# Enabling secure connection between client and server

### On this page

- Generating a key pair using Java Keytool
- Enabling a secure connection to Teamwork Cloud
- Setting up TLS in TWCloud Admin
- Setting up client-side TLS

## Generating a key pair using Java Keytool

To enable a secure connection between the client and the server, you need to generate two keystore files, each in their own keystores:

- KeyStore.jks (contains key and certificate) server-side upload it using TWCloud Admin console.
- cert.jks (contains public certificate) client-side place it in the <Application folder>lcerts directory.

#### To generate a key pair

- 1. Go to your Java directory and open the folder named bin.
- 2. Enter keytool -genkey -alias MyDomain -keyalg RSA -keystore KeyStore.jks -keysize 2048 and press Enter.



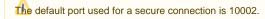
- 3. Enter a password for your keystore and answer the questions asked. A certificate with a key is generated and placed into the keystore.
- 4. To extract a certificate without a key, type keytool -export -alias MyDomain -file certificate.cer -keystore KeyStore.jks and press Enter.
- 5. To place a certificate into another keystore, e.g. cert.jks, type keytool -import -alias MyDomain -file certificate.cer -keystore cert.jks and press Enter.



Two keystore files are generated: one for the server (**KeyStore.jks**) and one for the client (**cert.jks**). You can now proceed to enable a secure connection between the client (modeling tool) and the server (Teamwork Cloud).

## **Enabling a secure connection to Teamwork Cloud**

To enable a secure connection to TWCloud, you must enable TLS (Transport Layer Security) on the TWCloud Admin's **Server Settings** page. This page also allows you to disable the option if you do not need to use a secure connection (see the following figure). You can always enable it whenever necessary.





Enabling TLS protocol in TWCloud (when the option is turned on, the color changes to orange).

Self-signed TLS certificate warning. Security) as the security protocol to keep any information you enter on TWCloud Admin private and secure.

By default, your server generated a TLS certificate and signed it as being valid (self-signed certificate). The self-signed TLS certificate allows a secure **Setting up TLS in TWCloud Admin** he authenticity of the server like the TLS certificate issued by a valid Certificate Authority (CA) does.

To enable a secure connection using the TLS protocol in TWCloud Admin

Trusted root certificates are embedded into popular browsers such as Internet Explorer, Firefox, and Chrome. They are used to verify all TLS certificates

that the argumer settings tapp! a certificate is not signed by one of these roots, the browsers display an error or warning message stating that it is

2. Change sliders position to the right to enable the TLS protocol, untristed. The soliders position to the right to enable the TLS protocol, untristed. The port, upload a Java key store file and type the password.

3. Type in the port, upload a Java key store file and type the password.

beldw Samexample of the "TLS certificate not trusted" warning in Chrome.

At this point, you will be able to connect to TWCloud from the modeling tool via the TLS connection.

## **Setting up client-side TLS**

To enable a secure connection using the TLS protocol on the client-side

- 1. Locate the client certificate manually.
- 2. Create a folder named certs under the modeling tool install folder. Place the following files into the newly created certs folder:
  - A client certificate named cert.jks.
  - A file named **cert.pass** wherein the certificate password is typed.