Deploying CCTracker Using Java Web Start

The following describes how to deploy the CCTracker Client Application using Java Web Start.

It involves the following steps:

Building the CCTracker application

Checkout the CCTracker Client from cvs repository. Build the CCTracker Client netbeans project. It will create the CCTrackerClient.jar file in build directory and all the required jar files will be available in lib directory of build.

Signing the JAR Files

The CCTracker application needs access to the client's system resources, e.g. file system (for caching the information) and environment variables. Therefore, Web Start must run it in a trusted environment (see <all-permissions/> in the CCTracker.jnlp). This requires that all the jar files be signed. (jar files are available in the build directory of netbeans project)

You will need keytool and jarsigner tools from the Java Development Kit

1. Create a new key in a new keystore as follows:

keytool -genkey -keystore myKeystore -alias myself

You will be prompted for information about the new key, such as password, name, etc. This will create the myKeystore file.

2. Then create a self-signed test certificate as follows:

keytool -selfcert -alias myself -keystore myKeystore

This will prompt for the password. Generating the certificate may take a few minutes.

3. Finally, sign jar files with the test certificate as follows:

jarsigner -keystore myKeystore *.jar myself

Create JNLP File

Create a file named CCTracker.jnlp with contents similar to the following

```
<?xml version="1.0" encoding="utf-8"?>

<!--
########################################################################
########
#
# @(#)CCTracker.jnlp 20-10-06
#
```

```
# JNLP File for CCTracker Application
#
##########################################################################
########
 -->


<jnlp spec="1.0+" codebase="http://it-div-fio-lcg.web.cern.ch/it-div-
fio-lcg/cct1_5/"  href="CCTracker.jnlp">
   <information>
      <title>CCTracker</title>
      <vendor>CERN</vendor>
      <homepage href="http://it-div-fio-lcg.web.cern.ch/it-div-fio
lcg"/>
      <description>Computer Centre Visualization & Management
Tool</description>
      <description kind="short">Computer Centre Visualization &
Management Tool</description>
   </information>
   <resources>
      <j2se version="1.4+"
href="http://java.sun.com/products/autodl/j2se" />
        <jar href="CCTrackerClient.jar"/>
        <jar href="axis.jar"/>
        <jar href="axis-ant.jar"/>
        <jar href="castor-0.9.9.1.jar"/>
        <jar href="castor-0.9.9.1-srcgen-ant-task.jar"/>
        <jar href="castor-0.9.9.1-xml.jar"/>
        <jar href="CCObjects.jar"/>
        <jar href="TabbedPaneLib.jar"/>
        <jar href="commons-discovery-0.2.jar"/>
        <jar href="commons-logging-1.0.4.jar"/>
        <jar href="commons-codec-1.3.jar"/>
        <jar href="commons-httpclient-3.0.1.jar"/>
        <jar href="jaxrpc.jar"/>
        <jar href="jdbc-se2.0.jar"/>
        <jar href="jta1.0.1.jar"/>
        <jar href="saaj.jar"/>
        <jar href="wsdl4j-1.5.1.jar"/>
        <jar href="log4j-1.2.8.jar"/>
        <jar href="xerces.jar"/>
        <jar href="xercesSamples.jar"/>
        <jar href="swing-layout-1.0.jar"/>
   </resources>
   <security>
      <all-permissions/>
   </security>
<application-desc main-class="ch.cern.cctracker.app.CCTMain" >
<argument>http://it-div-fio-lcg.web.cern.ch/it-div-fio-
lcg/cct1_5/CCBootstrap.xml</argument>
</application-desc>
</jnlp>
```

Save it in your Web server's directory. Ensure that CCTracker.jnlp is readable so that it can be accessed via the Web server.

Prepare the CCBootstrap.xml file which contains the urls and configuration information of CCTracker client; copy it in your web server area.

Copy the signed JAR Files

Copy the signed jar files to your Web server directory.
Ensure that jar files are readable and can be accessed via the URLs as in CCTracker.jnlp

Test

You should then be able to launch the CCTracker application from a Java Web Start enabled browser using a URL http://it-div-fio-lcg.web.cern.ch/it-div-fio-lcg/cct1_5/cctracker.jnlp

You will be prompted to trust the application (the certificate is used to authenticate the identity of the person/organisation who created file CCTracker.jar).

On Windows you might also be prompted about desktop integration, i.e. whether to create a desktop shortcut from which you can directly launch the CCTracker application in future.

If the URL successfully launches the CCTracker application then you can include it in Web page.

Updates

Whenever the CCTracker application is launched, whether from a URL, desktop shortcut or the Java Web Start GUI, Web Start will check whether the jar files have been updated on the server. If they were then the new jar files will be downloaded into the Web Start cache and used to run the CCTracker application. In this way new versions of CCTracker can be automatically deployed by simply updating the copy of jar files on the Web server.