

**C·O·M·O·D·O**

Creating Trust Online<sup>®</sup>

# Comodo Certificate Manager

**Comodo CA Limited**

3rd Floor, 26 Office Village, Exchange Quay,

Trafford Road, Salford,

Greater Manchester M5 3EQ,

United Kingdom.

**Installation and Configuration Guide**

## Hardware and Software Requirements

Windows 2003, Linux or Solaris OS

Java SDK 5.0 Update 9 or later

512MB of RAM

1GB disk space

Internet connection

## Download and Install Comodo Certificate Manager

1. Install Java SDK 5.0 Update 9 or later  
([http://java.sun.com/javase/downloads/index\\_jdk5.jsp](http://java.sun.com/javase/downloads/index_jdk5.jsp))
2. Set JAVA\_HOME environment variable to point to JSDK install directory
3. Download ComodoCM-2.0.zip
4. Unzip ComodoCM-2.0.zip

**Note:** User that running application must have 'root' privileges to open TCP ports 80 and 443.

## Comodo Certificate Manager configuration

By default Comodo Certificate Manager is shipped preconfigured. You will need to alter following to finish configuration:

Edit file:

*ComodoCM-2.0/conf/config.properties*

Line starting with the '#' character consider to be comment.

Set **KEYS\_DIR** to the directory where you want private keys and certificates to be stored.

KEYS\_DIR=VALUE

**NOTE:** For Windows, if Directory is C:\ComodoCM-2.0\Keys, use C:\\ComodoCM-2.0\\Keys

Values to input:

Set **SERVER\_ADDRESS\_VALUE** to your Server WWW address.

**EXTERNAL\_BASE\_URL**=http://SERVER\_ADDRESS\_VALUE/com.comodo.epki.EPKI/

These values are provided by Comodo (special agreement):

CA\_LOGIN=VALUE

CA\_PASSWORD=VALUE

These values are using if requesting SSL certificates use different Comodo CA account rather than client certificates requesting:

```
CA_SSL_LOGIN=VALUE  
CA_SSL_PASSWORD=VALUE
```

```
Intermediate certificate Id  
CA_CERTIFICATE_ID=VALUE
```

## Connecting to embedded database

If you need to connect to an embedded database, you will to stop Comodo Certificate Manager first.

After stopping Comodo Certificate Manager, execute the following to connect :

```
$ cd ComodoCM-2.0/Databases
```

```
$ java -cp ../common/lib/derby.jar:../common/lib/derbytools.jar org.apache.derby.tools.ij
```

```
ij> connect 'jdbc:derby:default';
```

**\* make sure you stopped Comodo Certificate Manager prior your attempt to connect to database**

When you want to disconnect, execute:

```
ij> exit;
```

## Configure MS SQL support (MS SQL 2000 & 2005)

1. Create database for Comodo Certificate Manager.
2. Load schema: *ComodoCM-2.0/etc/schema\_ms.db*
3. Download JDBC driver for MS SQL and copy it to *ComodoCM-2.0/common/lib* (you need *sqljdbc.jra* file only)
4. Edit file *ComodoCM-2.0/conf/Catalina/localhost/context.xml.default*
5. Find: `<Resource name="jdbc/proxyauth"...`

*Change username to MS SQL username*

*Change password to MS SQL password*

*Change driverClassName to: com.microsoft.sqlserver.jdbc.SQLServerDriver*

*Change url to: jdbc:sqlserver://HOST:PORT;databaseName=DATABASE\_NAME*

Where:

*HOST – hostname of MS SQL db*

*PORT – MS SQL port (usually 1433)*

*DATABASE\_NAME – database name for Comodo Certificate Manager*

## Configure MySQL support (MySQL 4.x & 5.x)

1. Create database for Comodo Certificate Manager.
2. Load schema: *ComodoCM-2.0/etc/schema\_mysql.sql*
3. Download JDBC driver for MS SQL and copy it to *ComodoCM-2.0/common/lib*. It can be downloaded at <http://www.mysql.com/products/connector/j/>  
**\* MySQL licensing fees might apply**
4. Edit file *ComodoCM-2.0/conf/Catalina/localhost/context.xml.default*
5. Find: `<Resource name="jdbc/proxyauth"...`

*Change username to MySQL username*

*Change password to MySQL password*

*Change driverClassName to: com.mysql.jdbc.Driver*

*Change url to: jdbc:mysql://HOST:PORT/DATABASE\_NAME?autoReconnect=true*

Where:

*HOST – hostname of MySQL db*

*PORT – MS SQL port (usually 3306)*

*DATABASE\_NAME – database name for Comodo Certificate Manager*

## Configure PostgreSQL support

1. Create database for Comodo Certificate Manager.  
**\* You might have to enable postgresQL to listen on TCP/IP port. See <http://www.postgresql.org/docs/8.1/static/runtime-config-connection.html> for more information.**
2. Load schema: *ComodoCM-2.0/etc/schema\_pg.sql*
3. Edit file *ComodoCM-2.0/common/classes/hibernate.cfg.xml*
4. Find: `<property name="connection.url">jdbc:postgresql://IPADDRESS:PORT/DATABASENAME</property>`  
*Change IPADDRESS, PORT and DATABASENAME to your settings, where*  
*IPADDRESS: hostname or IP address of PostgreSQL db.*  
*PORT: TCP/IP port your PostgreSQL listening to.*  
*DATABASENAME: database name for Comodo Certificate Manager.*
5. Find: `<property name="connection.username">DB_USERNAME</property>`  
*Change DB\_USERNAME to your PostgreSQL database user name.*

6. Find: `<property name="connection.password">DBPASSWORD</property>`

Change `DBPASSWORD` to your password for your Database user.

PostgreSQL database scheme file is:

`ComodoCM-2.0/conf/scheme_pg.sql`

## Configuring SMTP server

How to configure SMTP server to send email notifications:

Edit file `ComodoCM-2.0/shared/classes/config` properties.

1. Set `SMPT_HOST` to mail server host name
2. Set `SMTP_FROM_ADDRESS` to email address from which emails will be sent
3. Set `SMTP_FROM_NAME` to name to appear in customer's mail client as FROM field
4. If your email requires SMTP AUTH to relay email, set fields `SMTP_LOGIN` and `SMTP_PASSWORD`. Otherwise this fields can be omitted.
5. If you want a copy of certificate issuance notification email to be send somewhere else, add the recipient to: `SMTP_BCC`

## Starting Comodo Certificate Manager

`cd ComodoCM-2.0/bin`

for unix execute `$ ./startup.sh`

for windows execute `c:\ startup.bat`

**Note:** By default Comodo Certificate Manager is configured to listen on port 443. As the result, you have to execute `./startup.sh` as privileged use (root).

## Shutting Down Comodo Certificate Manager

`cd ComodoCM-2.0/bin`

for unix execute `$ ./shutdown.sh`

for windows execute `c:\ shutdown.bat`

## SSL Certificate Installation

You will need to install SSL certificate for Comodo Certificate Manager to match your backend domain name.

The certificate should be placed into `ComodoCM-2.0/conf/comodoCAM.keystore`

See this guide on how to install certificate for Comodo Certificate Manager:

<http://tomcat.apache.org/tomcat-5.5-doc/ssl-howto.html>

**Note:** Comodo Certificate Manager in most cases will come with InstantSSL certificate for your backend site. We can ship you comodoCAM.keystore preinstalled with your certificate.

## Comodo Certificate Manager HTTPS Port configuration

By default Comodo Certificate Manager is setup to use port 443. If you need to change this port during testing, edit file:

ComodoCM-2.0/conf/server.xml

You will need to modify line:

```
<Connector port="443"...
```

## Binding to particular IP

By default Comodo Certificate Manager binds to all IPs for ports 443 and 80. If you want to change it so that Comodo Certificate Manager binds to particular IP only, add *address* attribute to *Connector* tag in *ComodoCM-2.0/conf/server.xml*

Like:

```
<Connector address="xx.xx.xx.xx" port="443"
```

## Comodo Certificate Manager Logging

You can alter Comodo Certificate Manager logging by editing *ComodoCM-2.0/common/classes/log4j.properties* file

## Access Logging

To enable access logging, edit file *ComodoCM-2.0/conf/Catalina/localhost/context.xml.default*

Uncomment

```
<Valve className="org.apache.catalina.valves.AccessLogValve" pattern="combined" prefix="access_log." suffix=".log"
rotatable="true"/>
```

You can find more info on access log configuration here:

<http://tomcat.apache.org/tomcat-5.5-doc/config/valve.html#Access%20Log%20Valve>

## Admin Interface

To access admin interface for Comodo Certificate Manager, enter in your browser: <https://server.com/com.comodo.EPKI/EPKI.html>

Default login/password: *admin/admin*

## Restricting access to Admin interface using Client Certificates

Comodo Certificate Manager defines "truststore", that allows to specify the trusted range of certificates, so that only certificates issued by particular ROOT key would be accepted during Comodo Certificate Manager authentication.

The truststore is located in *ComodoCM-2.0/conf/comodoCAM/comodoCAM.truststore* and comes pre-configured.

## Restricting access to Admin interface by IP

You can restrict access to admin interface by editing *ComodoCM-2.0/conf/Catalina/localhost/comodCAM.xml* file.

Uncomment

```
<Valve className="org.apache.catalina.valves.RemoteAddrValve"
  allow="127.0.0.*;192.168.0.*"
  deny="192.168.0.10,127.0.0.1">
```

The valve will allow access by all IPs specified in **allow** attribute, but those specified in **deny** attribute.

## Accessing Remote SOAP API and WSDL

You can access Comodo Certificate Manager SOAP API by <https://SERVER/axis/EPKIManager.jws>

The WSDL is accessible at: <https://SERVER/axis/EPKIManager.jws?wsdl>

## Configuration options

The runtime configuration of Comodo Certificate Manager can be altered by editing *shared/classes/config* properties.

This configuration file controls functionality of the software. For any changes to take affect, software Comodo Certificate Manager has to be restarted after the change is made.

<i>Configuration options</i>		
<i>Option name</i>	<i>Possible Values</i>	<i>Description</i>
<i>E-Mail Settings</i>		
SMTP_HOST	<i>String</i>	Mail Server host name or IP address
SMTP_FROM_ADDRESS	<i>String</i>	From: email address from which email notifications to customer will be sent
SMTP_FROM_NAME	<i>String</i>	From: name from which email notifications to customer will be sent
SMTP_LOGIN	<i>String</i> <i>(optional)</i>	login name used for SMTP Authentication
SMTP_PASSWORD	<i>String</i>	password used for SMTP Authentication

<b>Configuration options</b>		
	<i>(optional)</i>	
SMTP_BCC	String <i>(optional)</i>	the email address to which copies of certificate issuance notification emails will be sent
<b>Certificate Authority Login Information</b>		
CA_LOGIN	String	Your Comodo CA account login
CA_PASSWORD	String	Your Comodo CA account password
CA_CERTIFICATE_ID	Numeric	Intermediate certificate Id
<b>Miscellaneous</b>		
DOWNLOAD_URL	String	The will be used in email to forward users to collect certificates in PKCS#12 format.

## Certificate Authority Login Information

Your certificate authority login information will be provided to you by your Sales representative.

To change your Comodo password, go to: <http://www.comodo.com> and login to your account using your existing password and username. After logging in, hit the 'Change Password' link in the Management area.

## About Comodo

Comodo is a leading global provider of Identity and Trust Assurance services on the Internet. Comodo CA offers a comprehensive array of PKI Digital Certificates, eCommerce Acceleration and Infrastructure Security solutions including User Access Authentication (Two-Factor / Multi-Factor), Network Vulnerability Scanning and PCI compliance services. With over 10,000,000 installations of its threat prevention products, Comodo Security Solutions offers an extensive suite of [endpoint security software](#) and services for businesses and consumers.

Continual innovation, a core competence in PKI and a commitment to reversing the growth of Internet-crime distinguish the Comodo companies as vital players in the Internet's ongoing development. The Comodo companies secure and authenticate online transactions and communications for over 200,000 business customers, and have offices in the US, UK, China, India, Romania and the Ukraine.

Comodo provides businesses and consumers with the intelligent security, authentication and assurance services necessary to establish and ensure trust in online transactions.

### **Comodo CA Limited**

3rd Floor, 26 Office Village, Exchange Quay,  
Trafford Road, Salford, Manchester M5 3EQ,  
United Kingdom.

Tel : +44 (0) 161 874 7070

Fax : +44 (0) 161 877 7025

### **Comodo Security Solutions, Inc**

525 Washington Blvd.,  
Jersey City, NJ 07310

United States.

Tel: +1 888 256 2608

Tel: +1 703 637 9361

Email: [EnterpriseSolutions@comodo.com](mailto:EnterpriseSolutions@comodo.com)

For additional information on Comodo - visit <http://www.enterprise.comodo.com/>.