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Application Guide

Wedora Cloud-HTTPS Visit

Contents

Revision History

Updates between document versions are cumulative. Therefore, the latest document version contains all updates made to previous versions.

Doc Version	Product	Release Data	Details
V1.0	M2M Cloud Platform	2018.01.04	First Release

1 Overview

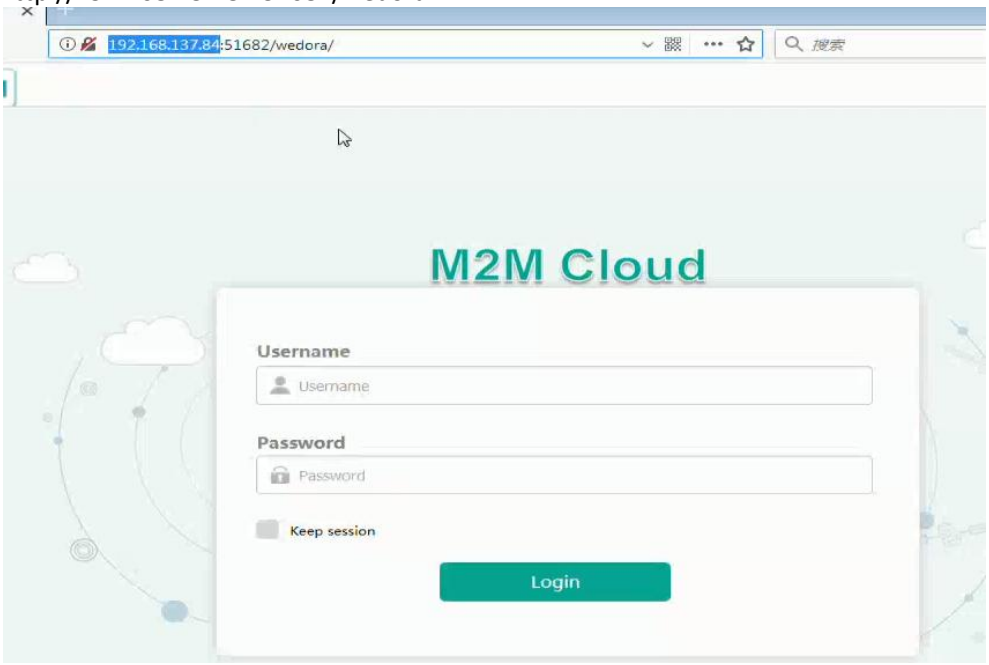
Wedora Cloud is the M2M Cloud Management Platform for Hongdian M2M products including routers, DTU,and etc.
This article introduces how to enable the https visit.
You should get the CA by yourself. Wherein, this document is make the example on local testing with a local CA.

2 Description

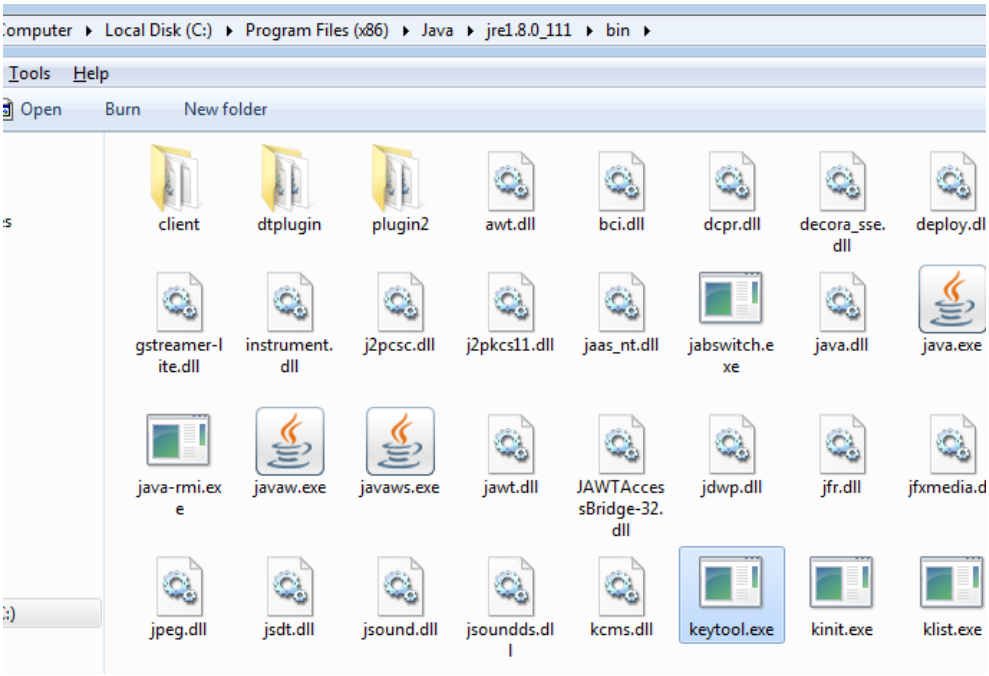
2.1 Configuration steps

2.1.1 Preparation

1. Login the platform, check the url as below, which is HTTP type in default.
http://192.168.137.84:51682/wedora

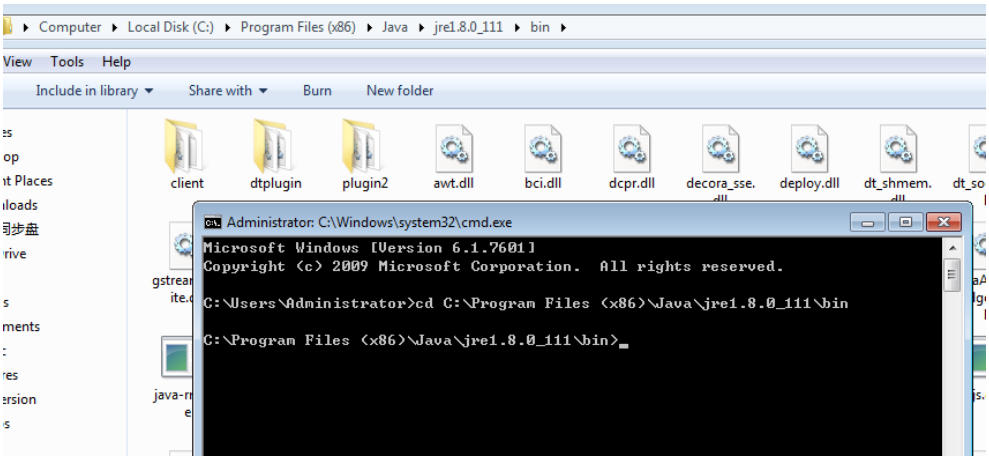


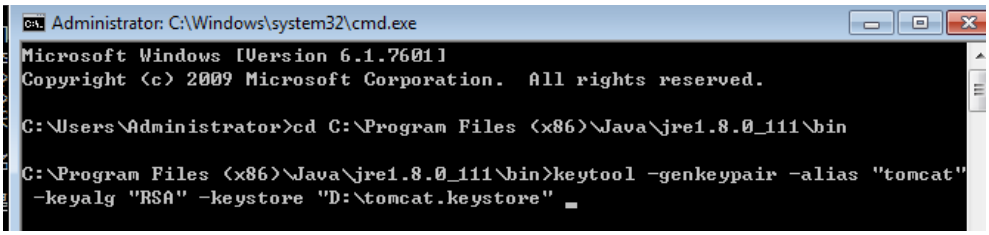
2. Apply for the SSL certificate.
As the demo, we take the local CA.(You should get a commercial SSL for actual using).
After your PC installed the Java APP. You should get "keytool.exe" in the folder.



open CMD

```
cd C:\Program Files (x86)\Java\jre1.8.0_111\bin
keytool -genkeypair -alias "tomcat" -keyalg "RSA" -keystore "D:\tomcat.keystore"
```





Then input password

```
123456
```

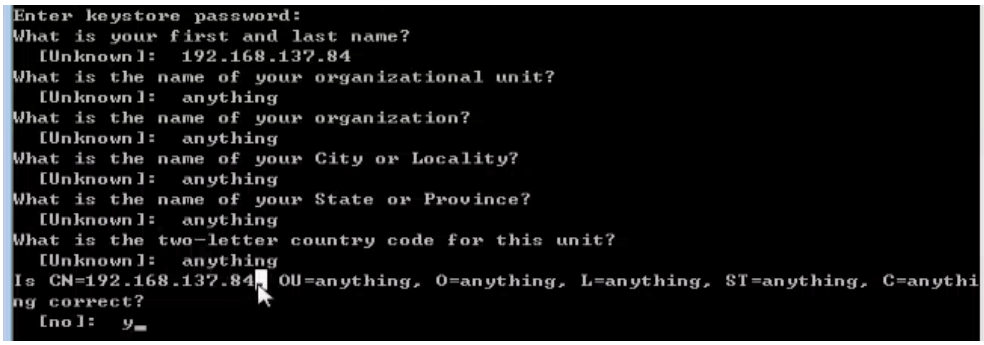
input your platform URL, such as:

```
192.168.137.84
```

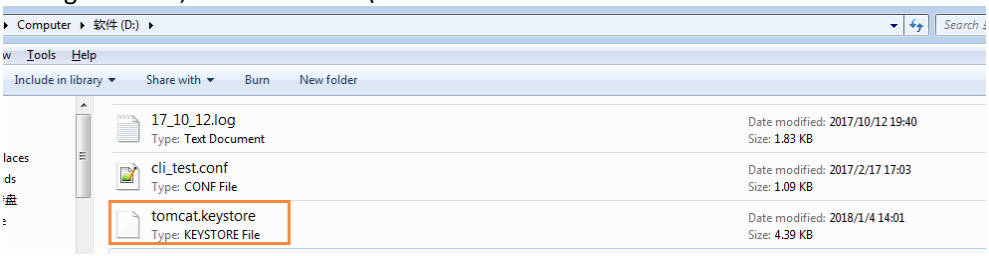
This is important, may sure it is correct to your domain or IP.

Next, others can be `anything`.

When it prompt "Is ...correct?", input `y` to continue



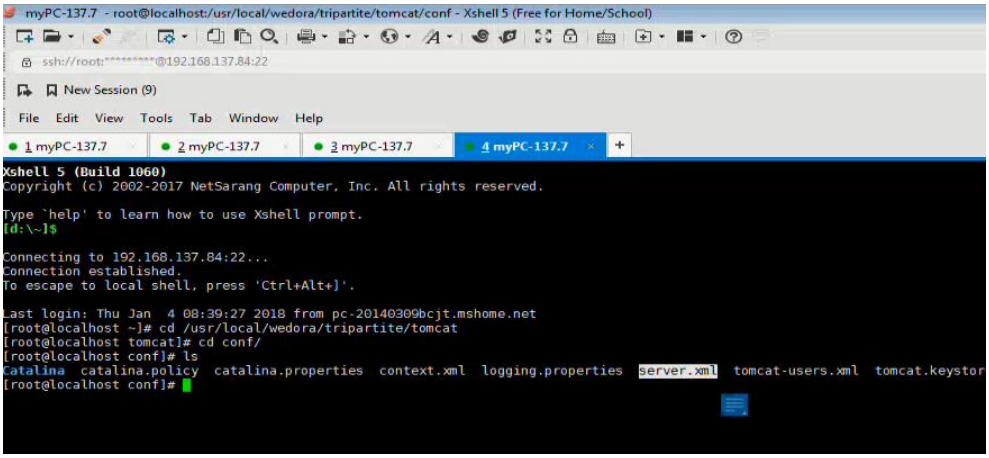
After generated, it is saved in D:\ as below.



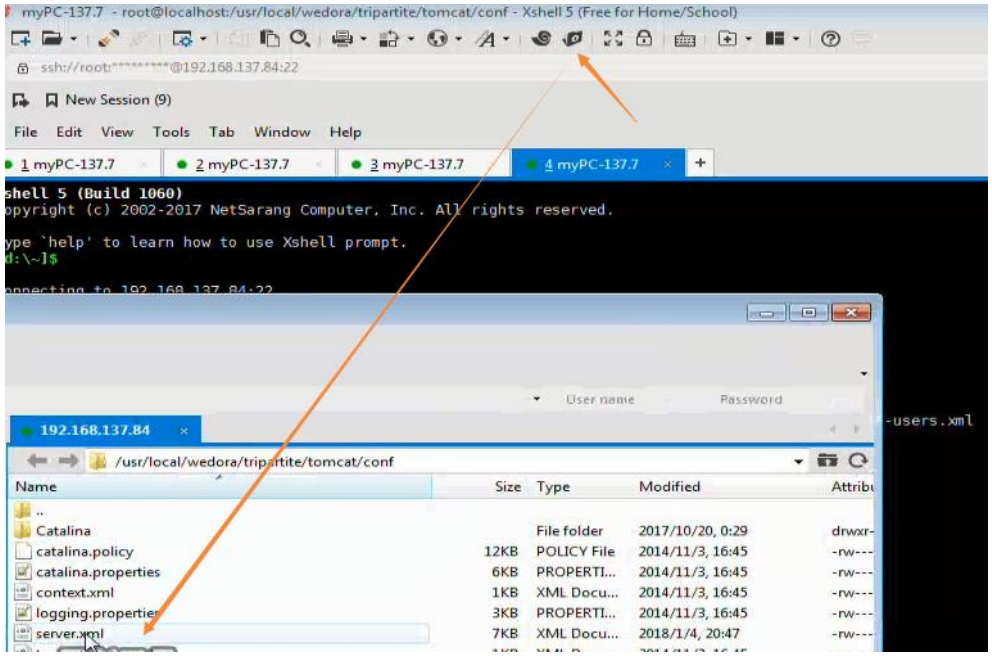
2.1.2 Operation

1. Open the platform server shell(CentOS Shell)
For example, ssh to 192.168.137.84:22 to login.
Input the commands

```
cd /usr/local/wedora/tripartite/tomcat/
cd conf/
ls
```



Open the xftp (or other sftp client)



2. Edit the server.xml
You should find the line between the symbol " <!--" and "-->":
"<Connector port="8443..."
Please enable it.
And add
"keystoreFile="conf/tomcat.keystore" keystorePass="123456"
at the end of the line.

That is :

```
<Connector port="8443" protocol="org.apache.coyote.http11.Http11Protocol"
maxThreads="150" SSLEnabled="true" scheme="https" secure="true"
clientAuth="false"       sslProtocol="TLS"       keystoreFile="conf/tomcat.keystore"
keystorePass="123456" />
```

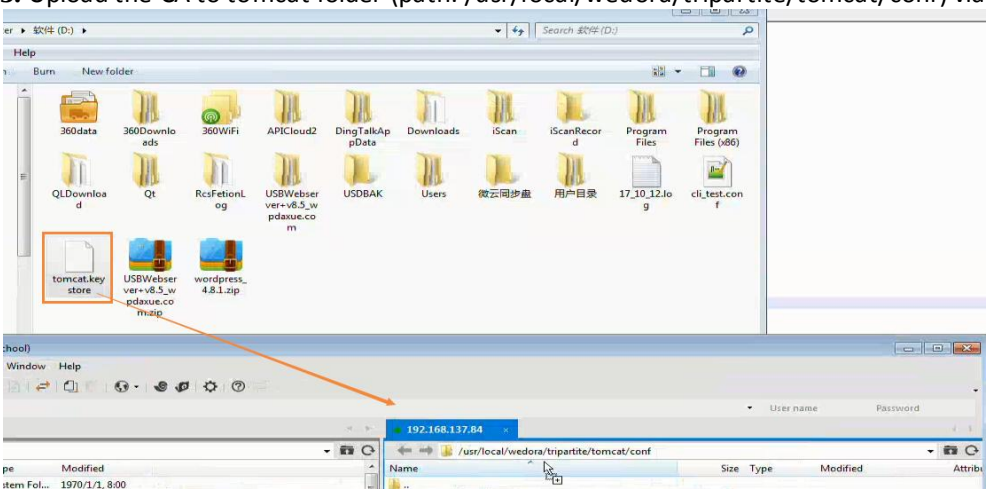
```
<!-- A "Connector" represents an endpoint by which requests are received
     and responses are returned. Documentation at :
     Java HTTP Connector: /docs/config/http.html (blocking & non-blocking)
     Java AJP  Connector: /docs/config/ajp.html
     APR (HTTP/AJP) Connector: /docs/apr.html
     Define a non-SSL HTTP/1.1 Connector on port 51682
-->
<Connector port="51682" protocol="HTTP/1.1"
           connectionTimeout="20000"
           redirectPort="8443" />
<!-- A "Connector" using the shared thread pool-->
<!--
<Connector executor="tomcatThreadPool"
           port="51682" protocol="HTTP/1.1"
           connectionTimeout="20000"
           redirectPort="8443" />
-->
<!-- Define a SSL HTTP/1.1 Connector on port 8443
     This connector uses the BIO implementation that requires the JSSE
     style configuration. When using the APR/native implementation, the
     OpenSSL style configuration is required as described in the APR/native
     documentation -->

    <Connector port="8443" protocol="org.apache.coyote.http11.Http11Protocol"
      maxThreads="150" SSLEnabled="true" scheme="https" secure="true"
      clientAuth="false" sslProtocol="TLS" keystoreFile="conf/tomcat.keystore" keystorePass="123456" />


<!--
<Connector port="8443" protocol="org.apache.coyote.http11.Http11Protocol"
           maxThreads="150" SSLEnabled="true" scheme="https" secure="true"
           clientAuth="false" sslProtocol="TLS" />
-->
```

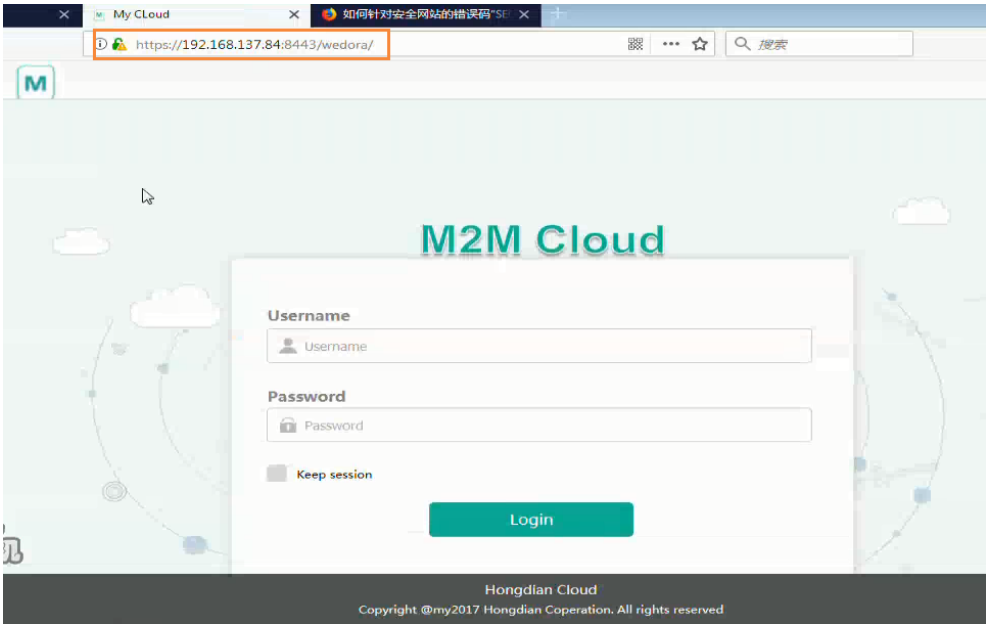
Save and quit, and upload back to tomcat folder.

3. Upload the CA to tomcat folder (path: /usr/local/wedora/tripartite/tomcat/conf) via xftp



4. Restart the wedora service to take effect.

5. After tomcat start,we can visit the HTTPS URL:
192.168.137.84:8443/wedora



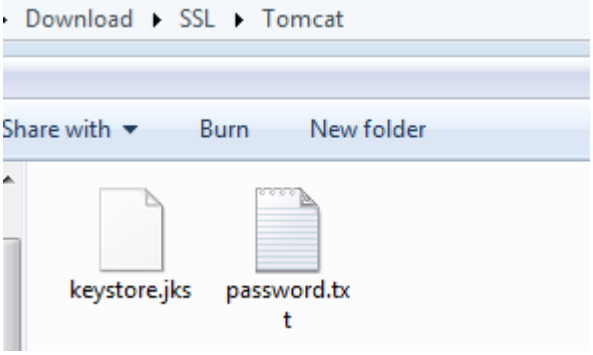
2.2 Real SSL operation

If you are still confused in section 2.1, this part will give you the advanced operation for real SSL. We apply for the trial versions of the SSL certificate and domain.
Note: For your deploying, make sure you have the domain to redirect to the platform's IP, and have the commercial SSL certificate.

2.2.1 Preparation

1. For this test, we apply for a domain via http://www.freenom.com.
Such as domain: henryjk404.tk. And it's DNS redirect to platform IP(for example: 47.88.149.108).

2. And we apply for the SSL CA via https://www.pianyissl.com/, for example "keystore.jks", as below

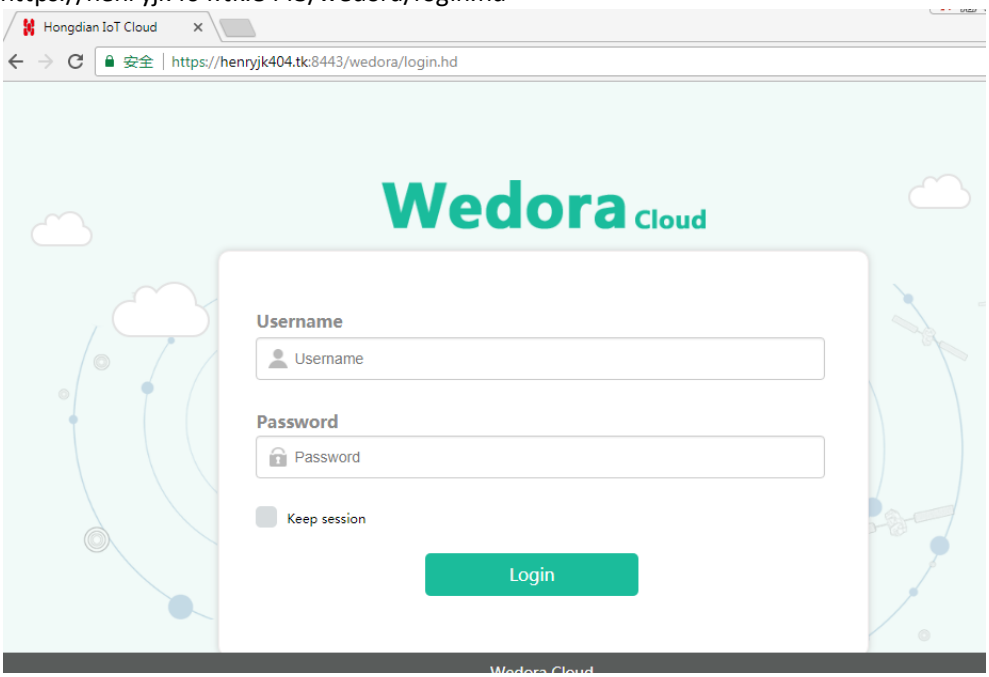


2.2.2 Operation

1. The operation is similar to section "2.1.2", here is no longer to repeat.

2. After upload the SSL CA to tomcat path, and update the "server.xml".

You can use the https visit,as below.
https://henryjk404.tk:8443/wedora/login.hd



3. If you couldn't open the URL, it maybe the firewall preventing.You can disabled the firewall or allow the port access.

Command for disabling firewall.

```
service iptables status
service iptables stop
```

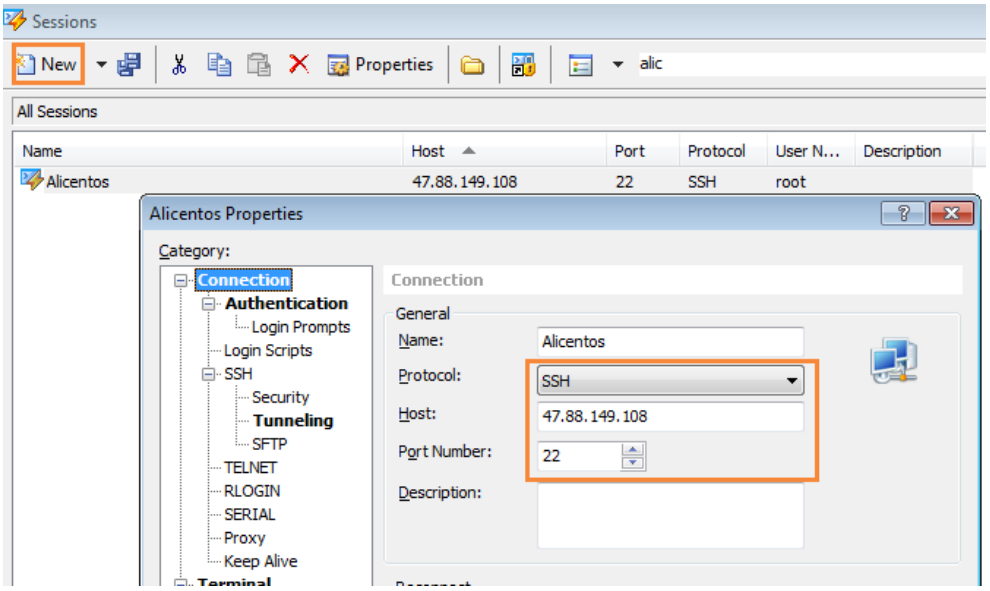
3 Reference

This part shows the common operation on the Wedora platform.

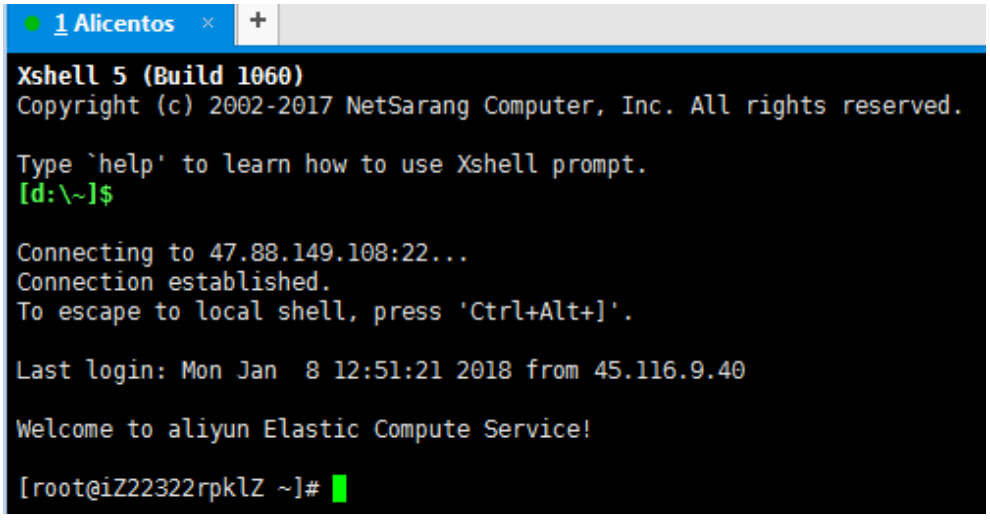
3.1 Shell Command

The M2M cloud platform is installed in the Linux OS,CentOS 6. You should be able to login the CentOS via SSH, so that you can input the Shell command install,change or upfate the the platform service.
We suggest xshell to login the CentOS's shell.

1. Add a new session or click an available session on Xshell as below, using SSH IP and port.



2. After inputting the correct user name and password, you should enter the Shell as below

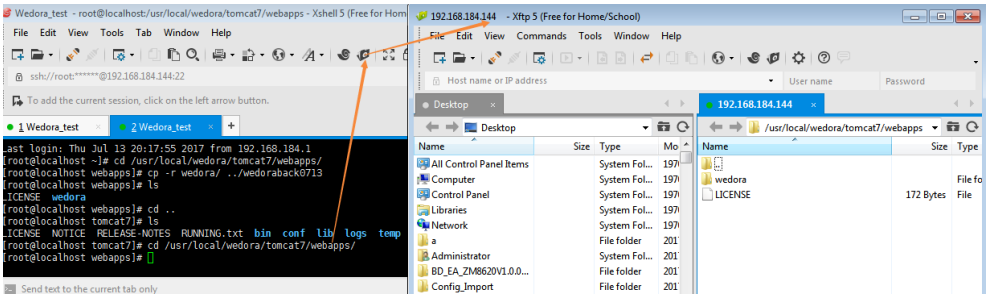


3.2 Transfer file via SFTP

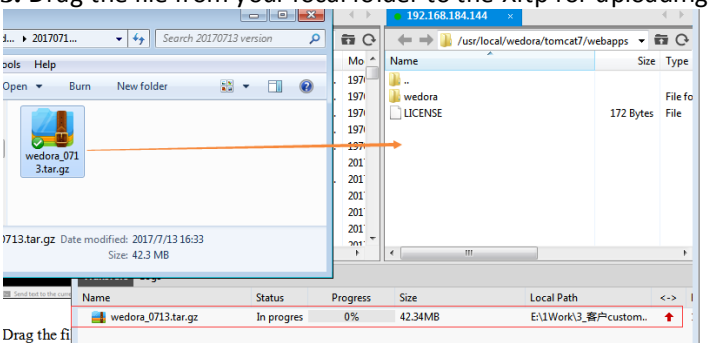
We can transfer the file between local PC and CentOS server via sftp.

1. Open xshell client and login the shell command of the CentOS.

2. Input command `cd <path>`, and then click "xftp" icon, turn to xftp client for file transfering.As below.



3. Drag the file from your local folder to the Xftp for uploading.

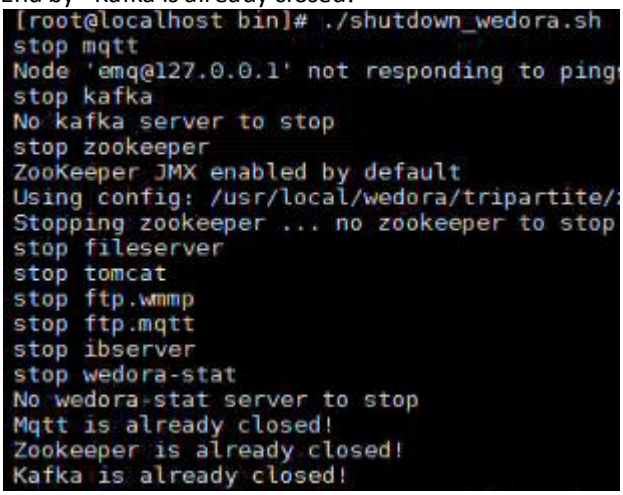


3.3 Restart wedora

It can restart all the platform services.
Enter the shell command line, input commands:

```
cd /usr/local/wedora/bin
ls
./shutdown_wedora.sh
```

End by "Kafka is already closed!"



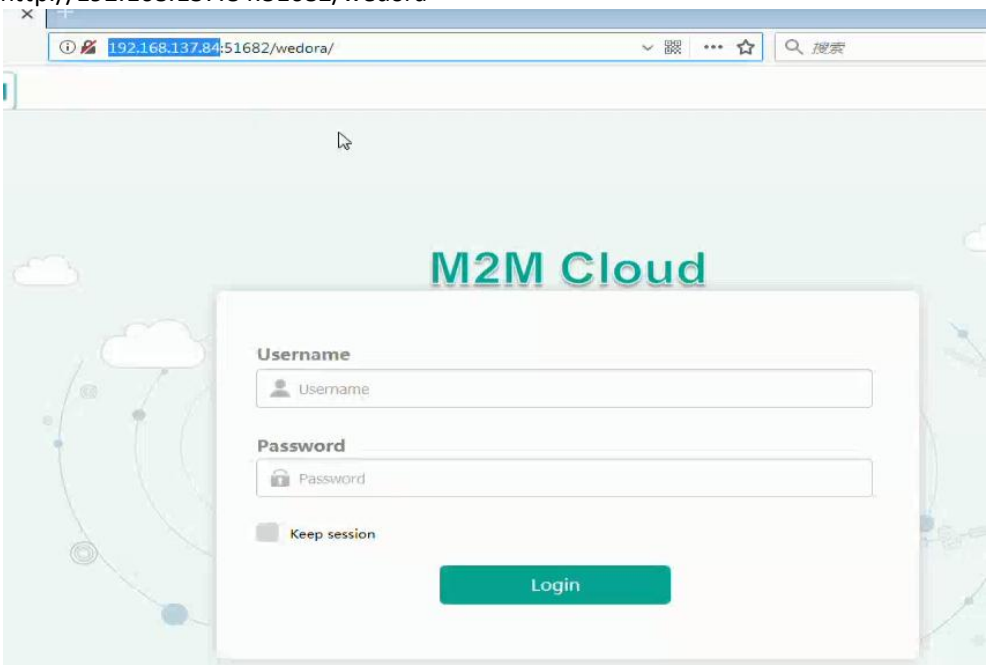
We can start up the services with the flowing command.

```
./startup_wedora.sh
```

End by "wedora startup".

3.4 Change tomcat port

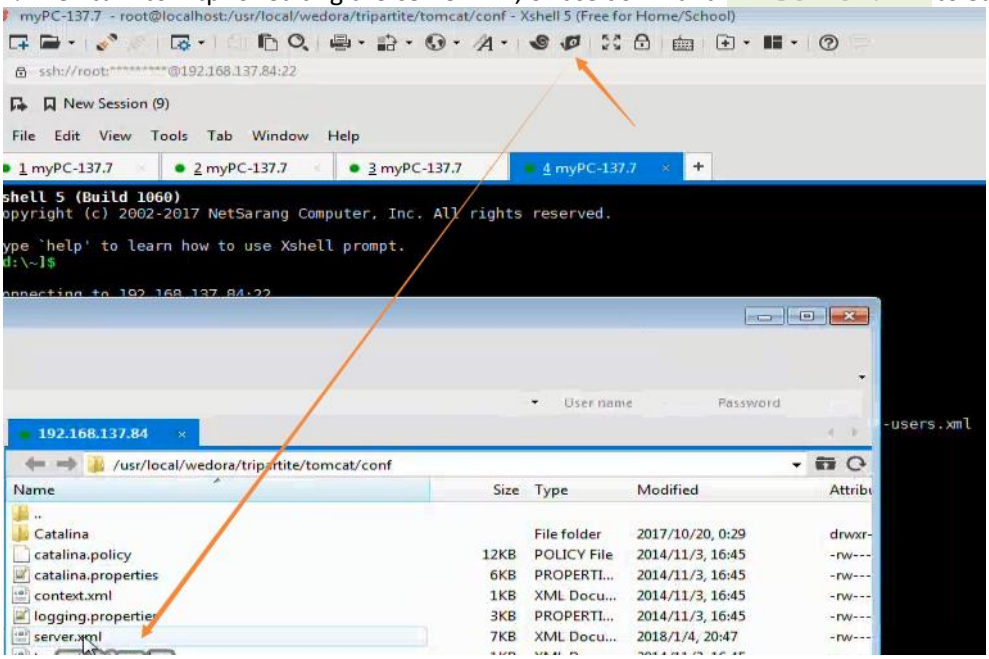
The URL visiting is base on tomcat service, and we can change the URL's port in tomcat configuration.
Such as the platform URL is:
http://192.168.137.84:51682/wedora



1. We can change the port in TOMCAT_PATH/conf/server.xml

```
cd /usr/local/wedora/tripartite/tomcat/conf
```

2. Then turn to xftp for editing the server.xml; or use command `vi server.xml` to edit



3. Change the port in server.xml, and upload it back to xftp.

4. Restart the tomcat in shell command; or you can also restart wedora.

```
cd /usr/local/wedora/tripartite/tomcat/bin
ls
./shutdown.sh
ps -ef|grep tomcat
#Check if tomcat was closed, if not, input "kill -9 <tomcat PID>"
./startup.sh
```

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