocation R\_X86\_64\_32

against `.rodata' can not be used when making a shared object; recompile

 with –fPIC

/usr/local/openssl/lib/libssl.a: could not read symbols: Bad value

collect2: error: ld returned 1 exit status

make[1]: \*\*\* [libtcnative-1.la] Error 1

make[1]: Leaving directory `/usr/local/tomcat-native-1.2.8-src/native'

make: \*\*\* [all-recursive] Error

and then

make

make install

Important command: go to tomcat bin directory and write below command:

./catalina.sh configtest

IMPORTANT URL:

GitLab: [https://docs.gitlab.com/omnibus/settings/ssl.html](https://ind01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdocs.gitlab.com%2Fomnibus%2Fsettings%2Fssl.html&data=04%7C01%7CAX00711087%40TechMahindra.com%7Cc6c5b185bc27470db41c08d8ad8eb974%7Cedf442f5b9944c86a131b42b03a16c95%7C0%7C0%7C637450175809154010%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=w4wOe7BHPOdgWygBo0dWdQOA%2BThQu3u2DKrWjt2LgV4%3D&reserved=0)

Jenkins: [https://devopscube.com/configure-ssl-jenkins/](https://ind01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdevopscube.com%2Fconfigure-ssl-jenkins%2F&data=04%7C01%7CAX00711087%40TechMahindra.com%7Cc6c5b185bc27470db41c08d8ad8eb974%7Cedf442f5b9944c86a131b42b03a16c95%7C0%7C0%7C637450175809164005%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=sBb0GvVe7YX%2BEo9JbWcJ0NZ66UqimdQLM9et0gNYQL8%3D&reserved=0)

SonarQube: [http://docs.sonarqube.org/display/SONAR/Securing+the+Server+Behind+a+Proxy](https://ind01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fdocs.sonarqube.org%2Fdisplay%2FSONAR%2FSecuring%2Bthe%2BServer%2BBehind%2Ba%2BProxy&data=04%7C01%7CAX00711087%40TechMahindra.com%7Cc6c5b185bc27470db41c08d8ad8eb974%7Cedf442f5b9944c86a131b42b03a16c95%7C0%7C0%7C637450175809164005%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=ahiysrPzuyt15PpiOsD6vq0wZCTeAYy0Vnw2id9ikZA%3D&reserved=0).