Cluster Rules Manager (CRM) – Installation Guide

This user guide describes the installation procedure for Fling Cluster Rules Manager (CRM)

1. **Installation steps**
   - Download Fling war *(crm.war)* file as well as self-signed certificate *(crminstallationkeystore.jks)* from fling website.

   - Copy the downloaded war file under *<TOMCAT_ROOT_DIR>\webapps*
     Example: C:\apache-tomcat-8.0.18-windows-x86\apache-tomcat-8.0.18\webapps
     Note: Tomcat root directory can be at any location on drive.

   - Copy the downloaded self-signed certificate *crminstallationkeystore.jks* and paste into any location under tomcat-deployed machine.
     Example. C:\Tomcat\conf\crmkeystore\ crminstallationkeystore.jks
     Note: To create your own self-signed certificate, follow the steps provided in the link: https://www.mkyong.com/tomcat/how-to-configure-tomcat-to-support-ssl-or-https/

   - After performing the steps above, add *<Connector>* tag into the *"server.xml"* file for tomcat to work with SSL/TLS/https protocols.
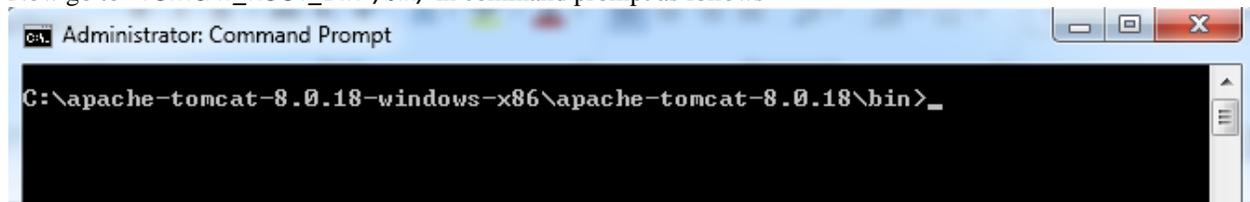
     Server.xml file can be found at <TOMCAT_ROOT_DIR>\conf\server.xml. The following provides an example of *<Connector >* tag for your reference.

     <Connector protocol="HTTP/1.1" port="8443" SSLEnabled="true"   maxThreads="150" scheme="https" secure="true" clientAuth="false" sslEnabledProtocols="TLSv1.2" ciphers="TLS_RSA_WITH_AES_128_CBC_SHA,TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA,TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA, TLS_ECDH_ECDSA_WITH_AES_256_CBC_SHA,TLS_ECDH_RSA_WITH_AES_256_CBC_SHA,TLS_RSA_WITH_AES_256_CBC_SHA,TLS_DH_DSS_WITH_AES_128_CBC_SHA" keystoreFile="C:\Tomcat\conf\crmkeystore\crminstallationkeystore.jks" keystorePass="4aac652a-fe31-4b89-b289-2e759cc6c4fa"/>

     Note: If some processes are already using port 8443, you can use any other available port and ensure that <connector> tag is updated with the new port details.

     Reference: https://www.mkyong.com/tomcat/how-to-configure-tomcat-to-support-ssl-or-https/

   - Now go to *<TOMCAT_ROOT_DIR>/bin/* in command prompt as follows

   - Run *startup.bat* as follows

New command prompt spawns as shown below, wait until you see the message *"Server has started up"*

- Open the application URL as
  "https ://<Tomcat_Running_Machine_IP> :<Tomcat running port>/crm". Google chrome is a supported browser.

  Example: *"https://192.168.1.2:8443/crm "*
  If you are accessing the application from tomcat-installed machine, user can use "https://localhost:8443/crm"

- If all steps followed properly, user should be able to see the vCenter Server login page.

  Note: We recommend entering vCenter server FQDN (Fully Qualified Domain name) rather IP address. In addition, we recommend users to use one feature at a time to avoid any unexpected results.

- Once you enter vCenter Server credentials, you will be prompted to enter database schema details and so on.

  Note: The information will be clear in the User Interface. Entering DB schema details is one time activity.

- Default ports for the following databases are listed below:
  - Microsoft SQL Server: 1433
  - My SQL: 3306
  - Oracle: 1521

  However, user can configure other valid ports while installing respective databases. Specify appropriate port based on the database.