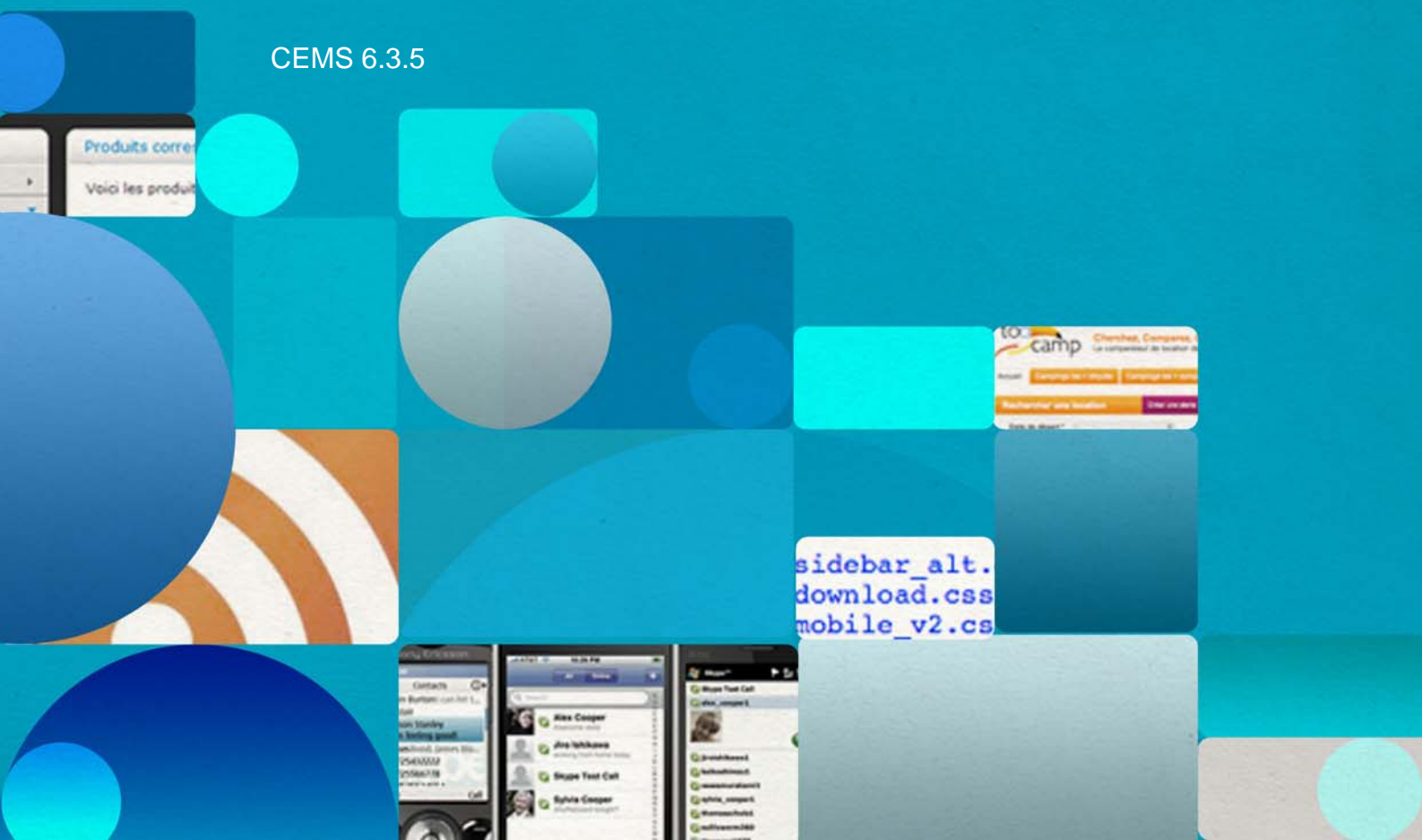




# Operating Guide

## C-EMS Installation and Administration

CEMS 6.3.5







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This chapter presents the purpose of the *Operating Guide*, as well as key information about Convertigo softwares.

- [Introduction](#)
- [Convertigo software elements](#)

## 1.1 Introduction

This *Operating Guide* is the reference material concerning Convertigo installation and administration.

It contains several chapters:

- *"Introducing the Operating Guide"* - briefly describes the Operating Guide and proposes general presentation of *"Convertigo software elements"*.
- *"Installing Convertigo Studio"* - describes the installation procedures of Convertigo Studio in several qualified environments.
- *"Installing Convertigo Server"* - describes the installation procedures of Convertigo Server in several qualified environments.
- *"Using Convertigo Administration Console"* - describes how to use the Convertigo Server Administration Console.

After the last chapter, you can find *"Appendixes"* in relation with operating information.

## 1.2 Convertigo software elements

This section briefly presents Convertigo software elements:

- [Convertigo Studio](#)
- [Convertigo Server](#)
- [Administration Console](#)

### 1.2.1 Convertigo Studio

Convertigo Studio is the application development tool. It allows the developpers to develop

Convertigo projects, including the creation and configuration of objects such as transactions, extraction rules, sequences, etc.

The Studio saves Convertigo projects' specific data into XML files, which will be deployed and used by the Convertigo Server.

For more information on Convertigo Studio installation process and supported platforms, see *"Installing Convertigo Studio"* on page 2-1.

### 1.2.2 Convertigo Server

Convertigo Server executes projects created in *Convertigo Studio*. The Server can manage simultaneous users connected and requesting data for all different types of connectors (Legacy, HTML, Web service, SQL, etc.).

Convertigo Server is:

- a standalone server program installed as a service for Windows platforms, or
- a standard Web application for all other operating systems.

For more information on Convertigo Server installation process, as well as supported platforms and web application servers, see *"Installing Convertigo Server"* on page 3-1.

Convertigo Server engine can be monitored using the web *Administration Console*.

### 1.2.3 Administration Console

Administration Console is the web application that is used to administrate and configure the Convertigo Studio or Convertigo Server engine.

Thanks to a left menu leading to several pages, Convertigo Studio developers or Convertigo Server administrators can monitor engine activity and configure many engine settings.

For more information on the *Administration Console*, see *"Using Convertigo Administration Console"* on page 4-1.



# 2 Installing Convertigo Studio

This chapter describes how to install Convertigo Studio in the qualified environment and operating system.

- [General purpose and packages](#)
- [Convertigo Studio installation on Windows](#)

## 2.1 General purpose and packages

Convertigo Studio can be installed on Windows operating system. Officially supported versions are:

- Windows XPService Pack 2 (32 bits),
- Windows Seven (32 and 64 bits),
- Windows 8.

In standard, Convertigo Studio installation is packaged as a .exe file installing the Eclipse-based Studio and an embedded Convertigo Server including an Apache Tomcat application server.

Convertigo installation file is named as follows:

convertigo-studio-X.Y.Z-v 12345-win32-install.exe

## 2.2 Convertigo Studio installation on Windows

This chapter explains how to install Convertigo Studio on Windows and then how to change the default configurations of installed Convertigo Studio:

- [Installing Convertigo Studio on Windows](#)
- [Convertigo Studio default configuration](#)

## 2.2.1 Installing Convertigo Studio on Windows

- [Prerequisites](#)
- [Installation procedure](#)
- [Important information](#)

### PREREQUISITES

#### MACHINE PREREQUISITES

The following table describes minimum machine prerequisites for installing Convertigo Studio:

Table 2 - 1: Machine prerequisites

	Windows
Version	<ul style="list-style-type: none"><li>• Windows XP Service Pack 2 (32 bits)</li><li>• Windows Seven (32 or 64 bits)</li><li>• Windows 8</li></ul>
CPU	Dual Core
RAM	2 Gb
Disk space	1 Gb

#### INSTALLATION REQUIREMENTS

- The C-EMS installer file: `convertigo-studio-X.Y.Z-v12345-win32-install.exe`
- You must have administration privileges to run this installer.

### INSTALLATION PROCEDURE

The following procedures explain step by step how to install and to configure Convertigo Studio on Windows.

#### *To install Convertigo Studio on Windows*

- 1 Double click on the installation file `convertigo-studio-X.Y.Z-v12345-win32-install.exe`

A **User Account Control** popup is displayed (for example on Windows Seven):

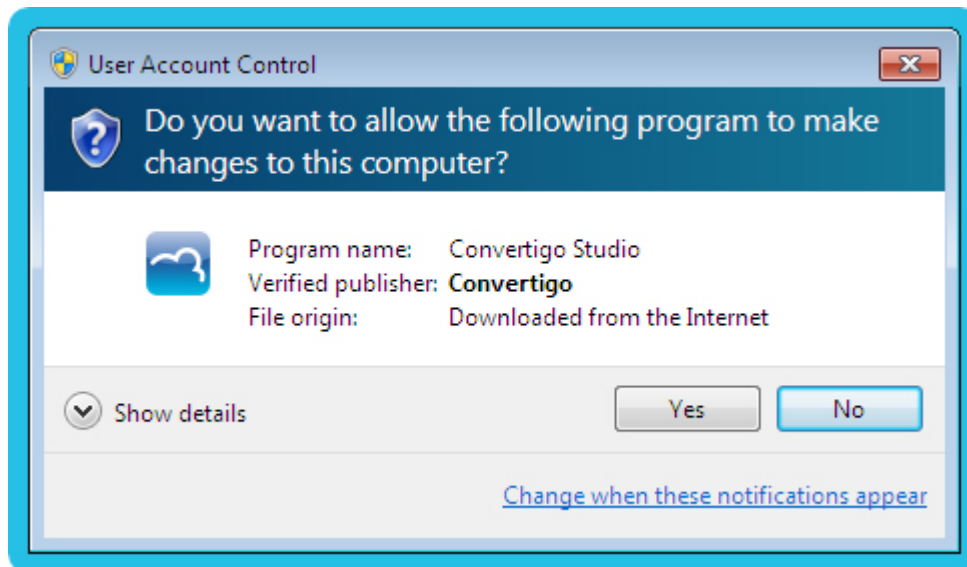


Figure 2 - 1: User Account Control popup after launching the installation file

- 2 Accept the warning by pressing the **Yes** button.

The Convertigo Splashscreen is quickly shown:



Figure 2 - 2: Convertigo Studio splashscreen

It is replaced by the Convertigo Studio Setup wizard:



Figure 2 - 3: Installing Convertigo Studio

- 3** Click on **Next** and follow the screens.

The End User Licence Agreement is displayed:

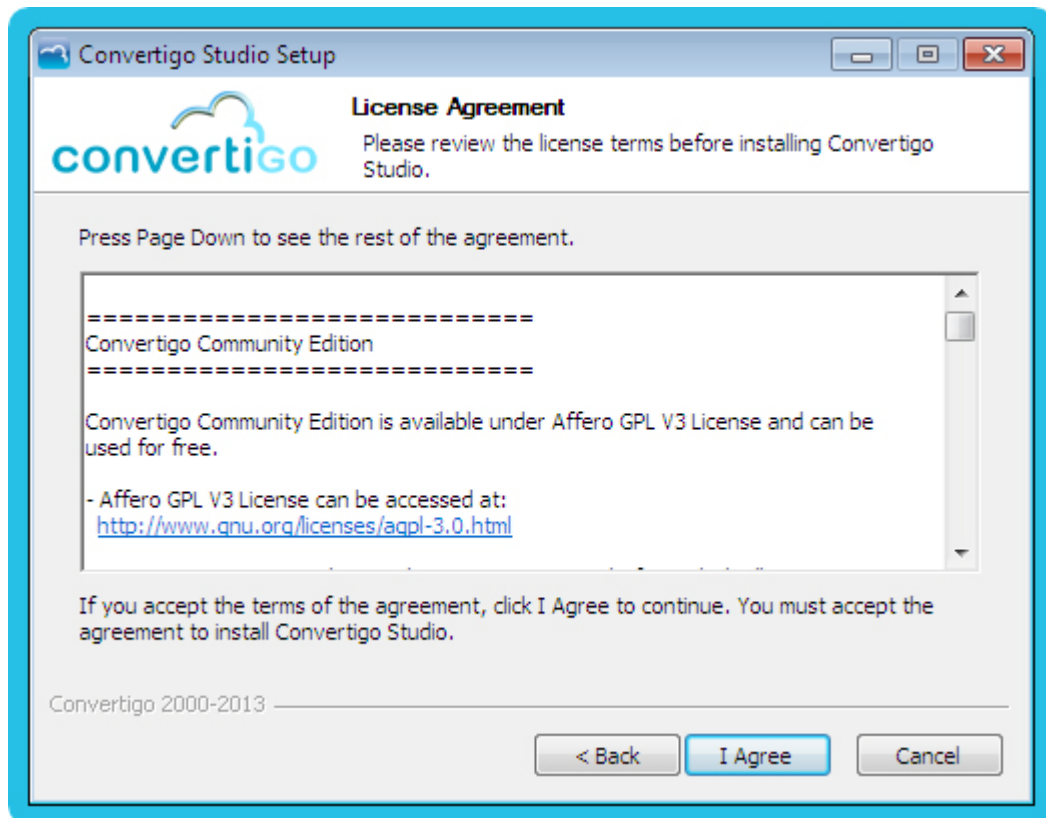


Figure 2 - 4: Convertigo Studio Licence Agreement

- 4 Read carefully the EULA, and accept it by clicking on the **I Agree** button.



***If you do not accept the EULA, the installation has to be cancelled.***

The next page proposes the Convertigo Studio components to install:

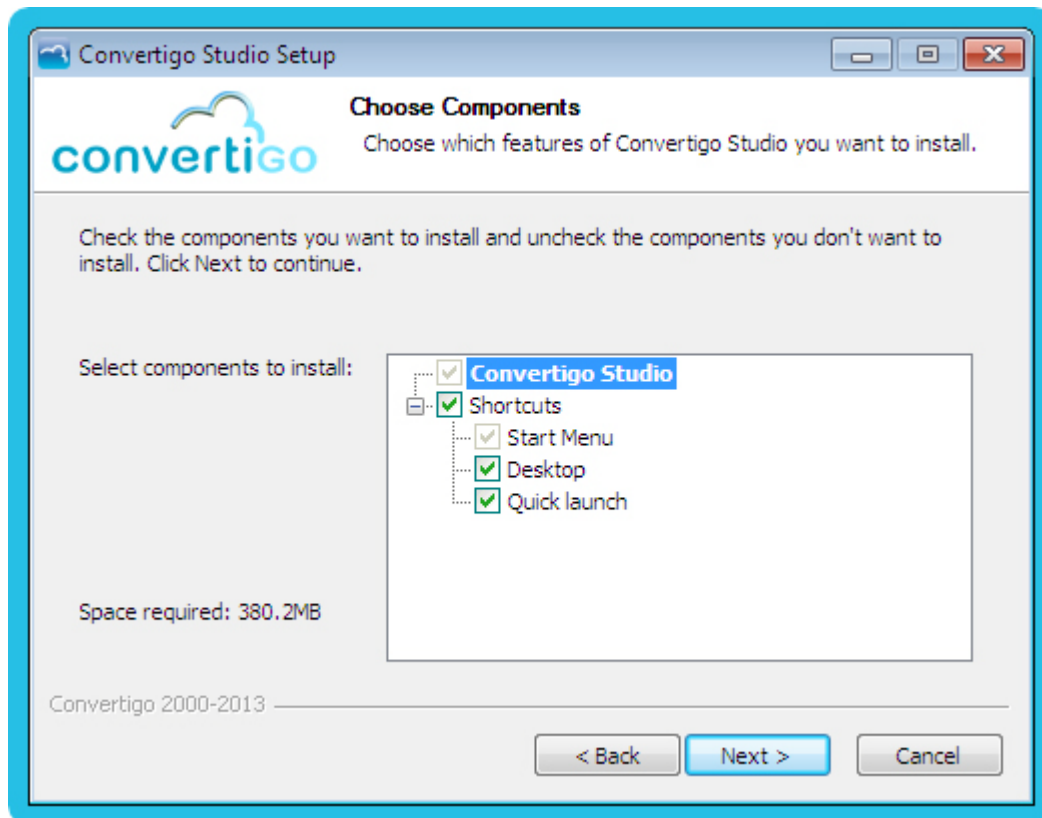


Figure 2 - 5: Choosing components

- 5 The Convertigo Studio component is already selected and can not be unchecked. You can uncheck the shortcuts you will not use. Then, click on **Next**.

The next page allows you to choose the installation folder:



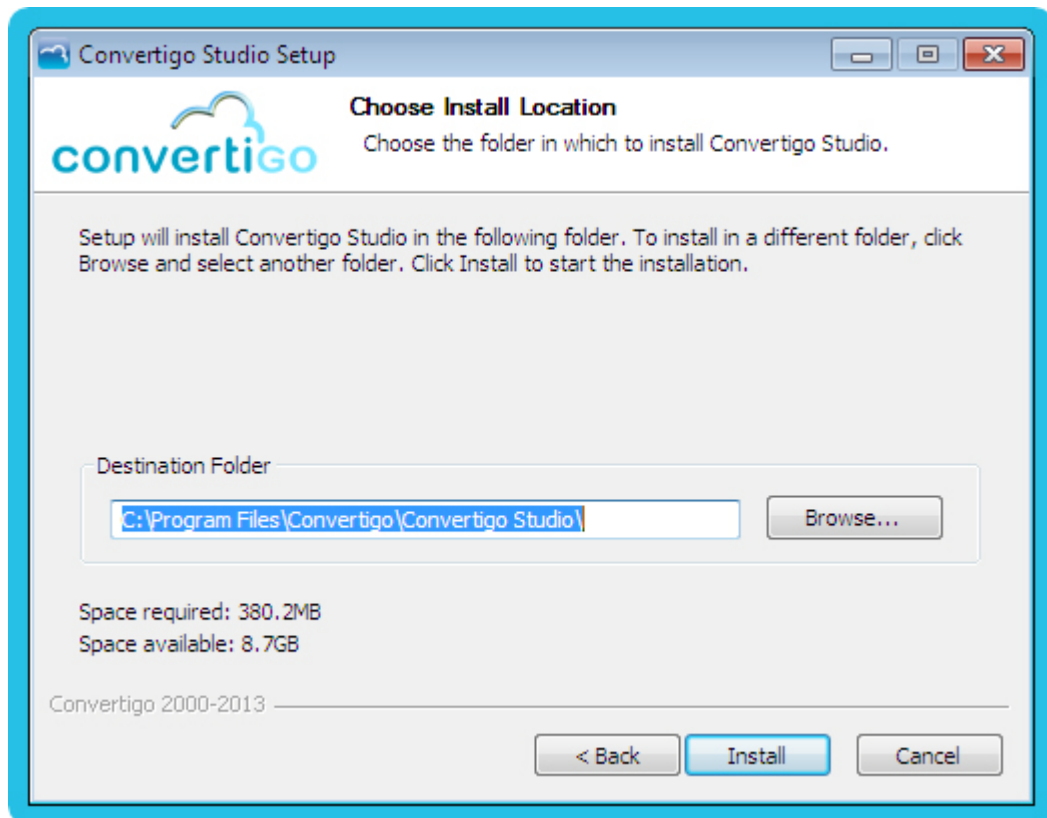


Figure 2 - 6: Setting destination folder

- 6 Change destination folder if the default one is not correct for your installation. Then, click on the **Install** button.

The installation starts, you should wait for a few minutes:

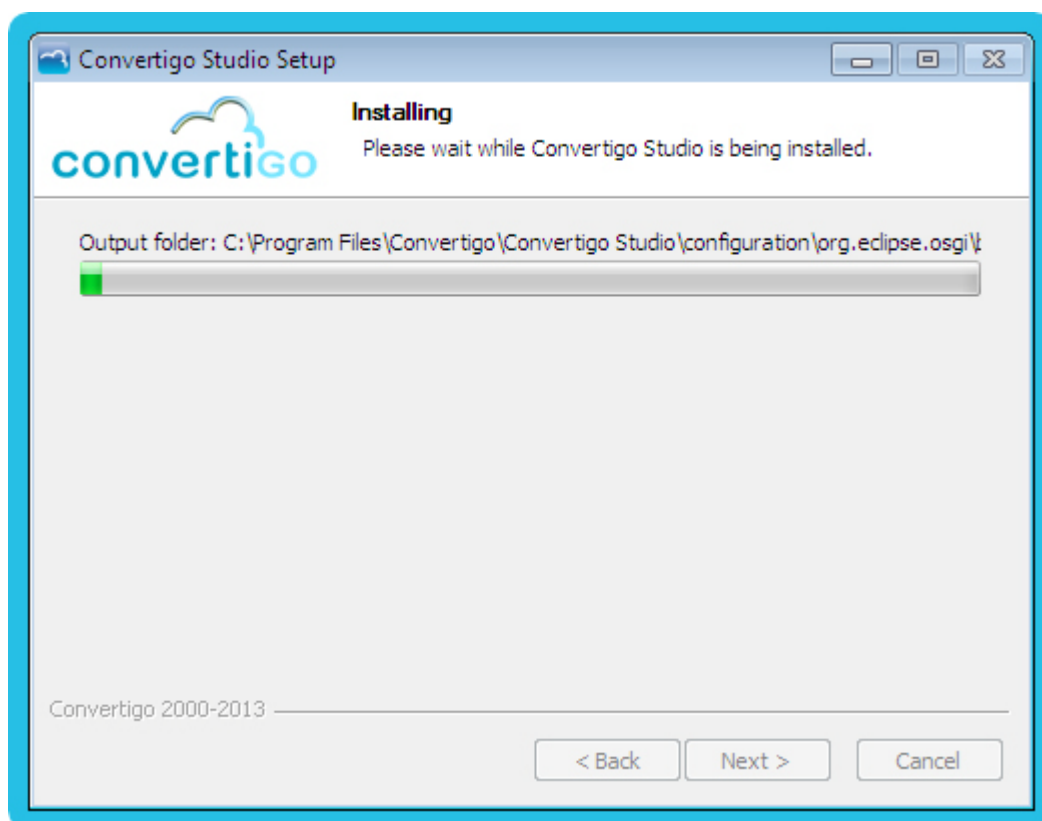


Figure 2 - 7: Start of the installation

The installation continues:

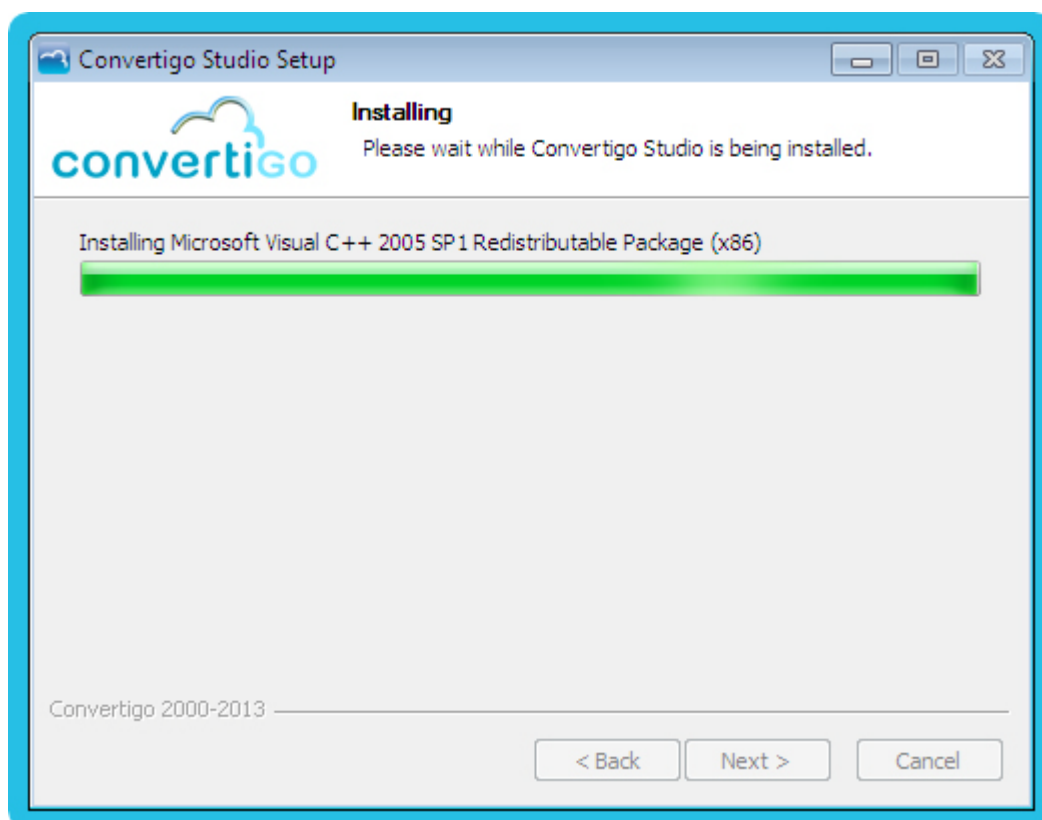


Figure 2 - 8: Installation in progress

This screen indicates the end of installation:



Figure 2 - 9: End of the installation

- 7 It is strongly advised to leave the **Run Convertigo Studio** checkbox checked, so the first start of Convertigo through the installer will correctly set up the environment. Click on the **Finish** button to close the wizard.

The Convertigo Studio starts after the wizard is closed:



Figure 2 - 10: Convertigo Studio splashscreen at startup

### **To configure Convertigo Studio after first start**

- 1 If not already starting, launch the Convertigo Studio using the shortcut, if the installer created it, or through the Start menu.

The Convertigo Studio opens (see Figure 2 - 10), the *Workspace launcher* popup window is opened:

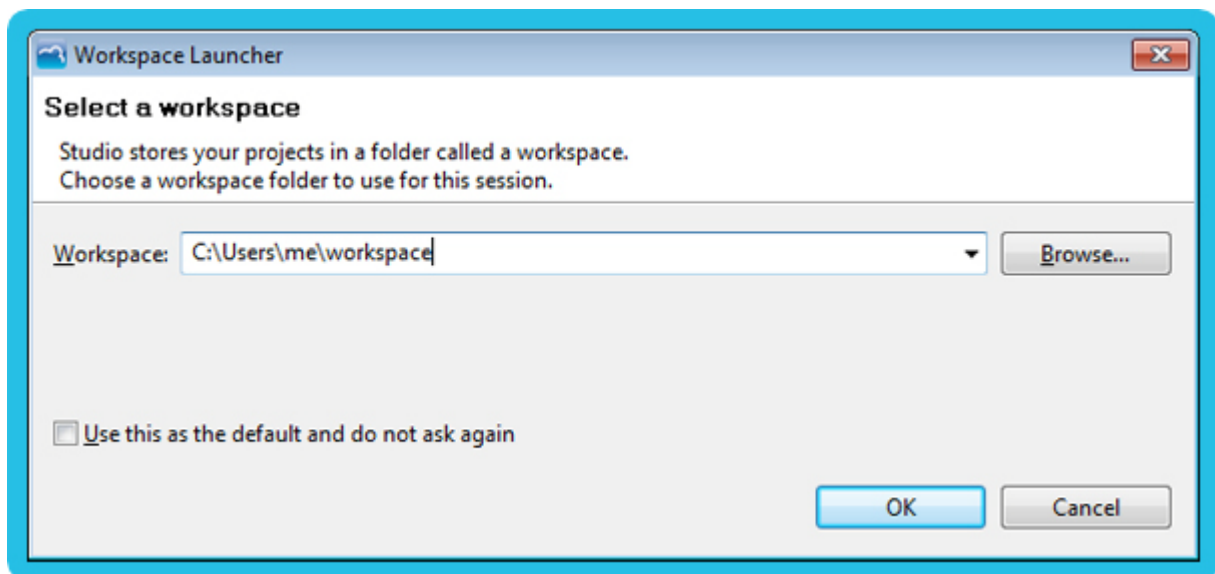


Figure 2 - 11: Workspace launcher

- 2 In this screen, indicate the location of your projects workspace, set by default to your user environment.



For more information on Convertigo workspace and projects workspace, see Appendix "Convertigo workspace" on page A-2.



**Beware that you must choose a folder where you have writing rights. Otherwise, you will not be able to restart the Studio a second time on this same workspace.**

- 3 Check the **Use this as default and do not ask again** checkbox and click on the **OK** button.

The Studio starts, and several popups are opened:

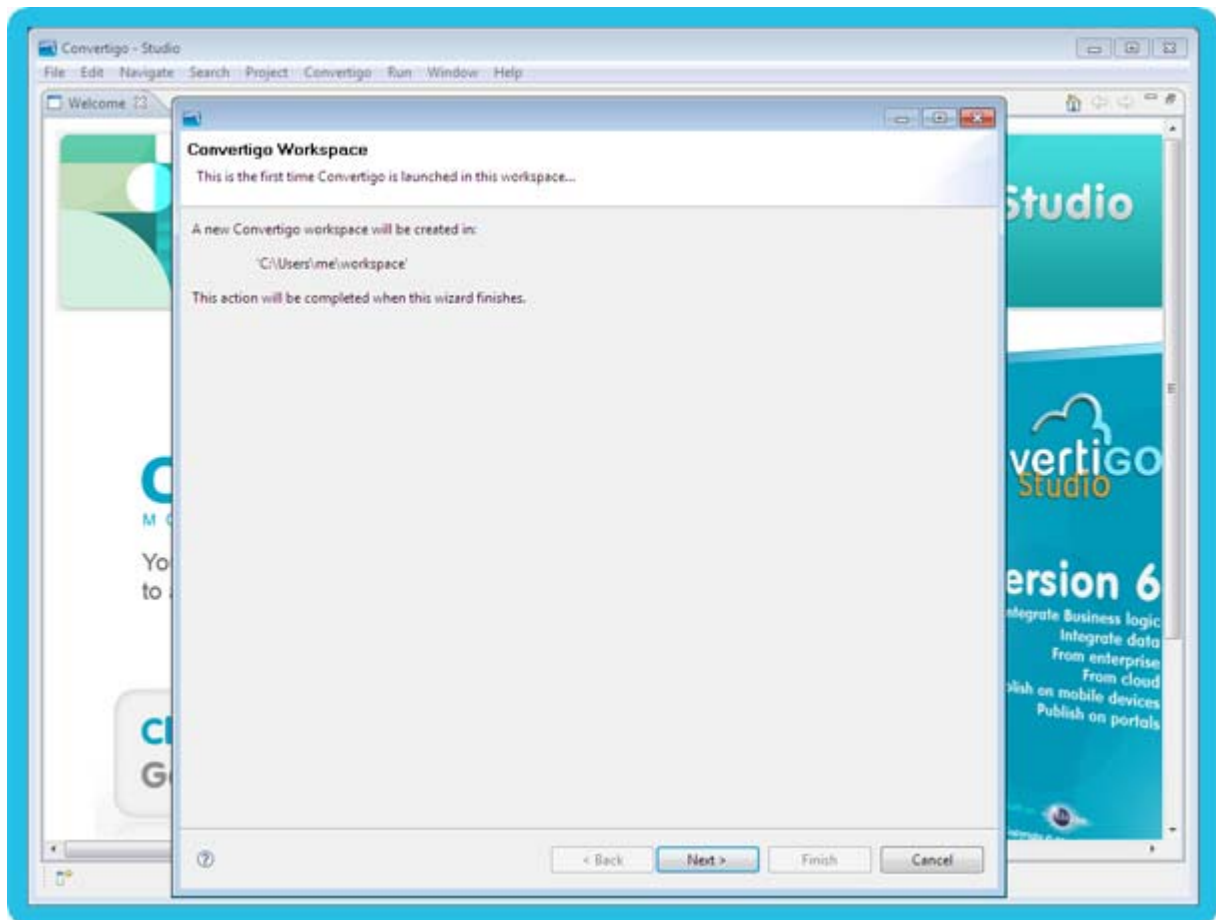


Figure 2 - 12: First Studio start - Several popups

The first popup is the **Convertigo Studio Configuration** wizard. You have to go through this wizard before the Studio engine starts.

- 4 The first page displays a summary about the workspace that was chosen in the *Workspace launcher* window. Depending on the selected path:
  - if the selected folder does not exist or is empty: a new workspace will be created,
  - if the selected folder is a previous Convertigo workspace created with a Convertigo prior to version 6.2.0: the workspace will be migrated,
  - if the selected folder is a previous Convertigo workspace created with a Convertigo

from version 6.2.0: the workspace will be used as is (and several pages of the wizard may not be displayed because the workspace is reused).

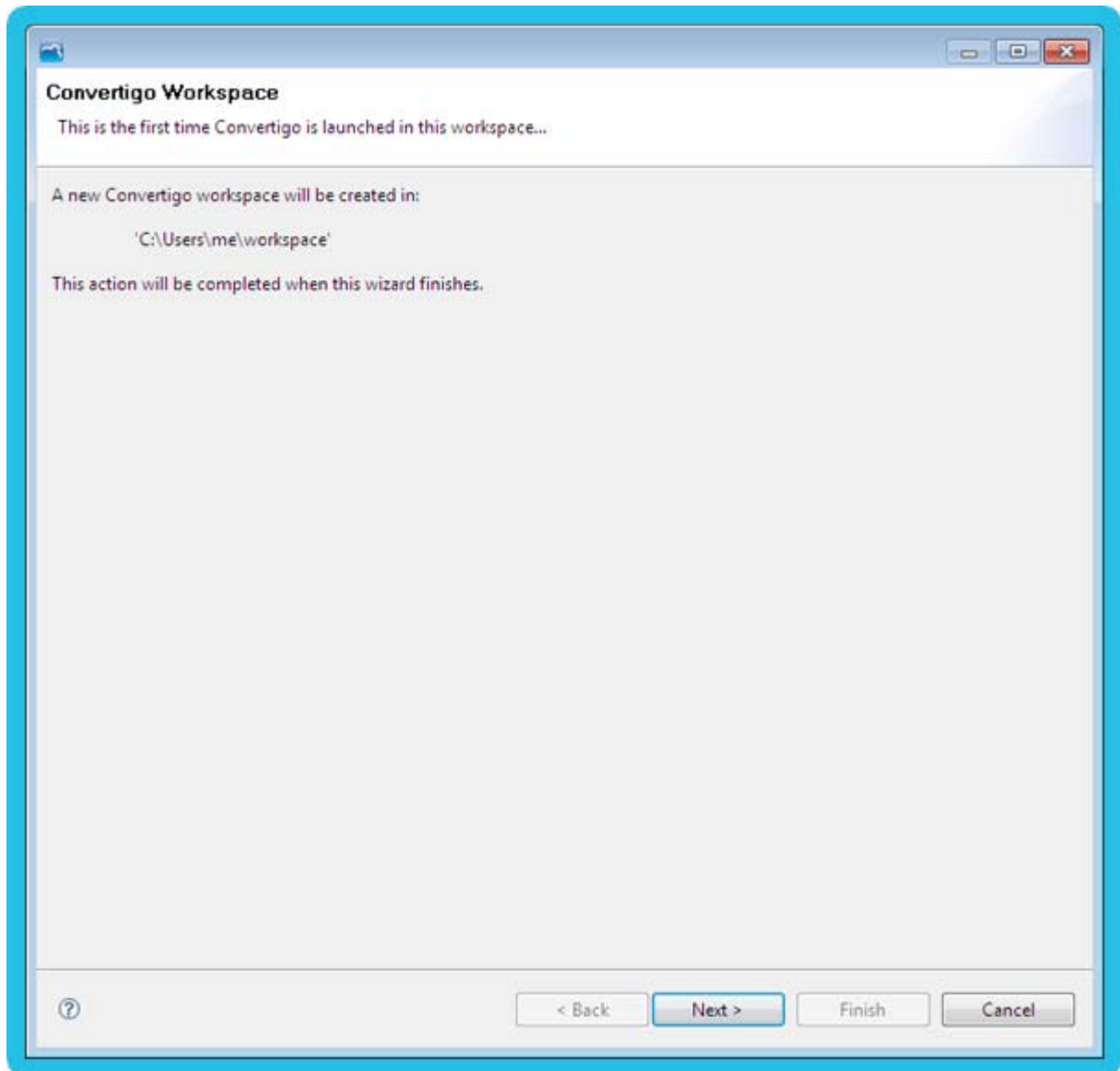


Figure 2 - 13: Studio starting wizard - Convertigo workspace

- 5 If the summary does not fit your needs, click on **Cancel** and restart this procedure from step 1.
- 6 Otherwise, click on **Next**.

The next page allows you to configure a proxy for Convertigo Studio to access the Internet:

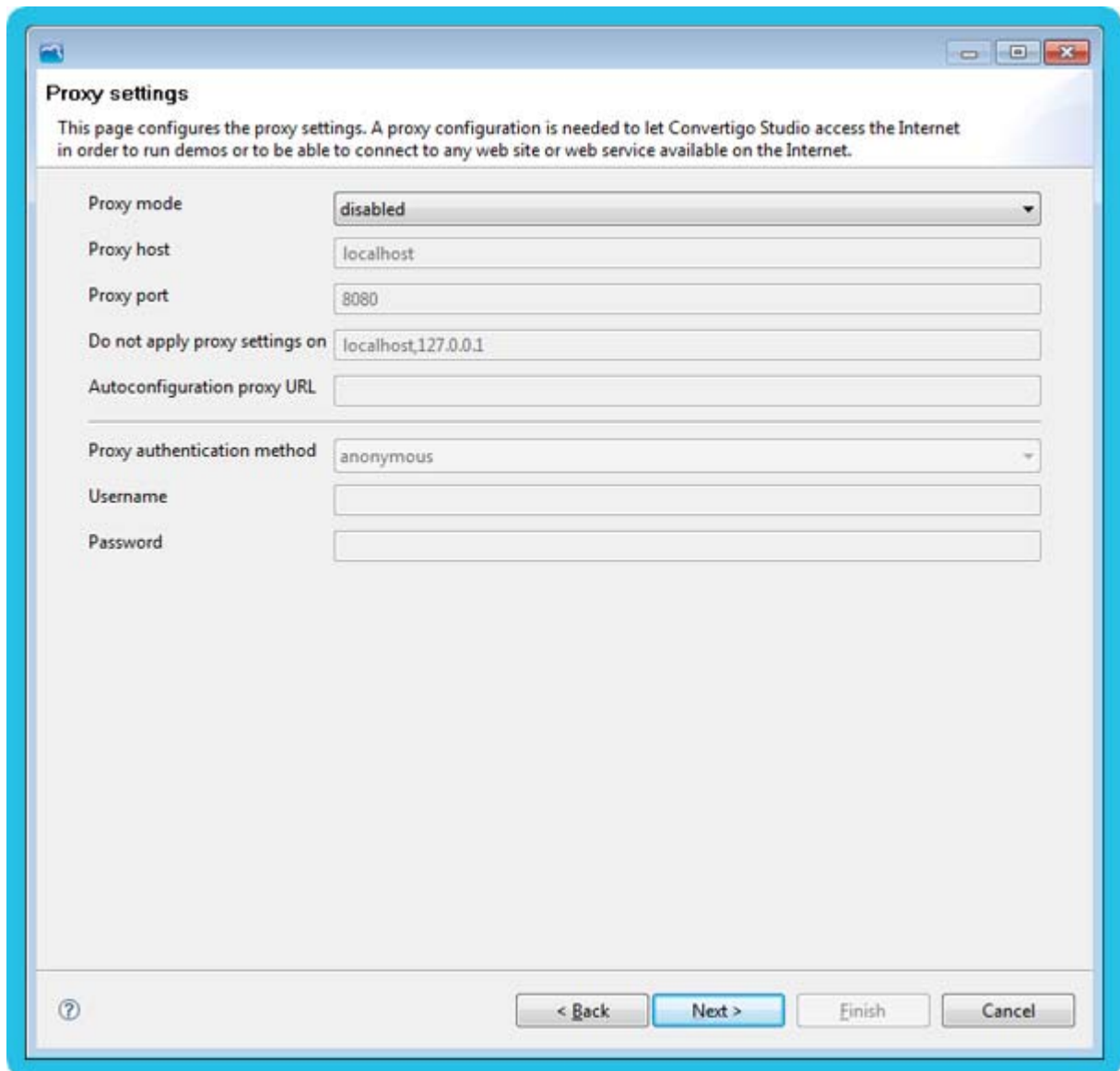


Figure 2 - 14: Studio starting wizard - Proxy settings

- 7 If you need to use a proxy, configure your proxy settings in this page.



*For more information about Convertigo proxy settings, see "Proxy" on page 4-22. This page explains the Convertigo Engine configuration properties about proxy, which settings are found in this wizard page.*

- 8 Then, click on **Next**.

The next page asks if you already have a Personal Studio Configuration.



*A Personal Studio Configuration is an encrypted string that will automatically configure your Convertigo Studio with projects deployment configurations.  
By registering on this wizard, you will be granted a free access to Convertigo Trial Cloud and will get a PSC with a default deployment configuration to this shared Cloud server.*



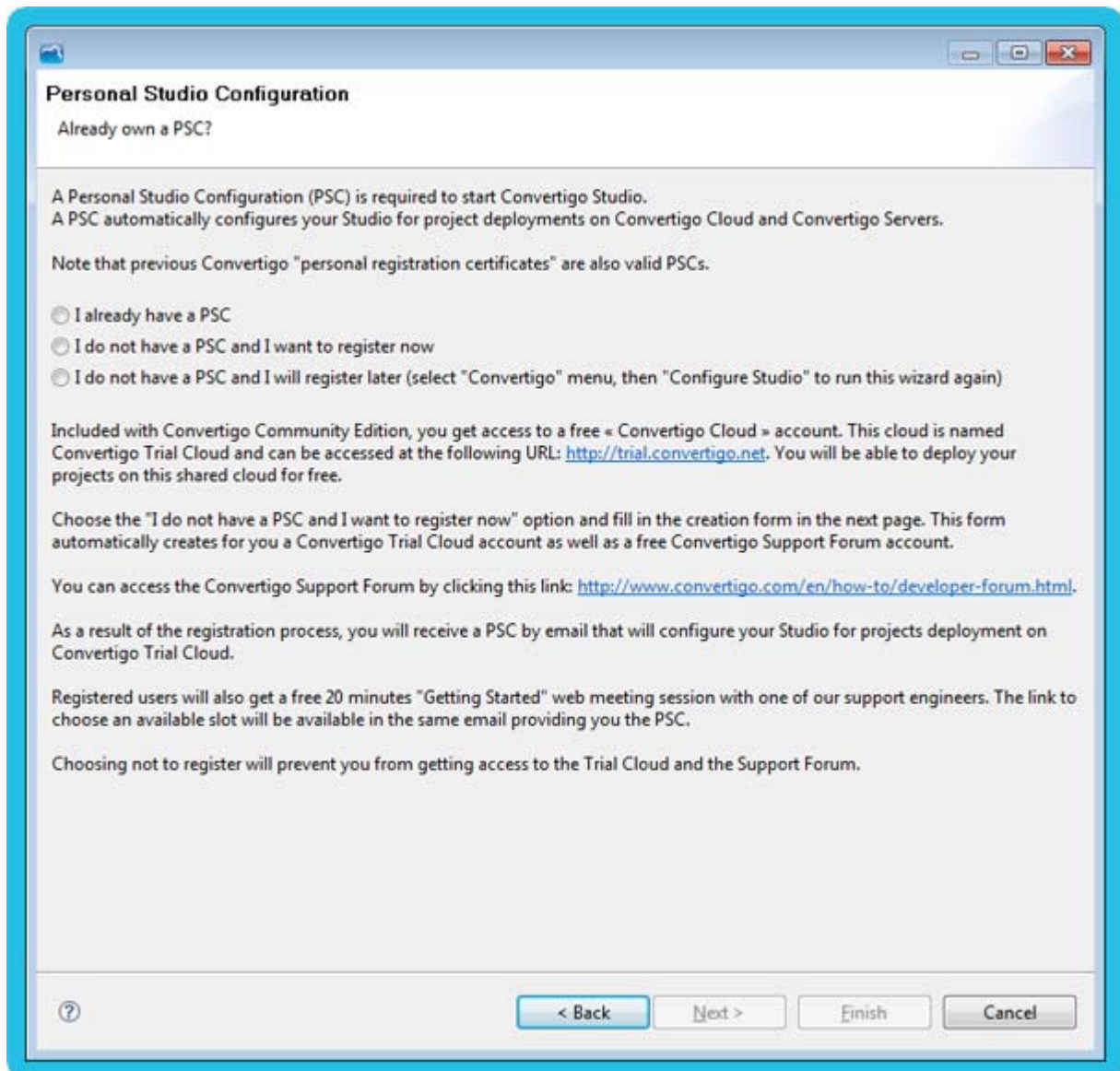


Figure 2 - 15: Studio starting wizard - Already own a Personal Studio Configuration

On this page, several options are possible:

#### CASE OF AN ALREADY REGISTERED STUDIO USER

If you were already registered in a former version of Convertigo and you already had a *registration certificate* for deploying your projects on Convertigo Trial Cloud (see Figure 2 - 16), or if you already got a *Personal Studio Configuration* by registering in Convertigo 6.2.0 (see Figure 2 - 24), you do not need to register again.



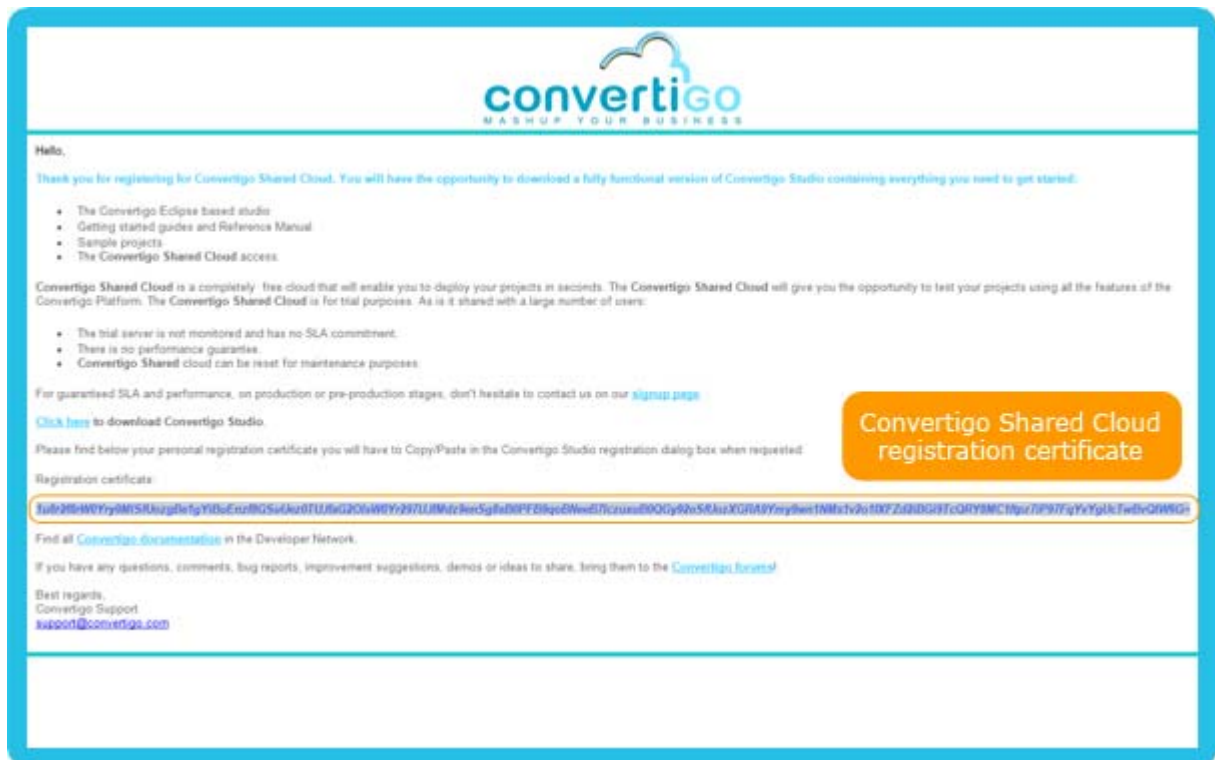


Figure 2 - 16: Example of former registration certificate email

Continue with the procedure *"To configure Convertigo Studio with a PSC or a registration key"* on page 2-24.

#### CASE OF A NEW CONVERTIGO STUDIO TESTING USER, YOU WANT TO REGISTER NOW

You do not have a PSC and want to register in the **Studio Configuration** wizard to get one. Thanks to that, you will be granted a free access to Convertigo Trial Cloud, as well as an account in the Convertigo Forum to get some tips and tricks, and a free 20 minutes "Getting Started" web meeting session. Continue with the procedure *"To register on Convertigo Trial Cloud"* on page 2-18

#### CASE OF A NEW CONVERTIGO STUDIO TESTING USER, YOU WILL REGISTER LATER

You do not have a PSC and prefer to register later. You will not be able to access the Convertigo Trial Cloud nor the Convertigo Forum to get some tips and tricks. Continue with the procedure *"To skip registration in Studio Configuration wizard"* on page 2-17.

When the time comes you want to register, re-open the **Studio Configuration** wizard using the **Convertigo** menu, then select **Configure Studio**, and continue with the procedure *"To register on Convertigo Trial Cloud"* on page 2-18.

#### CASE OF A CONVERTIGO CLOUD CLIENT

If you ordered for a Convertigo Cloud server, you should have an email with the URL and username/password of your Convertigo Cloud server administration, as well as a Personal Studio Configuration. You do not need to register again in this wizard. Continue with the procedure *"To configure Convertigo Studio with a PSC or a registration key"* on page 2-24.

#### **To skip registration in Studio Configuration wizard**

**1** In the Personal Studio Configuration page of the **Studio Configuration** wizard (see

Figure 2 - 15), select the **I do not have a PSC and I will register later** option.

A confirmation sentence appears at the bottom of the page.

- 2 Confirm that you do not want to get your PSC now by clicking on **Next**.
- 3 Continue with the step 3 of the procedure *"To configure Convertigo Studio with a PSC or a registration key"* on page 2-24 to end the **Studio Configuration** wizard.

#### **To register on Convertigo Trial Cloud**

- 1 In the Personal Studio Configuration page of the **Studio Configuration** wizard (see Figure 2 - 15), select the **I do not have a PSC and I want to register now** option, and click on **Next**.

The next page proposes a form to create your Convertigo Trial Cloud account as well as a Forum account, and get your PSC:

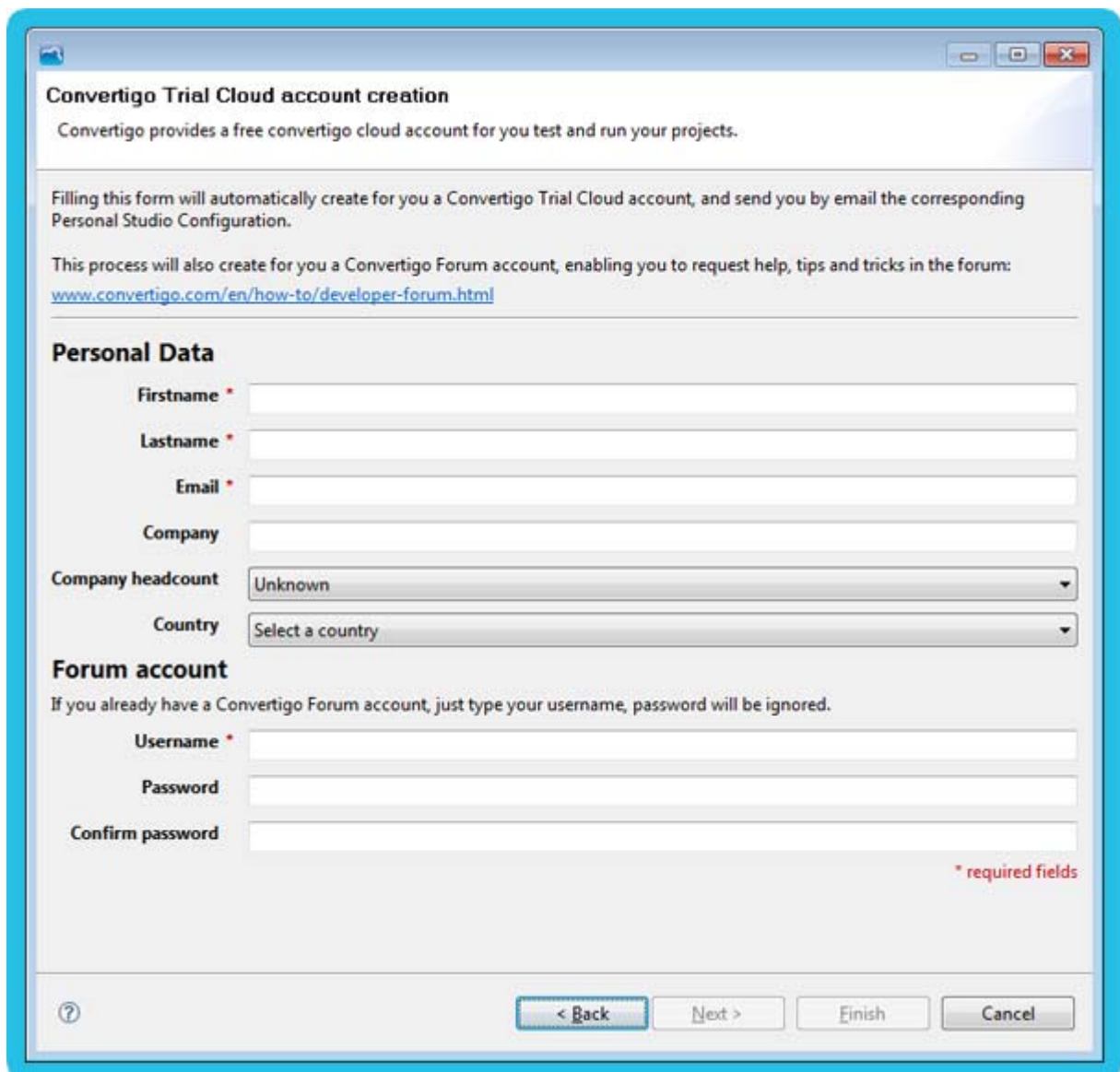


Figure 2 - 17: Studio starting wizard - Convertigo Trial Cloud account creation

- 2 Fill the fields with required personal data and the fields about your Convertigo Forum account.



**Beware that if you do not fill the form with correct information, you will not be able to go through the process.**

After the form is filled, the **Next** button is enabled:

Figure 2 - 18: Studio starting wizard - Filling registration form

**3** Click on **Next**.

The next page sends your registration information and proposes a text area into which you should paste your PSC (see Figure 2 - 25).

In the same time, you should receive a first email that invites you to click on a validation link to continue the Convertigo Trial Cloud registration process:

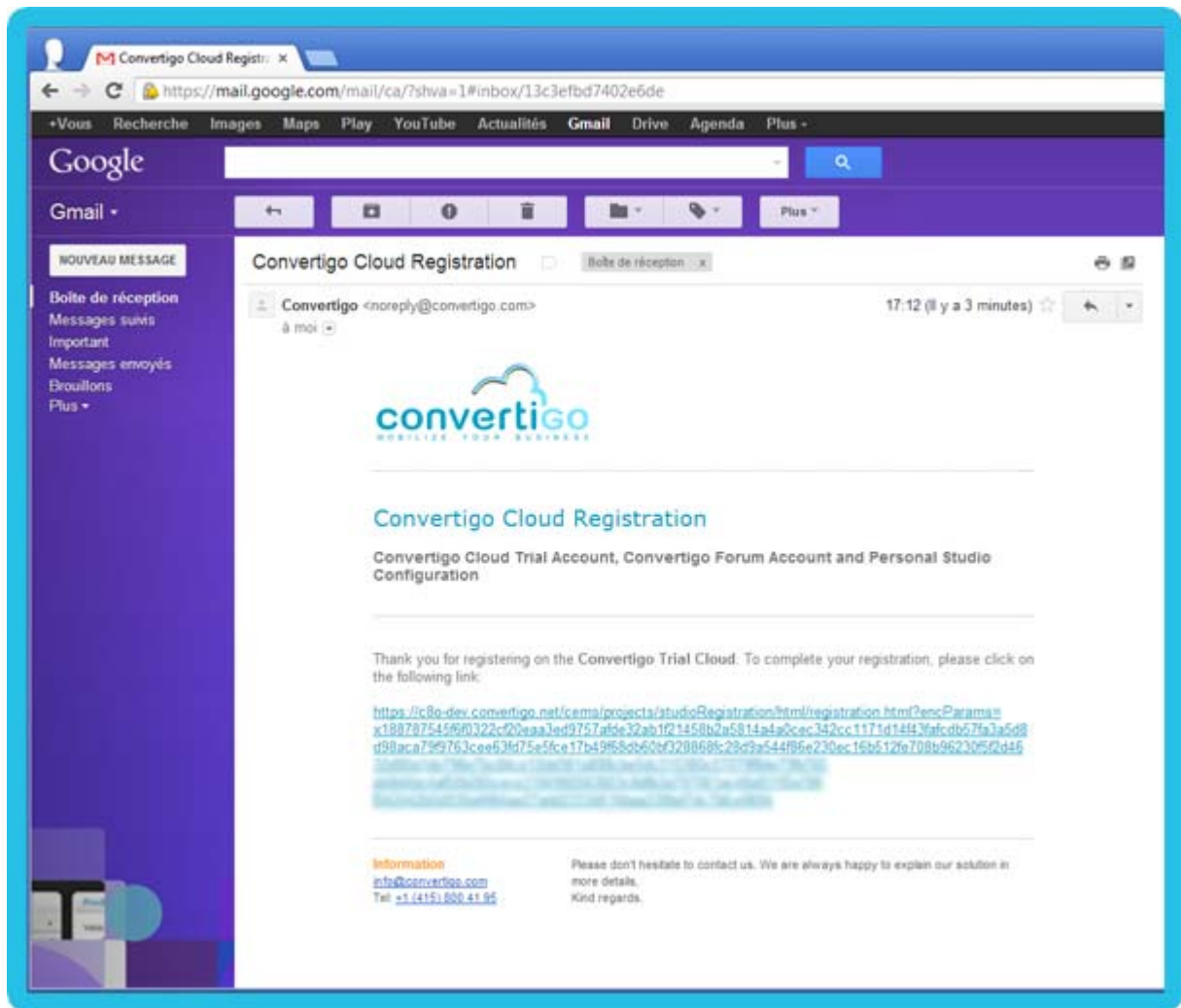


Figure 2 - 19: Registration process - Validation email

- 4 Click on the validation link that appears in blue in the email.

A new page opens in your web browser, with the Convertigo Trial Cloud registration process in progress:

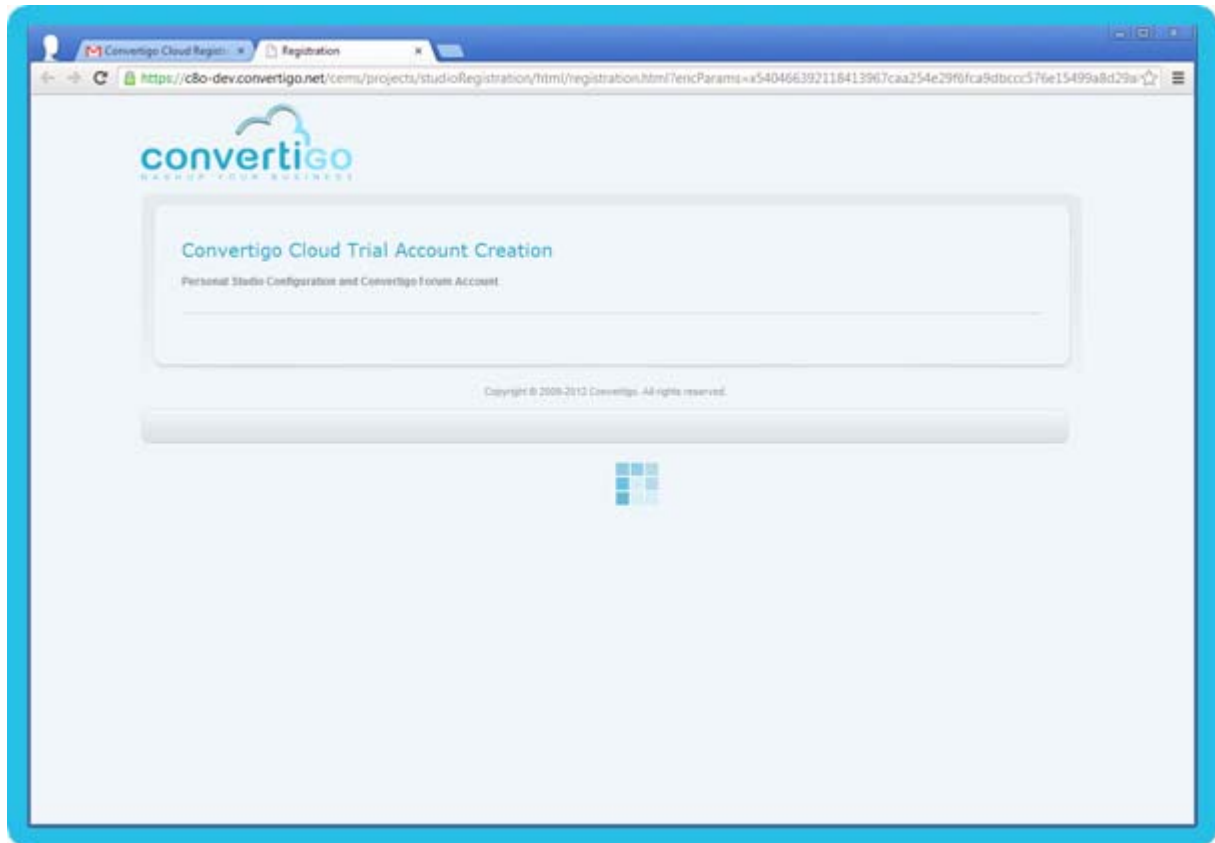


Figure 2 - 20: Registration process - In progress

When the process ends, the Convertigo Trial Cloud registration response is displayed. It can be of several forms, depending on the success of the PSC declaration and Forum account creation:

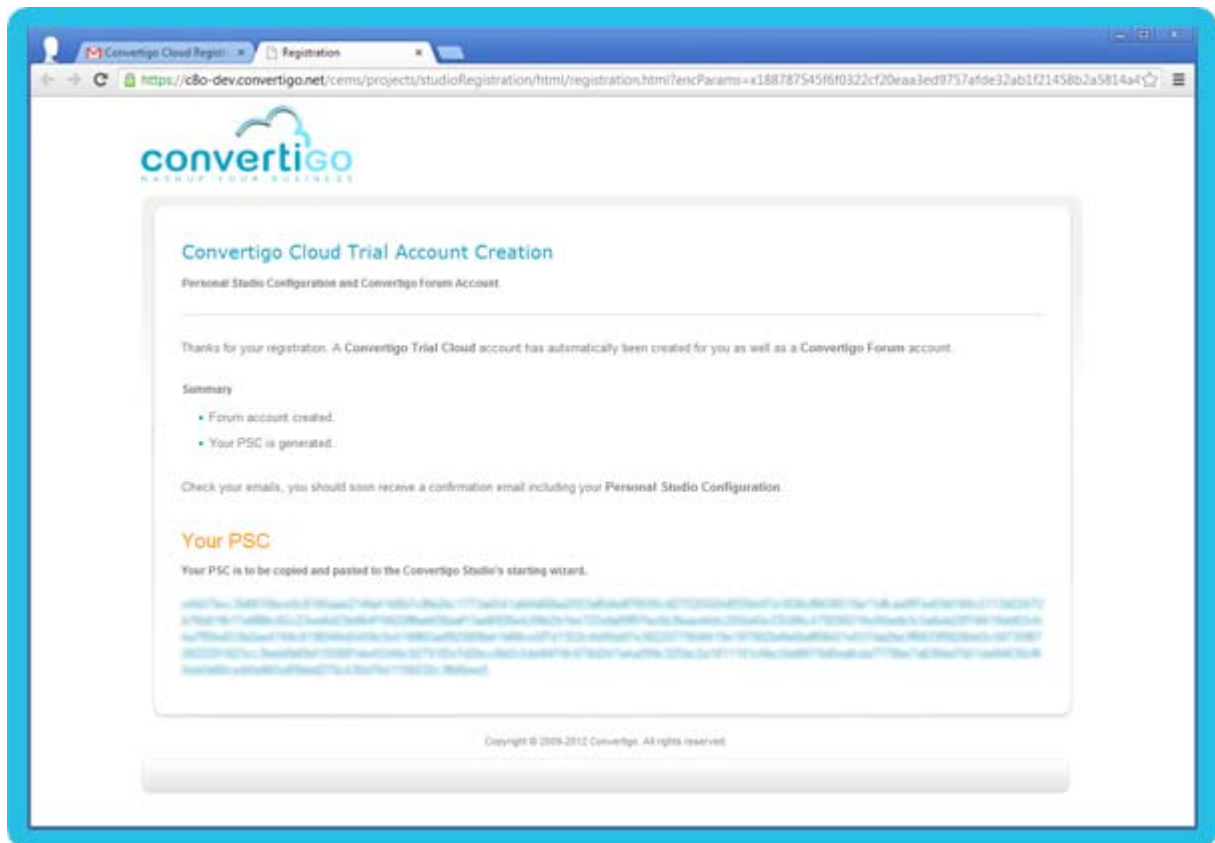


Figure 2 - 21: Registration process - Response after correct registration

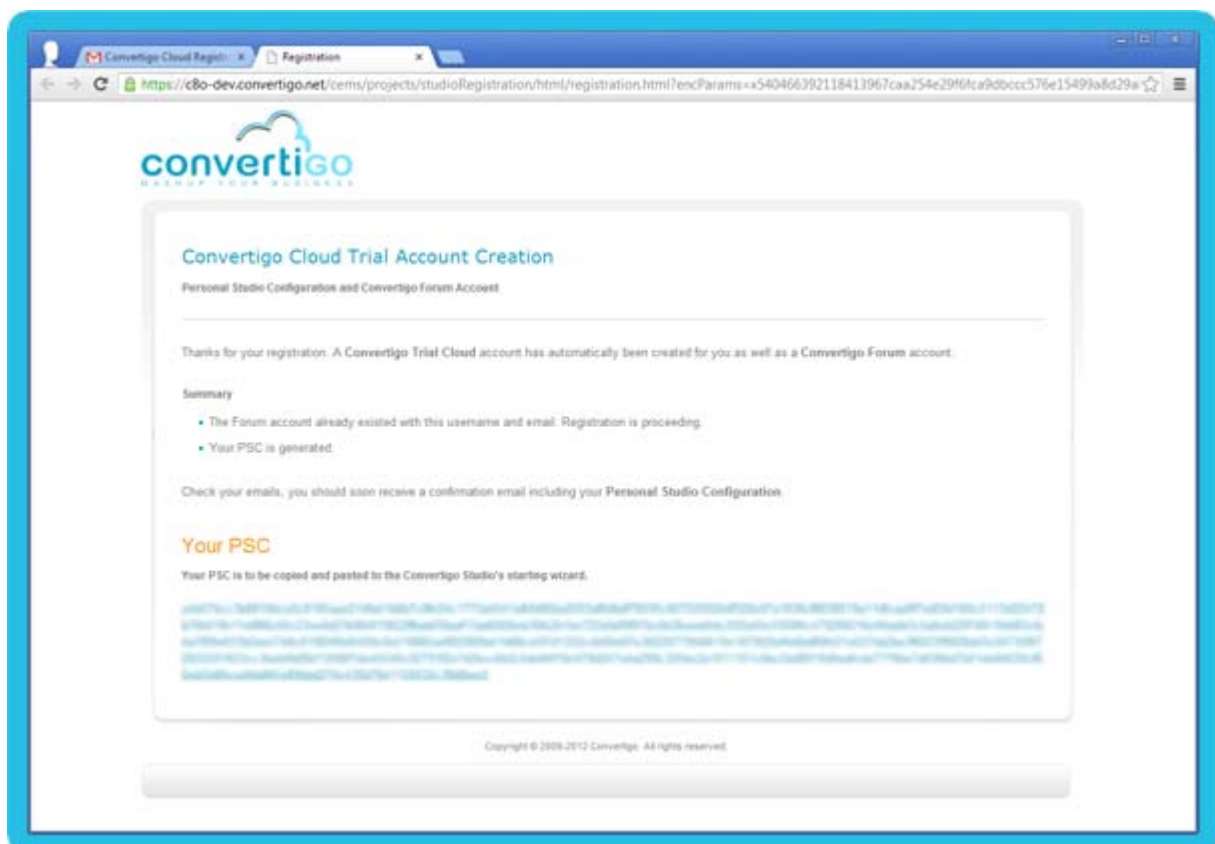


Figure 2 - 22: Registration process - Response after existing forum account and correct PSC generation

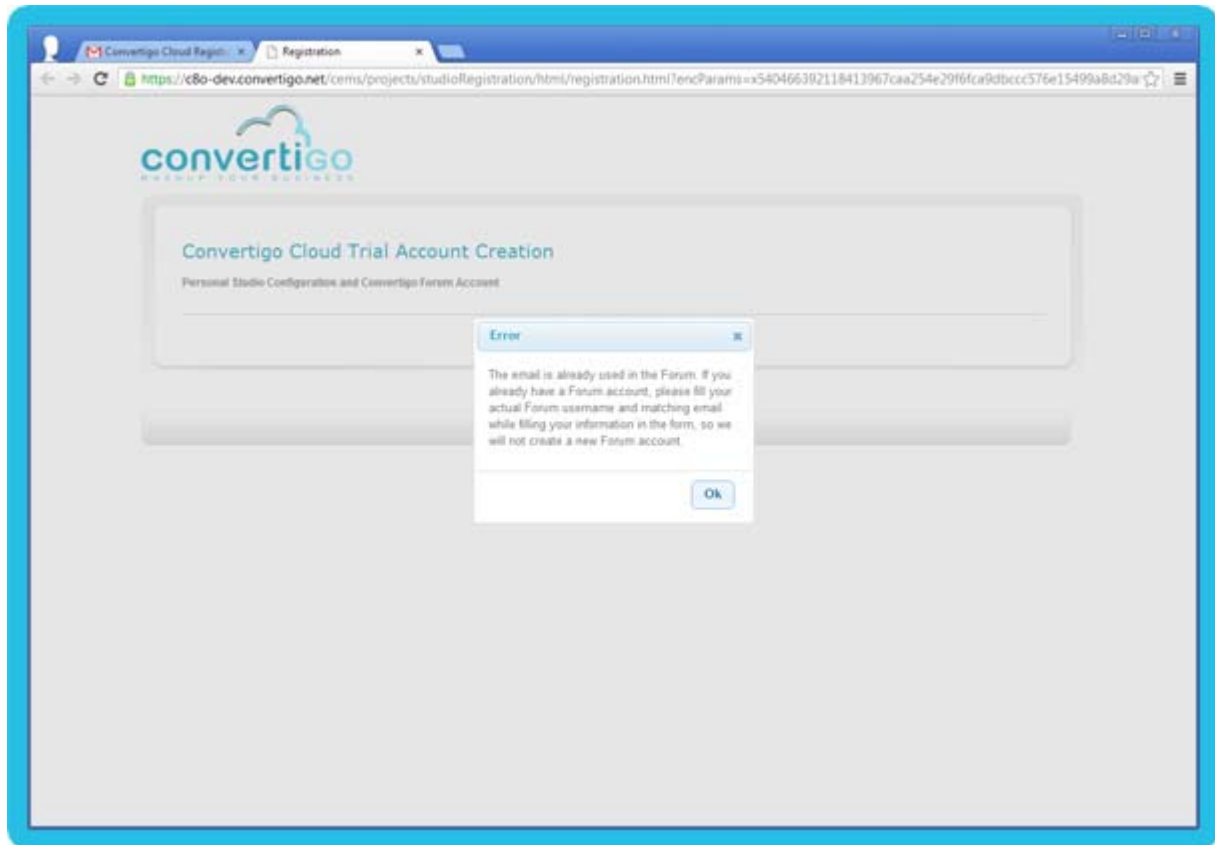


Figure 2 - 23: Registration process - Response after wrong forum account declaration

- 5 Depending on the case:
- Click on **Ok** to close the error popup, and fill again the registration form in the web browser (displayed after clicking on **Ok**) or in the **Studio Configuration** wizard (after pressing the **Back** button); restart this procedure on step 2.
  - Copy your **PSC** from the response page and paste it into the wizard page; follow procedure "To configure Convertigo Studio with a **PSC** or a registration key" on page 2-24, from step 2.

At the same time, you received an email that summarizes the registration response, so you can keep your **PSC** for a further Studio installation:



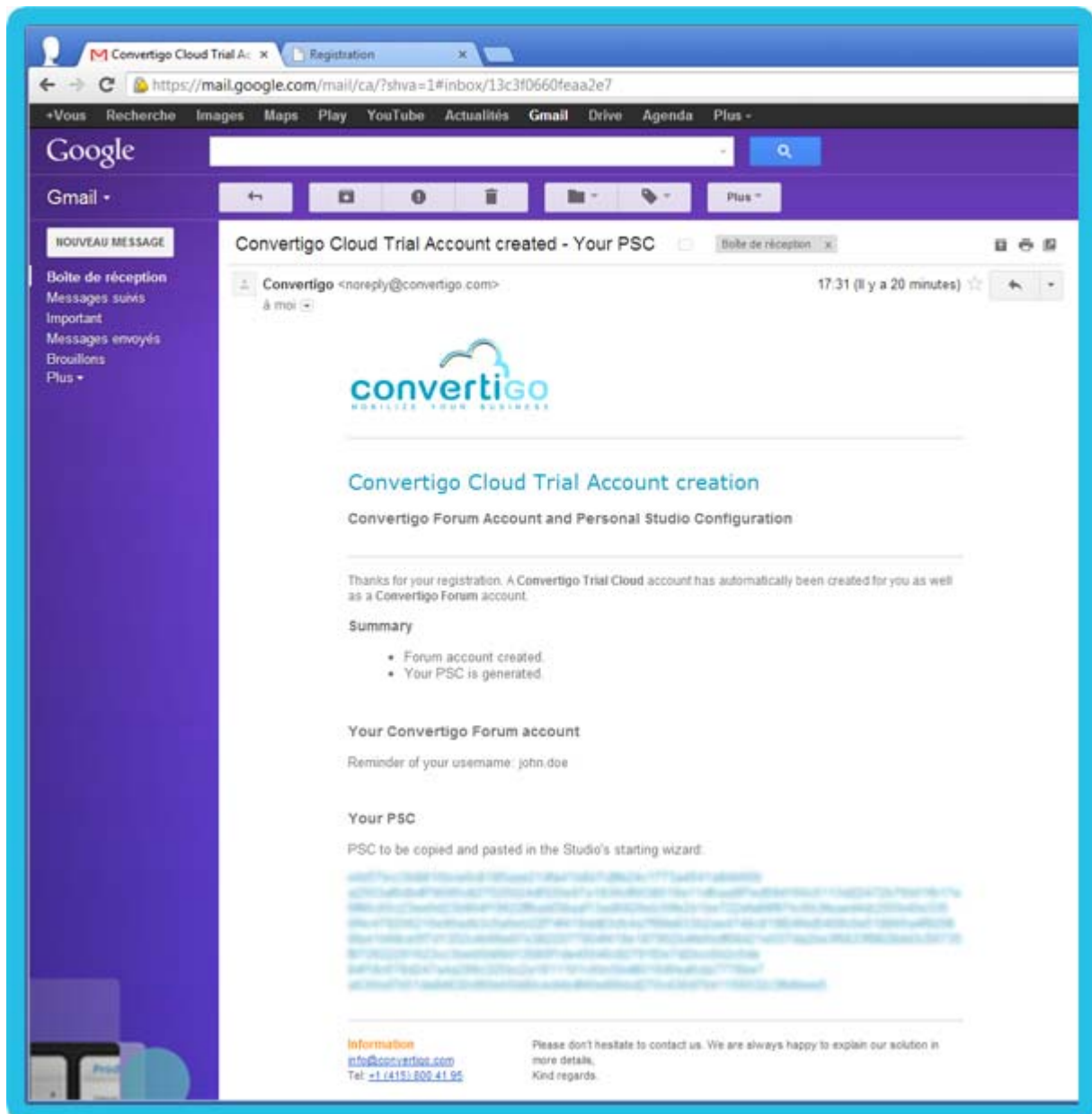


Figure 2 - 24: Registration process - Email with registration response summary

- 6 Continue with procedure *"To configure Convertigo Studio with a PSC or a registration key"* on page 2-24, from step 2.

**To configure Convertigo Studio with a PSC or a registration key**

- 1 In the Personal Studio Configuration page of the **Studio Configuration** wizard (see Figure 2 - 15), select the **I already have a PSC** option, and click on **Next**.

The next page proposes a text area into which you should paste your PSC or your former registration certificate (received by email):



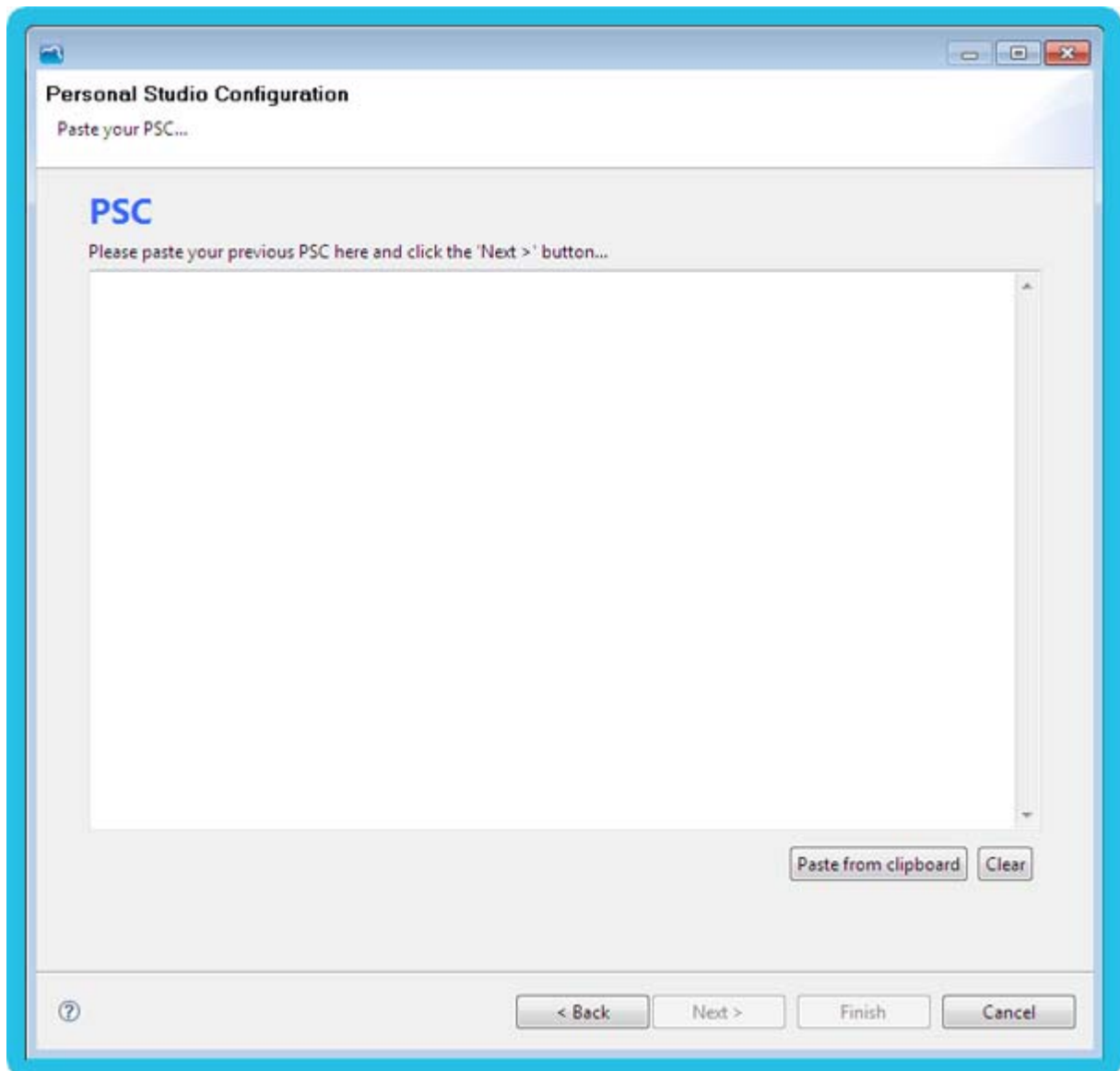


Figure 2 - 25: Studio starting wizard - Personal Studio Configuration

- 2 In the **PSC** text area, copy and paste your former registration certificate or your Personal Studio Configuration from the registration response page or the received email:

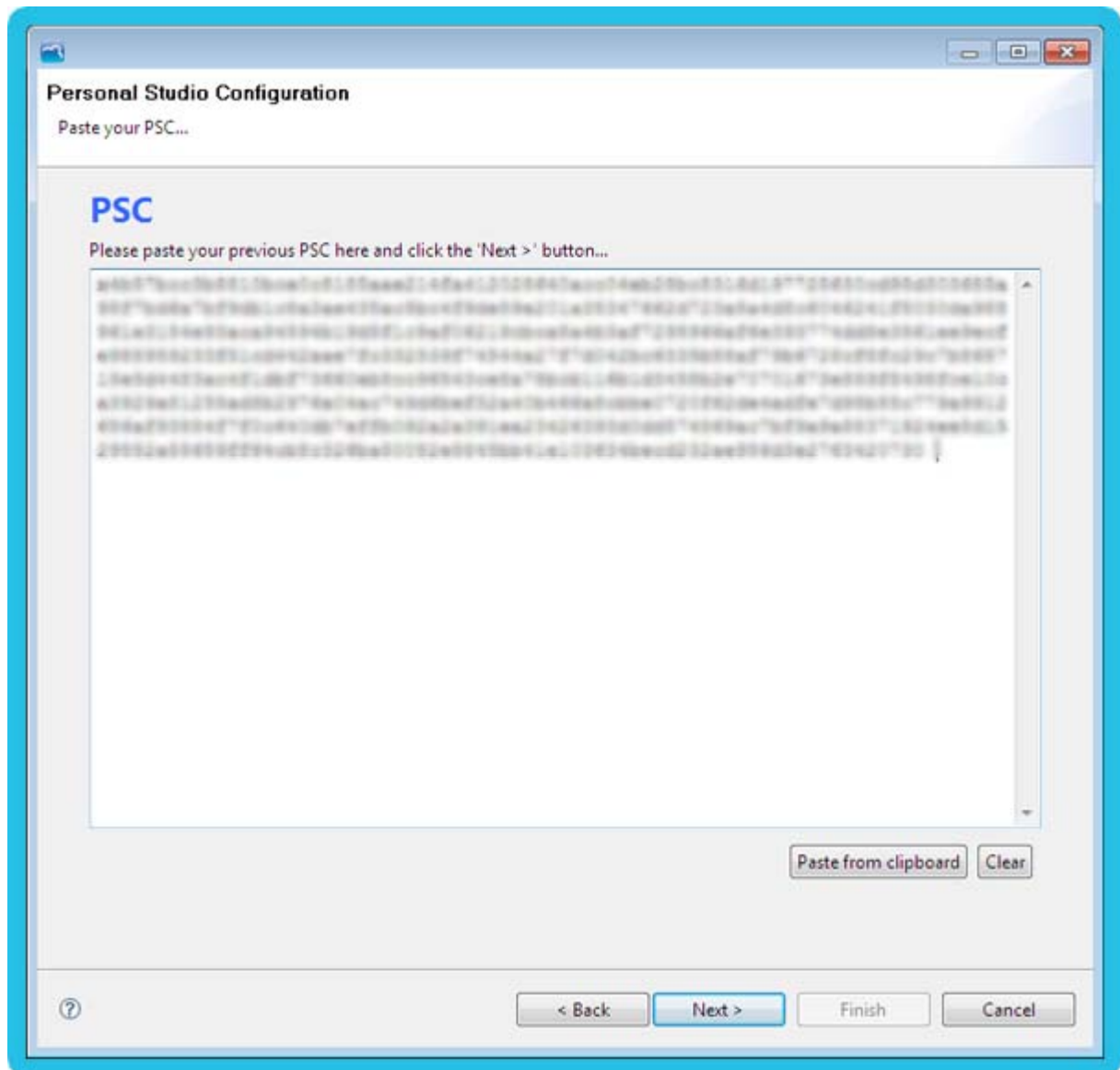


Figure 2 - 26: Studio starting wizard - Filling in your PSC

If the PSC or the registration certificate is not valid, the wizard indicates an error message:

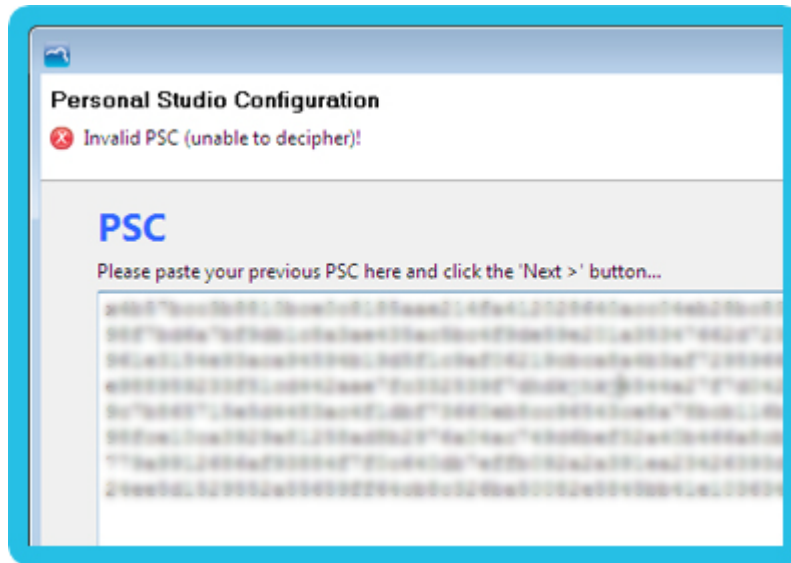


Figure 2 - 27: Studio starting wizard - Invalid PSC

- 3 Otherwise, the **Next** button is enabled, click on this button to continue.

A **Setup summary** page is displayed, it shows all steps that are going to be performed at finish:

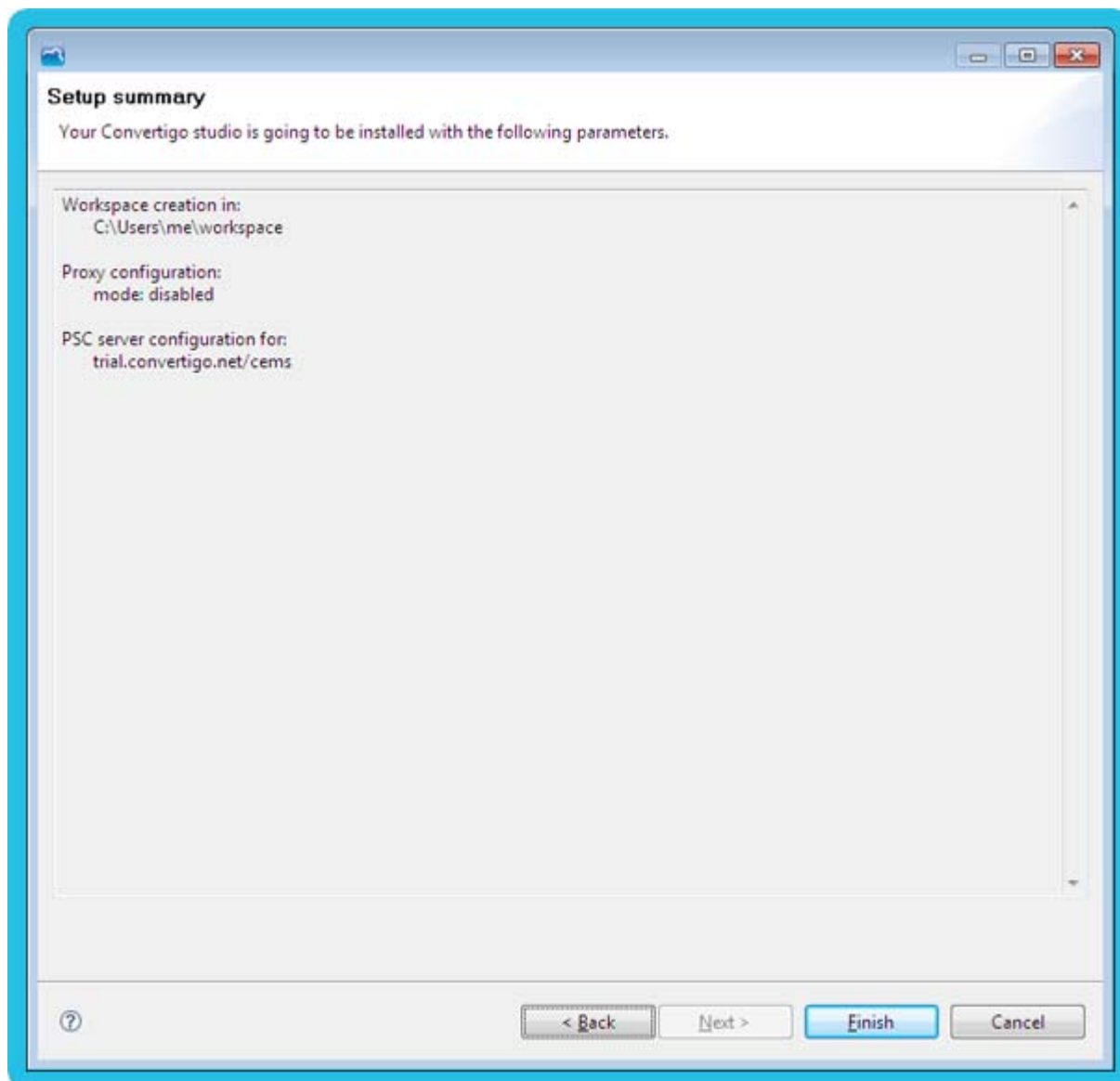


Figure 2 - 28: Studio starting wizard - Setup summary

- 4 Click on the **Finish** button if all the configurations displayed on this page are correct. Otherwise, click on **Cancel** and restart the procedure *"To configure Convertigo Studio after first start"* on page 2-12, from step 1.

After the wizard is complete, The Studio engine starts. Sometimes a *Windows Security Alert* popup is displayed:

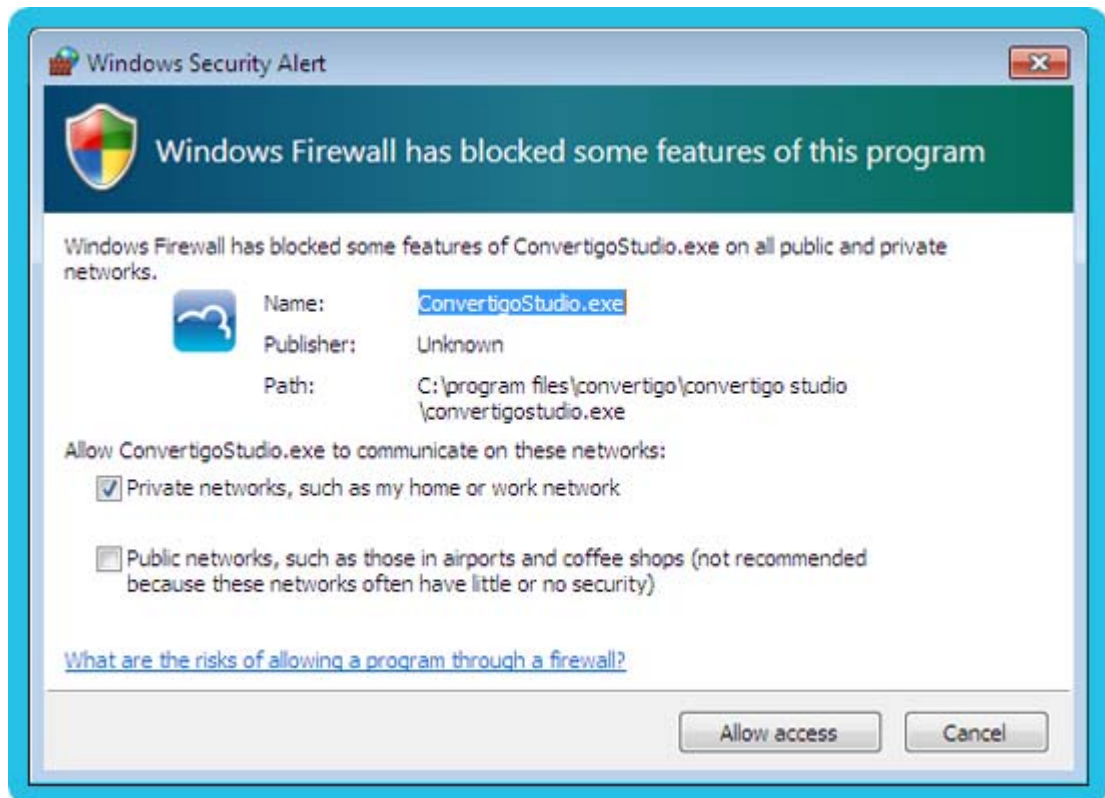


Figure 2 - 29: Windows Security Alert popup

In this window, you have to select the type of network you are connected to, this will authorize Convertigo to access the network and the several projects' target applications.

- 5 Check the appropriate checkbox and click on the **Allow access** button.

A second popup window is displayed, while the Convertigo engine is starting. It shows a link for you to access our Facebook page listing all the last Convertigo news:



Figure 2 - 30: Convertigo news popup

- 6 Check the **Dismiss automatically** checkbox if you don't want to see this window on next application startups and click on the **Close** button.

The Studio is opened, displaying the *Welcome* page:



Figure 2 - 31: Convertigo Studio Welcome page

This page contains a link to the Getting started tutorials page of the Convertigo *Developer Network* website. These tutorials are also available directly in the Studio Help menu, along with the documentations.

- 7 Close this *Welcome* page by clicking on  button.

The Convertigo Studio is started, including several views:

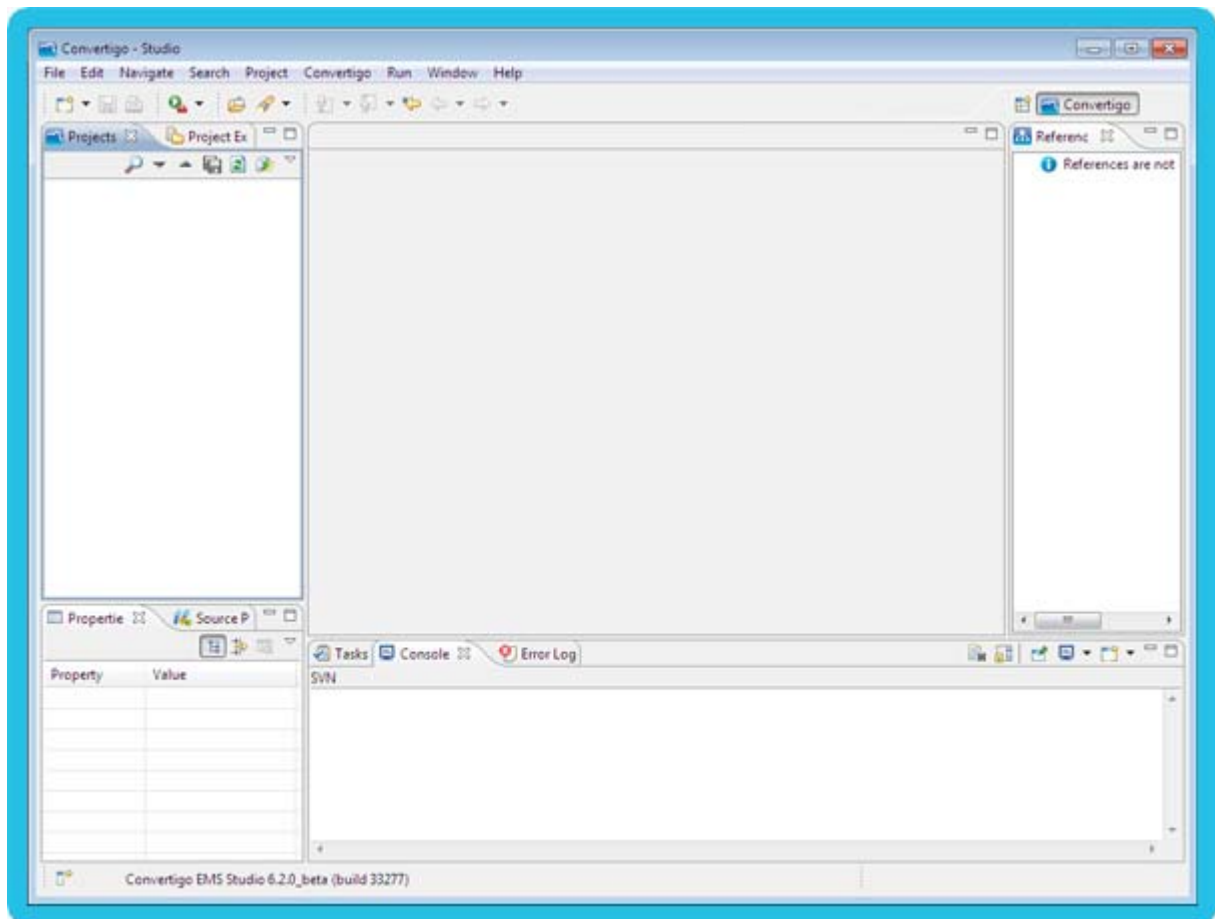


Figure 2 - 32: Convertigo Studio

- 8 The correct launch of the Convertigo engine can be validated by calling the following URL in a Web browser:

**`http://localhost:18080/convertigo`**

- localhost is the host name of local machine (as Convertigo Studio is installed locally),
- 18080 is the default HTTP port number of a Convertigo Studio.

The *Test Platform* home page of the Server embedded in Convertigo Studio opens:



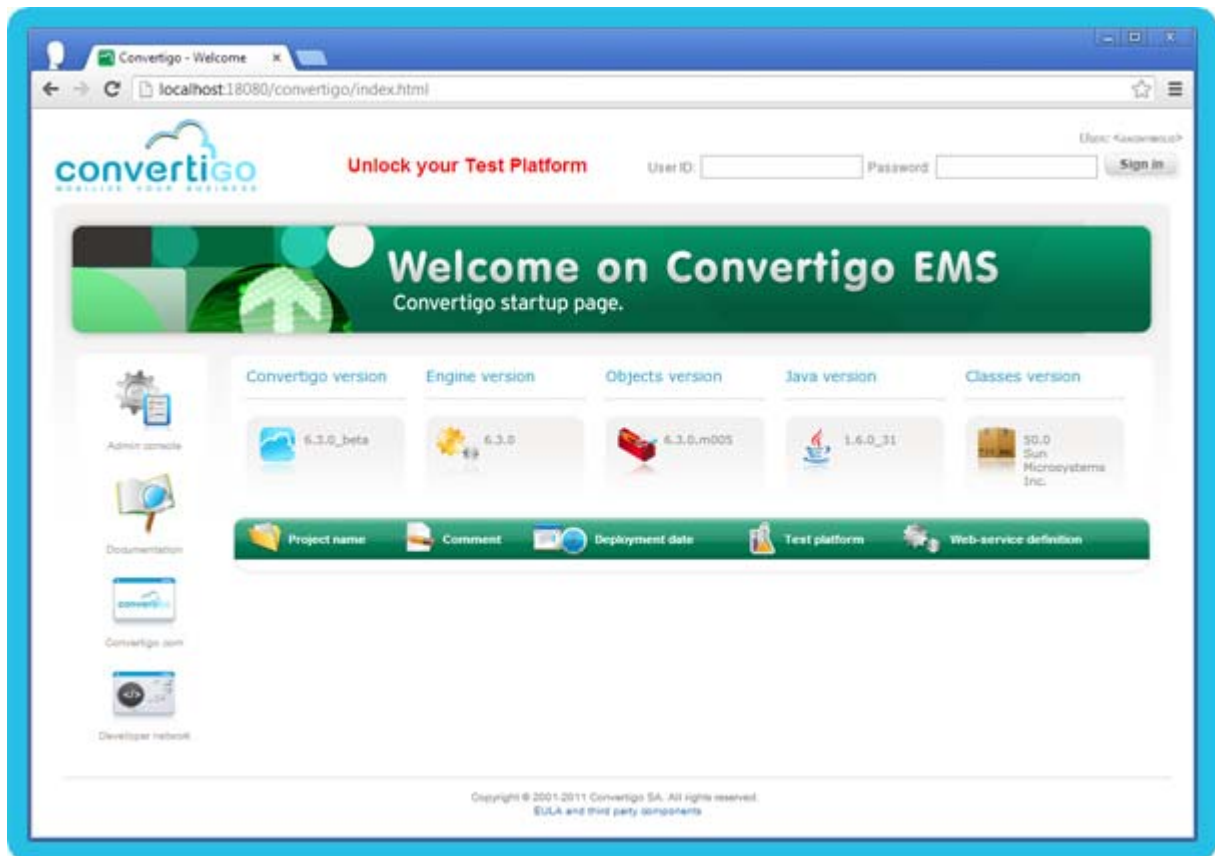


Figure 2 - 33: Convertigo Studio Test PlatformHome page

The page must be filled with data in the *Convertigo Versions* panel. The *Projects list* located below should be empty as no projects are present in the Studio just after installation.

### IMPORTANT INFORMATION

The first start of Convertigo Studio is made through the installation wizard. It uses extended administration rights that are not the same as the currently logged user, even if the user has the administration privileges.



**You must then be aware that, at the second launch of Convertigo Studio, i.e. at the first launch of Convertigo Studio out of the installation wizard, the Workspace launcher window will pop again for you to define the workspace path for the currently logged user. You should then set the same path that was set up at the first Studio start. Otherwise, you will have to reconfigure the Studio through all the Studio Configuration wizard again.**

Refer to steps 2 and 3 of the procedure "To configure Convertigo Studio after first start" on page 2-12 to correctly set up again the *Workspace launcher* window.

## 2.2.2 Convertigo Studio default configuration

After you installed Convertigo Studio on Windows, you may want to use or change the default access URLs to the embedded engine, the default accounts or the default workspace location. This section presents all the needed information about Convertigo Studio default configurations.

- [Convertigo Studio default configurations and access URLs](#)
- [Changing Convertigo Studio default configurations](#)

### CONVERTIGO STUDIO DEFAULT CONFIGURATIONS AND ACCESS URLs

- [Convertigo Studio default workspace](#)
- [Convertigo Studio default ports](#)
- [Convertigo Studio Administration Console URLs](#)
- [Convertigo Studio Test Platform URLs](#)
- [Convertigo Studio default accounts](#)

#### CONVERTIGO STUDIO DEFAULT WORKSPACE

Convertigo Studio installer sets by default the projects workspace directory in the user's home directory, as a workspace folder. It gives a path of the following form: C:/Users/me/workspace



*For more information on Convertigo workspace and projects workspace, see Appendix "Convertigo workspace" on page A-2.*

You may have changed this path while installing, see Figure 2 - 11.

#### CONVERTIGO STUDIO DEFAULT PORTS

Convertigo Studio and its embedded tomcat are intalled by default to listen on the following ports:

- 18080 for HTTP,
- 18081 for HTTPS (Convertigo Studio enables HTTPS by default after installation).

#### CONVERTIGO STUDIO ADMINISTRATION CONSOLE URLs

Convertigo Studio Administration Console is accessible at the following URL:

- in HTTP:

**http://localhost:18080/convertigo/admin**

- localhost is the host name of local machine (as Convertigo Studio is installed locally),
- 18080 is the default HTTP port number of a Convertigo Studio.

- in HTTPS:

**`https://localhost:18081/convertigo/admin`**

- localhost is the host name of local machine (as Convertigo Studio is installed locally),
- 18081 is the default HTTPS port number of a Convertigo Studio (HTTP port number+1).

The *Administration Console* authentication page of the Server embedded in Convertigo Studio opens:

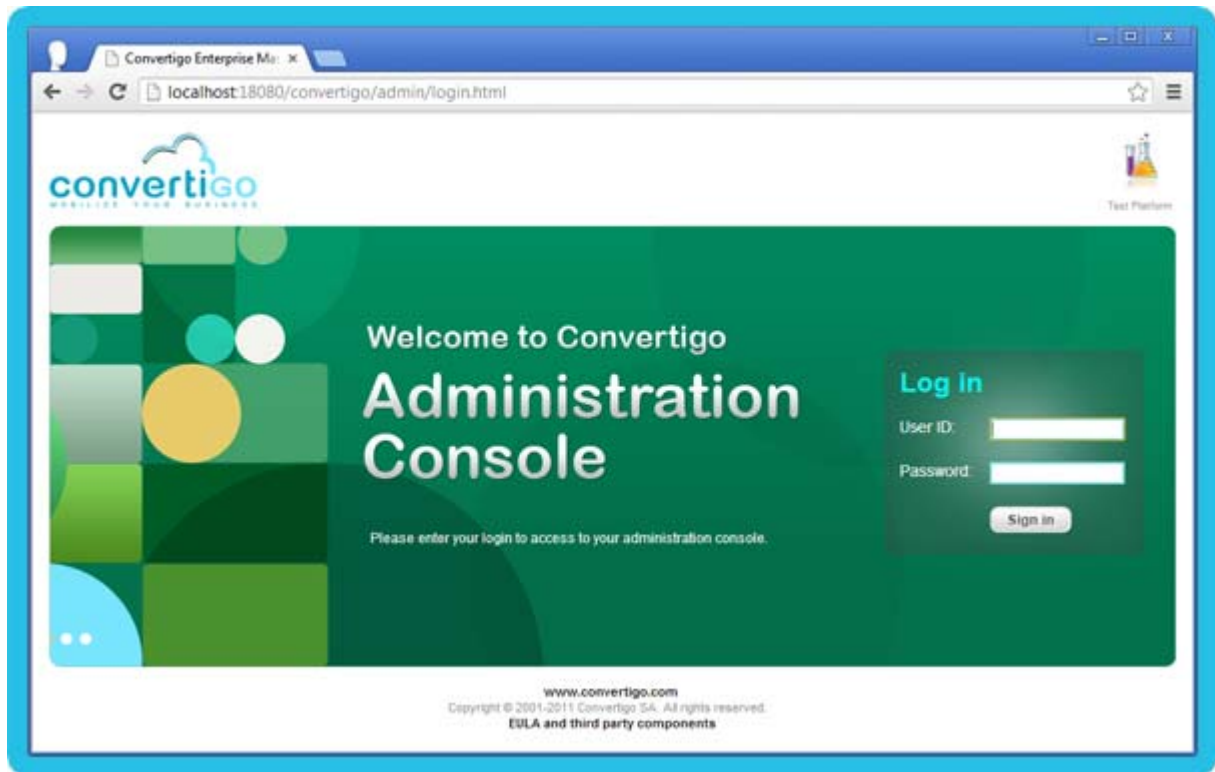


Figure 2 - 34: Convertigo Studio Administration authentication page



*For more information about the Administration Console, see "Using Convertigo Administration Console" on page 4-1.*

#### CONVERTIGO STUDIO TEST PLATFORM URLS

Convertigo Studio Test Platform is accessible at the following URL:

- in HTTP:

**`http://localhost:18080/convertigo`**

- localhost is the host name of local machine (as Convertigo Studio is installed locally),
- 18080 is the default HTTP port number of a Convertigo Studio.

- in HTTPS:

**https://localhost:18081/convertigo**

- localhost is the host name of local machine (as Convertigo Studio is installed locally),
- 18081 is the default HTTPS port number of a Convertigo Studio (HTTP port number+1).

The *Test Platform* home page of the Convertigo Studio opens:



Figure 2 - 35: Convertigo Studio Test Platform

Here, the *Test Platform* home page contains projects in the list of projects, these projects are those deployed in the Studio.



*For more information about the Test Platform, you can consult the Using the Test Platform chapter of the User Guide (coming soon).*

#### CONVERTIGO STUDIO DEFAULT ACCOUNTS

Convertigo Studio declares by default the following accounts:

- **administrator** account, which user ID/password is admin/admin, used to access the *Administration Console* and the *Test Platform*,
- no **tester** account is defined by default, you access the *Test Platform* as **anonymous** user.



*For more information about the Test Platform accounts, you can consult the Using the Test Platform chapter of the User Guide (coming soon).*

## CHANGING CONVERTIGO STUDIO DEFAULT CONFIGURATIONS

- Changing Convertigo Studio default workspace
- Changing Convertigo Studio default ports
- Changing Convertigo Studio default administration account
- Changing Convertigo Studio default tester account

### CHANGING CONVERTIGO STUDIO DEFAULT WORKSPACE

The Convertigo Studio projects workspace can be changed using the following procedure.

#### **To change the Convertigo Studio workspace directory**

- 1 If not running, launch the Convertigo Studio using the shortcut, if the installer created it, or through the Start menu.
- 2 Once started, open the **File** menu, select **Switch Workspace**, then **Other...**

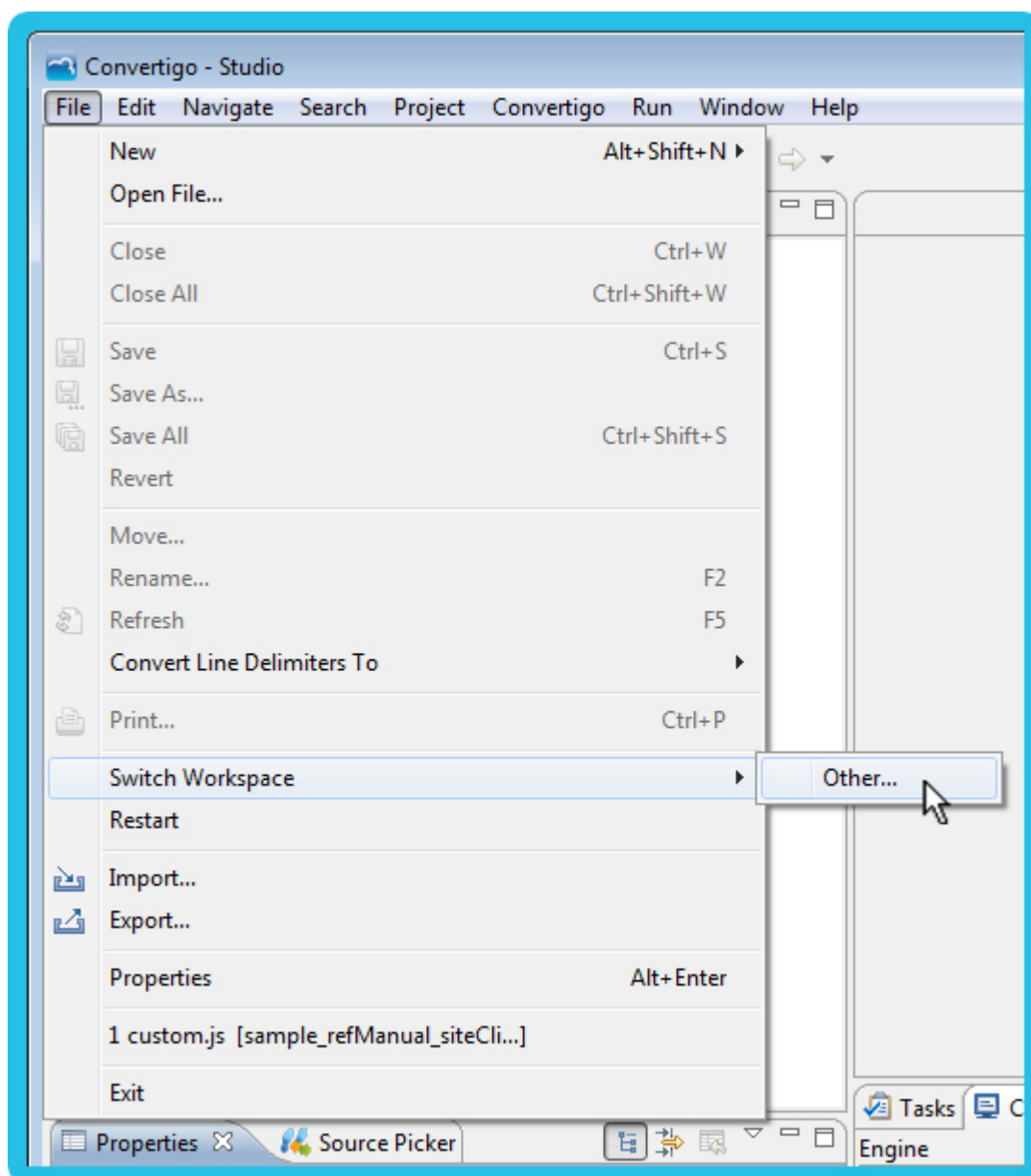


Figure 2 - 36: Switching workspace

This re-opens the *Workspace launcher* popup window:

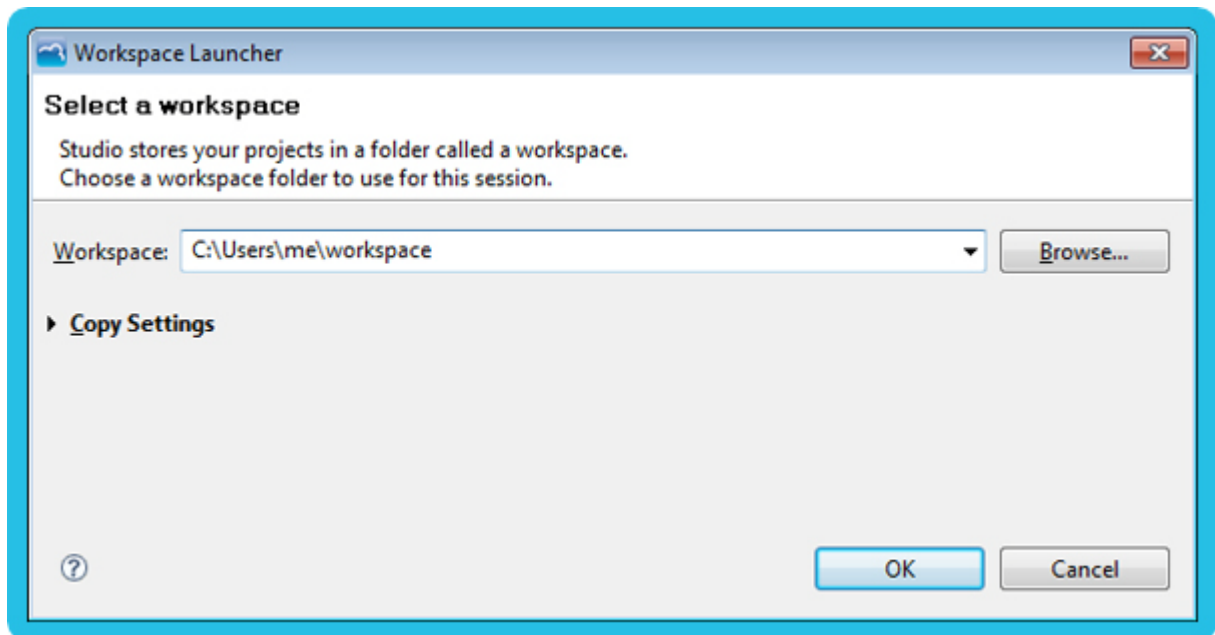


Figure 2 - 37: Workspace launcher popup window

- 3 Change the **Workspace** path value, possibly using the **Browse...** button, to specify the location of the workspace directory you want to use.
- 4 Then, expand the **Copy Settings** category by click on it:

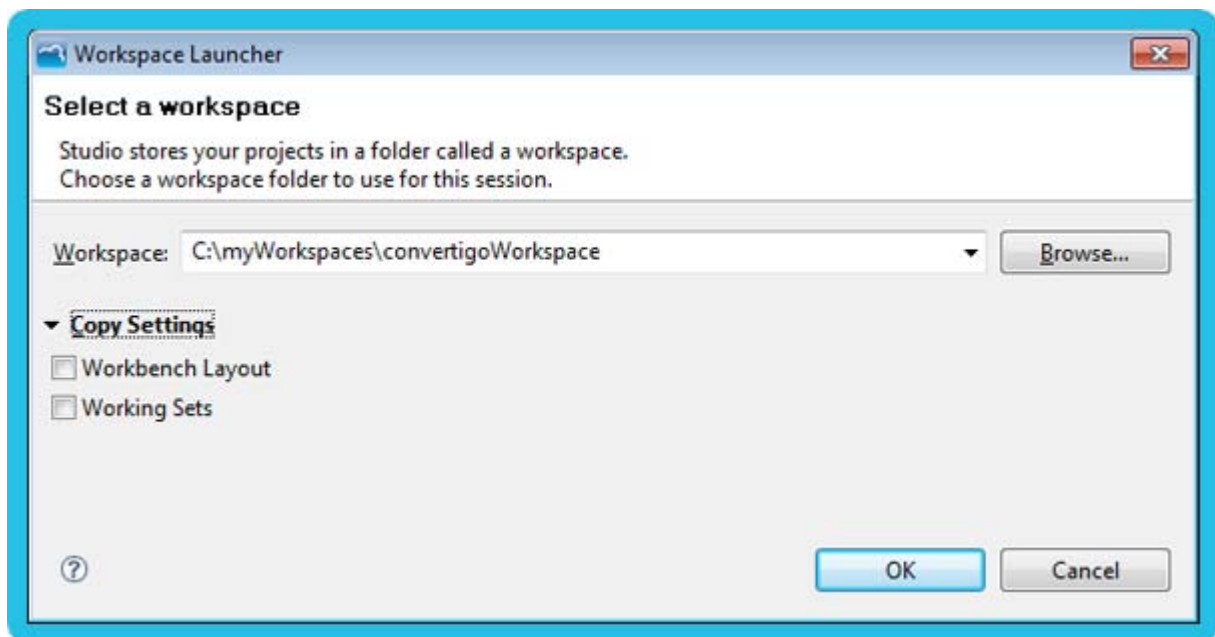


Figure 2 - 38: Expanded Copy Settings category

These checkboxes allow you to configure which settings of your current Eclipse workspace will be transferred to your new workspace:

- Workbench Layout: Opened views, their size, and selected perspectives.
  - Working Sets: The user defined working sets.
- 5 Check the appropriate checkboxes for your configuration and click on **OK**.

Convertigo Studio closes and restarts.



At startup, in the case of a workspace path pointing to an empty folder, a not existing folder, or a Convertigo workspace that was created with a Convertigo prior to version 6.2.0, the Convertigo Studio starting wizard is launched.

- 6 In this case, follow the procedure *"To configure Convertigo Studio after first start"* on page 2-12 from step 4.
- 7 Otherwise, in the case of a workspace path pointing to a Convertigo workspace that was created with a Convertigo from version 6.2.0, the workspace is loaded in Convertigo Studio and reused as is.

#### CHANGING CONVERTIGO STUDIO DEFAULT PORTS

Convertigo Studio ports can be changed.

- The HTTP port can be changed following the procedure *"To change the Convertigo Studio HTTP port"* on page 2-40.
- The HTTPS port of the Convertigo Studio will always be the HTTP port+1.

#### **To change the Convertigo Studio HTTP port**

- 1 Access the *Configuration* page of the *Administration Console* following the procedure *"To access Configuration page in the Administration Console"* on page 4-9.
- 2 Access to the *Main parameters* category following the procedure *"To access a configuration category in the Configuration page"* on page 4-12. This category is generally the one expanded by default.

The *Main parameters* category opens:

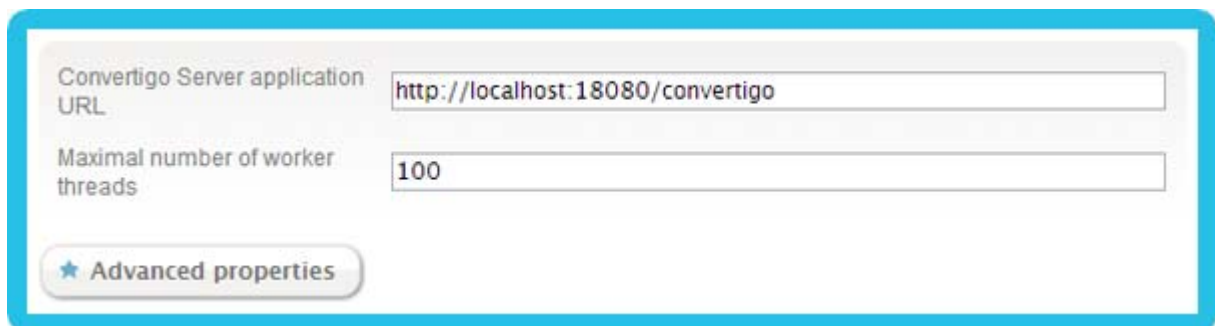


Figure 2 - 39: Main parameters category

- 3 In the **Convertigo Server application URL** field, change the HTTP port in the URL. For example, type 8182 as new port number instead of preconfigured 18080:

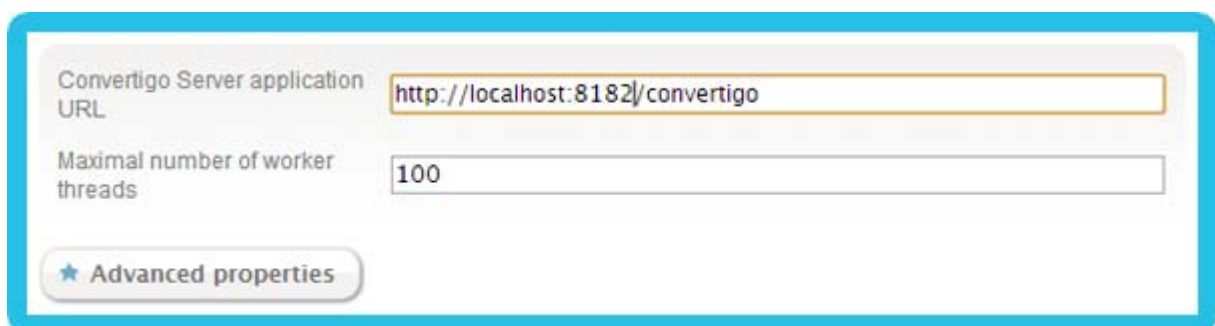


Figure 2 - 40: Editing Convertigo Server application URL parameter



- 4 Click on the **Update configuration** button located on the top (or bottom) of the *Configuration* page:

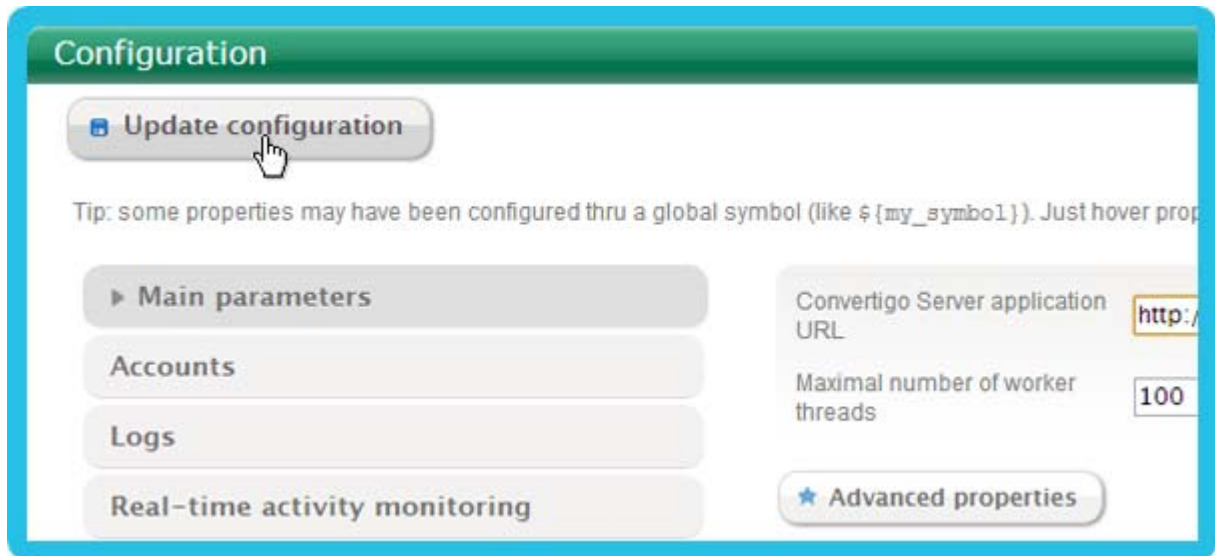


Figure 2 - 41: Updating configuration

A pop-in appears to confirm that the new parameters have been taken into account:

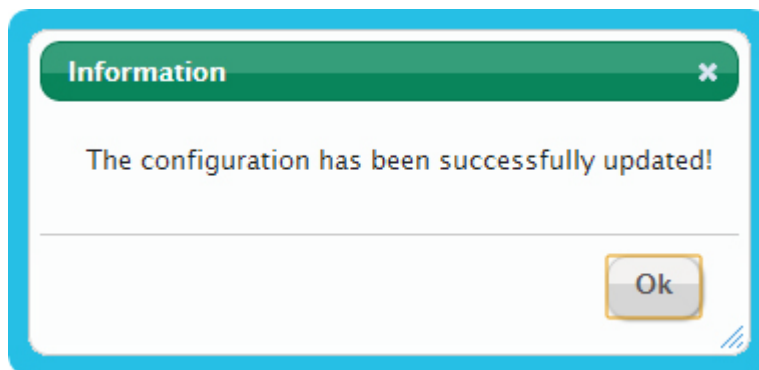


Figure 2 - 42: Confirmation pop-in

- 5 Click on the **Ok** button to close the pop-in.
- 6 Then, for the configuration to be applied on the Convertigo engine, you need to quit and restart the Studio. Both HTTP and HTTPS ports are updated.
- 7 After the Studio restart, you can access the *Test Platform* or *Administration Console* with the new defined ports. For example, use the following URLs:

- in HTTP:

`http://localhost:8182/convertigo/admin`

- in HTTPS:

`https://localhost:8183/convertigo/admin`



*Note that the HTTPS port is always updated along with the HTTP port as the HTTPS port of the Convertigo Studio will always be the HTTP port+1.*

#### CHANGING CONVERTIGO STUDIO DEFAULT ADMINISTRATION ACCOUNT

The Convertigo Studio **administrator** account can be changed using the following procedure.

##### **To change the Convertigo Studio administrator account**

- 1 Access the *Configuration* page of the *Administration Console* following the procedure *"To access Configuration page in the Administration Console"* on page 4-9.
- 2 Access to the *Accounts* category following the procedure *"To access a configuration category in the Configuration page"* on page 4-12.

The *Accounts* category opens:

Figure 2 - 43: Accounts category

- 3 Enter the administrator username and password in the **Admin username** and **Admin password** fields.
- 4 Click on the **Update configuration** button located on the top (or bottom) of the *Configuration* page:

Figure 2 - 44: Setting Admin account parameters and updating configuration

A pop-in appears to confirm that the new parameters have been taken into account:

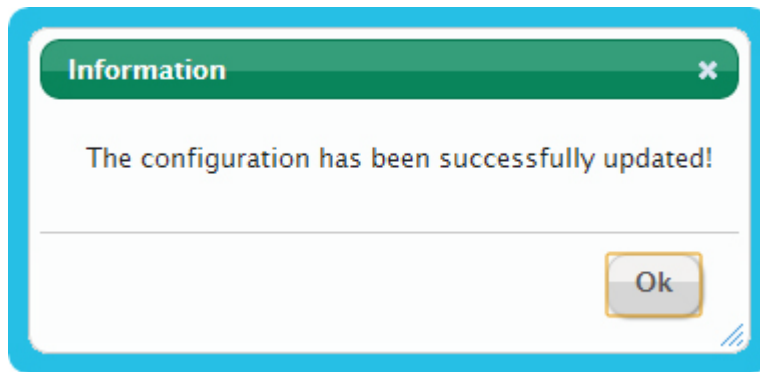


Figure 2 - 45: Confirmation pop-in

- 5 Click on the **Ok** button to close the pop-in.

You are still authenticated in the *Administration Console*, even if the **administrator** account has changed. The new account credentials will be needed only when authenticating again in the platform.

#### CHANGING CONVERTIGO STUDIO DEFAULT TESTER ACCOUNT

As no **tester** account is defined by default after Studio installation, such an account can be declared using the following procedure. This procedure is also valid if you want to change the **tester** account afterwards.

##### *To declare or change the Convertigo Studio tester account*

- 1 Access the *Configuration* page of the *Administration Console* following the procedure "*To access Configuration page in the Administration Console*" on page 4-9.
- 2 Access to the *Accounts* category following the procedure "*To access a configuration category in the Configuration page*" on page 4-12.  
  
The *Accounts* category opens (see Figure 2 - 43).
- 3 Enter the tester username and password in the **Test Platform username** and **Test Platform password** fields.
- 4 Click on the **Update configuration** button located on the top of the *Configuration* page:

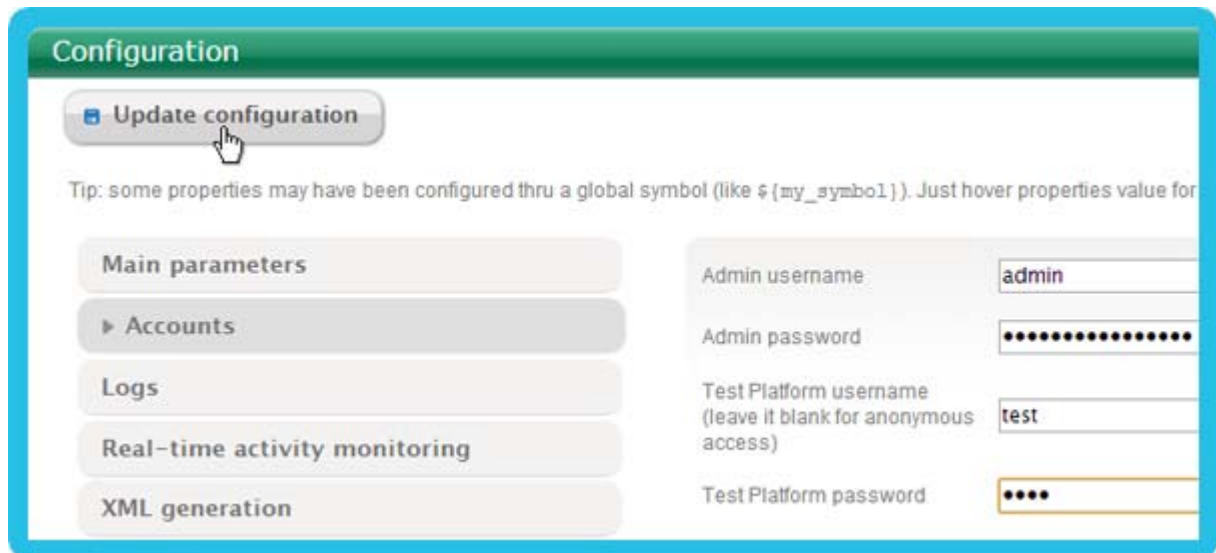


Figure 2 - 46: Setting Tester account parameters and updating configuration

A pop-in appears to confirm that the new parameters have been taken into account:

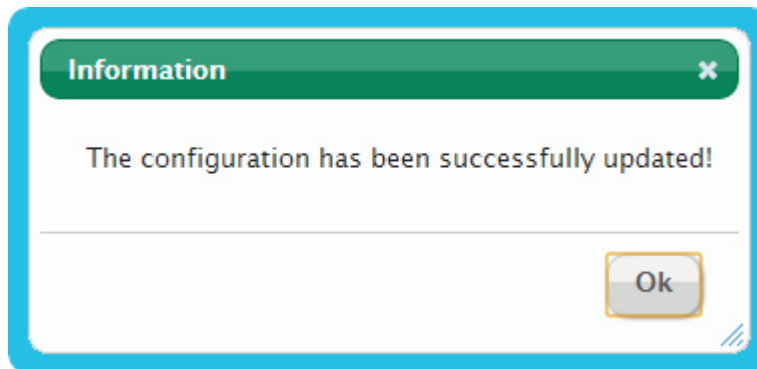


Figure 2 - 47: Confirmation pop-in

- 5 Click on the **Ok** button to close the pop-in.

The *Test Platform* can be accessed authenticating with the **tester** account. The **anonymous** user can not see any information anymore in the *Test Platform*.



*For more information about the Test Platform accounts, you can consult the Using the Test Platform chapter of the User Guide (coming soon).*

# 3 Installing Convertigo Server

This chapter describes how to install Convertigo Server in several qualified environments and operating systems.

- General purpose and packages
- C-EMS installation on Windows/Tomcat
- C-EMS installation on Linux/Tomcat
- C-EMS installation on Linux/WebSphere

## 3.1 General purpose and packages

Convertigo Server can be installed on different operating systems and application servers. The installation can be done on Windows or Linux operating systems.

In standard, Convertigo Server installation is packaged as a `.exe` file including Apache Tomcat application server or is a `.war` file. The installation on application servers, such as IBM WebSphere, is done with the `.war` file of the distribution.

You will see in the following table the packages used for installation:

Table 3 - 1: Packages uses table

	Tomcat	WebSphere	Other application servers
<b>Windows</b>  (since version 2003)	convertigo-server-X.Y.Z-v12345-win32-install.exe  All embedded package (including Tomcat application server)	convertigo-X.Y.Z-v12345-win32.war	convertigo-X.Y.Z-v12345-win32.war
<b>Linux</b>	convertigo-server-X.Y.Z-v12345-linux32.run.zip  All embedded package (including Tomcat application server)	<ul style="list-style-type: none"><li>32 bits: convertigo-X.Y.Z-v12345-linux32.war</li><li>64 bits: convertigo-X.Y.Z-v12345-linux64.war</li></ul>	convertigo-X.Y.Z-v12345-linux32.war
<b>Other OS (HTML connector not supported)</b>	convertigo-X.Y.Z-v12345-linux32.war	<ul style="list-style-type: none"><li>32 bits: convertigo-X.Y.Z-v12345-linux32.war</li><li>64 bits: convertigo-X.Y.Z-v12345-linux64.war</li></ul>	convertigo-X.Y.Z-v12345-linux32.war

## 3.2 C-EMS installation on Windows/Tomcat

This chapter explains how to install C-EMS on Windows with Tomcat application server and what are the default configuration of C-EMS and how to change them:

- [Installing C-EMS on Windows/Tomcat](#)
- [Convertigo Server default configuration on Windows/Tomcat](#)

### 3.2.1 Installing C-EMS on Windows/Tomcat

- [Prerequisites](#)
- [Installation procedure](#)

#### PREREQUISITES

##### SERVER PREREQUISITES

The following table describes minimum server prerequisites for installing Convertigo Server:

Table 3 - 2: Server prerequisites

	Windows Server	Other Windows (only for development and demos)
Version	starting from Windows Server version 2003	<ul style="list-style-type: none"><li>• Windows XP Service Pack 2 (32 bits)</li><li>• Windows Seven (32 or 64 bits)</li></ul>
CPU	Dual Core	Dual Core
RAM	4 Gb	4 Gb
Disk space	10 Gb	10 Gb

##### INSTALLATION REQUIREMENTS

- The C-EMS installer file: `convertigo-server-X.Y.Z-v12345-win32-install.exe`
- You must have administration privileges to run this installer.

#### INSTALLATION PROCEDURE

The following procedure explains step by step how to install C-EMS including Tomcat application server on Windows.

##### *To install Convertigo Server on Windows with Tomcat application server*

- 1 Double click on the installation file `convertigo-server-X.Y.Z-v12345-win32-install.exe`

A **Security Warning** popup is displayed:



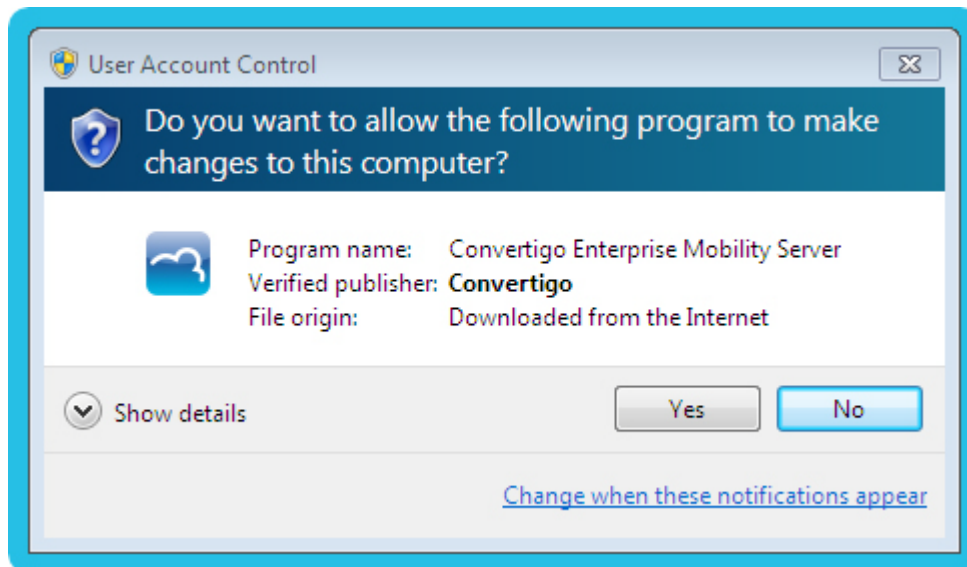


Figure 3 - 1: Security Warning popup after launching the installation file

- 2 Accept the security warning by pressing the **Run** button.



Figure 3 - 2: Installing C-EMS

- 3 Click on **Next** and follow the screens.

The End User Licence Agreement is displayed:

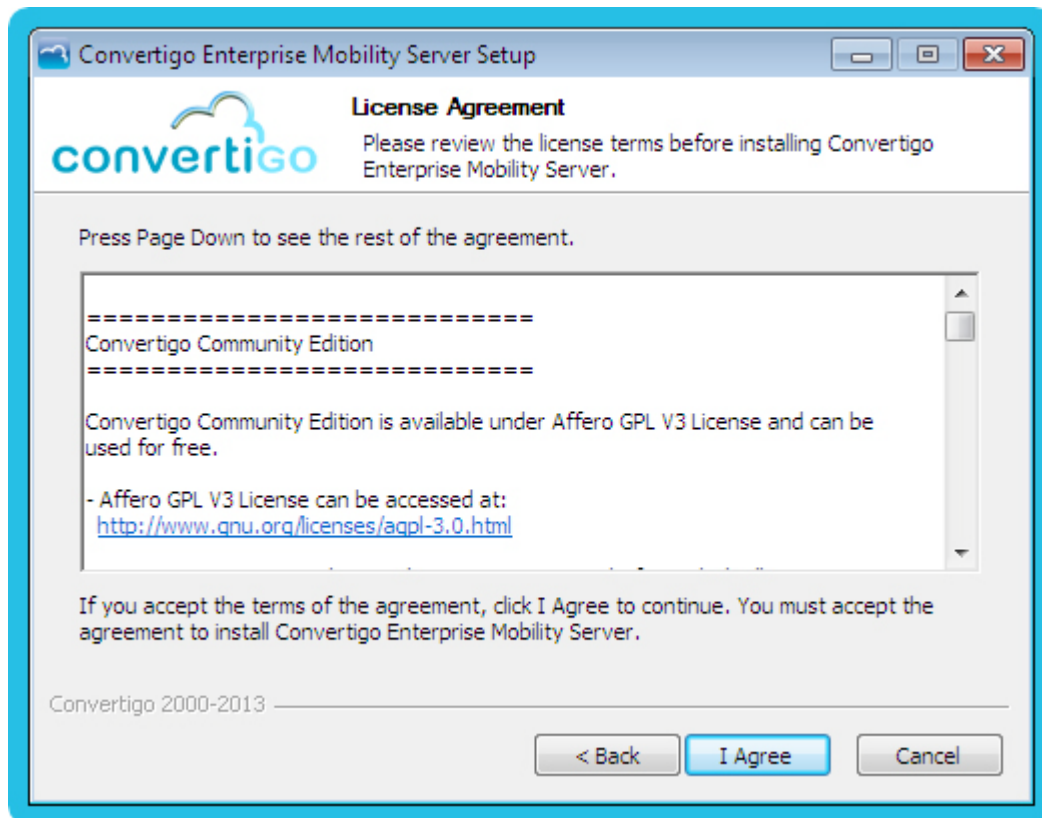


Figure 3 - 3: C-EMS Licence Agreement

- 4 Read carefully the EULA, and accept it by clicking on the **I Agree** button.



***If you do not accept the EULA, the installation has to be cancelled.***

The next page proposes the C-EMS components to install:

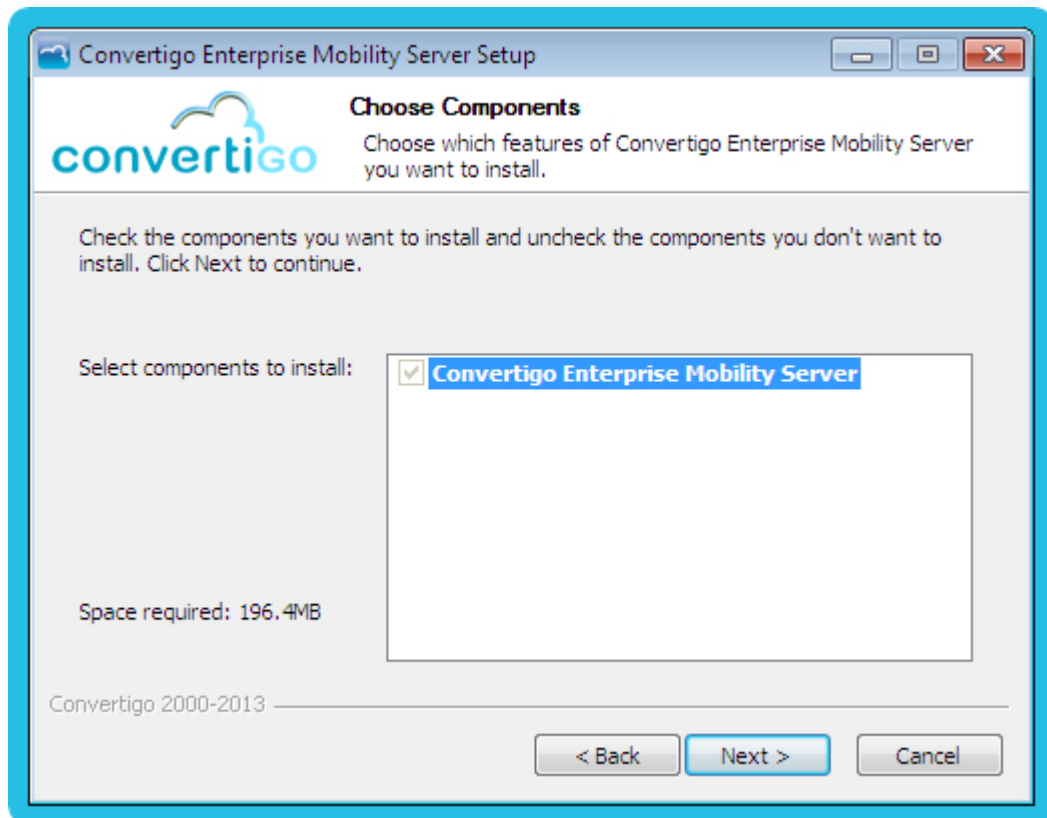


Figure 3 - 4: Choosing components

- 5 The C-EMS component is already selected. Click on **Next**.  
The next page allows you to choose the installation folder:

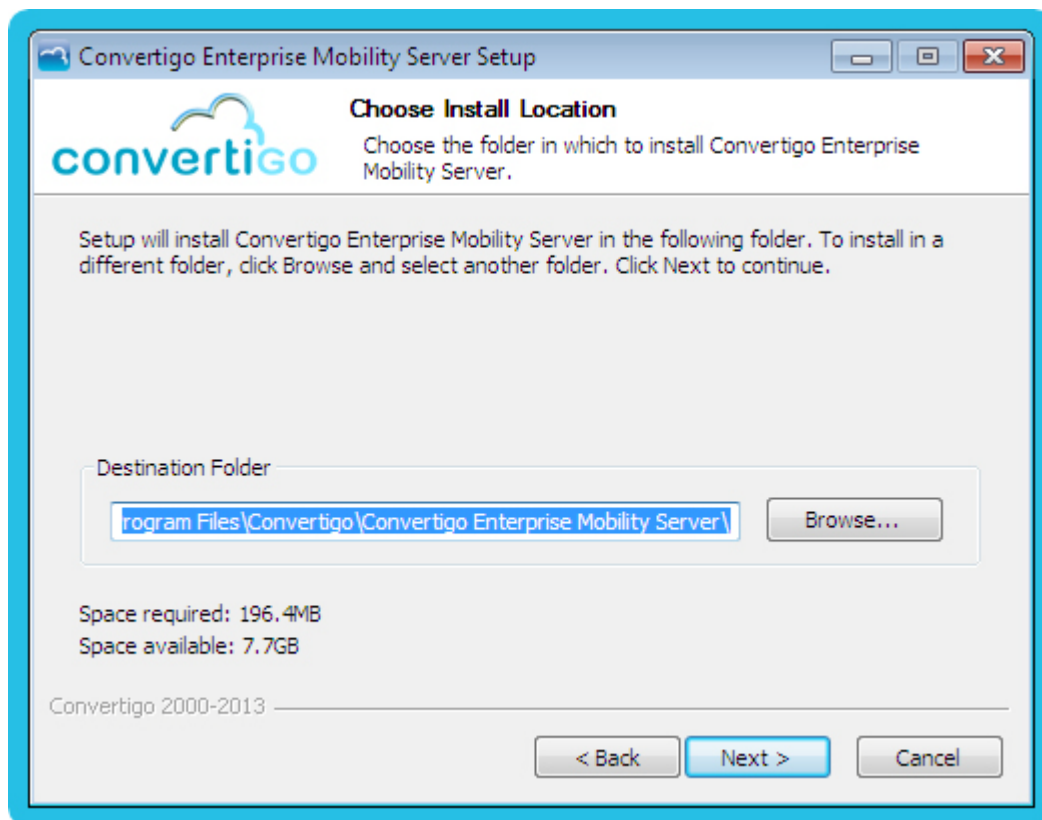


Figure 3 - 5: Setting destination folder

- 6 Change destination folder if the default one is not correct for your installation, and click on **Next**.

The next page allows you to configure the basic settings of the Convertigo Server:

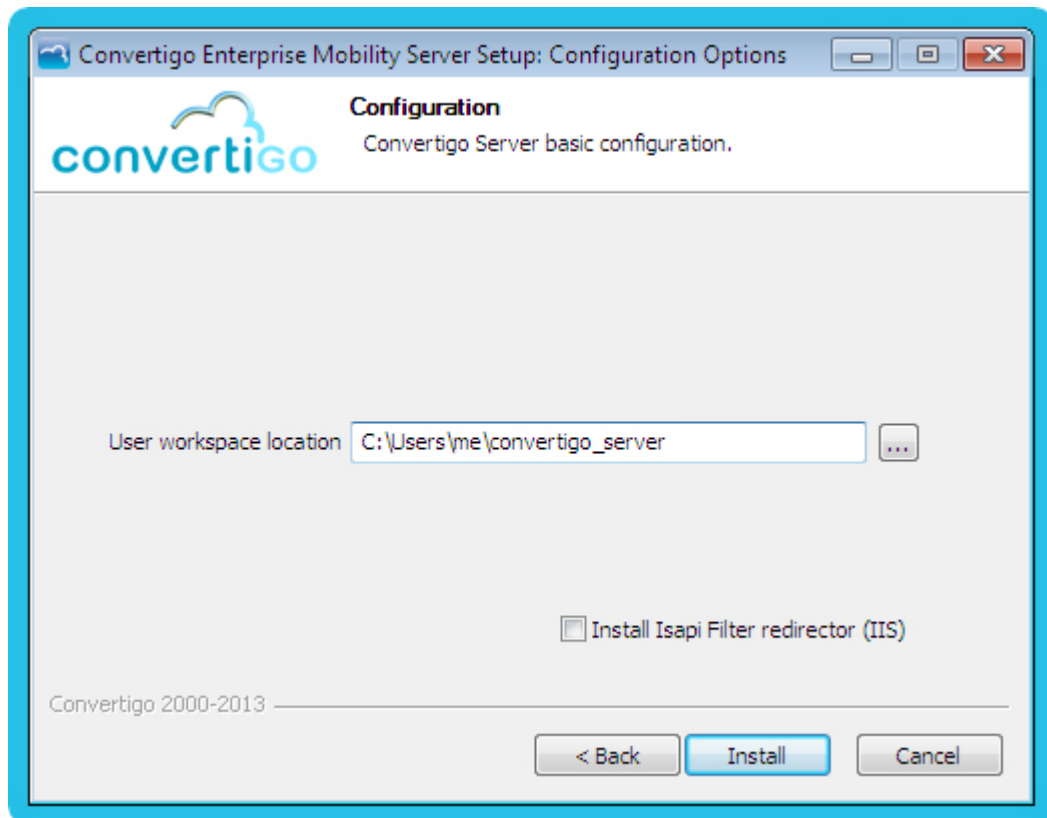


Figure 3 - 6: Server workspace configuration

- 7 In this screen, you can indicate:
- the location of the Convertigo workspace (a default folder is proposed in the currently logged user environment),
  - whether the connection is made through an IIS (checking or not the box).



*For more information on Convertigo workspace and projects workspace, see Appendix "Convertigo workspace" on page A - 2.*

- 8 Then, click on the **Install** button.

The installation starts, you should wait for a few minutes:

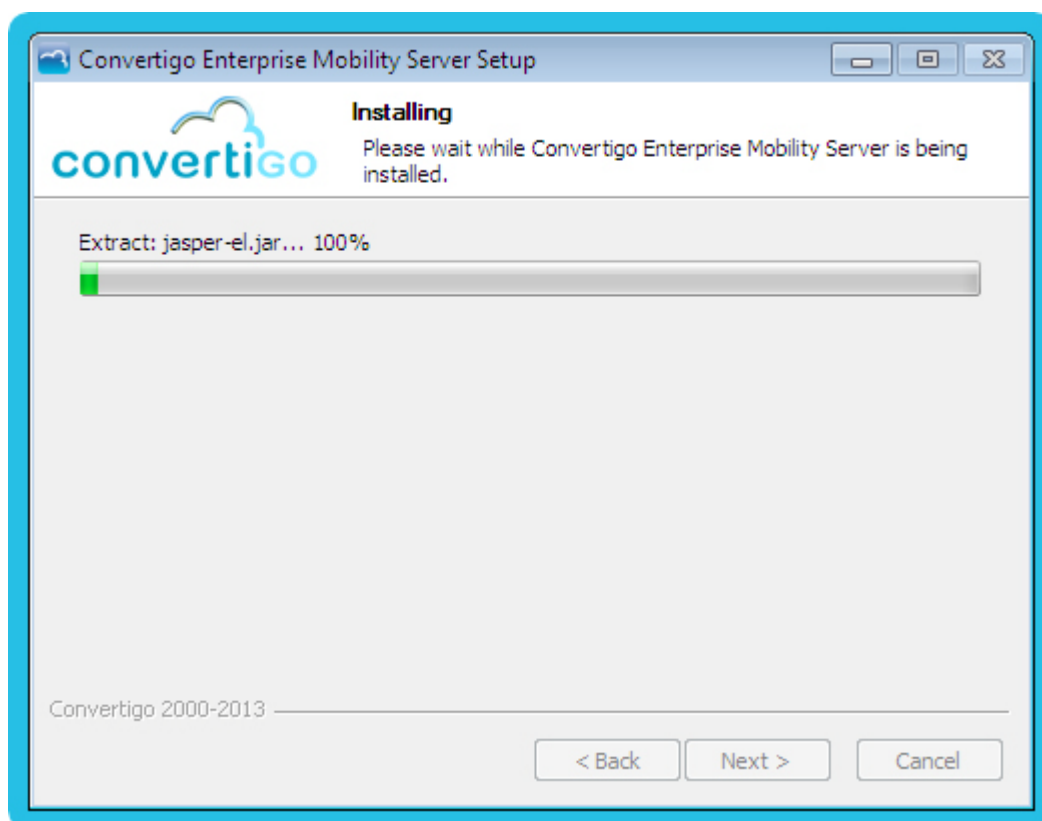


Figure 3 - 7: Start of the installation

The installation continues:

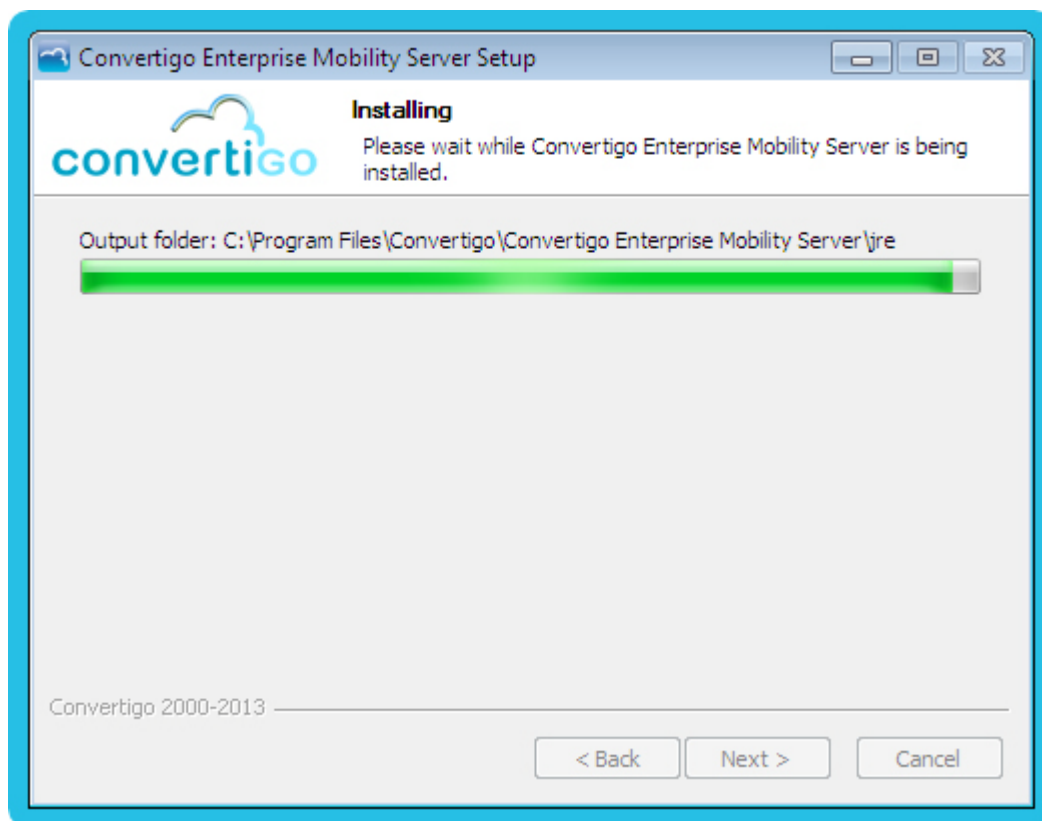


Figure 3 - 8: Installation in progress

This screen indicates the end of installation:



Figure 3 - 9: End of the installation

- 9 Click on **Finish** to close the wizard.
- 10 In Windows **Start** menu, open the *Control Panel*. Then, open the **Services** window from the *Administrative tools*.

In the **Services** window, *Convertigo Server* service must be present, with a *Started* status and *Automatic* startup type:

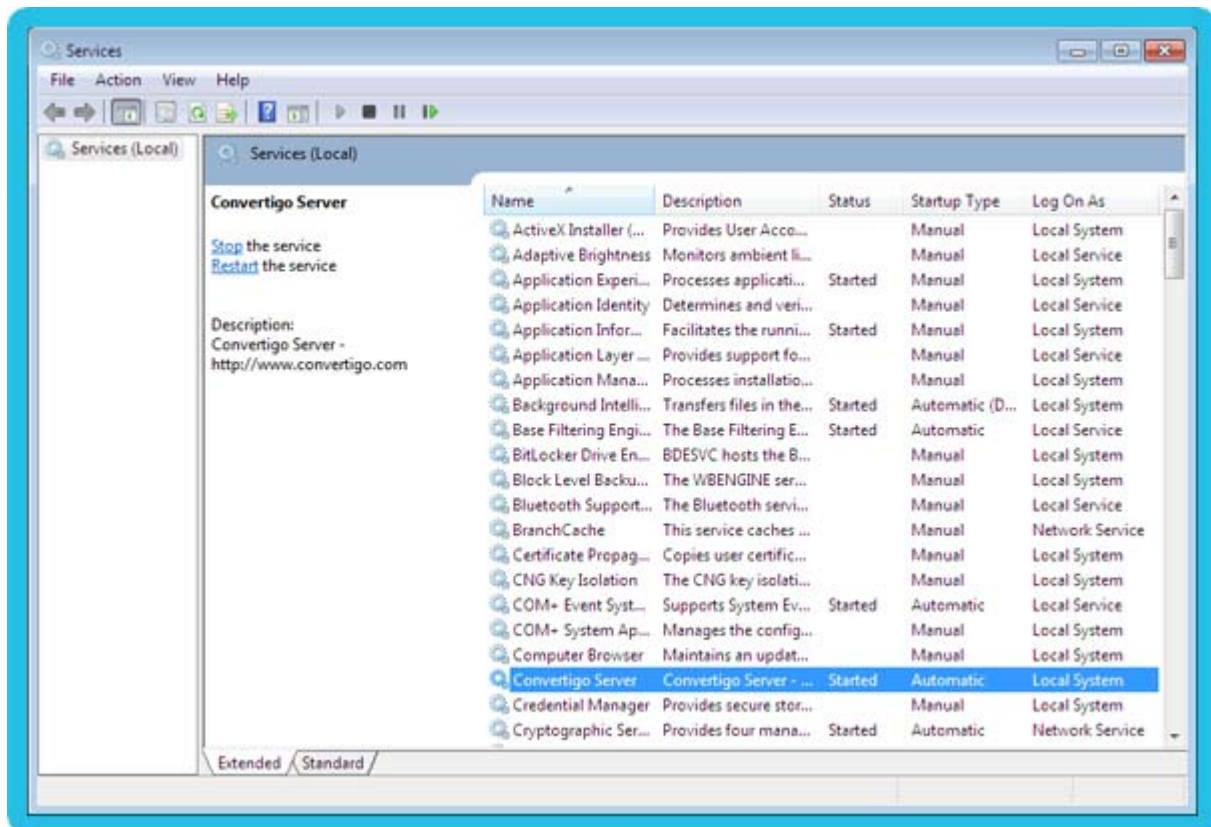


Figure 3 - 10: Services panel after Convertigo Server installation

**11** The installation can be validated by calling the following URL in a Web browser:

**`http(s)://<ConvertigoServer>:<ConvertigoPort>/convertigo/admin`**

- *ConvertigoServer* is the host name or IP address of your server (localhost for local server installation),
- *ConvertigoPort* is the port number of your Convertigo Server (28080 by default for HTTP port).

The Convertigo Server Administration Console opens on the authentication page:



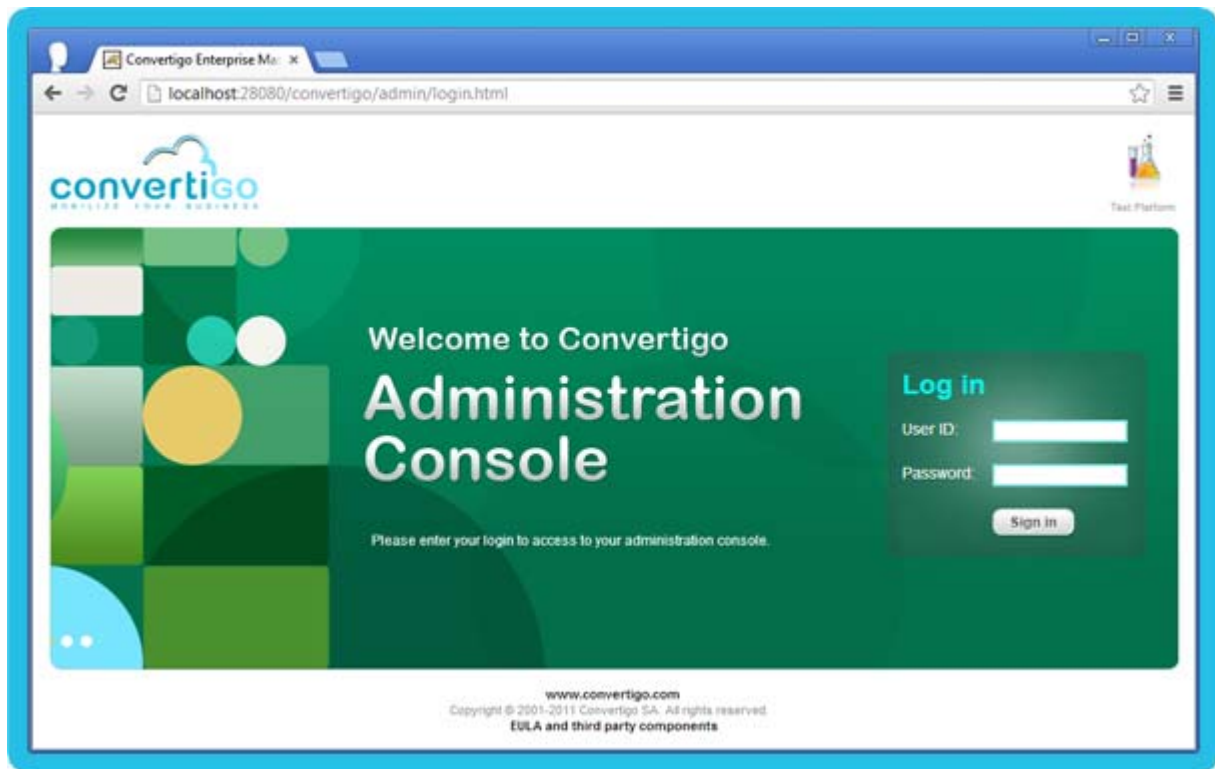


Figure 3 - 11: Convertigo Server Administration authentication page

### 3.2.2 Convertigo Server default configuration on Windows/Tomcat

After you installed Convertigo Server on Windows, you may want to use or change the default access URLs to the Convertigo engine, the default accounts or the default workspace location. This section presents all the needed information about Convertigo Server default configurations.

- [Convertigo Server default configurations and access URLs](#)
- [Changing Convertigo Server default configurations](#)

#### CONVERTIGO SERVER DEFAULT CONFIGURATIONS AND ACCESS URLs

- [Convertigo Server default workspace](#)
- [Convertigo Server default ports](#)
- [Convertigo Server Administration Console URLs](#)
- [Convertigo Server Test Platform URLs](#)
- [Convertigo Server default accounts](#)

##### CONVERTIGO SERVER DEFAULT WORKSPACE

Convertigo Server installer sets by default the workspace directory in the user's home directory, as a `convertigo_server` folder. It gives a path of the following form: `C:/Users/me/convertigo_server`



*For more information on Convertigo workspace and projects workspace, see Appendix "Convertigo workspace" on page A - 2.*

You may have changed this path while installing, see Figure 3 - 6.

##### CONVERTIGO SERVER DEFAULT PORTS

Convertigo Server and its tomcat application server are intalled by default to listen on the following ports:

- 28080 for HTTP,
- 28443 for HTTPS (Convertigo Server enables HTTPS by default after installation).

##### CONVERTIGO SERVER ADMINISTRATION CONSOLE URLs

Convertigo Server Administration Console is accessible at the following URL:

- in HTTP:

**`http://localhost:28080/convertigo/admin`**

- `localhost` is the host name of local machine (as Convertigo Server is installed locally),
- 28080 is the default HTTP port number of a Convertigo Server.

- in HTTPS:

**`https://localhost:28443/convertigo/admin`**

- localhost is the host name of local machine (as Convertigo Server is installed locally),
- 28443 is the default HTTPS port number of a Convertigo Server.

The *Administration Console* authentication page of the Convertigo Server opens:

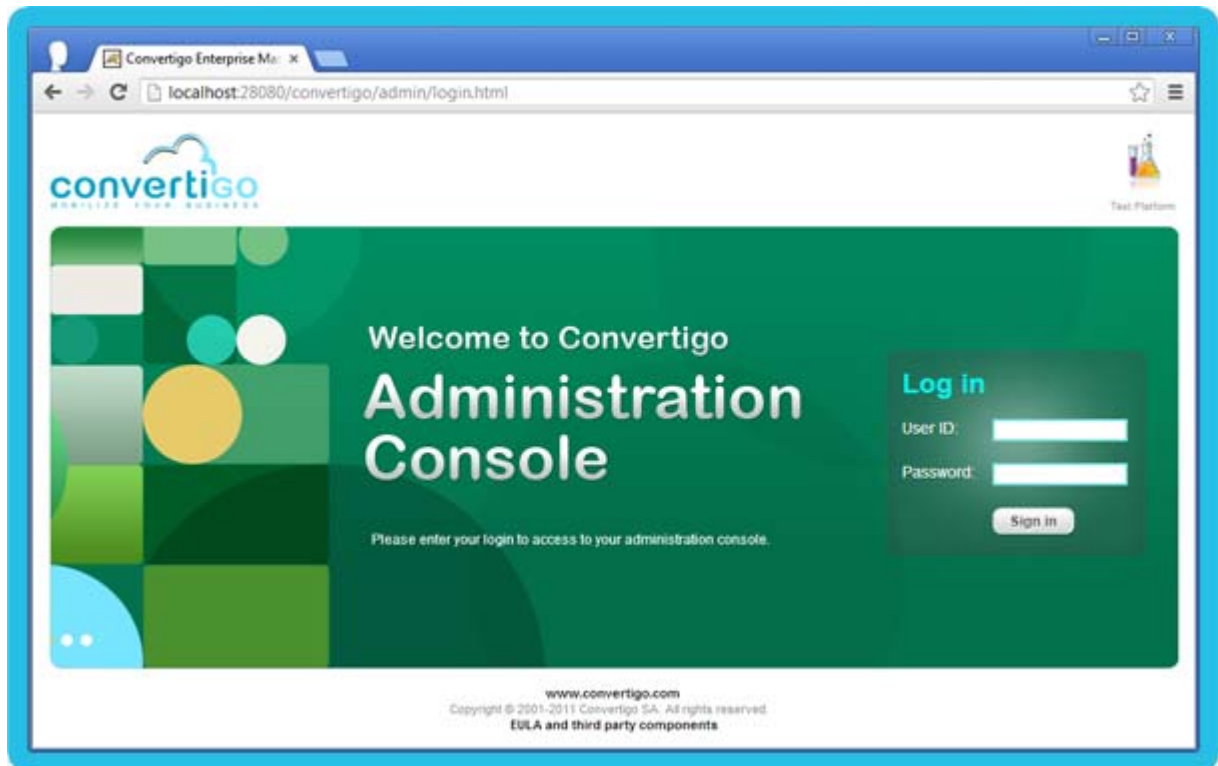


Figure 3 - 12: Convertigo Server Administration authentication page



*For more information about the Administration Console, see "Using Convertigo Administration Console" on page 4 - 1.*

#### CONVERTIGO SERVER TEST PLATFORM URLS

Convertigo Server Test Platform is accessible at the following URL:

- in HTTP:

**`http://localhost:28080/convertigo`**

- localhost is the host name of local machine (as Convertigo Server is installed locally),
- 28080 is the default HTTP port number of a Convertigo Server.

- in HTTPS:

**https://localhost:28443/convertigo**

- localhost is the host name of local machine (as Convertigo Server is installed locally),
- 28443 is the default HTTPS port number of a Convertigo Server.

The *Test Platform* home page of the Convertigo Server opens:

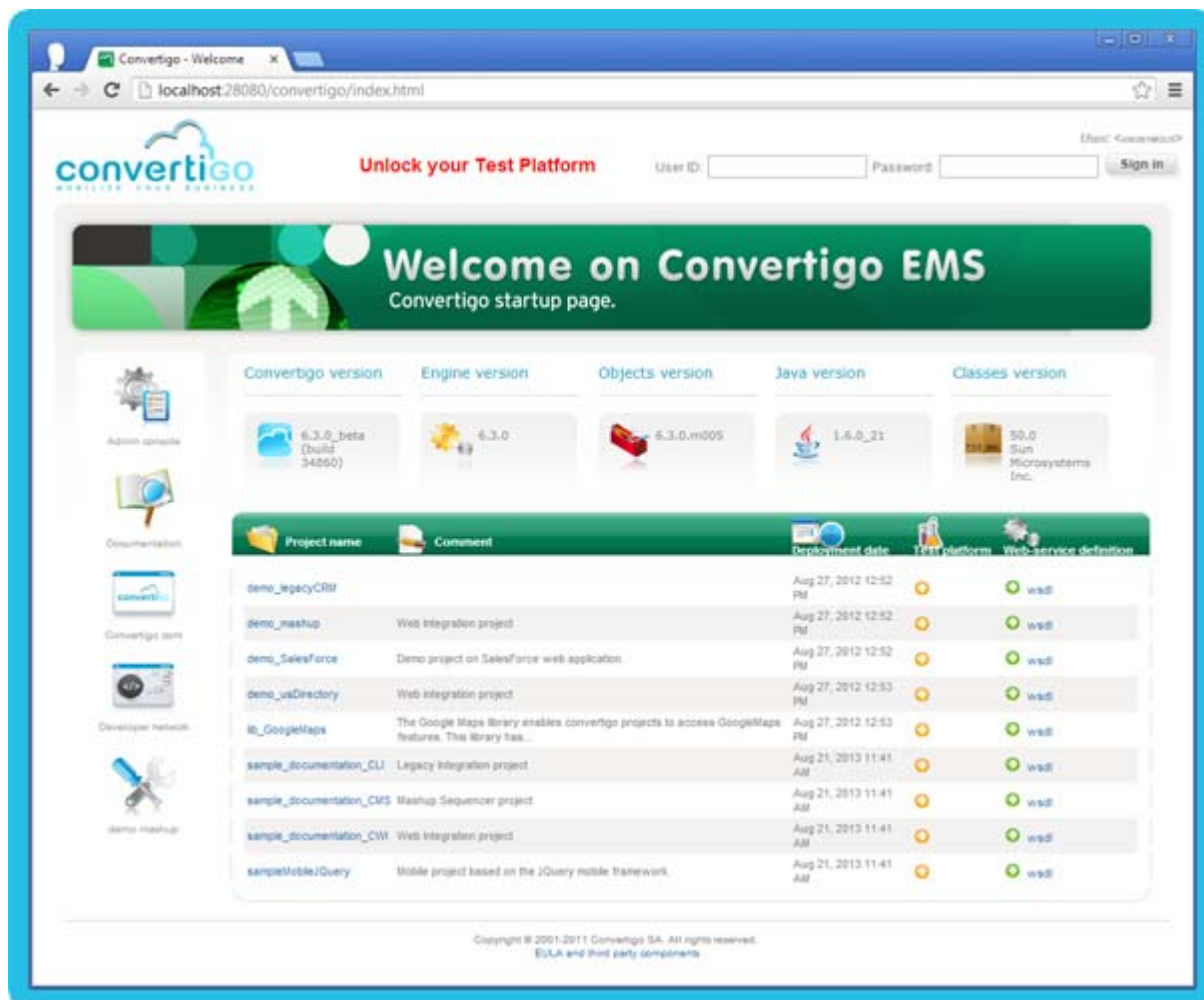


Figure 3 - 13: Convertigo Server Test Platform

Here, the *Test Platform* home page contains projects in the list of projects, these projects are those deployed in the Server.



*For more information about the Test Platform, you can consult the Using the Test Platform chapter of the User Guide (coming soon).*

#### CONVERTIGO SERVER DEFAULT ACCOUNTS

Convertigo Server declares by default the following accounts:

- **administrator** account, which user ID/password is admin/admin, used to access the *Administration Console* and the *Test Platform*,

- no **tester** account is defined by default, you access the *Test Platform* as **anonymous** user,
- **tomcat administrator** account, which user ID/password is `admin/admin`, used to access the *Tomcat Manager* application.



*For more information about the Test Platform accounts, you can consult the Using the Test Platform chapter of the User Guide (coming soon).*

## CHANGING CONVERTIGO SERVER DEFAULT CONFIGURATIONS

- Changing Convertigo Server default workspace
- Changing Convertigo Server default ports
- Changing Convertigo Server default administration account
- Changing Convertigo Server default tester account

### CHANGING CONVERTIGO SERVER DEFAULT WORKSPACE

If you are using Windows Operating System and Tomcat Application Server, the Convertigo workspace can be specified after Convertigo installation by using the Tomcat Configurator. The procedure is described below.

#### **To change the Convertigo Server user workspace directory**

- 1 You can find a shortcut icon in Windows taskbar, named *Convertigo Server*.

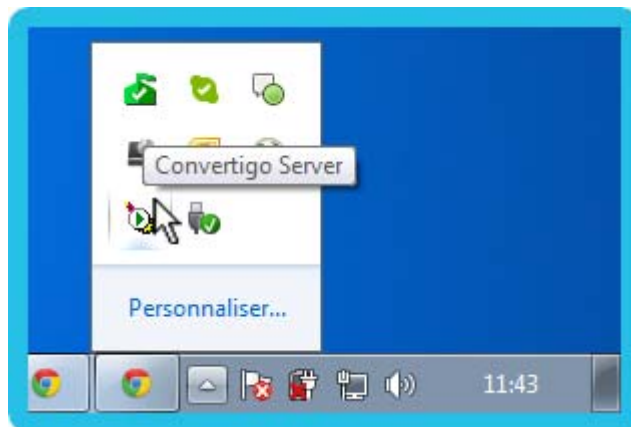


Figure 3 - 14: Convertigo Server Tomcat Configurator shortcut in taskbar

- 2 Right-click on this icon and select the **Configure...** option.

If the shortcut is not present in Windows taskbar, you can also locate in Tomcat installation directory the file `tomcatXw.exe` and run it.

The Convertigo Server Properties window opens:

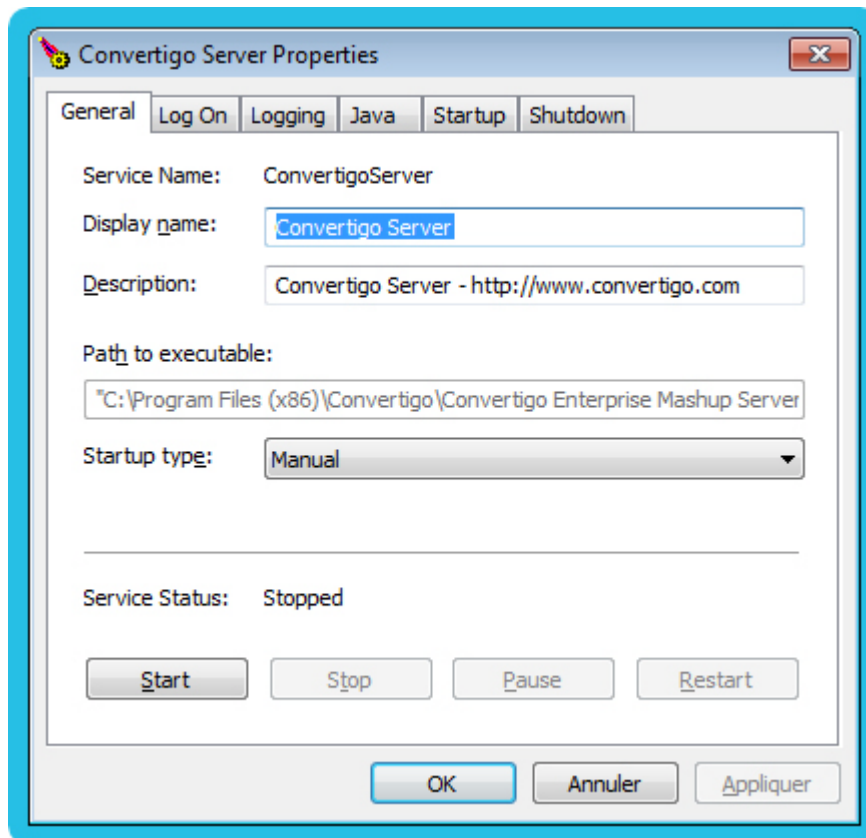


Figure 3 - 15: Convertigo Server Tomcat Configurator

- 3 Click on the *Java* tab.
- 4 In *Java Options* section, you can add (or update the entry if already existing):

```
-Dconvertigo.cems.user_workspace_path=  
<absolute_path_to_the_user_workspace_directory>
```

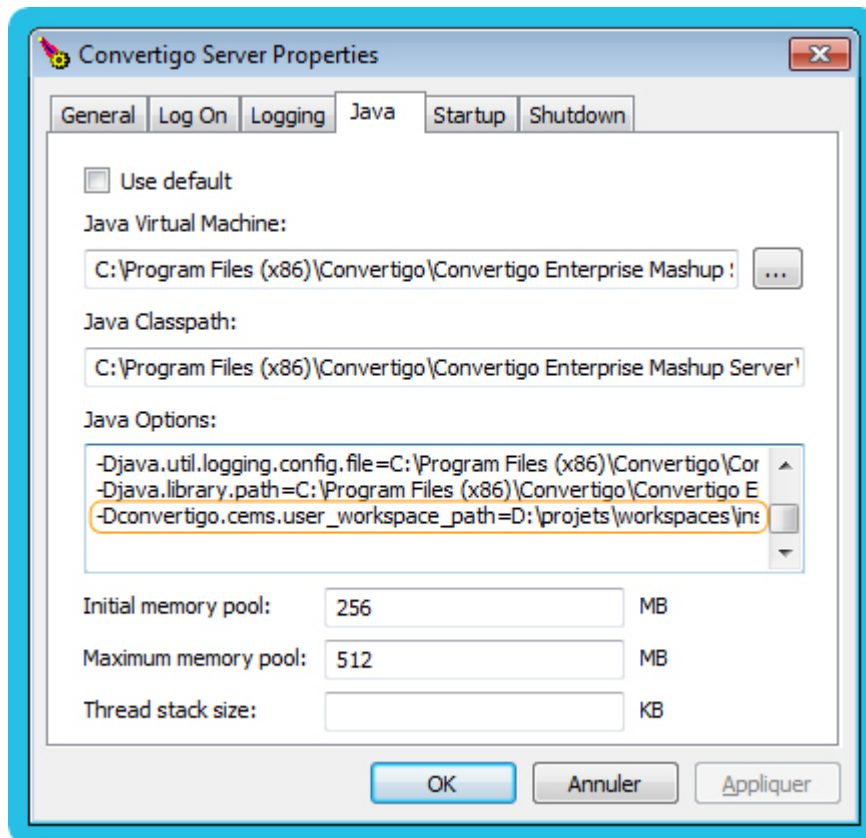


Figure 3 - 16: Updating Convertigo workspace in Tomcat Configurator

**5** Then, you have to restart Tomcat for Convertigo to use the new Convertigo workspace.

#### CHANGING CONVERTIGO SERVER DEFAULT PORTS

Convertigo Server ports can be changed:

- HTTP port can be modified by following the procedure *"To change the Convertigo Server HTTP port"* on page 3 - 19,
- HTTPS port can be modified by following the procedure *"To change the Convertigo Server HTTPS port"* on page 3 - 19,

#### *To change the Convertigo Server HTTP port*

Coming soon.

#### *To change the Convertigo Server HTTPS port*

Coming soon.

#### CHANGING CONVERTIGO SERVER DEFAULT ADMINISTRATION ACCOUNT

The Convertigo Server **administrator** account can be changed using the same procedure as for the Studio, see *"To change the Convertigo Studio administrator account"* on page 2 - 42.

#### CHANGING CONVERTIGO SERVER DEFAULT TESTER ACCOUNT

As no **tester** account is defined by default after Server installation, such an account can be declared using the same procedure as for the Studio, see *"To declare or change the Convertigo Studio tester account"* on page 2 - 43. This procedure is also valid if you want to

change the **tester** account afterwards.



### 3.3 C-EMS installation on Linux/Tomcat

This chapter explains how to install C-EMS on Linux with Tomcat application server and what are the default configurations of C-EMS and how to use/change them:

- [Installing C-EMS on Linux/Tomcat](#)
- [Convertigo Server default configuration on Linux/Tomcat](#)

### 3.3.1 Installing C-EMS on Linux/Tomcat

- Prerequisites
- Installation procedure

#### PREREQUISITES

##### SERVER PREREQUISITES

The following table describes minimum server prerequisites for installing Convertigo Server:

Table 3 - 3: Server prerequisites

	RedHat	Ubuntu	Debian
Version	starting from version 5.2	versions 8.04 and 10.04 (LTS)	version 6.0
CPU	Dual Core	Dual Core	Dual Core
RAM	4 Gb	4 Gb	4 Gb
Disk space	10 Gb	10 Gb	10 Gb
Packages (32 bits)	<ul style="list-style-type: none"><li>• xulrunner-1.9.0.19-1.el5_5 and all dependencies</li><li>• libXtst-1.0.1-3.1.i386 and all dependencies</li><li>• xorg-x11-fonts-Type1-7.1-2.1.el5</li><li>• unzip</li><li>• glibc and all dependencies</li><li>• libXi and all dependencies</li></ul>	<ul style="list-style-type: none"><li>• libgtk2.0-0</li><li>• libxt6</li><li>• libxtst6</li><li>• unzip</li><li>• glibc and all dependencies</li></ul>	<ul style="list-style-type: none"><li>• libgtk2.0-0</li><li>• libxt6</li><li>• libxtst6</li><li>• unzip</li><li>• bzip2</li><li>• glibc and all dependencies</li></ul>



**32 bits packages have to be installed.**  
**For Debian and Ubuntu 64-bit systems, it is necessary to additionally install the library "ia32-libs".**



*Specified packages are necessary for using web connectors or legacy connectors. These lists of packages are not exhaustive. If you have problems with your installation of Convertigo Server on Linux/Tomcat, please contact us.*

##### INSTALLATION REQUIREMENTS

- The C-EMS installer file: convertigo-X.Y.Z-v12345-linux32.run.zip
- You must have root privileges to run this installer script (with `sudo` prefix or logged in with root user).

#### INSTALLATION PROCEDURE

The following procedure explains step by step how to install C-EMS including Tomcat

application server on RedHat or Ubuntu.

**To install Convertigo Server on Linux with Tomcat application server**

- 1 Unzip the installation file `convertigo-X.Y.Z-v12345-linux32.run.zip` in a temporary directory (not with root privileges):

```
# unzip convertigo-server-X.Y.Z-v12345-linux32.run.zip
Archive:  convertigo-server-X.Y.Z-v12345-linux32.run.zip
  inflating: convertigo-server-X.Y.Z-v12345-linux32.run
#
```

- 2 Make the unzipped `convertigo-server-X.Y.Z-v12345-linux32.run` script executable:

```
# chmod +x convertigo-server-X.Y.Z-v12345-linux32.run
```

- 3 Run the `convertigo-server-X.Y.Z-v12345-linux32.run` script (use root privileges from here):

```
# ./convertigo-server-X.Y.Z-v12345-linux32.run
Verifying archive integrity... All good.
Uncompressing convertigo-server-X.Y.Z-v12345-linux32 .....
.....
```

- 4 The installer starts by displaying the end-user licence agreement, here is an extract:

```
=====
Convertigo Enterprise Mobility Server installation program
=====
You first have to accept the Convertigo End User License
Agreement (EULA)
Press <return> to start reading the Convertigo EULA...
=====
Convertigo Community Edition
=====
Convertigo Community Edition is available under Affero GPL V3
License and can be
used for free.
- Affero GPL V3 License can be accessed at:
  http://www.gnu.org/licenses/agpl-3.0.html

[...]

You should read carefully the agreements covering the Third
Party Software. Each

of these agreements or terms can be accessed via

www.convertigo.com/EEand3rdpartycomponents. By installing and
using this Third

--More--(7%)
```

- 5 You should read the whole EULA by scrolling down.

```
===== End of Convertigo EULA =====
Do you accept the Convertigo EULA? (yes/no)
```

- 6 You must accept the EULA in order to continue the installation.



***If you do not accept the EULA, the installation is cancelled.***

```
===== End of Convertigo EULA =====  
  
Do you accept the Convertigo EULA? (yes/no)  
  
yes  
  
The Convertigo EULA has been fully accepted, continuing the  
installation process...  
  
Do you want to create 'convertigo' user? (yes/no)
```

- 7 You can precise the linux user you want to use:

```
Do you want to create 'convertigo' user ? (yes/no)  
  
yes  
  
CEMS user 'convertigo' home: /home/convertigo
```

The convertigo workspace will be created in the user home directory.



*For more information on Convertigo workspace, see Appendix  
"Convertigo workspace" on page A - 2.*

- 8 You can precise the installation path:

```
Where do you want to install CEMS ?  
  
(Default is /opt/convertigo, just hit return to use this path)
```

- 9 Then, the installation continues for a few minutes:

```
Create CEMS directory: /opt/convertigo  
  
Copying JRE ...  
  
Copying Tomcat ...  
  
Unzip Convertigo webapp ...  
  
Creating Convertigo workspace: /home/convertigo/convertigo  
  
Change owner of /opt/convertigo for convertigo ...  
  
Change owner of /home/convertigo/convertigo for convertigo ...  
  
Copy starting script ...
```

- 10 Depending on the Linux distribution:

- On Ubuntu:

```
Creating auto start links with update-rc.d ...
```

```
Adding system startup for /etc/init.d/convertigo ...
```

```
/etc/rc0.d/K88convertigo -> ../init.d/convertigo
```

```
/etc/rc1.d/K88convertigo -> ../init.d/convertigo
```

```
/etc/rc6.d/K88convertigo -> ../init.d/convertigo
```

```
/etc/rc2.d/S88convertigo -> ../init.d/convertigo
```

```
/etc/rc3.d/S88convertigo -> ../init.d/convertigo
```

```
/etc/rc4.d/S88convertigo -> ../init.d/convertigo
```

```
/etc/rc5.d/S88convertigo -> ../init.d/convertigo
```

- Or on Debian:

```
Creating auto start links with update-rc.d ...
```

```
update-rc.d: using dependency based boot sequencing
```

The procedure is automatically creating startup links. Continue with step 12 of the procedure.

- Or on RedHat distribution:

```
update-rc.d is not installed, create links to rc.d runlevels
```

```
Create this with 'ln -s'? (yes/no)
```

- 11** Answer the question.

We recommend to answer 'yes' as it eases accessing Convertigo startup command:

```
Create this with 'ln -s'? (yes/no)
```

```
yes
```

```
create symbolic link `K88convertigo' to `../init.d/convertigo'
```

```
create symbolic link `K88convertigo' to `../init.d/convertigo'
```

```
create symbolic link `S88convertigo' to `../init.d/convertigo'
```

```
create symbolic link `S88convertigo' to `../init.d/convertigo'
```

```
create symbolic link `S88convertigo' to `../init.d/convertigo'
```

```
create symbolic link `S88convertigo' to `../init.d/convertigo'
```

```
create symbolic link `K88convertigo' to `../init.d/convertigo'
```

- 12** After the links creation, the procedure continues for all Linux distributions:

Installation finished, convertigo is ready to listen 28080 and VNC to 5903.

Use `/etc/init.d/convertigo [start|stop|status]`

The installation is finished. By default, Convertigo Server is configured to be accessed on HTTP port 28080, and the XVNC displaying the connectors monitors can be accessed on port 5903.



*For more information about connectors monitors, see the appendix "connector monitoring windows" on page A - 5.*

Do you want to start it now ? (yes/no)

- 13** You can start Convertigo Server at the end of the installation by answering 'yes' to this question.

Do you want to start it now ? (yes/no)

yes

Starting Convertigo Enterprise Mobility Server: convertigo.

#



*By default, Convertigo is in auto start mode.*

- 14** The installation can be validated by calling the following URL in a Web browser:

`http(s)://<ConvertigoServer>:<ConvertigoPort>/convertigo/admin`

- *ConvertigoServer* is the host name or IP address of your server.
- *ConvertigoPort* is the port number of your Convertigo Server (28080 by default for HTTP port).

The Convertigo Server *Administration Console* opens on the authentication page:

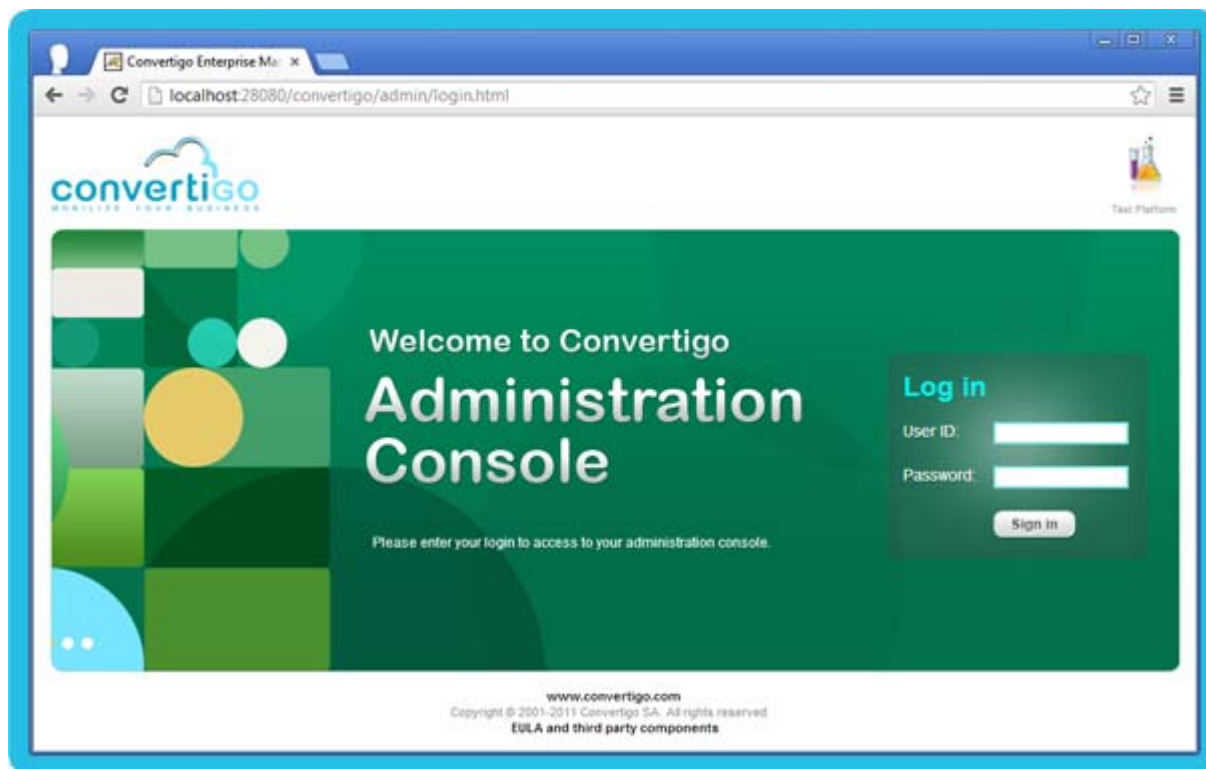


Figure 3 - 17: Convertigo Server Administration authentication page



### 3.3.2 Convertigo Server default configuration on Linux/Tomcat

After you installed Convertigo Server on Linux/Tomcat, you may want to start and stop Convertigo Server, use or change the default access URLs to the Convertigo engine, the default accounts or the default user workspace location. This section presents all the needed information about Convertigo Server default configurations.

- [Start/Stop Convertigo Server on Linux/Tomcat](#)
- [Convertigo Server default configurations on Linux/Tomcat](#)
- [Changing Convertigo Server default configurations on Linux/Tomcat](#)

#### START/STOP CONVERTIGO SERVER ON LINUX/TOMCAT

To start and stop Convertigo Server on Linux/Tomcat, you have to use root privileges. To do that, use the `sudo` prefix or log in with `root` user.

The following table contains the useful commands to start and stop Convertigo Server installed on Linux/Tomcat:

Table 3 - 4: Engine start and stop commands

Action	Command
start	<code>/etc/init.d/convertigo start</code>
stop	<code>/etc/init.d/convertigo stop</code>
restart	<code>/etc/init.d/convertigo restart</code>

#### CONVERTIGO SERVER DEFAULT CONFIGURATIONS ON LINUX/TOMCAT

Refer to the Convertigo Server installation on Windows for some pieces of information: *"Convertigo Server default configuration on Windows/Tomcat"* on page 3 - 14.

More detailed data about the Linux/Tomcat installation case are coming soon.

#### CHANGING CONVERTIGO SERVER DEFAULT CONFIGURATIONS ON LINUX/TOMCAT

##### CHANGING CONVERTIGO SERVER DEFAULT WORKSPACE ON LINUX/TOMCAT

The Convertigo Server workspace can be changed on Linux Operating System and Tomcat Application Server, using the following procedure.

##### *To change the Convertigo Server workspace directory (Linux/Tomcat)*

- 1 Locate the `convertigo` start file (usually in `/etc/init.d`) and open it for edition.
- 2 In the `export JAVA_OPTS` line, add or change parameter `-Dconvertigo.cems.user_workspace_path` to specify the location of your Convertigo workspace.

```
export JAVA_OPTS="$JAVA_OPTS
-Dconvertigo.cems.user_workspace_path=/home/convertigoTest/
convertigo"
```

- 3 You have to restart Convertigo or Tomcat for Convertigo Server to use the new

workspace location.

## 3.4 C-EMS installation on Linux/WebSphere

This chapter explains how to install C-EMS on Linux with WebSphere application server and all parametrization that has to be done to correctly run Convertigo Server. This chapter will describes procedures for WebSphere version 6 and for WebSphere version 7:

- [Installing C-EMS on Linux/WebSphere 6](#)
- [Parameterizing C-EMS with WebSphere 6](#)
- [Installing C-EMS on Linux/clustered WebSphere 7](#)
- [Parameterizing C-EMS with WebSphere 7](#)

### 3.4.1 Installing C-EMS on Linux/WebSphere 6

Installing Convertigo Server is possible on WebSphere version 6. This procedure completes the official IBM documentation to install an application.

- [Prerequisites](#)
- [Installation procedure](#)

#### PREREQUISITES

##### SERVER PREREQUISITES

The following table describes minimum server prerequisites for installing Convertigo Server:

Table 3 - 5: Server prerequisites

	RedHat/WebSphere
Version	<ul style="list-style-type: none"><li>• RedHat starting from version 5.2</li><li>• WebSphere starting from version 6</li></ul>
CPU	Dual Core
RAM	4 Gb
Disk space	10 Gb
Packages	<ul style="list-style-type: none"><li>• Package <code>xulrunner-1.9.0.19-1.el5_5</code> and all dependencies</li><li>• Package <code>xorg-x11-fonts-Type1-7.1-2.1.el5</code></li></ul>



*Specified packages are necessary for using web connectors.*

##### INSTALLATION REQUIREMENTS

- The C-EMS `.war` file: `convertigo-X.Y.Z-v12345-linux32.war` (for 32 bits version) or `convertigo-X.Y.Z-v12345-linux64.war` (for 64 bits version).
- You must know how to access WebSphere console. For example: `https://websphere_server:9043/ibm/console`
- You must know the user ID and password to connect to the WebSphere console.
- Convertigo workspace will be created in *home* directory. If the account used for installation doesn't have a *home* directory, add an *Environment Entry* named `HOME` with a value pointing on a directory where the Convertigo workspace will be created.

#### INSTALLATION PROCEDURE

The following procedure explains step by step how to install C-EMS on RedHat/WebSphere 6.

##### **To install Convertigo Server on WebSphere 6**

- 1 Connect to the WebSphere 6 console using the appropriate URL:



Figure 3 - 18: Connecting to WebSphere 6 console

- 2 Set administration credentials and validate by clicking the **Log in** button.
- 3 In the left menu, expand **Applications** and click on **Install New Application** submenu.

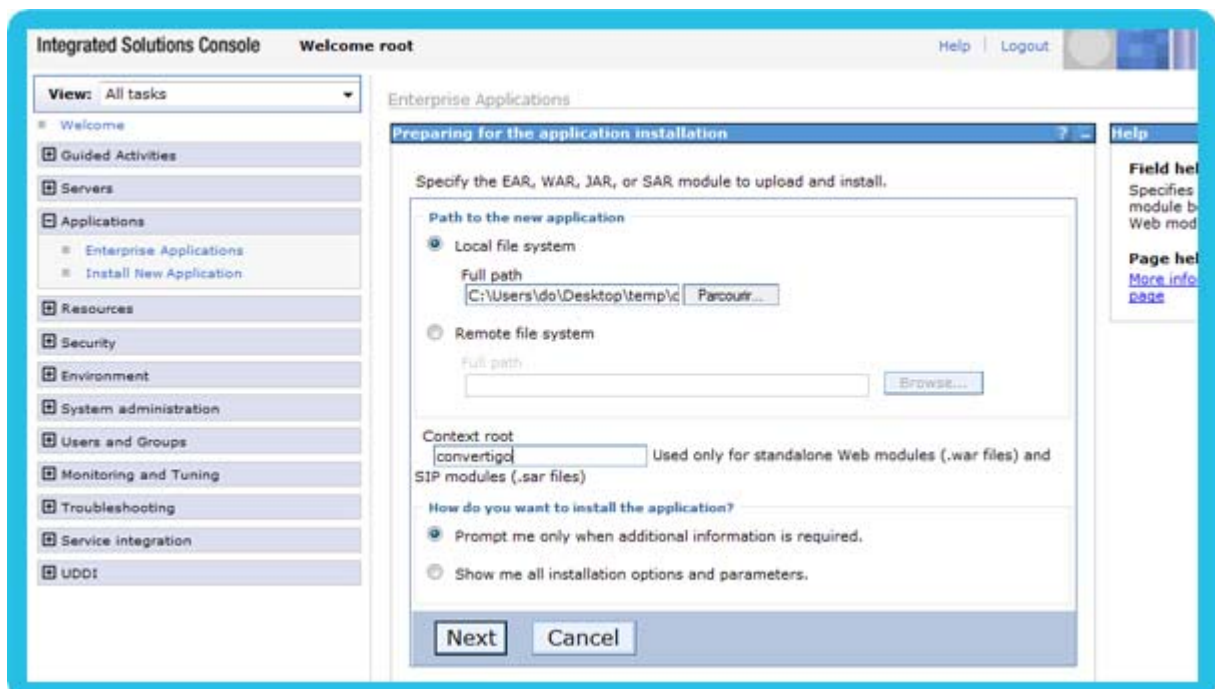


Figure 3 - 19: Installing new application in WebSphere 6

- 4 Set the full path of the `.war` file (or click on the **Browse** button to access to the file), define a name in the **Context root** input field (for example `convertigo`) and click on **Next**.

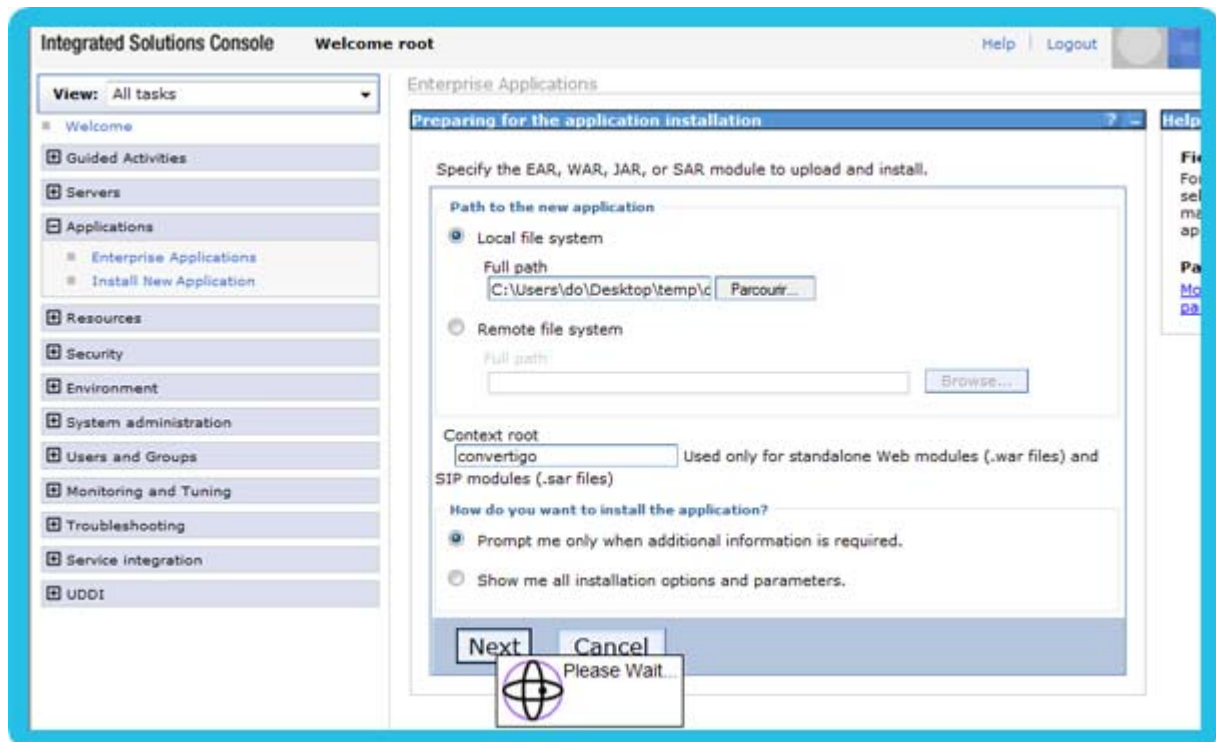


Figure 3 - 20: Convertigo .war file uploading in WebSphere 6

Convertigo .war file upload process may take a while.

- 5 Then, you are redirected to the application's installation page.

The screenshot shows the 'Install New Application' dialog in WebSphere 6. The title bar is 'Enterprise Applications' and the subtitle is 'Install New Application'. The main heading is 'Specify options for installing enterprise applications and modules.' The left sidebar lists six steps: Step 1: Select installation options (highlighted), Step 2: Map modules to servers, Step 3: Map resource references to resources, Step 4: Map virtual hosts for Web modules, Step 5: Map context roots for Web modules, and Step 6: Summary. The main area is titled 'Select installation options' and contains the following options:

- ☐ Precompile JavaServer Pages files
- Directory to install application
- ☒ Distribute application
- ☐ Use Binary Configuration
- ☐ Deploy enterprise beans
- Application name
- ☒ Create MBeans for resources
- ☒ Enable class reloading
- Reload interval in seconds
- ☐ Deploy Web services
- Validate Input off/warn/fail (dropdown menu set to 'warn')
- ☐ Process embedded configuration
- File Permission**
  - Allow all files to be read but not written to
  - Allow executables to execute
  - Allow HTML and image files to be read by everyone
  - Set file permissions button
  -
- Application Build ID (input field with 'Unknown')
- ☐ Allow dispatching includes to remote resources
- ☐ Allow servicing includes from remote resources

At the bottom are 'Next' and 'Cancel' buttons.

Figure 3 - 21: Convertigo installation options in WebSphere 6

- 6 In the *installation options* page, specify:
  - specify the installation directory in **Directory to install application** input field,
  - specify the application name in **Application name** input field,
  - enable the class reloading by checking the **Enable class reloading** checkbox,
  - and set class reloading interval in **Reload interval in seconds** input field (for example, 5 seconds).
- 7 Then, click on **Next**.

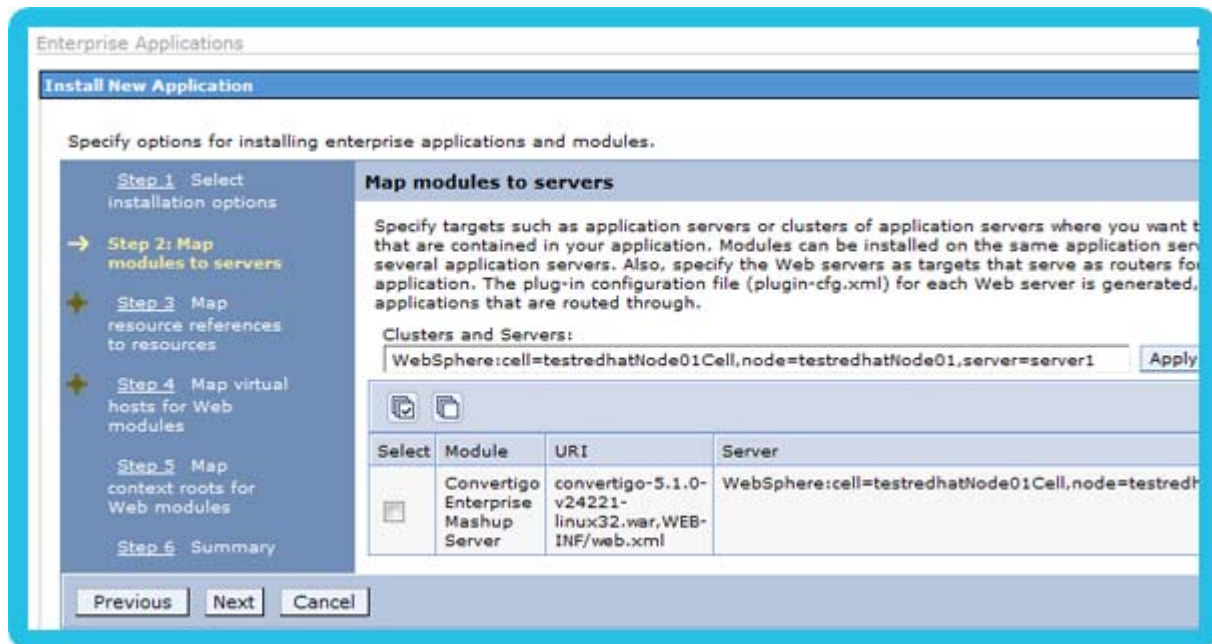


Figure 3 - 22: Convertigo installation Map modules to servers page in WebSphere 6

- 8 Click on **Next** until the *Summary* page.



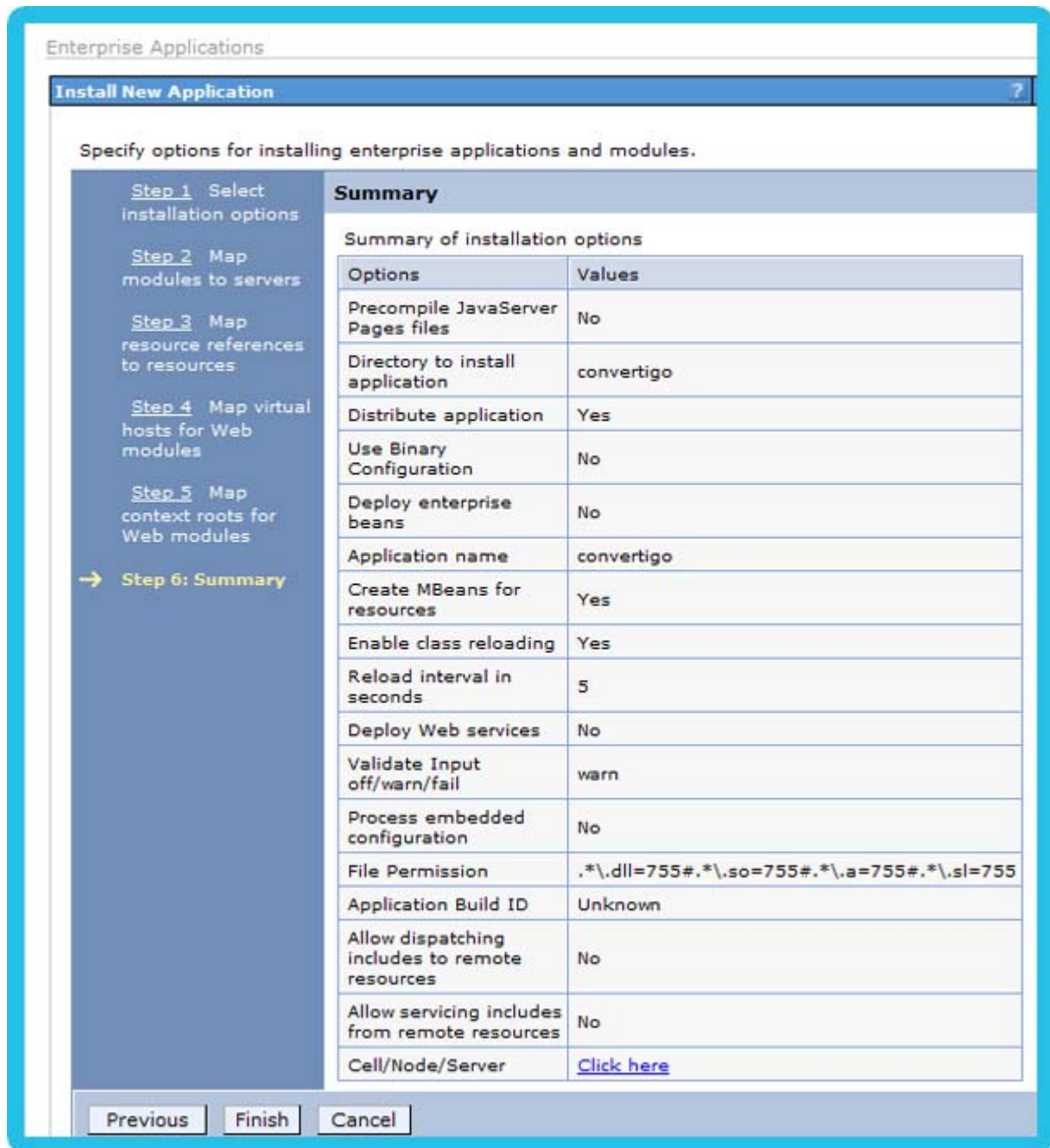


Figure 3 - 23: Convertigo installation Summary page

9 Then, click on **Finish**.

The **Installing...** page is displayed:

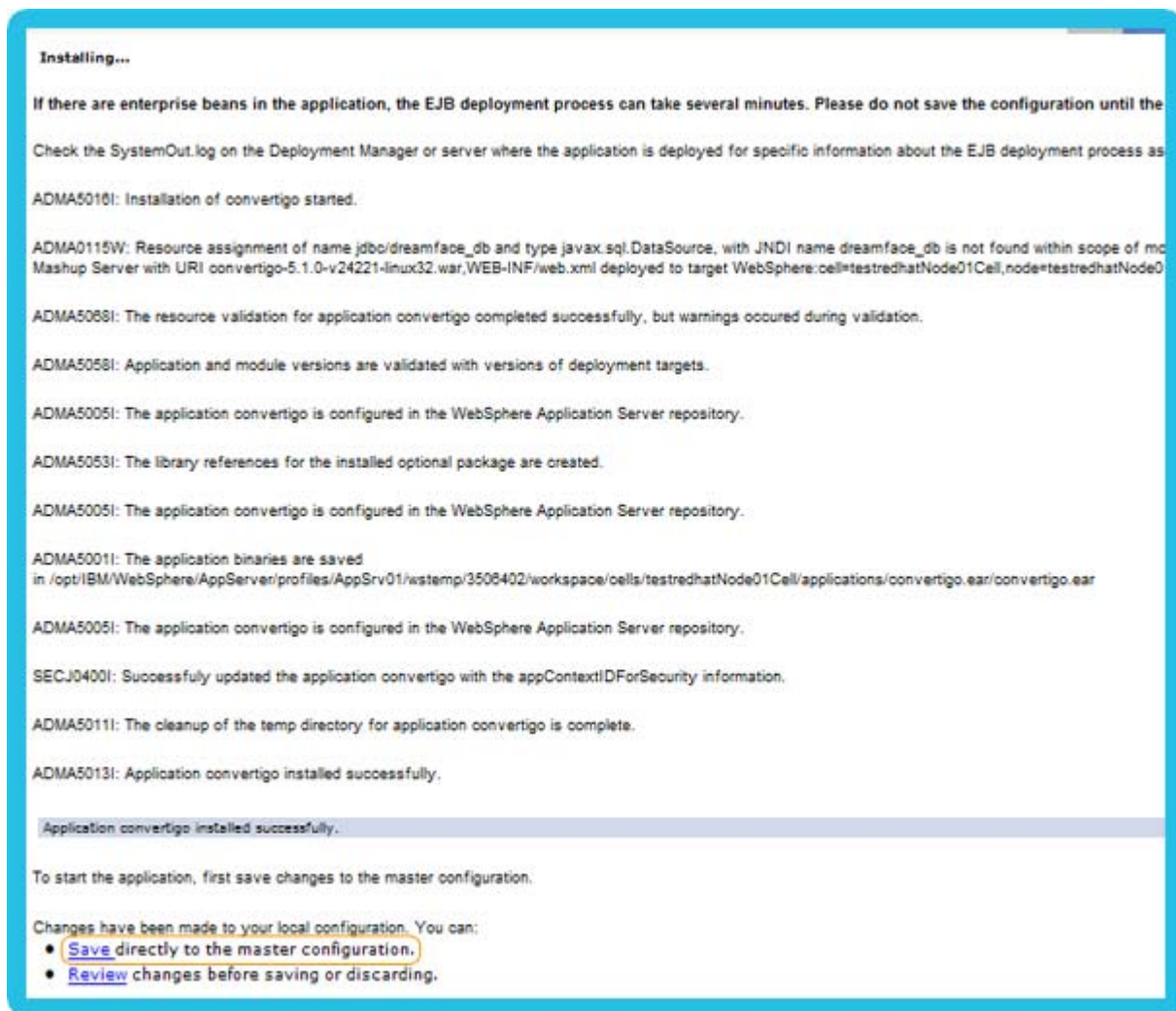


Figure 3 - 24: Convertigo installation Installing... page

**10** Then, click on **Save directly to the master configuration.**

The convertigo application should now be visible in the *Enterprise Applications* page:

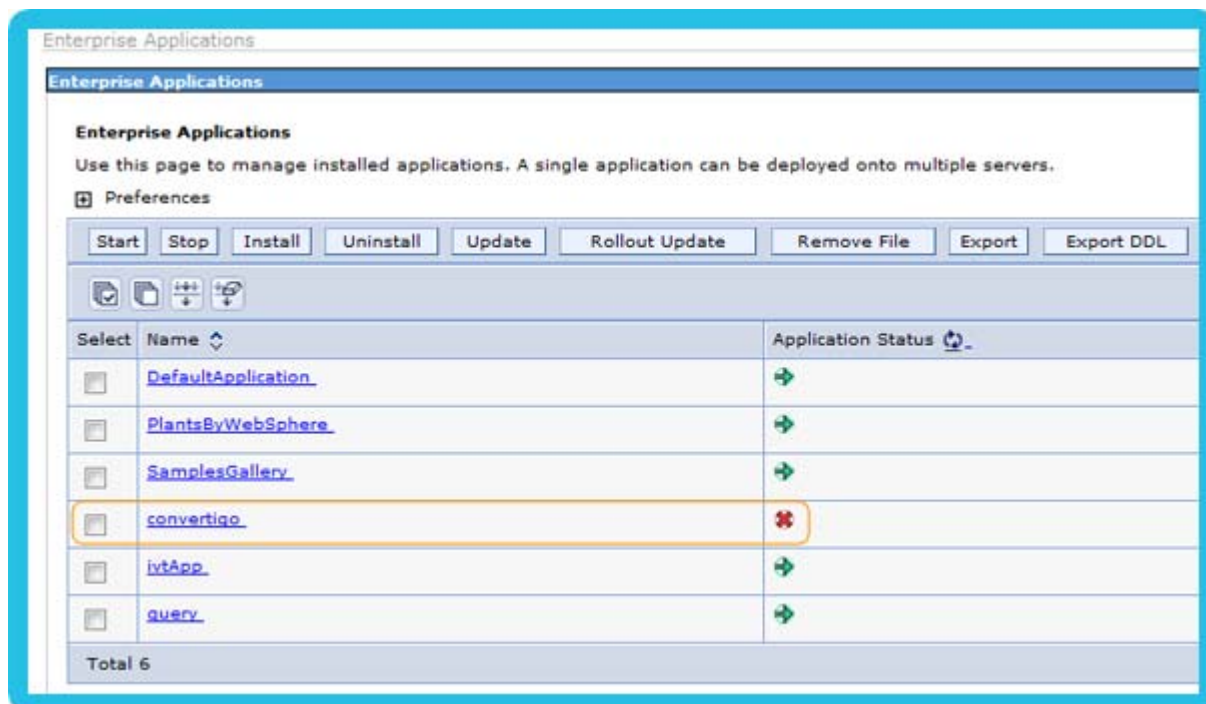


Figure 3 - 25: Convertigo application installed

- 11 Start the `convertigo` application by checking `convertigo` application checkbox and clicking on **Start**.

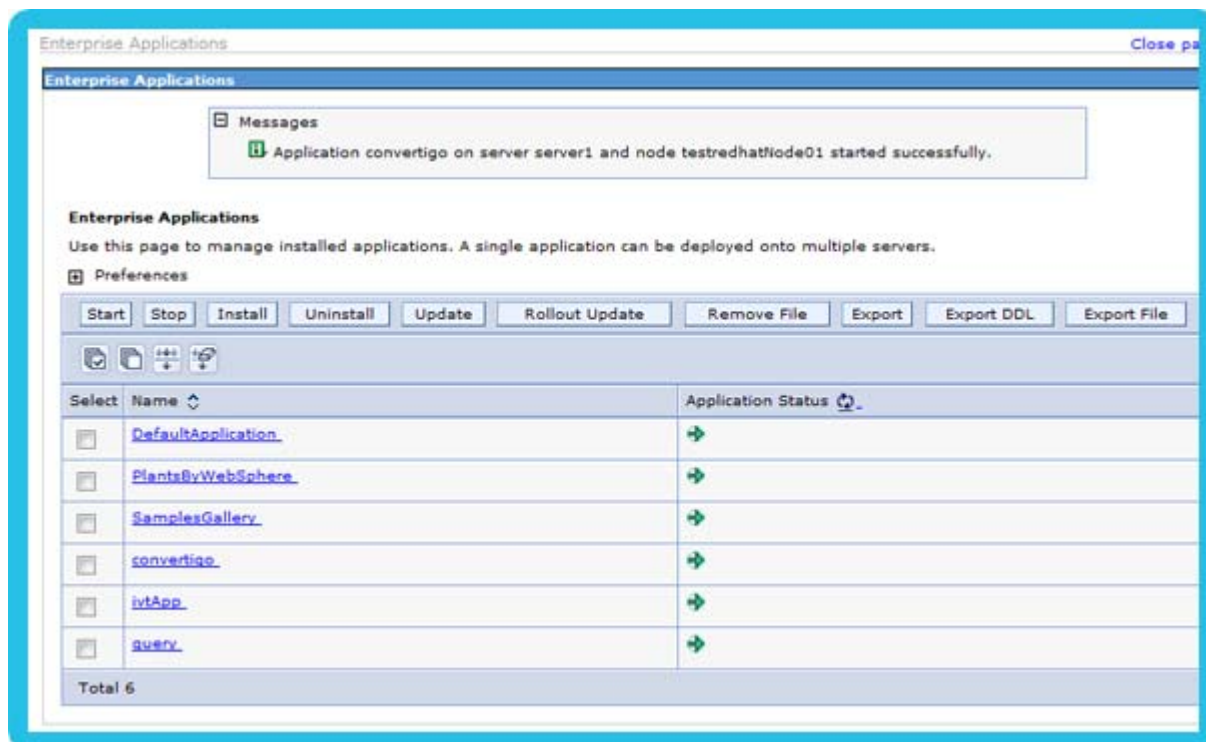


Figure 3 - 26: Convertigo application started

### 3.4.2 Parameterizing C-EMS with WebSphere 6

Parameterization of C-EMS in WebSphere 6 consists in:

- Specifying Java parameters and environment entries in WebSphere 6
- Changing the order of class loaders
- Modifying the "ibm-web-ext.xml" file
- Using the Convertigo "compatibility mode"

#### SPECIFYING JAVA PARAMETERS AND ENVIRONMENT ENTRIES IN WEBSHERE 6

WebSphere 6 server and environment need to be configured to correctly run Convertigo Server application.

*To specify Java parameters and environment entries*

- 1 In the left menu, expand **Servers** and click on **Application servers** submenu.
- 2 Select **server1** page (server1 is the WebSphere server where C-EMS was installed).

The *server1 Configuration* page opens:

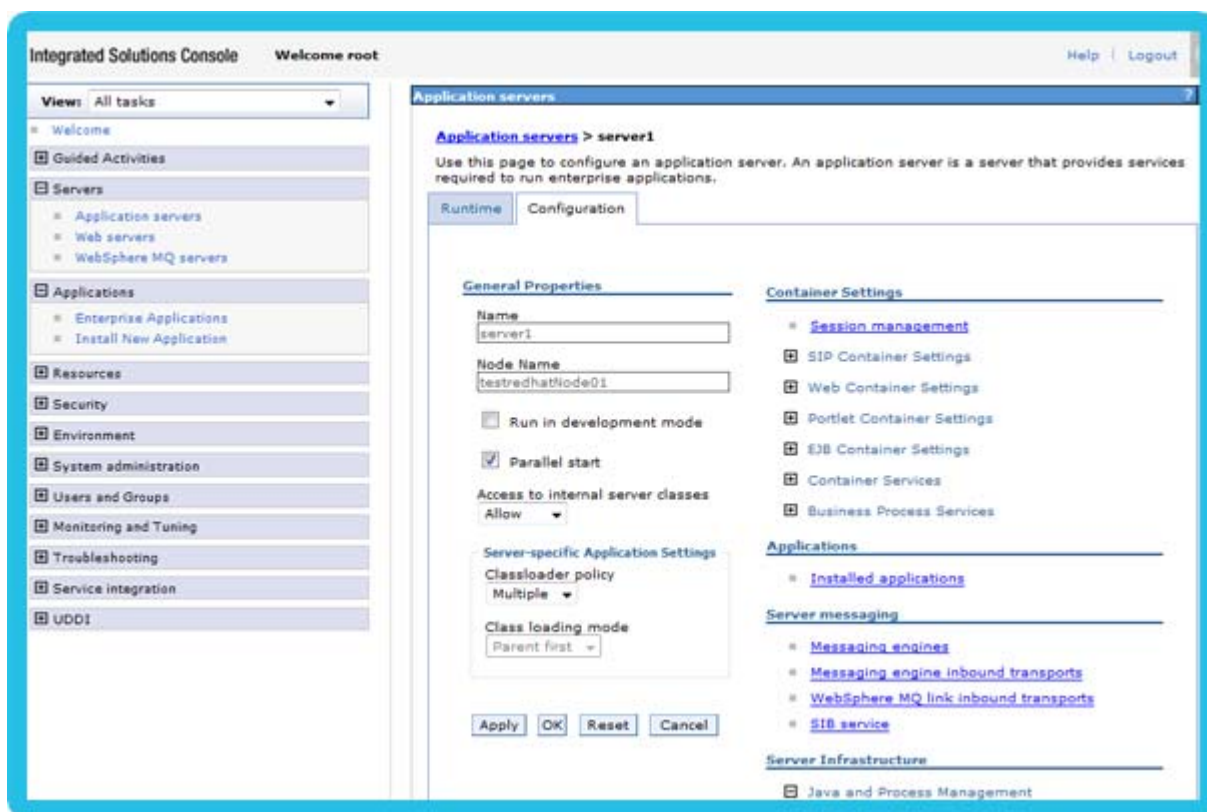


Figure 3 - 27: Server1 Configuration page on WebSphere 6

- 3 In *Server Infrastructure* section of the page, expand **Java and Process Management** and select **Process Definition**:

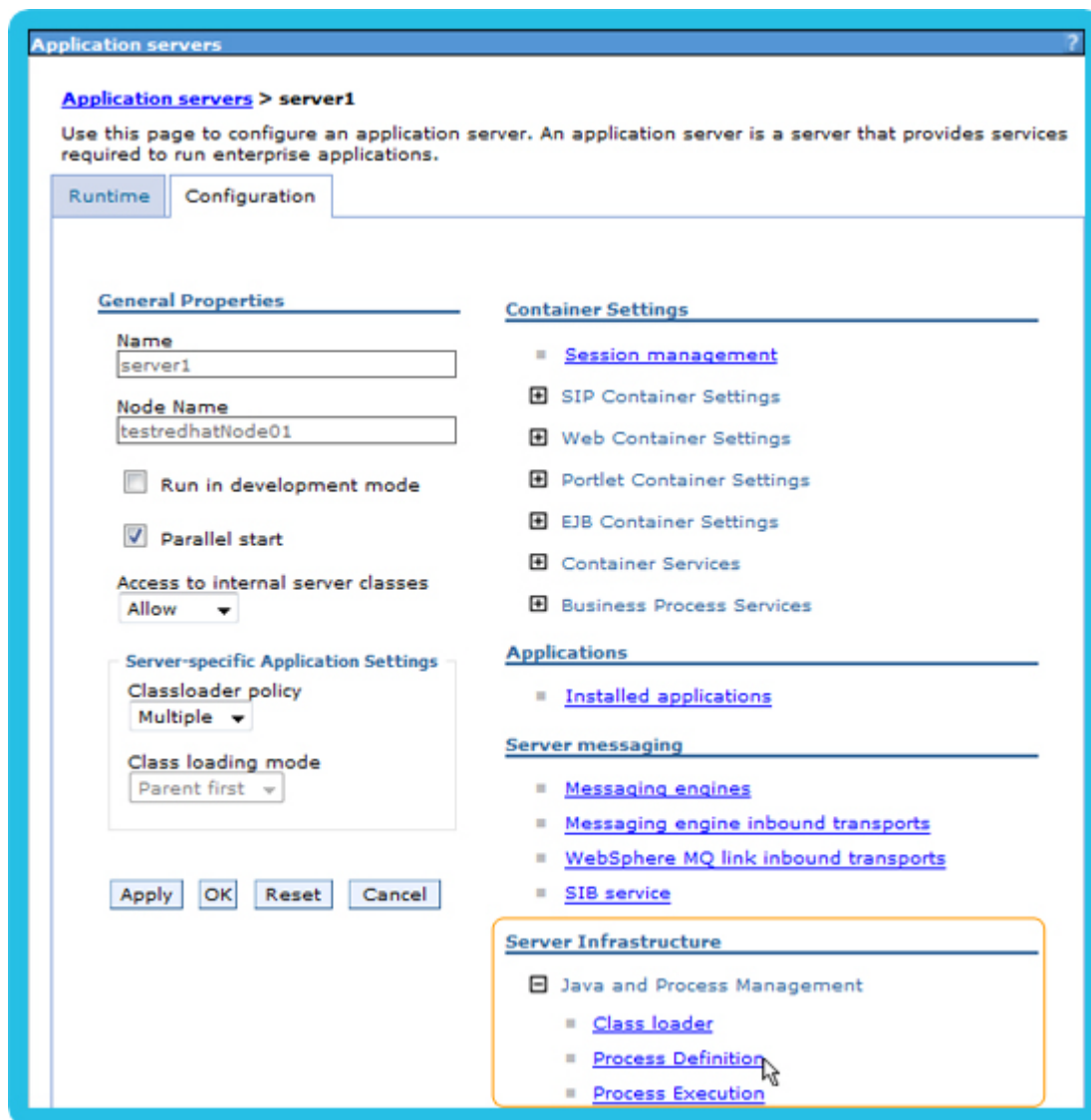


Figure 3 - 28: Accessing Process Definition configuration

The *Process Definition* page opens:

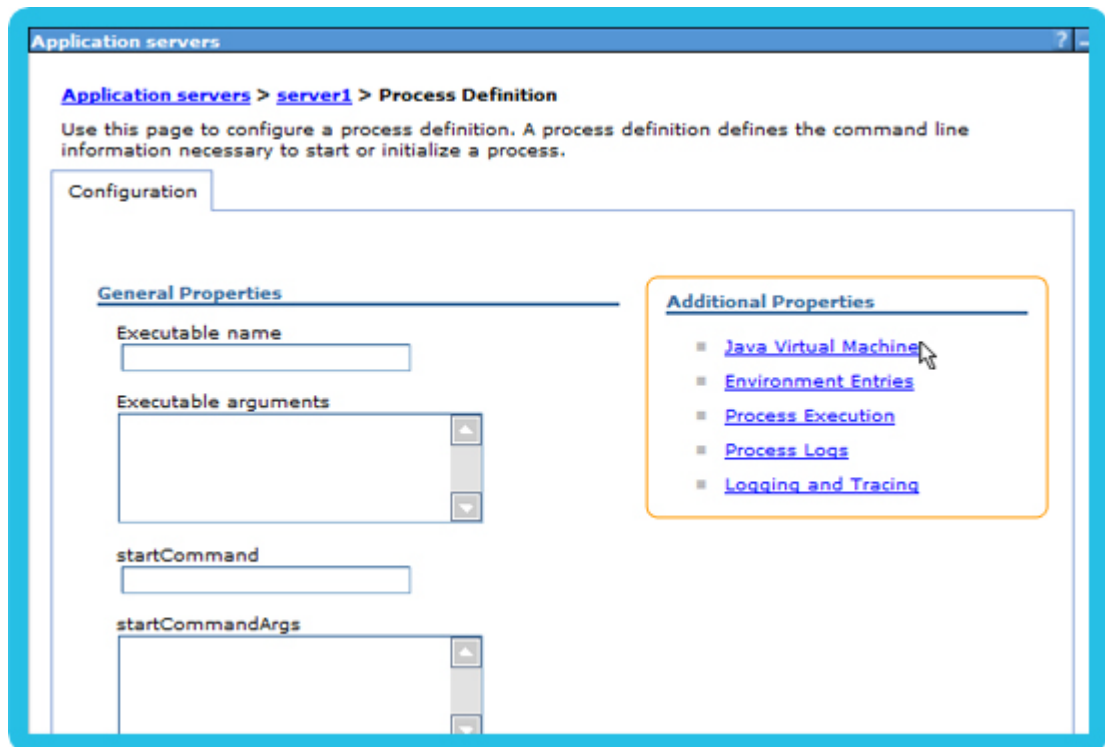


Figure 3 - 29: Server1 Process Definition configuration page on WebSphere 6

- 4 In *Additional Properties* section, click on **Java Virtual Machine**.

The *Java Virtual Machine Configuration* page opens:



Application servers > server1 > Process Definition > Java Virtual Machine

Use this page to configure advanced Java(TM) virtual machine settings.

Configuration Runtime

General Properties

Classpath

Boot Classpath

☐ Verbose class loading

☐ Verbose garbage collection

☐ Verbose JNI

Initial Heap Size

Maximum Heap Size

☐ Run HProf

HProf Arguments

☐ Debug Mode

Debug arguments

-Djava.compiler=NONE -Xdebug

Generic JVM arguments

-Djava.awt.headless=false

Executable JAR file name

Additional Properties

Custom Properties

Figure 3 - 30: Updating Process Definition configuration for server1

- 5 Specify `-Djava.awt.headless=false` in **Generic JVM arguments** input field.
- 6 Then, in *Additional Properties* section on the right of the page, click on **Custom Properties**.

[Application servers](#) > [server1](#) > [Process Definition](#) > [Java Virtual Machine](#) > [Environment Entries](#) > [Custom Properties](#) > [New](#)

Specifies an arbitrary name-value pair. The value is a string that can set internal system configuration properties.

Configuration

**General Properties**

\* Name  
DISPLAY

\* Value  
:3

Description

Apply OK Reset Cancel

Figure 3 - 31: Creating a new entry in Environment Entries

- 7 Create a new *Environment Entry* with name `DISPLAY` and value `:3`.
- 8 Validate by clicking on the **OK** button.

### CHANGING THE ORDER OF CLASS LOADERS

In WebSphere 6, order of class loaders has to be changed to correctly run Convertigo Server application.

#### *To change the order of class loaders*

- 1 In the left menu, expand **Applications** and click on **Enterprise Applications** submenu.
- 2 Then, click on the **convertigo** application, and **Manage Modules**.

The *convertigo Manage Modules* page opens:



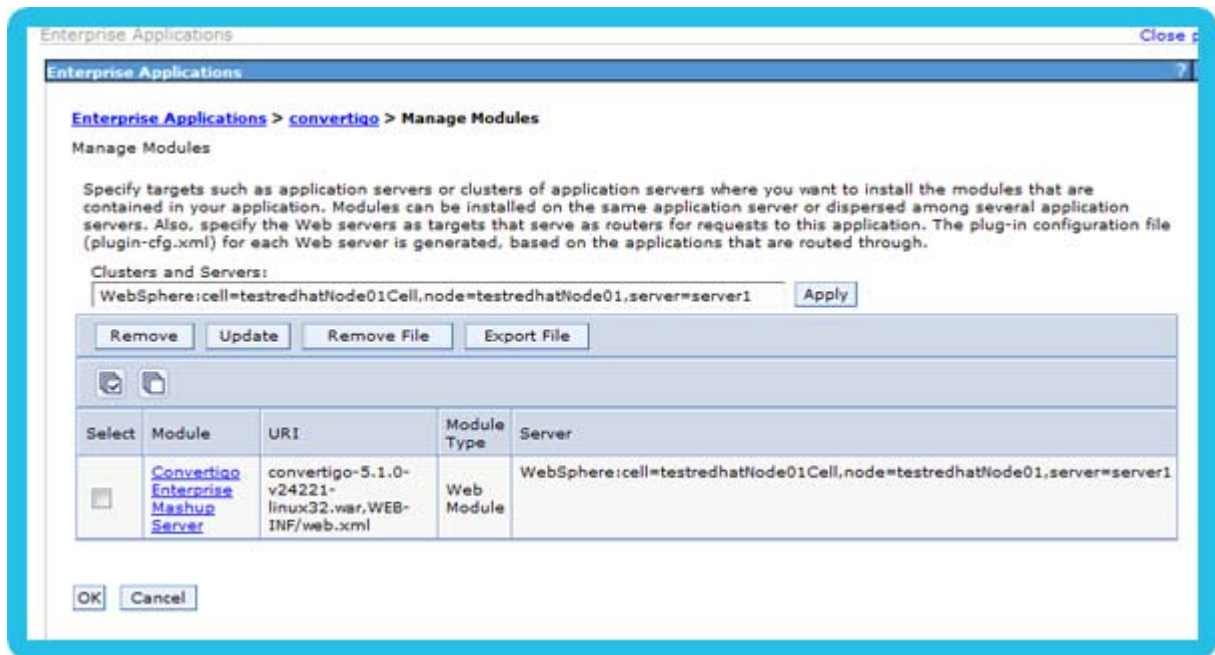


Figure 3 - 32: Convertigo Manage Modules page on WebSphere 6

- 3 Click on the **Convertigo Enterprise Mashup Server** module.

The *Configuration* page of the selected module opens:

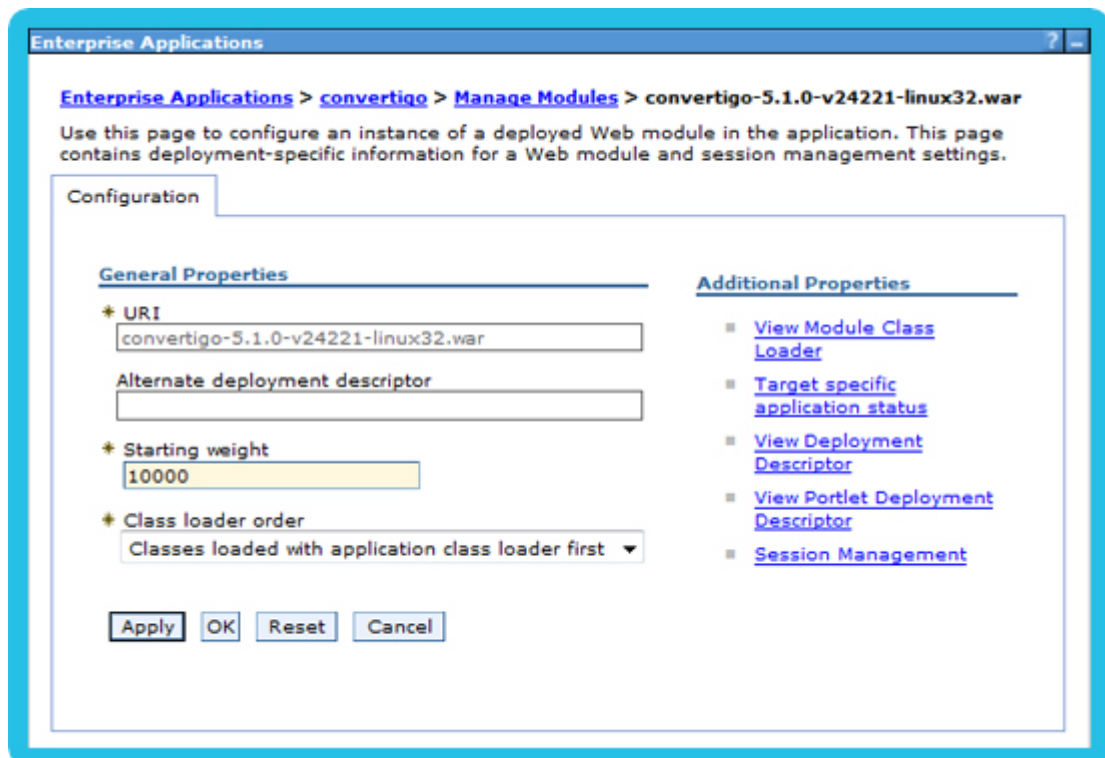


Figure 3 - 33: Updating class loader order for convertigo application

- 4 In the **Class loader order** combo box, select Classes loaded with application class loader first.
- 5 Validate by clicking on the **OK** button.

## MODIFYING THE "IBM-WEB-EXT.XMI" FILE

In WebSphere 6 installation, the xmi configuration file has to be updated to correctly run Convertigo Server application.

### To modify the "ibm-web-ext.xmi" file

- 1 Open the file `/opt/IBM/WebSphere/AppServer/profiles/AppSrv01/convertigoXX/convertigoXX.ear/convertigoXX.war/WEB-INF/ibm-web-ext.xmi` for edition:

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

<com.ibm.ejs.models.base.extensions.webappext:WebAppExtension
xmi:version="2.0"          xmlns:xmi="http://www.omg.org/XMI"
xmlns:com.ibm.ejs.models.base.extensions.webappext="webappext
.xmi" xmi:id="WebAppExtension_1283428929512">

    <webApp href="WEB-INF/web.xml#ConvertigoServer"/>

    <jspAttributes      xmi:id="JSPAttribute_1283428929513"
name="reloadEnabled" value="true"/>

    <jspAttributes      xmi:id="JSPAttribute_1283428929514"
name="reloadInterval" value="10"/>

</com.ibm.ejs.models.base.extensions.webappext:WebAppExtension>
```

- 2 Add the following line:

```
<jspAttributes          xmi:id="JSPAttribute_1283428929515"
name="jdkSourceLevel" value="15"/>
```

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

<com.ibm.ejs.models.base.extensions.webappext:WebAppExtension
xmi:version="2.0"          xmlns:xmi="http://www.omg.org/XMI"
xmlns:com.ibm.ejs.models.base.extensions.webappext="webappext
.xmi" xmi:id="WebAppExtension_1283428929512">

    <webApp href="WEB-INF/web.xml#ConvertigoServer"/>

    <jspAttributes      xmi:id="JSPAttribute_1283428929513"
name="reloadEnabled" value="true"/>

    <jspAttributes      xmi:id="JSPAttribute_1283428929514"
name="reloadInterval" value="10"/>

    <jspAttributes      xmi:id="JSPAttribute_1283428929515"
name="jdkSourceLevel" value="15"/>

</com.ibm.ejs.models.base.extensions.webappext:WebAppExtension>
```

- 3 Save the updated file.



**You might have to also modify the file:** `/opt/IBM/WebSphere/AppServer/profiles/AppSrv01/config/cells/localhostNode01Cell/applications/convertigoXX.ear/deployments/convertigoXX/convertigoXX.war/WEB-INF/ibm-web-ext.xml`

### USING THE CONVERTIGO "COMPATIBILITY MODE"

The compatibility mode is required by C-EMS when running in WebSphere 6.

#### To activate the "compatibility mode" in Convertigo Server

- 1 Open the Convertigo Server *Administration Console* by calling the following URL in a Web browser:

`http(s)://<WebSphereIPAddress>:<WebSpherePort>/convertigo/`

- *WebSphereIPAddress* is the host name or IP address of your WebSphere server.
- *WebSpherePort* is the port number of your WebSphere server.

The Convertigo Server Administration Console opens on the authentication page:

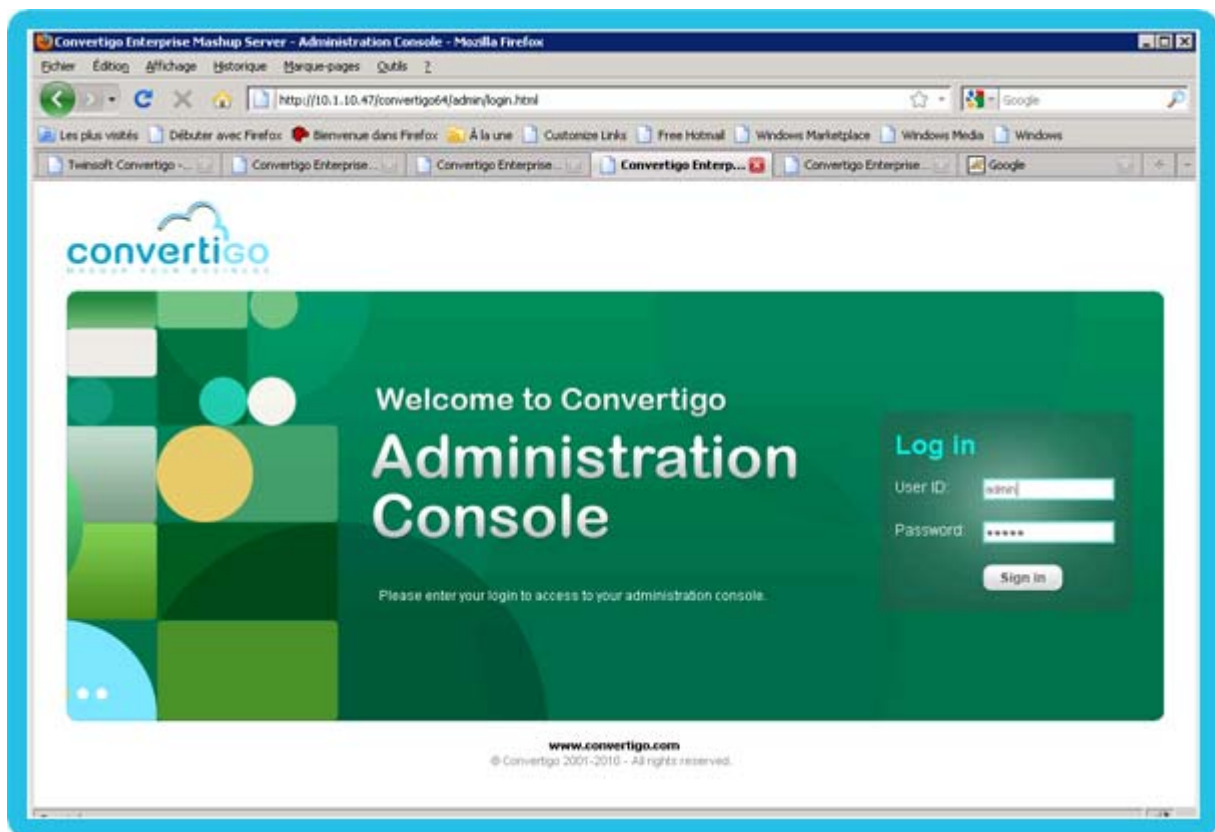


Figure 3 - 34: Convertigo Server Administration authentication page

- 2 Log in with the Convertigo Administration user ID and password (default username/ password is: admin/admin) and validate by clicking on the **Sign in** button.

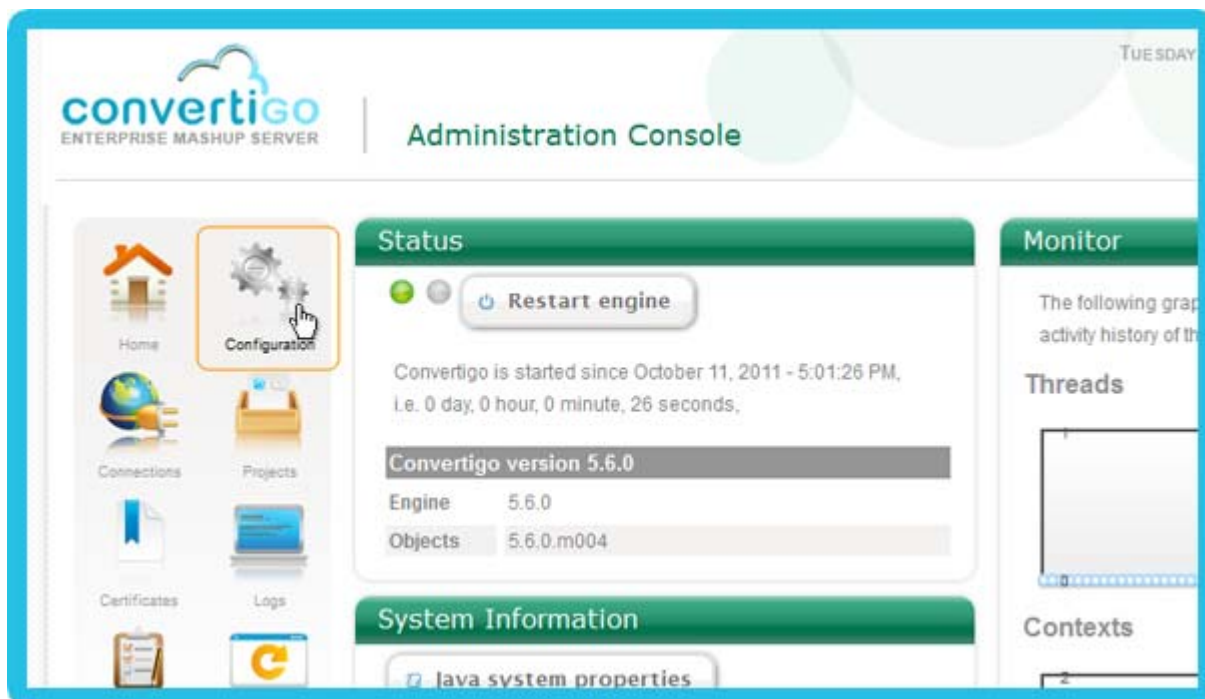


Figure 3 - 35: Clicking Configuration button

- 3 In the Administration Console left menu, click on **Configuration** button.

The *Configuration* page opens:

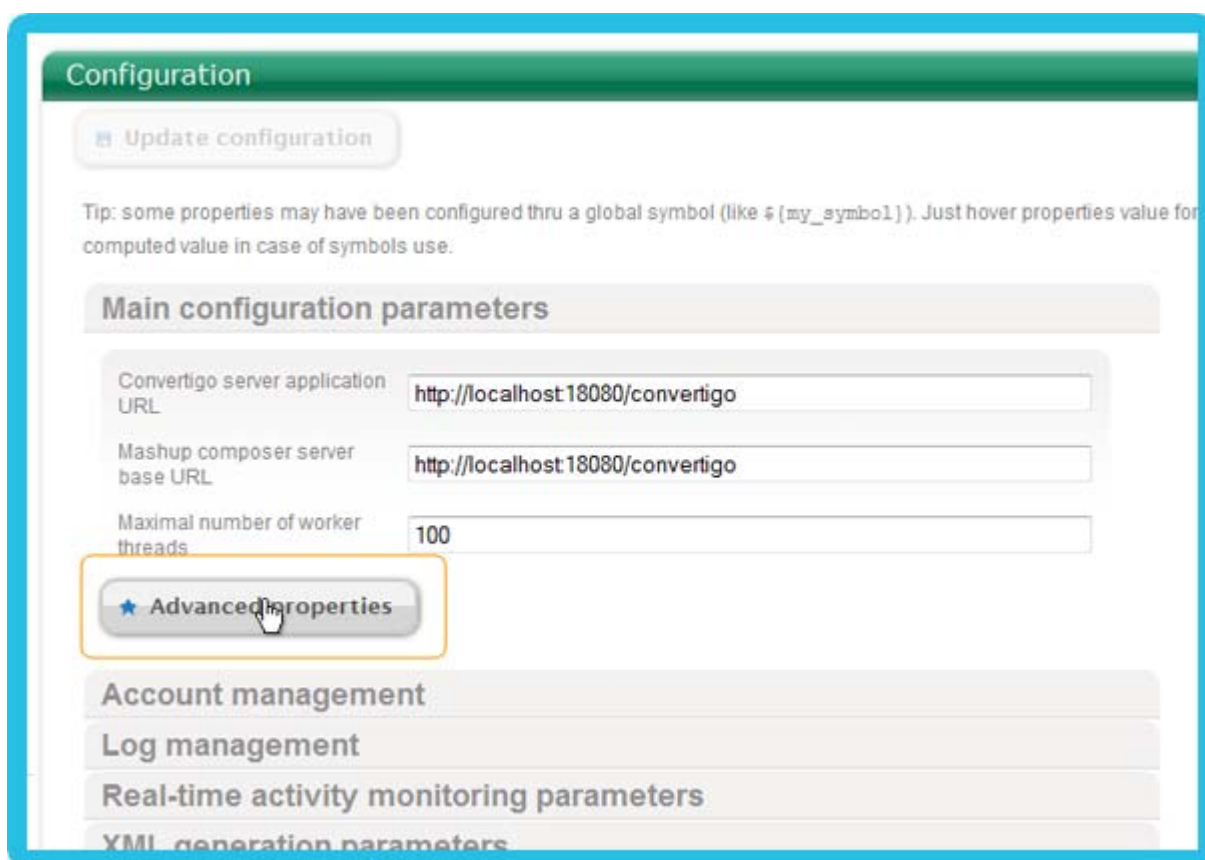


Figure 3 - 36: Configuration page in Convertigo Administration Console

- 4 In *Main configuration parameters* section, click on the **Advanced properties** button.

*Advanced properties panel expands:*

The screenshot shows the 'Main configuration parameters' section with the following fields:

- Admin password: [masked with dots]
- Admin username: admin
- Convertigo server application URL: http://localhost:28080/convertigo
- Mashup composer server base URL: http://localhost:18080/convertigo
- Maximal number of worker threads: 100

Below this is the '★ Advanced properties' section, which is expanded. It contains the following options:

- ☒ Product version check
- ☐ Use the Java Thread.stop() method in order to finish threads
- ☒ (Linux only) Launch Xvnc server using DISPLAY environment variable at startup
- ☐ Migration 3.0.0
- Time allowed for pool management task in seconds (-1 for disable): -1
- ☒ Enable the compatibility mode for projects data (required for JSP usage); engine restart required

Figure 3 - 37: Advanced properties in Configuration page

- 5 Then, check the **Enable the compatibility mode for projects data** checkbox.
- 6 Scroll down to the bottom of the page and click on the **Update configuration** button:

The screenshot shows a list of configuration categories on the left side of the page:

- Network configuration
- HTML proxy settings
- SSL configuration
- Cache management
- Legacy Carioca portal management
- Billing system
- Notifications
- Mobile builder

At the bottom of the page, there is a button labeled 'Update configuration' with a small icon to its left. A mouse cursor is pointing at the button.

Figure 3 - 38: Validating updates in Configuration page

- 7 After these modifications, restart the Convertigo application in WebSphere.

### 3.4.3 Installing C-EMS on Linux/clustered WebSphere 7

Installing Convertigo Server is possible on clustered WebSphere version 7. This procedure completes the official IBM documentation to install an application.

- [Prerequisites](#)
- [Installation procedure](#)

#### PREREQUISITES

##### SERVER PREREQUISITES

The following table describes minimum server prerequisites for installing Convertigo Server:

Table 3 - 6: Server prerequisites

	RedHat/WebSphere
Version	<ul style="list-style-type: none"><li>• RedHat starting from version 5.2</li><li>• WebSphere starting from version 7</li></ul>
CPU	Dual Core
RAM	4 Gb
Disk space	10 Gb
Packages	<ul style="list-style-type: none"><li>• Package <code>xulrunner-1.9.0.19-1.el5_5</code> and all dependencies</li><li>• Package <code>xorg-x11-fonts-Type1-7.1-2.1.el5</code></li></ul>



*Specified packages are necessary for using web connectors.*

##### INSTALLATION REQUIREMENTS

- The C-EMS `.war` file: `convertigo-X.Y.Z-v12345-linux32.war` (for 32 bits version) or `convertigo-X.Y.Z-v12345-linux64.war` (for 64 bits version).
- You must know how to access WebSphere console. For example: `https://websphere_server:9043/ibm/console`
- You must know the user ID and password to connect to the WebSphere console.
- Convertigo workspace will be created in *home* directory. If the account used for installation doesn't have a *home* directory, add an *Environment Entry* named `HOME` with a value pointing on a directory where the Convertigo workspace will be created.

The installation is made on a topology with a `dmgr` (deployment manager) and four nodes. Each node contains ten members. See below a part of the node and members configuration:



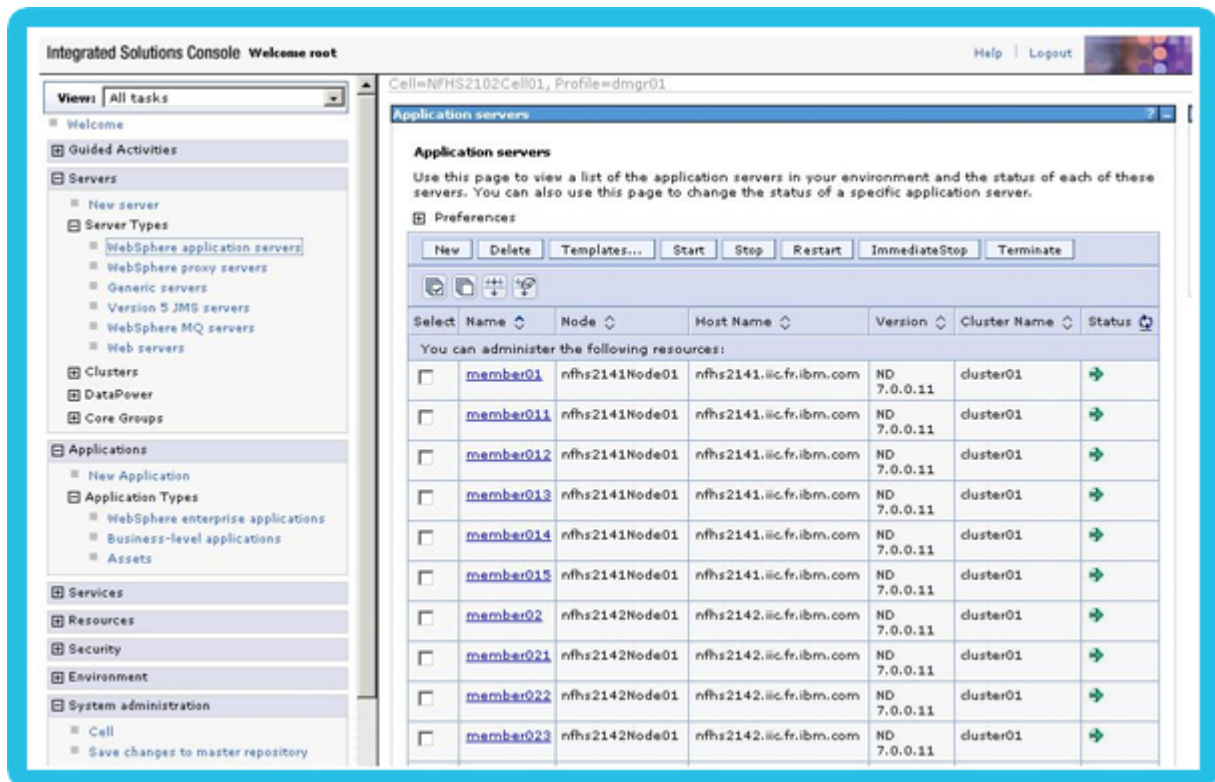


Figure 3 - 39: Node and members configuration in WebSphere 7

## INSTALLATION PROCEDURE

The following procedure explains step by step how to install C-EMS on RedHat/WebSphere 7.

### To install Convertigo Server on WebSphere 7

- 1 Connect to the WebSphere 7 console using the appropriate URL:

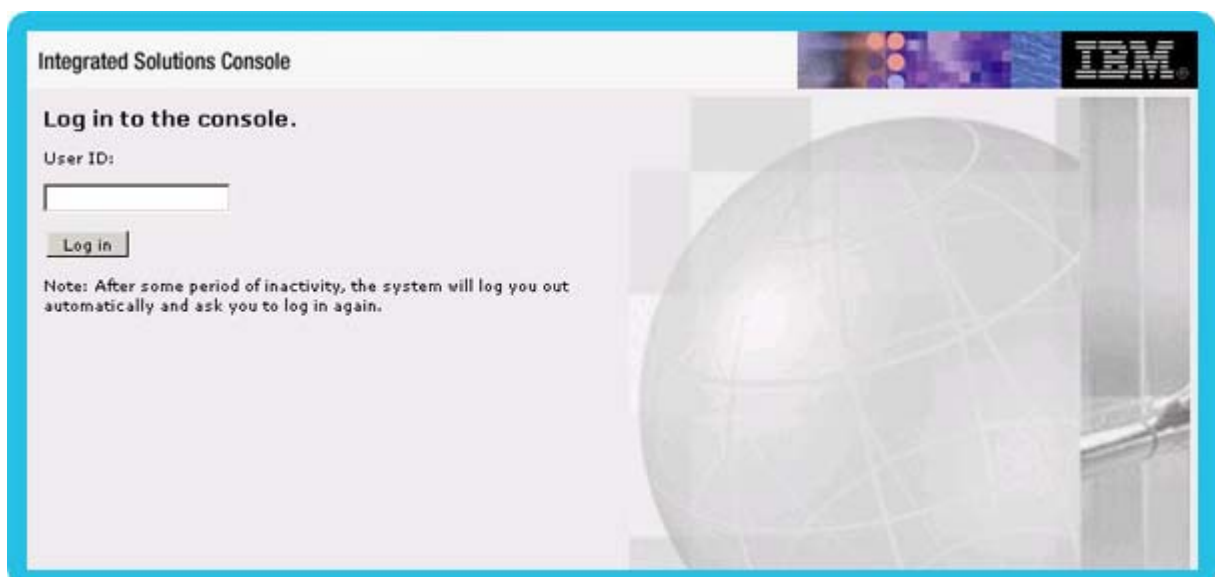


Figure 3 - 40: Connecting to WebSphere 7 console

- 2 Set administration credentials and validate by clicking the **Log in** button.
- 3 In the left menu, expand **Applications** and click on **New Application** submenu.

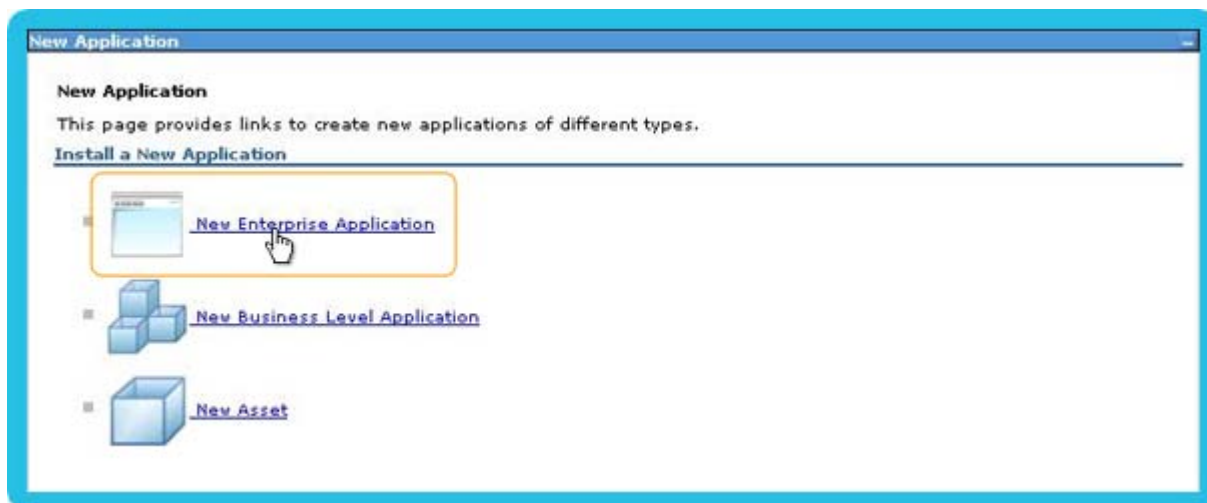


Figure 3 - 41: Installing new application in WebSphere 7

- 4 Click on **New Enterprise Application**.

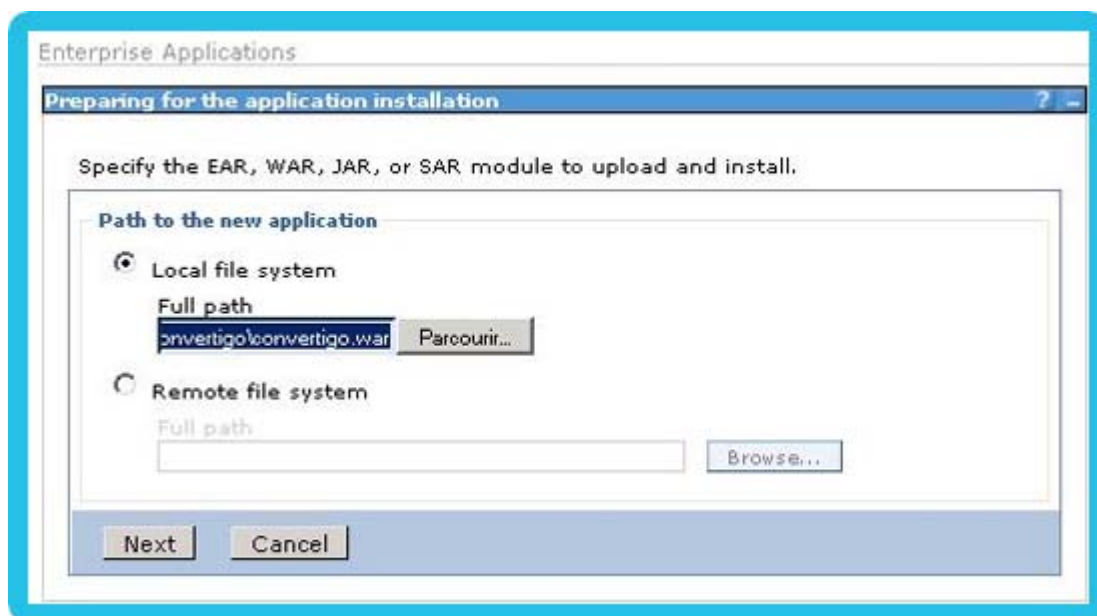


Figure 3 - 42: Installing new application in WebSphere 7

- 5 Set the full path of the `.war` file (or click on the **Browse** button to access to the file) and click on **Next**.



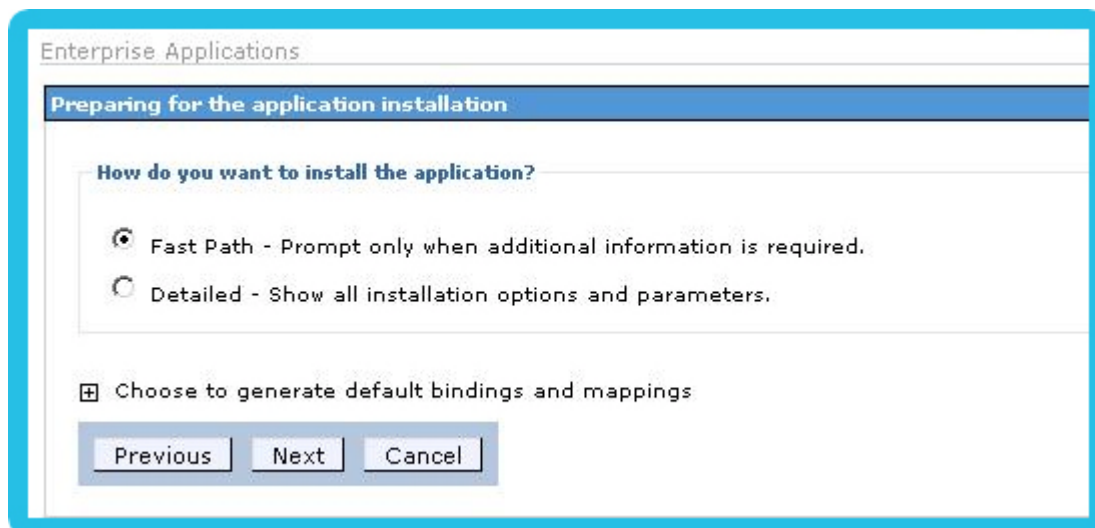


Figure 3 - 43: Configuration of installation in WebSphere 7

**6** Click on **Next**.

You are redirected to the application's installation page.

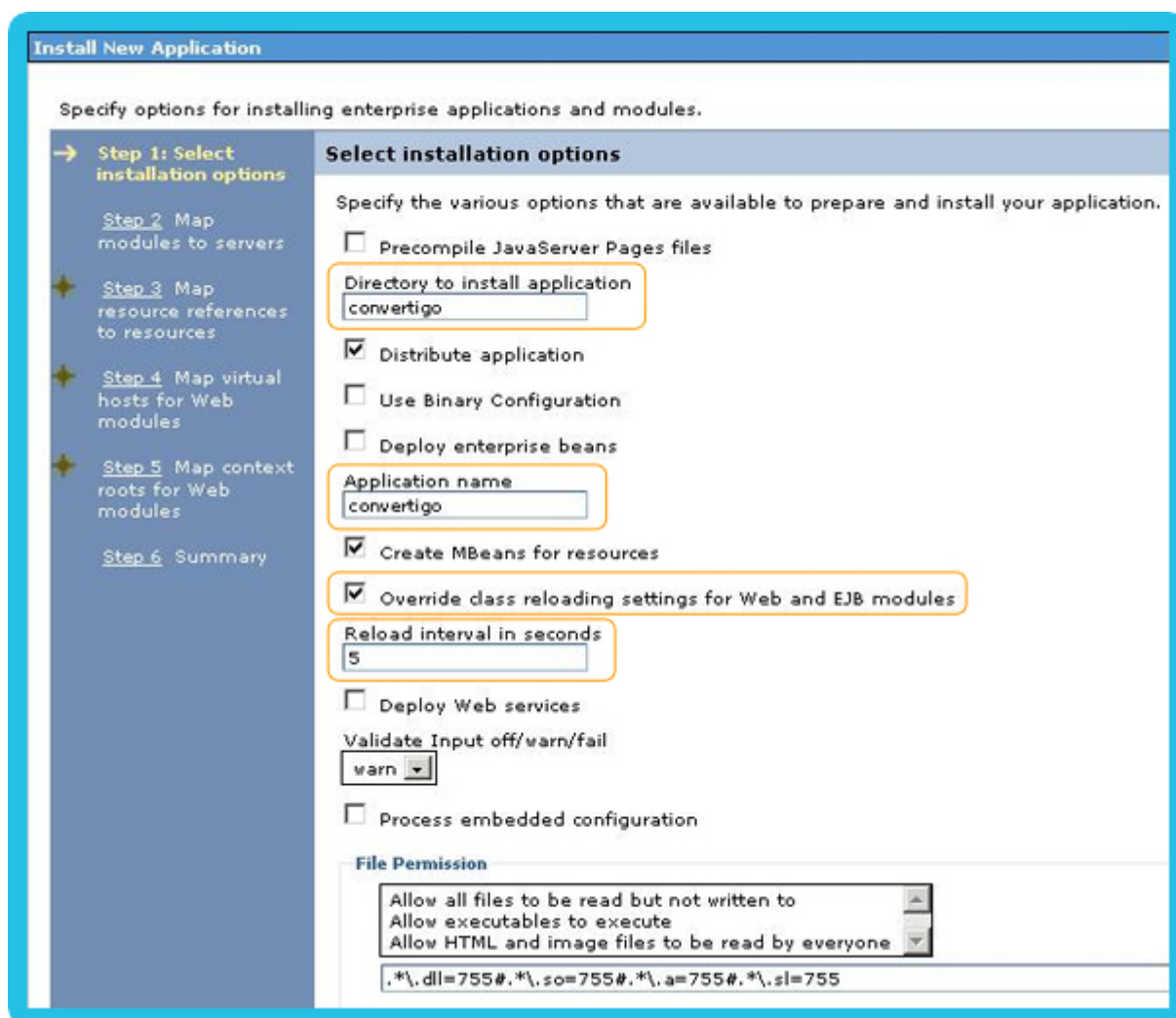


Figure 3 - 44: Convertigo installation options in WebSphere 7

- 7 In the *installation options* page, specify:
  - specify the installation directory in **Directory to install application** input field (for example, `convertigo`),
  - specify the application name in **Application name** input field (for example, `convertigo`),
  - check the **Override class reloading settings for Web and EJB modules** checkbox,
  - and set class reloading interval in **Reload interval in seconds** input field (for example, 5 seconds).
- 8 Then, click on **Next**.

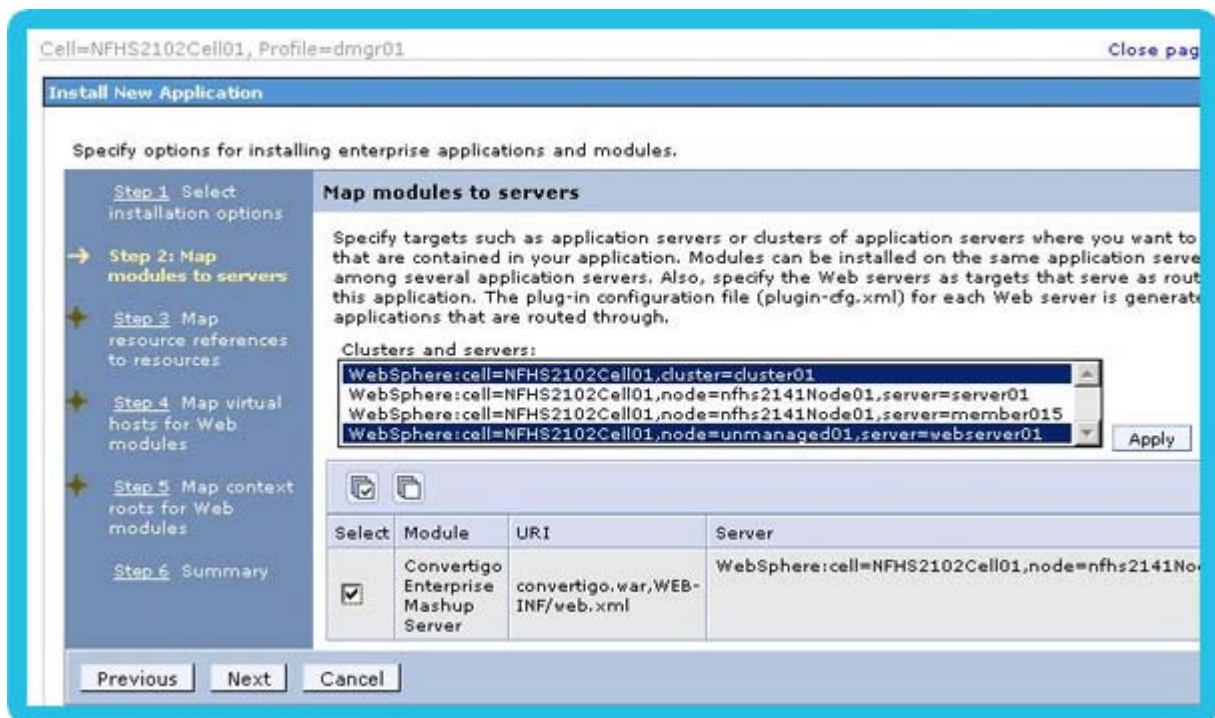


Figure 3 - 45: Convertigo installation Map modules to servers page in WebSphere 7

- 9 In *Map modules to servers* page, select **Convertigo Enterprise Mashup Server** module by checking its checkbox in the table.
- 10 In **Clusters and servers** list, select the cluster AND the load balancer, and click on the **Apply** button.
- 11 Then, click on **Next** until the *Map context roots for Web modules* page.

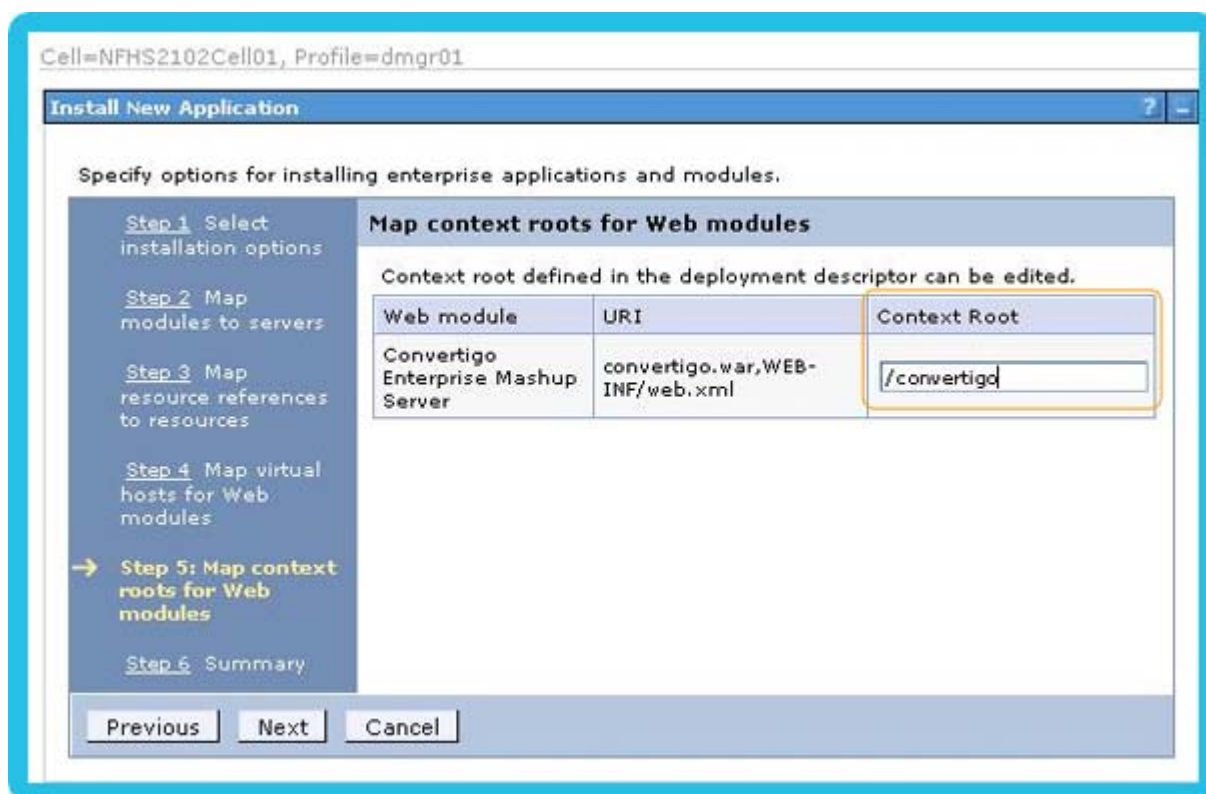


Figure 3 - 46: Convertigo installation Map context roots for Web modules page

- 12** Specify a **Context Root** (for example /convertigo) and click on **Next**.

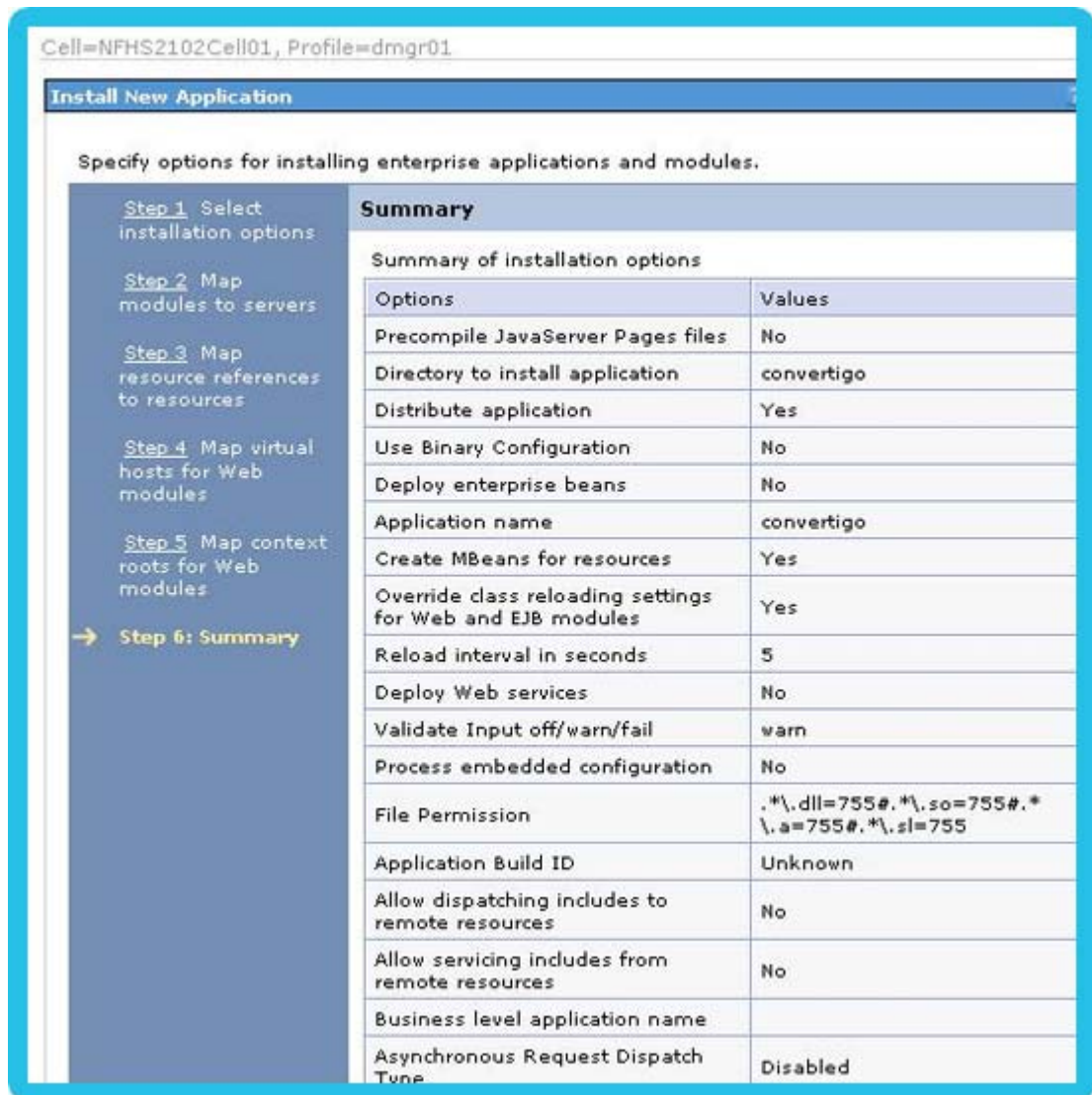


Figure 3 - 47: Convertigo installation Summary page

- 13** In the *Summary* page, click on **Finish**.
- 14** The installation process can take a few minutes:

**If there are enterprise beans in the application, the EJB deployment process can take several minutes. Do process completes.**

Check the SystemOut.log on the deployment manager or server where the application is deployed for specific information occurs.

ADMA5016I: Installation of convertigo started.

ADMA0115W: Resource assignment of name jdbc/dreamface\_db and type javax.sql.DataSource, with JNDI name dreamface\_db, module Convertigo Enterprise Mashup Server with URI convertigo.war, WEB-INF/web.xml deployed to target WebSphere:cell=NFHS2102Cell01,node=nfhs2141Node01,server=server01.

ADMA5068I: The resource validation for application convertigo completed successfully, but warnings occurred during validation.

ADMA5058I: Application and module versions are validated with versions of deployment targets.

ADMA5005I: The application convertigo is configured in the WebSphere Application Server repository.

ADMA5053I: The library references for the installed optional package are created.

ADMA5005I: The application convertigo is configured in the WebSphere Application Server repository.

ADMA5001I: The application binaries are saved in /wasProfile/dmgr01/wstemp/3506402/workspace/cells/NFHS2102Cell01/convertigo.ear

ADMA5005I: The application convertigo is configured in the WebSphere Application Server repository.

SECJ0400I: Successfully updated the application convertigo with the appContextIDForSecurity information.

ADMA5005I: The application convertigo is configured in the WebSphere Application Server repository.

ADMA5113I: Activation plan created successfully.

ADMA5011I: The cleanup of the temp directory for application convertigo is complete.

ADMA5013I: Application convertigo installed successfully.

Application convertigo installed successfully.

To start the application, first save changes to the master configuration.

Changes have been made to your local configuration. You can:

- **Save directly to the master configuration.**

Figure 3 - 48: Convertigo installation page

- 15 Then, click on **Save directly to the master configuration.**

This action triggers the nodes synchronization through the cluster:



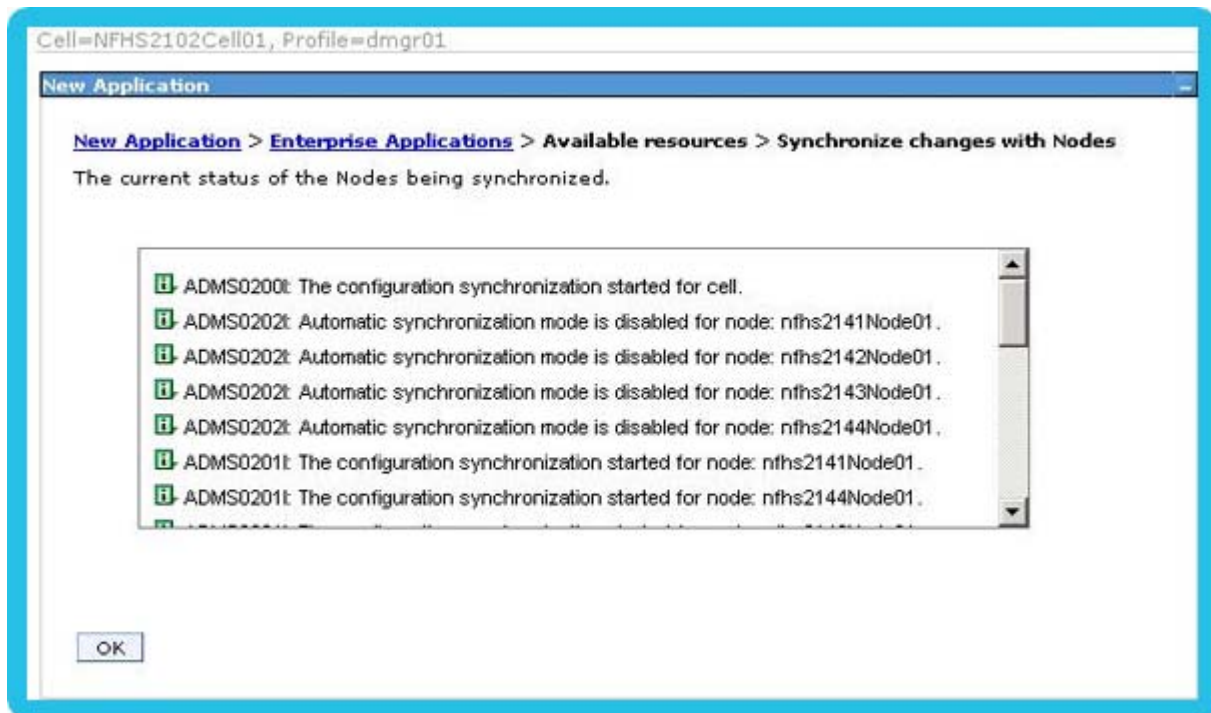


Figure 3 - 49: Nodes synchronization through the cluster

The convertigo application should now be visible in the *Enterprise Applications* page:

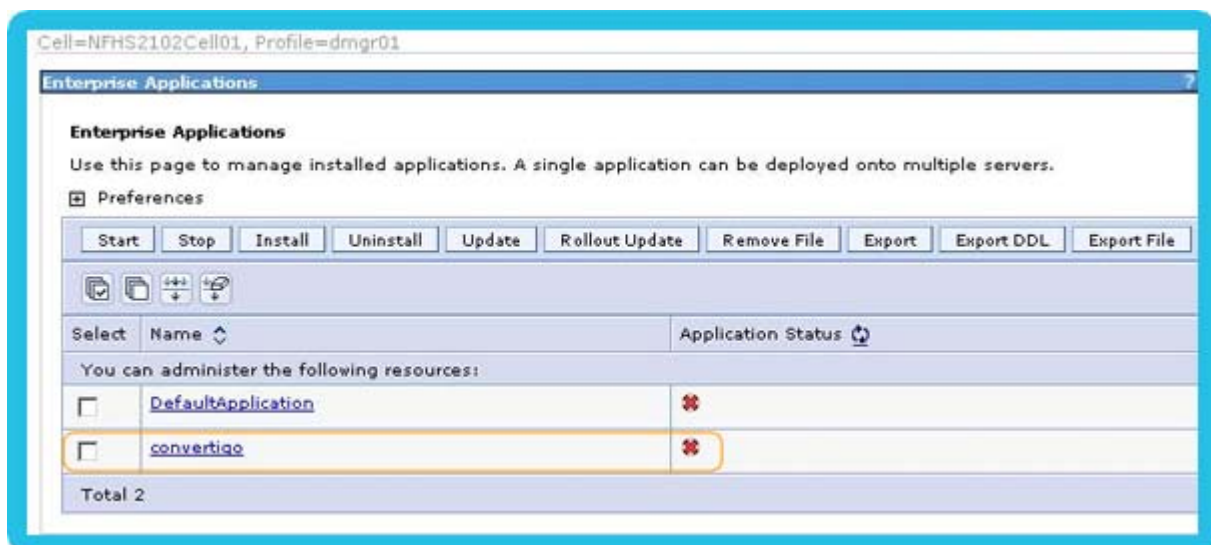


Figure 3 - 50: Convertigo application installed

- 16 In the left menu, expand **Servers > Server Types** and click on **Web servers** submenu.  
The *Web servers* page opens.
- 17 In this page, select the web server by checking its checkbox and click on the **Generate Plug-in** button.
- 18 Then, click on the **Propagate Plug-in** button:

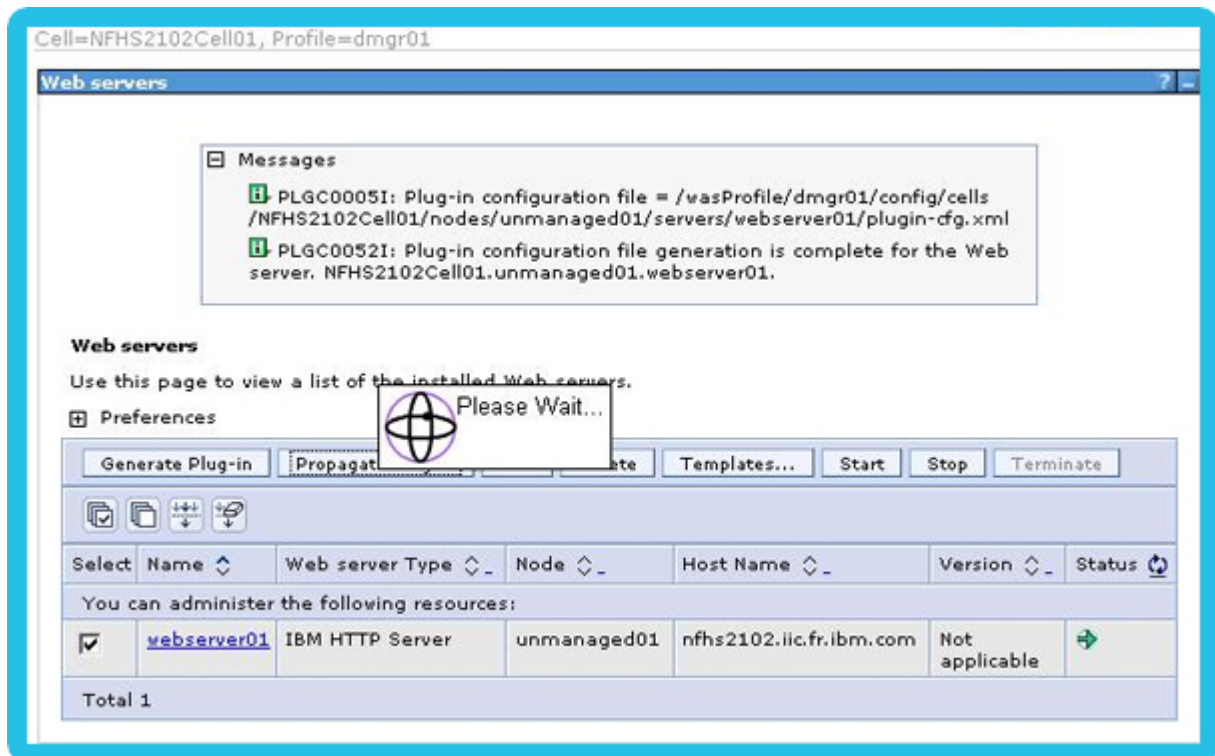


Figure 3 - 51: Propagating Plug-in in Web servers page

- 19 Back to *Enterprise Applications* page, the convertigo application can now be started by selecting the application and clicking on the **Start** button

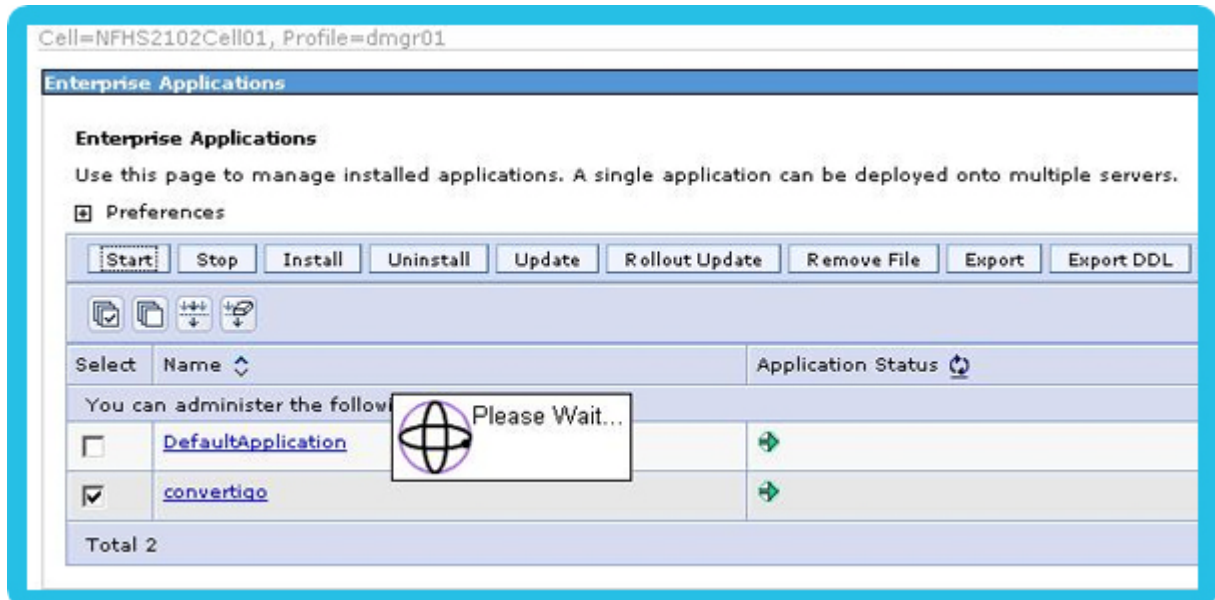


Figure 3 - 52: Starting convertigo application

- 20 You have to check in *Messages* all the members where C-EMS has been deployed.

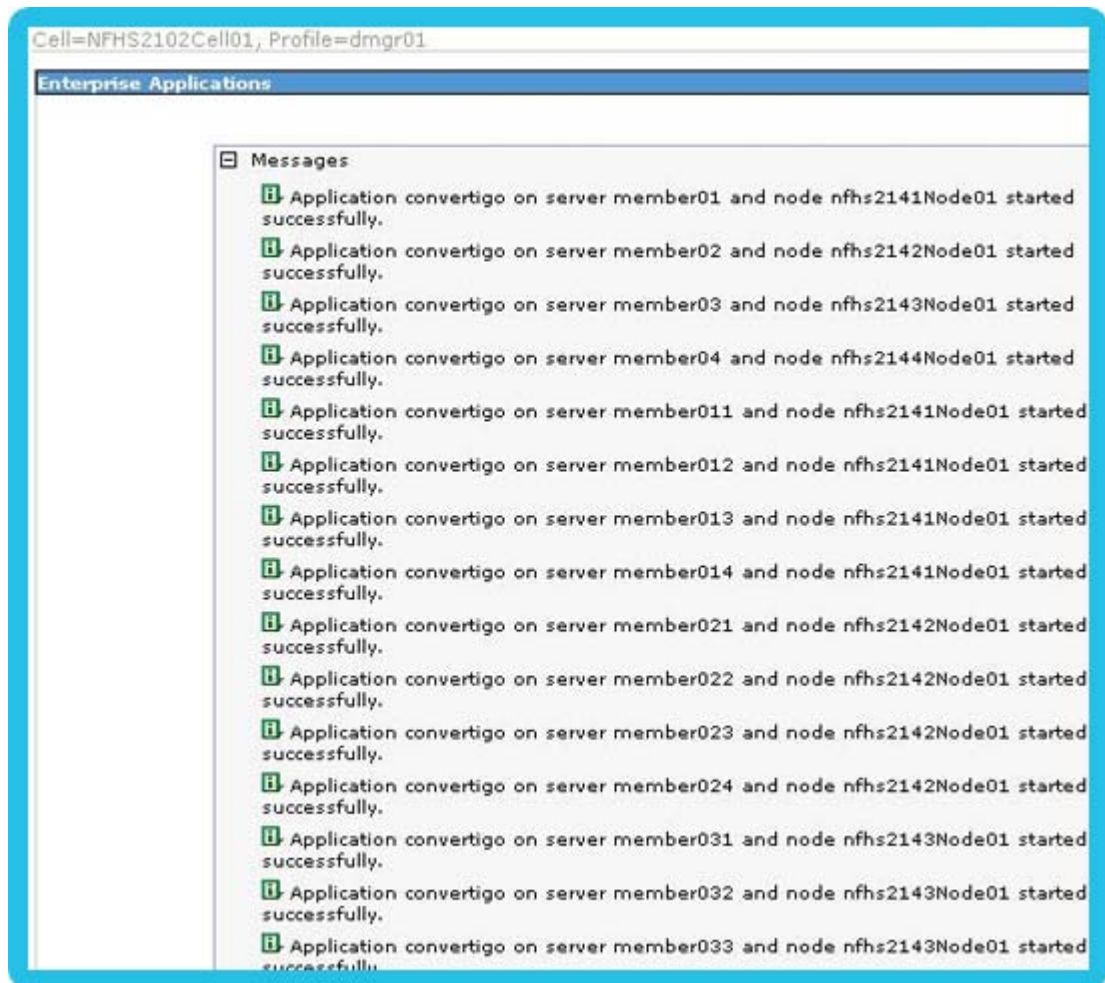


Figure 3 - 53: Starting convertigo application messages to check



### 3.4.4 Parameterizing C-EMS with WebSphere 7

Parameterization of C-EMS in WebSphere 7 consists in:

- Specifying Java parameters and environment entries in WebSphere 7

#### SPECIFYING JAVA PARAMETERS AND ENVIRONMENT ENTRIES IN WEBSPHERE 7

WebSphere 7 server and environment need to be configured to correctly run Convertigo Server application.

##### To specify Java parameters and environment entries in WebSphere 7

- 1 In the left menu, expand **Servers > Server Types** and click on **WebSphere application servers** submenu.

The *Application servers* page opens:

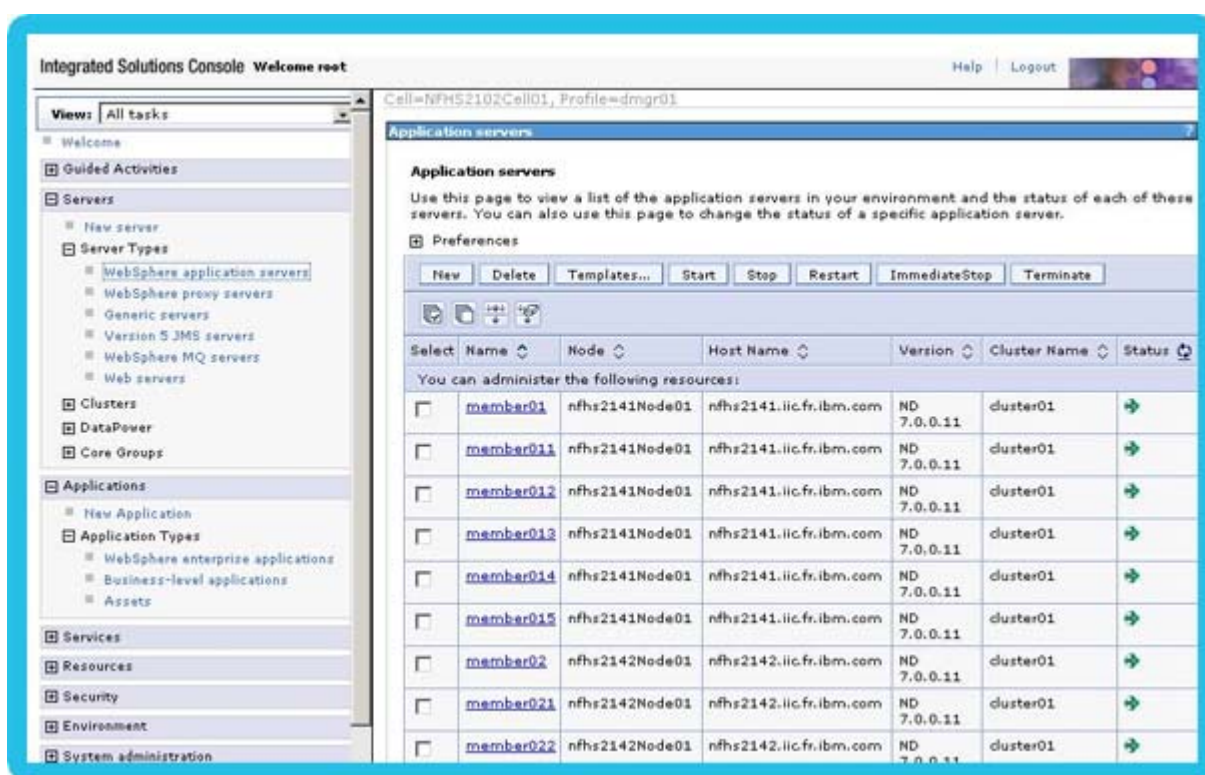


Figure 3 - 54: Application servers page on WebSphere 7

- 2 Click on the member you want to configure.

**General Properties**

Name  
member01

Node name  
nfhs2141Node01

☐ Run in development mode

☒ Parallel start

☐ Start components as needed

Access to internal server classes  
Allow

**Server-specific Application Settings**

Classloader policy  
Multiple

Class loading mode  
Classes loaded with parent class loader first

Apply OK Reset Cancel

**Container Settings**

- [Session management](#)
- ⊕ SIP Container Settings
- ⊕ Web Container Settings
- ⊕ Portlet Container Settings
- ⊕ EJB Container Settings
- ⊕ Container Services
- ⊕ Business Process Services

**Applications**

- [Installed applications](#)

**Server messaging**

- [Messaging engines](#)
- [Messaging engine inbound transports](#)
- [WebSphere MQ link inbound transports](#)
- [SIB service](#)

**Server Infrastructure**

- ⊕ Java and Process Management
- ⊕ Administration

**Communications**

Figure 3 - 55: Configuration of memberXX on WebSphere 7

- 3 In *Server infrastructure* section of the *memberXX* configuration page, expand **Java and Process management** and click on **Process definition**.

Cell=NFHS2102Cell01, Profile=dmgr01

**Application servers**

**Application servers > member01 > Process definition**

Use this page to configure a process definition. A process definition defines the command line information necessary to start or initialize a process.

Configuration

**General Properties**

Executable name

Executable arguments

Start command

Start command arguments

**Additional Properties**

- ☒ [Java Virtual Machine](#)
- ☐ [Environment Entries](#)
- ☐ [Process execution](#)
- ☐ [Process Logs](#)
- ☐ [Logging and tracing](#)

Figure 3 - 56: memberXX Process definition on WebSphere 7

- 4 In *Additional properties* section of the page, click on **Java Virtual Machine** link.
- 5 In *Java Virtual Machine* page, update **Generic JVM arguments** input field with:  
`-Djava.awt.headless=false`

☐ Verbose garbage collection

☐ Verbose JNI

Initial heap size  
512 MB

Maximum heap size  
1532 MB

☐ Run HProf

HProf Arguments  
|

☐ Debug Mode

Debug arguments  
-agentlib:jdwp=transport=dt\_socket,server=y,suspend=n,address=7777

Generic JVM arguments  
-Djava.awt.headless=false

Executable JAR file name  
|

☐ Disable JIT

Operating system name  
linux

Apply OK Reset Cancel

Figure 3 - 57: memberXX Java Virtual Machine settings

- 6 To change the Convertigo default workspace directory, you can add:

`-Dconvertigo.cems.user_workspace_path=<path of your workspace>`



*For more information on Convertigo workspace and projects workspace, see Appendix "Convertigo workspace" on page A - 2.*

- 7 Validate by clicking on the **OK** button.

Cell=NFHS2102Cell01, Profile=dmgr01

**Application servers**

[Application servers](#) > [member01](#) > **Process definition**

Use this page to configure a process definition. A process definition defines the command line information necessary to start or initialize a process.

Configuration

**General Properties**

Executable name

Executable arguments

Start command

Start command arguments

**Additional Properties**

- [Java Virtual Machine](#)
- [Environment Entries](#)
- [Process execution](#)
- [Process Logs](#)
- [Logging and tracing](#)

Figure 3 - 58: memberXX Process definition on WebSphere 7

- 8 In *Additional properties* section of the page, click then on **Environment entries** link.

Cell=NFHS2102Cell01, Profile=dmgr01

**Application servers**

[Application servers](#) > [member01](#) > [Process definition](#) > **Environment Entries**

Use this page to specify an arbitrary name and value pair. The value that is specified for the name and value pair is a string that can set internal system configuration properties.

Preferences

New Delete

Select Name Value Description

You can administer the following resources:

<input type="checkbox"/>	<a href="#">DISPLAY</a>	:3	Set X11 display to Port 3
--------------------------	-------------------------	----	---------------------------

Total 1

Figure 3 - 59: Environment entries on WebSphere 7

- 9 Create a new *Environment Entry* with name `DISPLAY` and value `:3`.
- 10 If the account used for installation doesn't have a *home* directory, add an *Environment*

Entry HOME with a value pointing on a directory where the Convertigo workspace will be created.

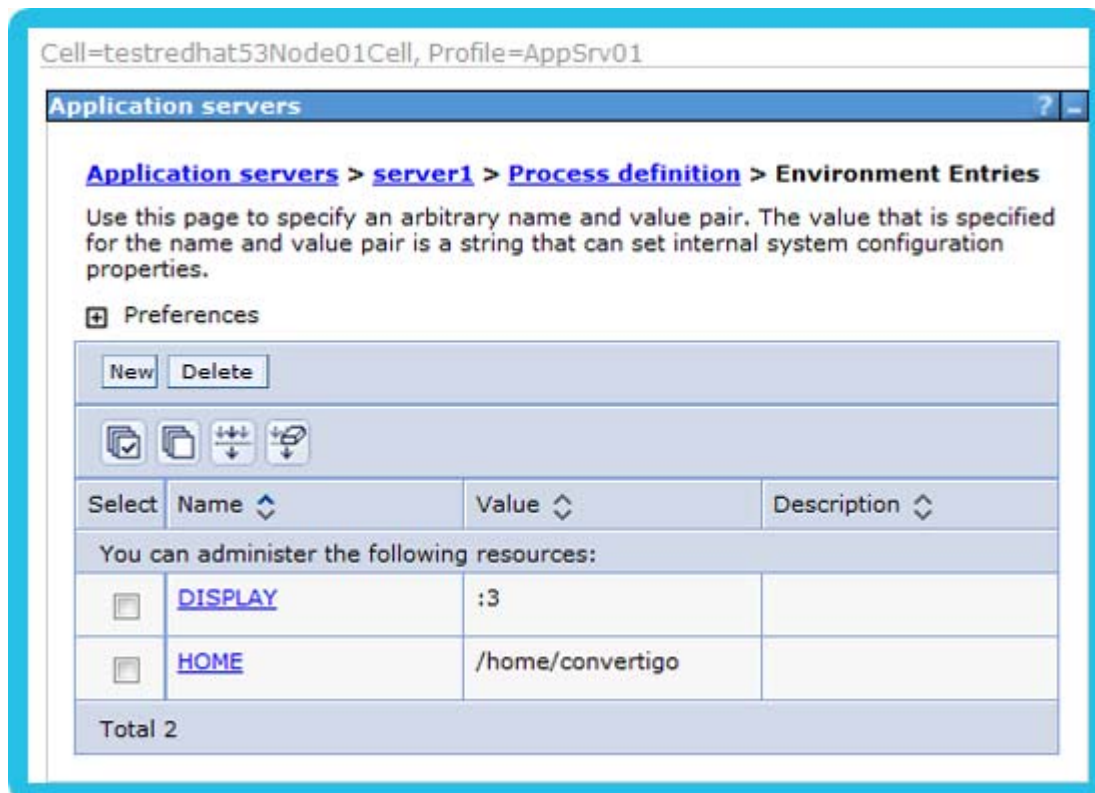


Figure 3 - 60: Environment entries on WebSphere 7



**Beware that the `/home/convertigo` directory *MUST* exist before Convertigo Server runs.**



*For more information on Convertigo workspace and projects workspace, see Appendix "Convertigo workspace" on page A - 2.*

- 11 You have to configure all members on which Convertigo Server runs. To do so, repeat steps 2 to 10 of this procedure for each member.



*You can also use a template before creating members to deploy these parameters.*

- 12 The installation can be validated by calling the following URL in a Web browser:

`http(s)://<WebSphereIPAddress>:<WebSpherePort>/convertigo/`

- *WebSphereIPAddress* is the host name or IP address of your WebSphere server.
- *WebSpherePort* is the port number of your WebSphere server.



The Convertigo Server *Administration Console* opens on the authentication page:

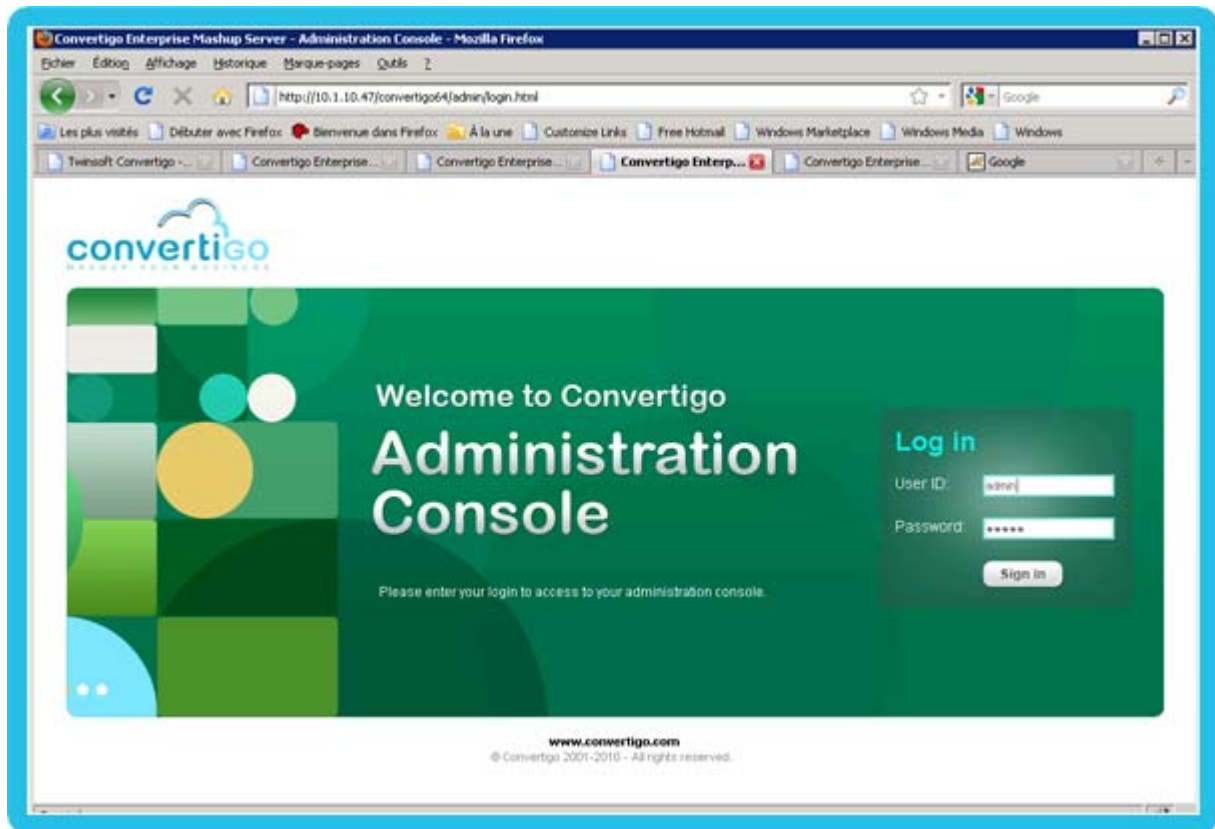


Figure 3 - 61: Convertigo Server Administration authentication page







# 4 Using Convertigo Administration Console

This chapter describes several of the actions and configurations possible with the Convertigo engine Administration Console.

- [General presentation of the Administration Console](#)
- [Configuration](#)
- [Connections](#)
- [Projects](#)
- [Certificates](#)
- [Logs](#)
- [Trace Player](#)
- [Cache](#)
- [Scheduler](#)
- [Keys](#)

## 4.1 General presentation of the Administration Console

Configure Convertigo Studio or Convertigo Server engine settings by using Convertigo Administration Console, a web application that is accessible online and through Convertigo Studio.

This section introduces you to Convertigo Administration Console:

- [Accessing the Administration Console](#)
- [Home page](#)

### 4.1.1 Accessing the Administration Console

This section explains step by step how to connect to your Convertigo Administration Console. Convertigo Server administrators can access the Administration Console of the Convertigo Server's engine. Developers can access the Administration Console of the engine embedded in their Convertigo Studio.

#### **To access Convertigo Administration Console**

As a Web application, Convertigo Server Administration Console is accessible through a Web browser. To access the Administration Console:

- 1 Launch a standard Web browser (Mozilla Firefox for example).
- 2 In the URL address field, type in the URL in the following format:

`http://<ConvertigoServer>/<ConvertigoAppName>/admin`

For example, to access a local Convertigo Studio or Convertigo Server administration:

- *ConvertigoServer* = localhost:18080 (or localhost:28080 for local server installation)
- *ConvertigoAppName* = convertigo

The result as seen in a Mozilla Firefox URL address bar:

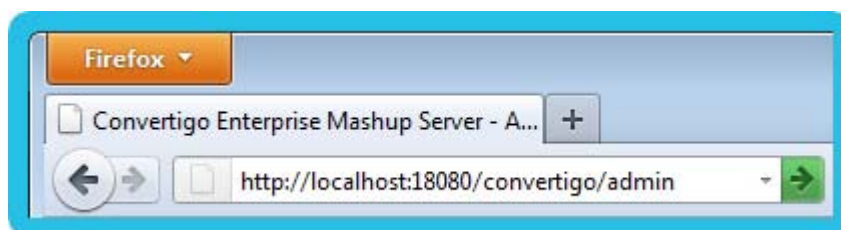


Figure 4 - 1: Convertigo Studio administration URL

For example, to access a Convertigo Cloud administration:

- *ConvertigoServer* = me.convertigo.net
- *ConvertigoAppName* = cems

As seen in a Mozilla Firefox URL address bar:

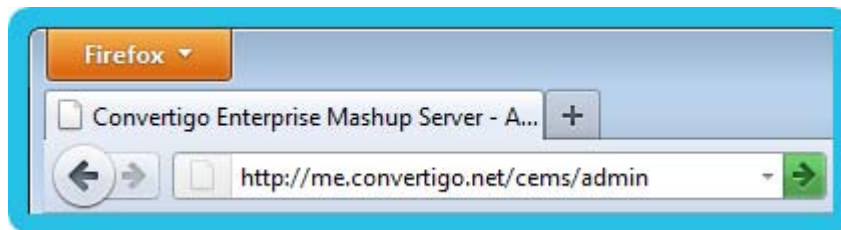


Figure 4 - 2: Convertigo Cloud administration URL

When validating the URL, the *Administration Console's Authentication* page opens. You have to be authenticated to access the *Administration Console*.

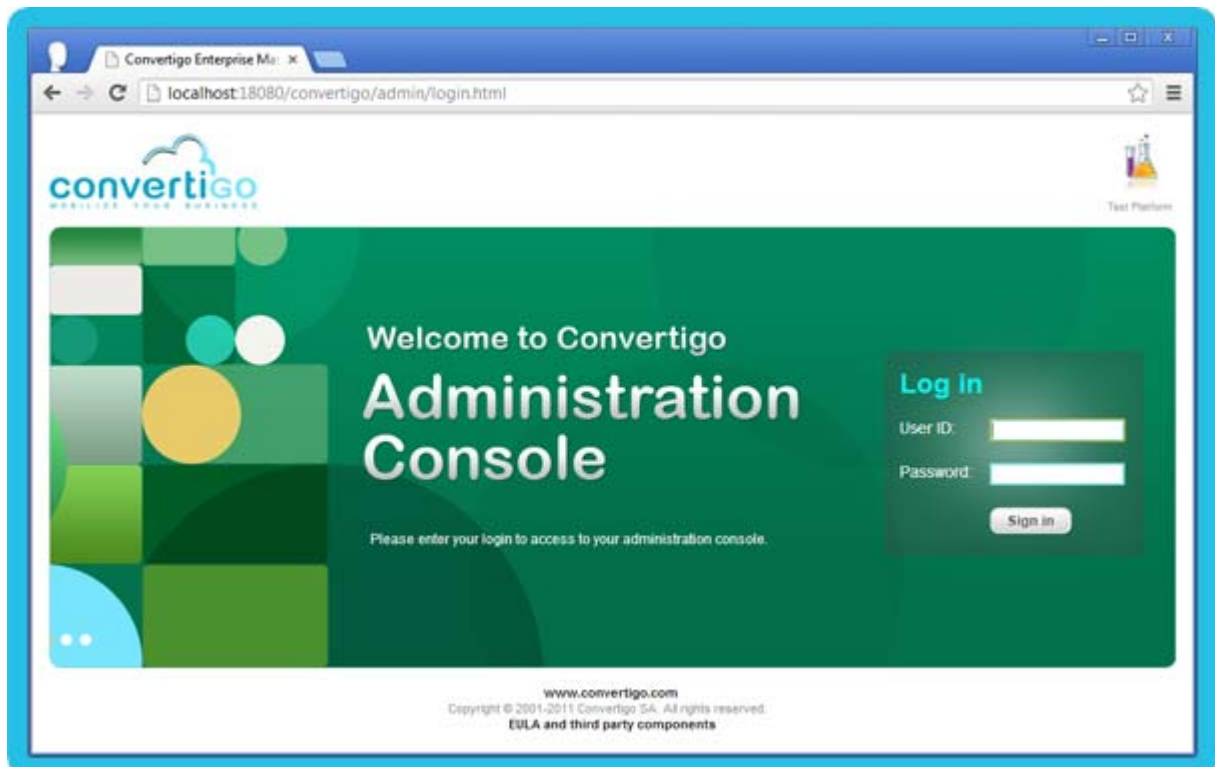


Figure 4 - 3: Administration Console authentication page

- 3 Enter the Convertigo Server login credentials in the **User ID** and **Password** fields.  
For example, in case of a Convertigo Studio or a default Convertigo Server installation, default username/password is admin/admin. In case of a private Convertigo Cloud, credentials were delivered to you by email.
- 4 Click on the **Sign in** button or press **Enter** on your keyboard.  
Once logged in, the Administration Console *Home* page opens:

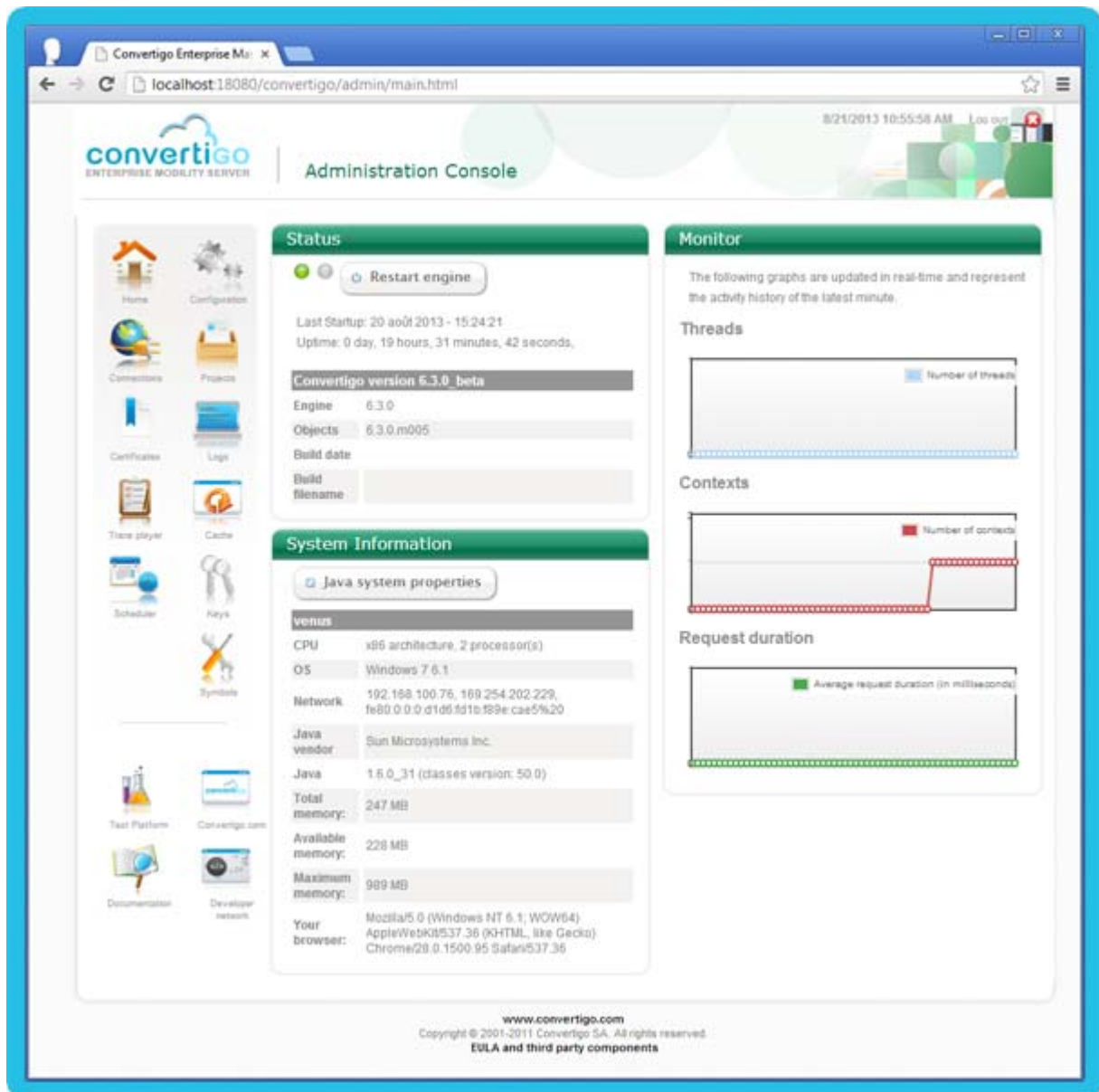


Figure 4 - 4: Administration Console Home page

## 4.1.2 Home page

The Administration Console *Home* page displays two main parts:

- the *Left menu* contains links to the Convertigo Server Administration pages and some external links are also present leading to the Convertigo website, the documentation, the Test Platform, etc.:

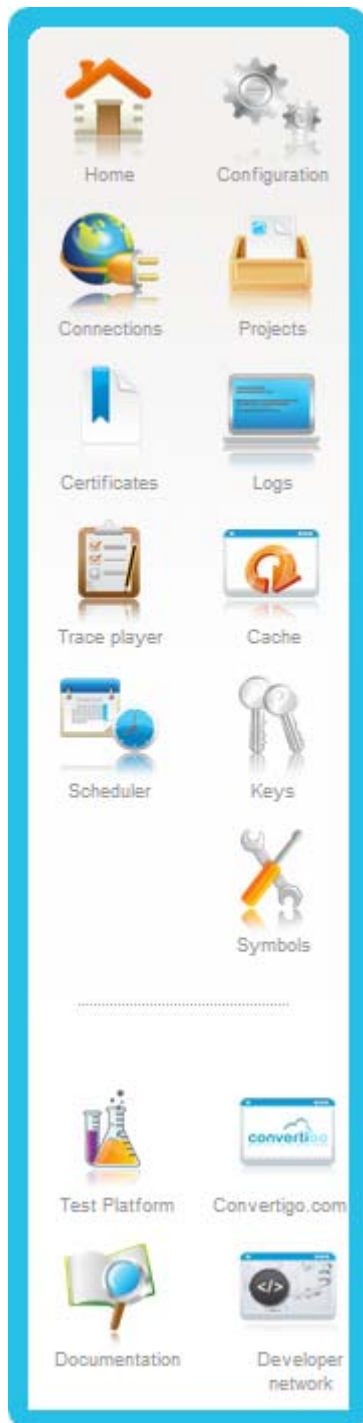


Figure 4 - 5: Administration Console left menu



*Note that in Convertigo Cloud, some pages are not accessible in the Administration Console, the left menu may look different. For more information, see appendix "Differences between Convertigo Server and Convertigo Cloud in Administration Console" on page A - 14.*

- and, a part to the right that contains three widgets:
  - ▶ **Status** widget



Figure 4 - 6: Status widget in Administration Console Home page

This widget provides you with information about the Convertigo engine, started or not, thanks to the two bullets (green/red) on the top of the widget.

It allows you to restart the Convertigo engine by pressing the **Restart engine** button.



*Note that doing so will disconnect all active connections on the Convertigo Server and remove all contexts, active or inactive. You can monitor contexts in the Connections page. For more information about Connections page, see "Connections" on page 4-29.*

Below, the widget displays information about the the starting time of the Convertigo engine, as well as versioning information about Convertigo, Convertigo build number, engine and objects. This information can be necessary to understand some situations and may be required in support cases.

► **System Information** widget

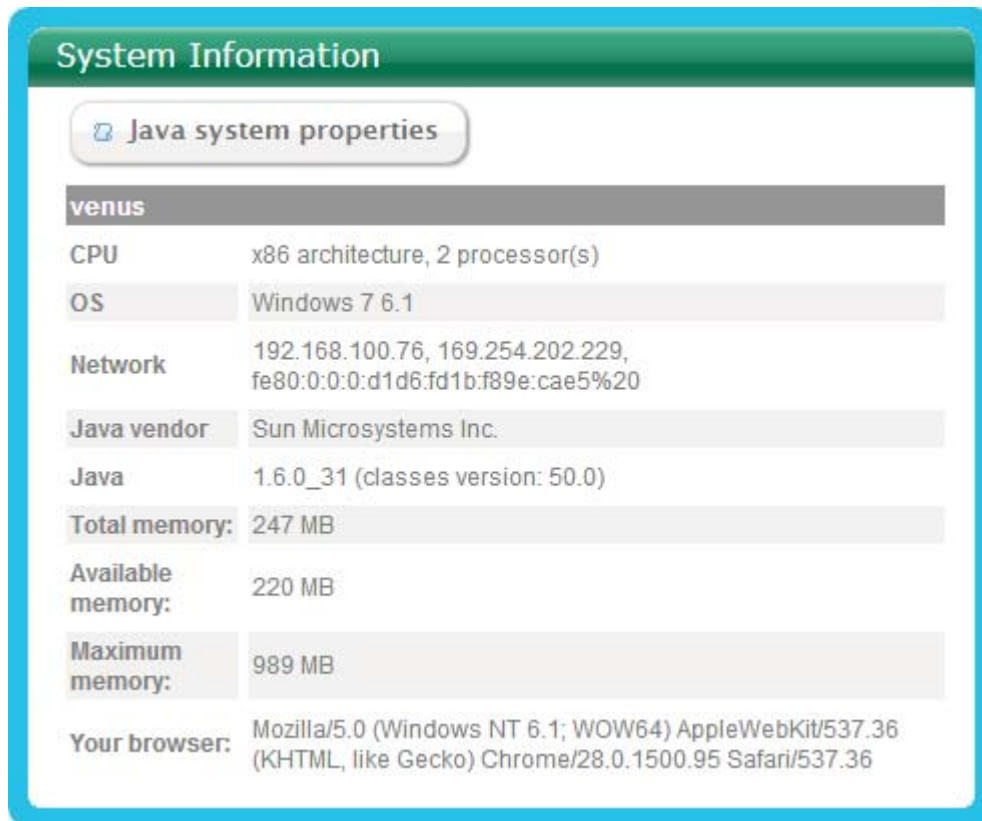


Figure 4 - 7: System Information widget in Administration Console Home page

This widget presents the system properties of the host and the browser you're using. You can also see details about Java properties in a pop-up by clicking on the **Java system properties** button.

- **Monitor** widget

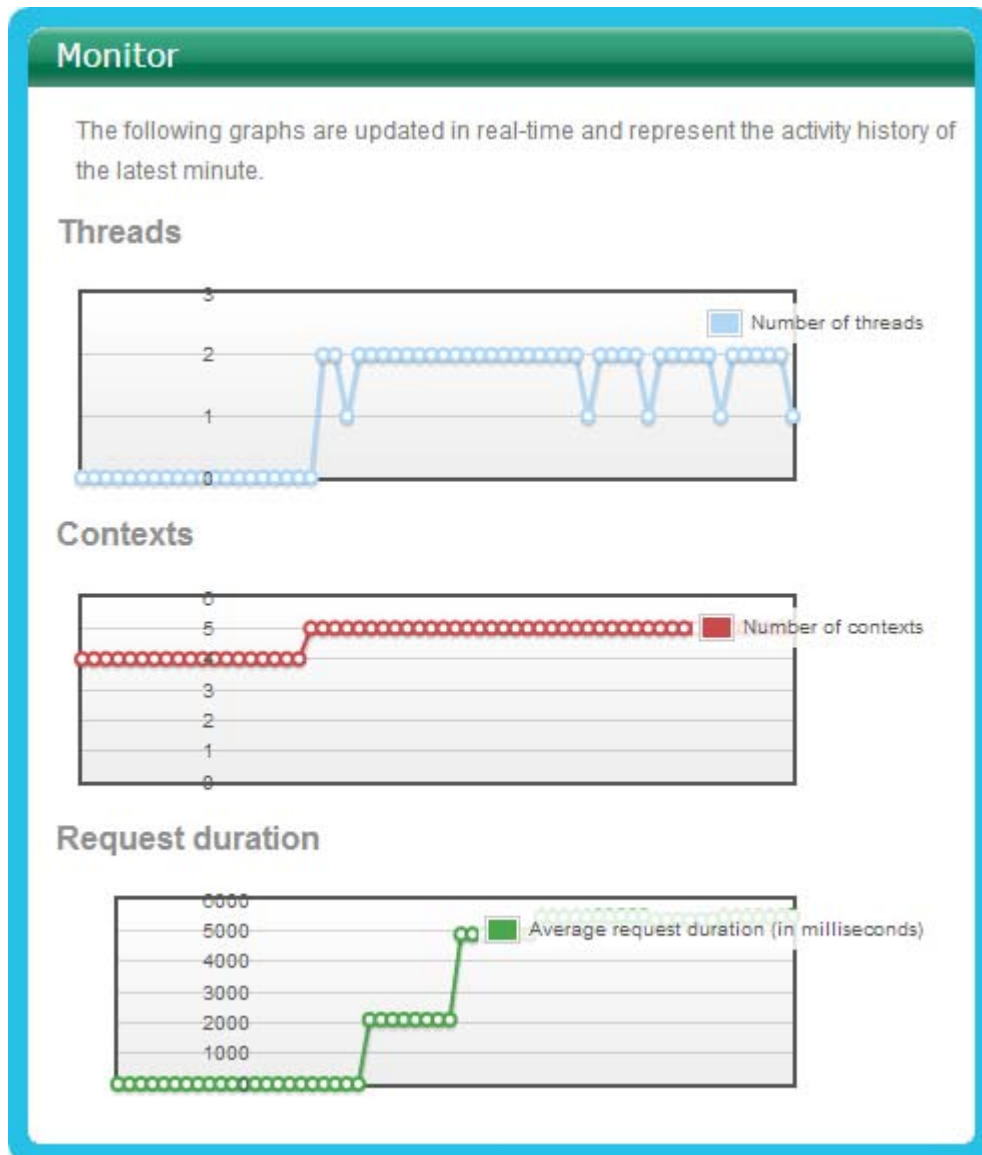


Figure 4 - 8: Monitor widget in Administration Console Home page

This widget shows the engine activity in real-time: the number of threads in activity, the number of active contexts and the average request duration.

#### WHAT'S NEXT

The following sections present information about the Administration Console pages that can be reached through the links on the *Left menu*.

For now, this documentation is not complete. Its content will be expanded soon.



*Note that in Convertigo Cloud, some pages are not accessible in the Administration Console, the left menu and pages content may look different. For more information, see appendix "Differences between Convertigo Server and Convertigo Cloud in Administration Console" on page A - 14.*



## 4.2 Configuration

The *Left menu* contains a link to the *Configuration* page. This page enables configuring several settings of the Convertigo engine.

This section explains step by step how to access to the *Configuration* page, its categories, how to edit a Convertigo engine property, and presents the settings that can be configured on it, in the several tabs that compose the page:

- [Configuration page](#)
- [Main parameters](#)
- [Accounts](#)
- [Logs](#)
- [Real-time activity monitoring](#)
- [XML generation](#)
- [HTML parser](#)
- [HTTP client](#)
- [Network](#)
- [Proxy](#)
- [Security token](#)
- [SSL](#)
- [Cache](#)
- [Legacy Carioca portal](#)
- [Supervision](#)
- [Notifications](#)

### 4.2.1 Configuration page

- [Accessing the Configuration page](#)
- [Presentation of the Configuration page](#)
- [Using the Configuration page](#)

#### ACCESSING THE CONFIGURATION PAGE

The following procedure explains how to access the *Configuration* page of the Convertigo Administration Console.

##### *To access Configuration page in the Administration Console*

- 1 Follow the procedure "*To access Convertigo Administration Console*" on page 4 - 2 to access Convertigo Administration *Home* page.
- 2 Click the **Configuration** button on the *Left menu*.

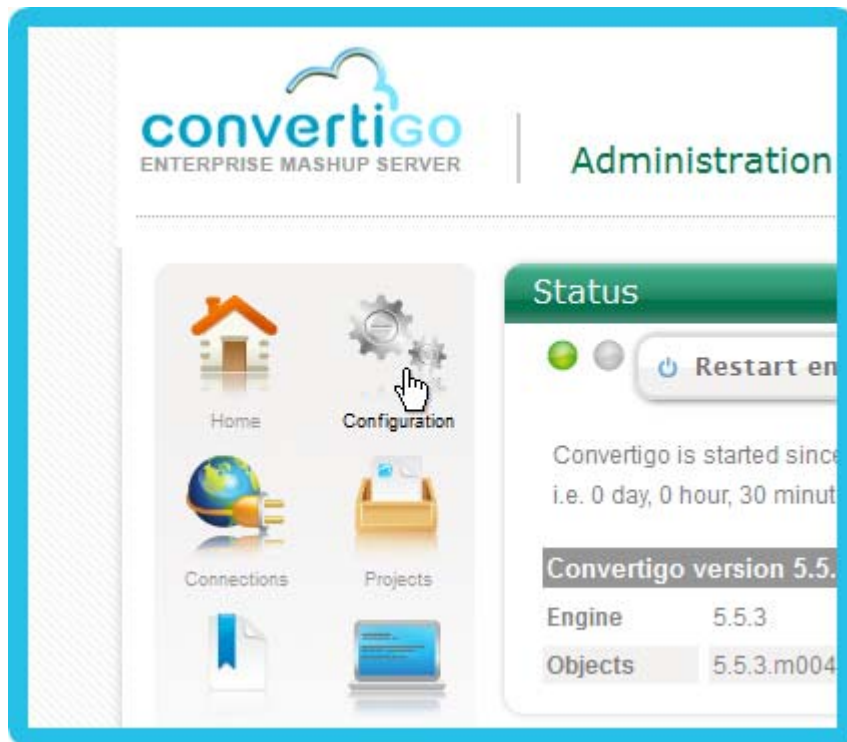


Figure 4 - 9: Accessing Configuration page

The Administration Console *Configuration* page opens:

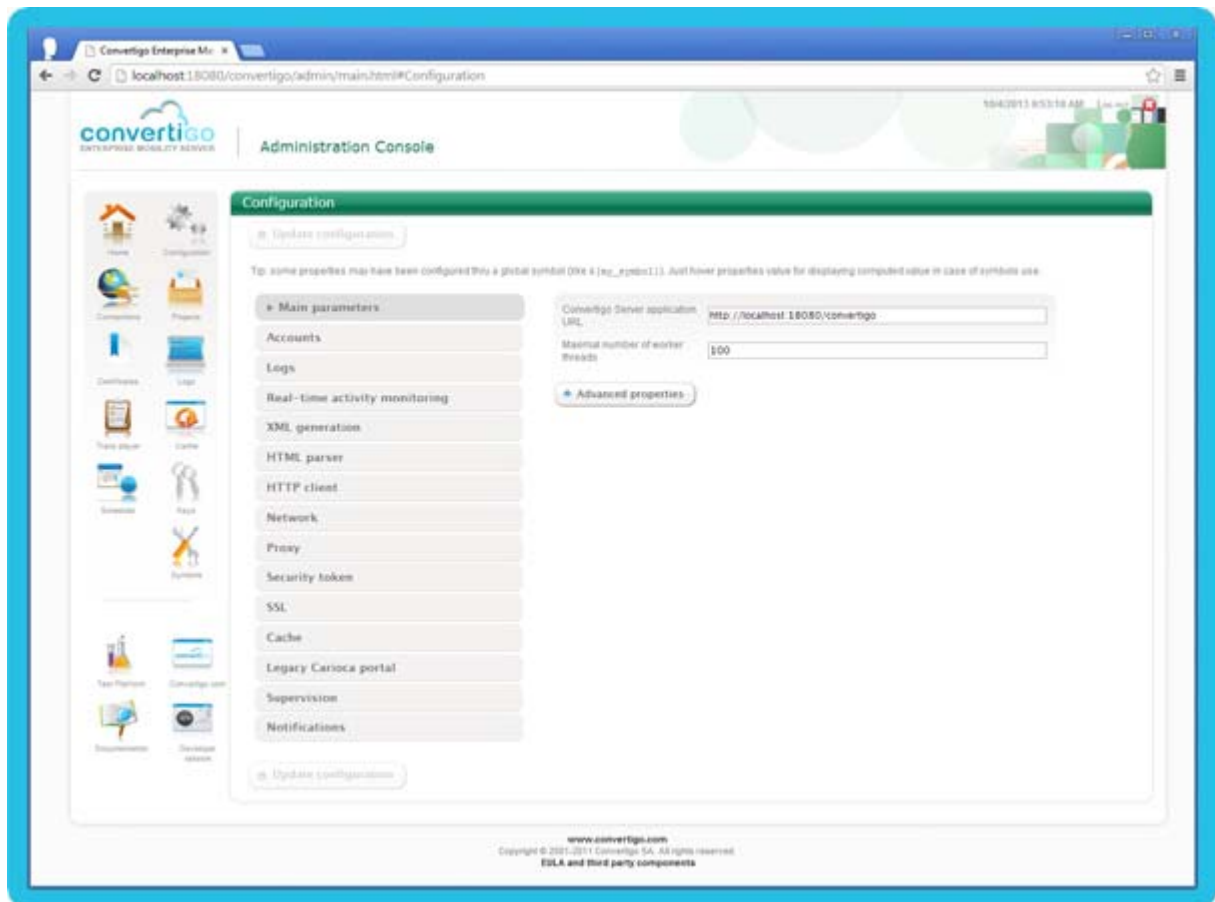


Figure 4 - 10: Administration Console Configuration page

## PRESENTATION OF THE CONFIGURATION PAGE

The *Configuration* page allows you to configure specific properties of the Convertigo engine, organized in categories. This page displays two main parts:

- the left part contains a list of tabs corresponding to configuration categories:



Figure 4 - 11: Category tabs on Configuration page



*Note that in Convertigo Cloud, some categories of configuration are not accessible in the Administration Console. The tabs in the left may look different. For more information, see appendix "Differences between Convertigo Server and Convertigo Cloud in Administration Console" on page A - 14.*

- and the right part contains the properties of the selected category tab (for example here the *Main parameters* tab properties) :

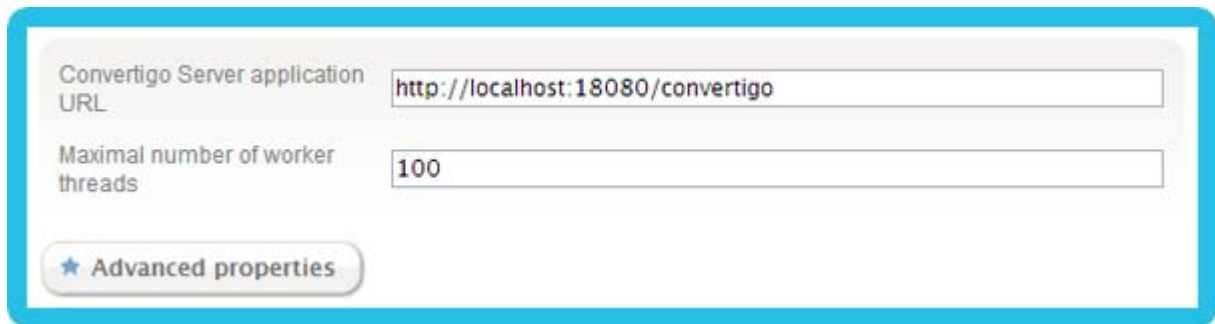


Figure 4 - 12: Properties of the Main parameters tab on Configuration page

## USING THE CONFIGURATION PAGE

The following procedures explain:

- how to access a configuration category with its editable properties,
- how to access the advanced properties of a category,
- how to edit a Convertigo engine property using the *Configuration* page.

### To access a configuration category in the Configuration page

- 1 In the left part of the *Configuration* page, click on the tab that corresponds to the needed category, for example here click on the *XML generation* category tab:

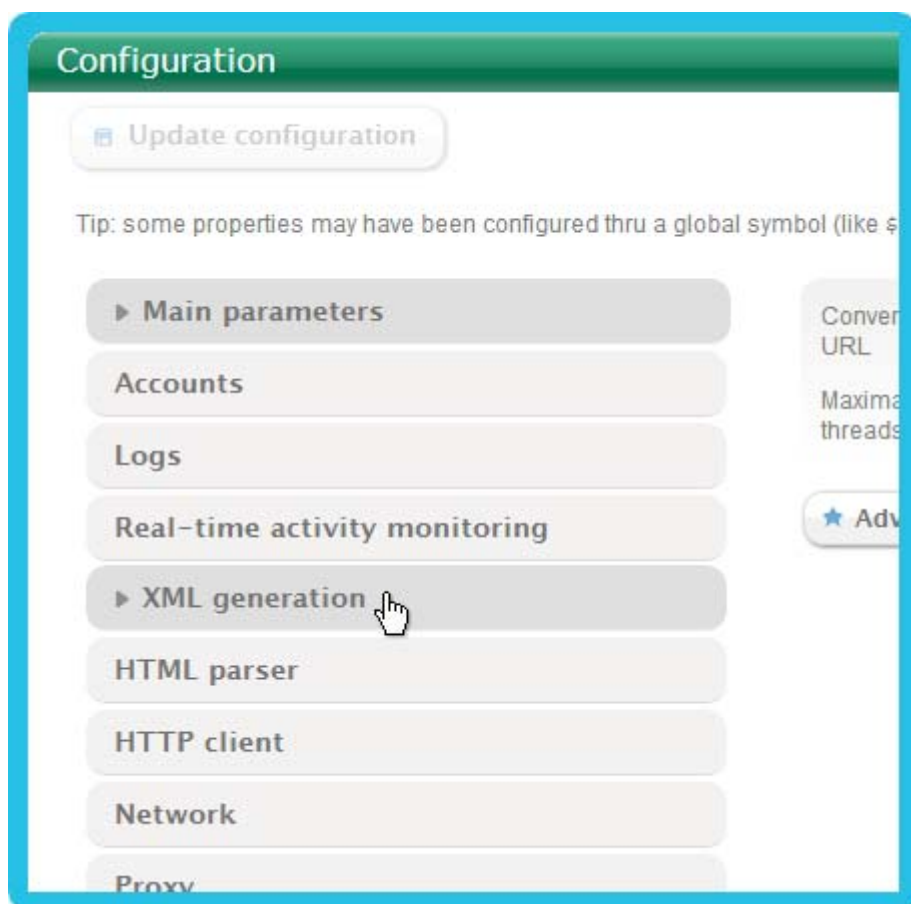


Figure 4 - 13: Selecting a category tab on Configuration page

The corresponding properties are displayed on the right part of the page:



Figure 4 - 14: Category properties on the right

The next procedure explains how to access to the advanced properties of a category.

**To access the advanced properties of a configuration category**

- 1 Access the appropriate category using the procedure "To access a configuration category in the Configuration page" on page 4 - 12.
- 2 In the right part of the *Configuration* page, click on the **Advanced properties** button at the bottom of the category properties:



Figure 4 - 15: Accessing advanced properties on Configuration page

The advanced properties of the currently selected tab are displayed in a blue background area below the **Advanced properties** button:

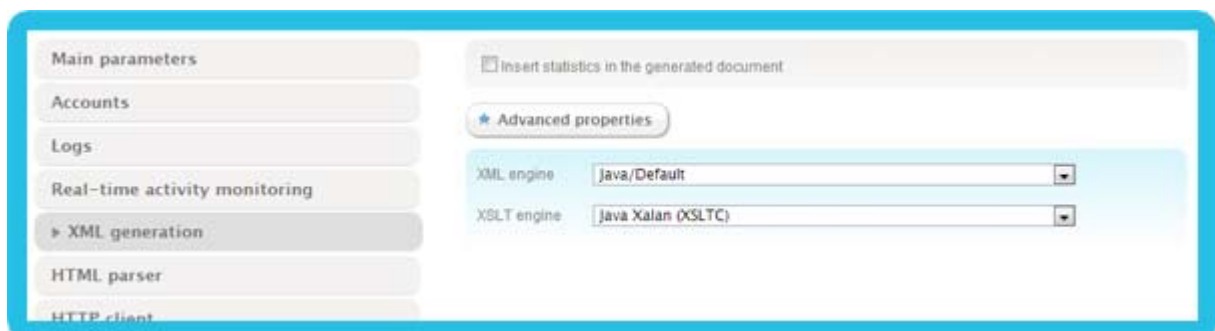


Figure 4 - 16: Advanced properties for a category

The next procedure explains how to edit a Convertigo engine property in the *Configuration*

page.

**To edit a Convertigo Engine setting using the Configuration page**

- 1 Access the category tab that contains the setting you need to change by following one of the procedures "To access a configuration category in the Configuration page" on page 4 - 12 or "To access the advanced properties of a configuration category" on page 4 - 13. For example here let's access the *Accounts* category:

The tab opens (for example here the *Accounts* tab):

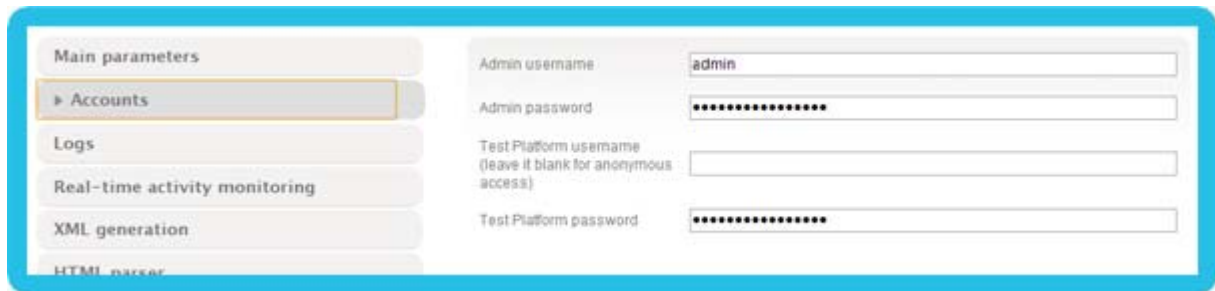
The screenshot shows the 'Accounts' tab selected in the left sidebar. The main area contains two columns of input fields. The left column has fields for 'Admin username' (containing 'admin'), 'Admin password' (masked with dots), 'Test Platform username' (containing 'test'), and 'Test Platform password' (masked with dots). The right column has fields for 'Test Platform username' (containing 'test') and 'Test Platform password' (masked with dots). The 'Test Platform username' field is highlighted with a yellow border.

Figure 4 - 17: Accounts tab

- 2 On the right part of the *Configuration* page, change the value of the engine property you want to edit in the corresponding field. (For example here we add a **Test Platform username** and **Test Platform password** in the appropriate fields.)
- 3 Click on the **Update configuration** button located on the top (or bottom) of the *Configuration* page:

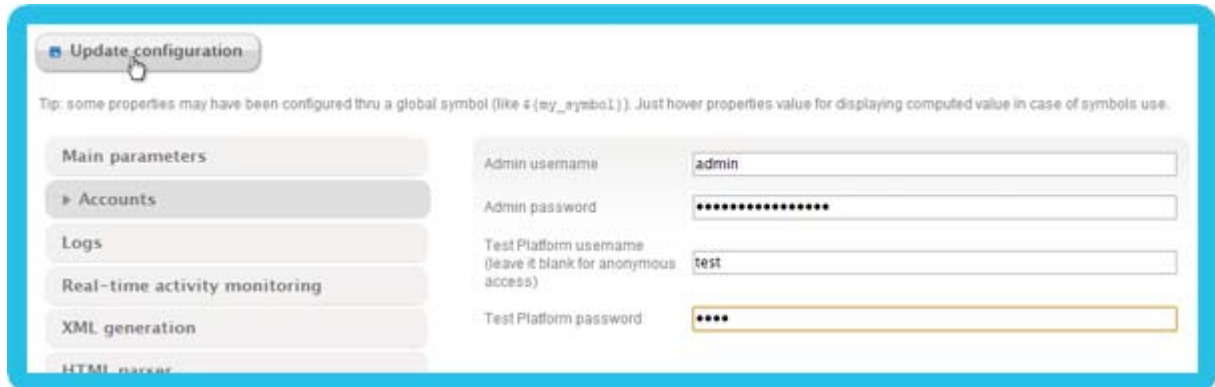
The screenshot shows the 'Update configuration' button highlighted with a yellow border. Below the button, there is a tip: "Tip: some properties may have been configured thru a global symbol (like \${my\_symbol}). Just hover properties value for displaying computed value in case of symbols use." The main area contains two columns of input fields. The left column has fields for 'Admin username' (containing 'admin'), 'Admin password' (masked with dots), 'Test Platform username' (containing 'test'), and 'Test Platform password' (masked with dots). The right column has fields for 'Test Platform username' (containing 'test') and 'Test Platform password' (masked with dots). The 'Test Platform username' field is highlighted with a yellow border.

Figure 4 - 18: Setting updated parameters and updating configuration

A pop-in appears to confirm that the new parameters have been taken into account:

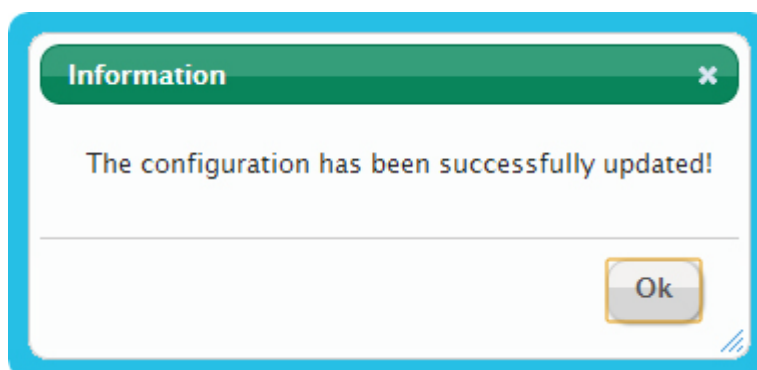


Figure 4 - 19: Confirmation pop-in

- 4 Click on the **Ok** button to close the pop-in.

The engine setting is updated. Beware that sometimes, the Convertigo engine needs to be restarted for the new property to be taken into account. This is specified on such properties documentation.

#### WHAT'S NEXT

The following sections present in details the tabs present in the *Configuration* page and the specific settings that can be configured on each tab.

### 4.2.2 Main parameters

Edit your Convertigo Server main parameters in *Main parameters* tab. This tab can be opened by following the procedure "*To access a configuration category in the Configuration page*" on page 4 - 12.

This tab includes an Advanced properties section that can be opened by following the procedure "*To access the advanced properties of a configuration category*" on page 4 - 13. In the Advanced properties section, configure the main advanced Convertigo configuration parameters.

- [Properties](#)
- [Advanced properties](#)

#### PROPERTIES

- **Convertigo Server application URL:** Convertigo Server URL, this URL informs Convertigo Server of its external access URL, including the domain or IP address of the server, and the listening port of the server (configured in the application server).
  - ▶ This URL is used by several functionalities of Convertigo Server and it is very important that it is correctly configured, otherwise these functionalities would not work correctly (for example: *Call Sequence* or *Call Transaction* steps not using internal invoke, Scheduler, WSDL generation, etc.). This URL should be configured at the end of the Convertigo Server installation.
  - ▶ In case of Convertigo Studio, this URL is used in addition to define the listening port of the embedded server, as well as for the transaction or sequence executions using the "Execute" functionality.
- **Maximal number of worker threads:** Maximum number of simultaneous worker threads Convertigo will open in the application server. Though there is no theoretical limit to this, some application servers seem to be unstable when too many worker threads are in use. Convertigo limits itself to prevent server collapse.





#### **What are worker threads ?**

For every request sent to Convertigo, a thread of the application server (Tomcat by default) manages the request and transfer it to Convertigo. Convertigo engine creates a **worker thread** to execute the request. Once the request is performed, the worker thread is released and can be used again.

The arbitrary limit set with the **Maximal number of worker threads** property is never exceeded. When this limit is reached, every new request to Convertigo is rejected until a worker thread has finished performing its request and is available for a new one.

### **ADVANCED PROPERTIES**

- **Product version check:** Activated by default, this option enables the verification of Convertigo version number in projects that attempt to be deployed. This helps users not to deploy projects that were created in a greater version of Convertigo in an older version of Convertigo. Indeed, in this case, the projects may not be compatible, due to the add of objects or objects' properties in the software, that an older version of Convertigo can not handle. In the opposite case, a new version of Convertigo is always compatible with older version, that makes projects to be importable in newer version of Convertigo, possibly including an automatic migration of projects if need be.
- **Use the Java Thread.stop() method in order to finish threads:** When a transaction or sequence timeout is reached, its thread is gracefully stopped. In some case, the transaction/sequence thread is locked (by reading blocking socket, or whatever) and can't be gracefully stopped. Enabling this property allows Convertigo to use the deprecated `Thread.stop()` method in these cases to end the transaction/sequence thread.
- **(Linux only) Launch Xvnc server using DISPLAY environment variable at startup:** On Linux operating systems, the *HTML Connector* and the *Legacy Connector monitors* need an X server. Convertigo uses the X server corresponding to the `DISPLAY` environment variable value. If there is no X server on this `DISPLAY`:
  - ▶ if this property is set to `true`, an Xvnc server is launched on that `DISPLAY`,
  - ▶ if this property is set to `false`, the HTML connector is not available and a message is traced in log files.



*The Xvnc server is a headless X server that can be viewed by a VncViewer on the port `5900 + DISPLAY value`. If `DISPLAY=:3`, the Xvnc server will listen the port 5903.*

- **(Linux only) Depth parameter for the Xvnc, default is 16:** Set the colour depth of the Xvnc visual to provide, in bits per pixel. Must be a value between 8 and 32.



*This property value is used if the Convertigo Server needs to launch an Xvnc server (see previous **Launch Xvnc server using DISPLAY environment variable at startup** property description).*

- **(Linux only) Geometry parameter for Xvnc, default is 320x240:** Set virtual desktop width and height, in pixels.





*This property value is used if the Convertigo Server needs to launch an Xvnc server (see previous **Launch Xvnc server using DISPLAY environment variable at startup** property description).*



***Beware that these three last options concerning Linux operating systems have to be used by very advanced users, or on the advice of the Convertigo team. Otherwise, this could lead to a non-functioning HTML connector.***

- **Time allowed for pool management task in seconds (-1 for disable):** This property defines the time in seconds allowed to the pool manager to start its contexts. If this time is reached, the pool manager does not start a new context and lets the context manager work before continuing its activities. Setting this property to -1 disables time checking: the pool manager starts all needed contexts before it lets the context manager work.



*The pool manager is the entity that watches and starts contexts for connectors configured with pools. The pool manager shares the same thread as the context manager. While the pool manager is running, the context manager can't do its tasks, like removing expired contexts.*

- **Enable the compatibility mode for projects data (required for JSP usage); engine restart required:** Activate this option if you need to use an old Convertigo project using JSP pages in a new Convertigo Server. Indeed, some old projects may have used specific code in JSP pages of the project, to deliver content and functionalities to the client application. Since Convertigo 5.0, the JSP pages usage in Convertigo has been replaced by a JavaScript framework named Convertigo Weblib.



***Beware that if you check this option, you will need to restart Convertigo engine for it to be taken into account.***

- **Use same JSESSIONID for sequences and steps:** This option, activated by default, makes the sequence automatically re-use the client session cookie (JSESSIONID) of its context as its own JSESSIONID, used in contexts created by *Call Transaction* and *Call Sequence* steps. This is useful mainly when a context has to be maintained between several transaction calls.



*Convertigo Server uses the client session cookie (JSESSIONID) as a parameter to build the **contextId** of requested object (transaction or sequence) executions. In case of a sequence execution, this sequence can call other transactions or sequences thanks to *Call Transaction* or *Call Sequence* steps. In this case, the sequence itself is seen as a client to Convertigo. This parameter is used in this case only.*

- **Add XML encoding charset for SOAP requests:** This option, when activated, adds the following XML encoding charset declaration in client SOAP requests: `<?xml version="1.0" encoding="UTF-8"?>`.
- **Throw HTTP 500 in case of unrecoverable servlet error:** This option, activated by

default, makes Convertigo Server return an HTTP 500 response to the requesting client when an unrecoverable servlet error occurs (no available pool, busy server, unable to connect to target resource, etc.). Unchecking this option makes Convertigo Server answer an HTTP 200 response containing the same content in such cases.

- **Hide detailed information in case of unrecoverable servlet error:** When activated, this option makes Convertigo Server hide error information (the Java Exception stack trace, the detailed information of the error, etc.) where they can be displayed (engine logs, response XML, etc.) when an unrecoverable servlet error occurs (no available pool, busy server, unable to connect to target resource, etc.). This option is not activated by default.
- **Throw HTTP 500 in case of SOAP fault:** This option, activated by default, makes Convertigo Server return an HTTP 500 response to the requesting SOAP client when a SOAP fault exception is thrown (by the project managing an error or by the Web service requester of Convertigo). Unchecking this option makes Convertigo Server answer an HTTP 200 response containing the same content in such cases.

### 4.2.3 Accounts

Edit your Convertigo Server accounts in *Accounts* tab. This tab can be opened by following the procedure *"To access a configuration category in the Configuration page"* on page 4 - 12.

Two types of account are editable:

- the **Administrator account**: Enter the administrator's username and password in the **Admin username** and **Admin password** fields. This account is used to access the *Administration Console* of the Convertigo Server. Default values are admin/admin.
- the **Test account**: Enter the tester username and password in the **Test Platform username** and **Test Platform password** fields. This account is used to access the *Test Platform* of projects running in the Convertigo Server. Leaving the username field blank deactivates the Convertigo tester account for authentication process (anonymous access).

### 4.2.4 Logs

Control your log settings under the *Logs* tab. This tab can be opened by following the procedure *"To access a configuration category in the Configuration page"* on page 4 - 12.

This tab includes an Advanced properties section that can be opened by following the procedure *"To access the advanced properties of a configuration category"* on page 4 - 13. In the Advanced properties section, configure the advanced log settings.

More information about log management is coming soon.

### 4.2.5 Real-time activity monitoring

Edit your real-time monitoring settings under the *Real-time activity monitoring* tab. This tab can be opened by following the procedure *"To access a configuration category in the Configuration page"* on page 4 - 12.

Two options are available in this tab:

- **Display running connectors in monitor of Legacy connectors:** When activated, this

option displays a graphical rendering of the legacy connectors currently in use in the active contexts of the Convertigo Server, in the *Legacy connectors monitor*.



*The Legacy connectors monitor is a window that may be visible or not depending on the Convertigo Server installation. Both Windows and Linux based systems must meet specific requirements for this option to be effective. For more information, see the appendix "connector monitoring windows" on page A - 5.*



**Beware that if you check this option, you will need to restart Convertigo engine for it to be taken into account.**

- **Trace in logs the screen dumps of the running Legacy connectors:** When activated, this option makes a text screen dump of each mainframe screen Convertigo detects in the legacy connectors currently in use in the active contexts. These screen dumps are output in context logger, it only works when context logger is activated at minimum `INFO` level.

#### 4.2.6 XML generation

Edit the parameters of XML generation of the transactions and sequences results in *XML generation* tab. This tab can be opened by following the procedure "To access a configuration category in the Configuration page" on page 4 - 12.

This tab includes an Advanced properties section that can be opened by following the procedure "To access the advanced properties of a configuration category" on page 4 - 13. In the Advanced properties section, configure the advanced parameters of XML generation of the transactions and sequences results.

- Properties
- Advanced properties

#### PROPERTIES

- **Insert statistics in the generated document:** This option, when activated, adds statistics about the time of execution of the transaction or sequence in the output response. These statistics, which data accuracy is not guaranteed, are:
  - ▶ inserted as a commentary into the response (the syntax depends on the requester: XML, SOAP, etc. and are not available some times: for JSON requester for example)
  - ▶ and are visible only when calling the transaction or sequence from a client (not visible in Studio execution).

**Note:** This property has nothing to do with the transaction/sequence's **Add statistics to response** property that can be edited for each transaction/sequence and does not have the same behavior in response.

#### ADVANCED PROPERTIES

- **XML engine:** This option allows you to choose an XML engine for Convertigo Server.

- **XSLT engine:** This option allows you to choose an XSLT engine used by Convertigo Server to perform the XSL transformations of the XML responses of transactions or sequences that are bound to a stylesheet.



*We recommend using the default settings for XML and XSLT engines. If you choose to edit these settings, be aware that the XML engine and the XSLT engine must remain compatible. That is to say, they both need to be either Microsoft XML or Java.*

#### 4.2.7 HTML parser

Edit the parameters of the HTML parser, based on Mozilla `XULRunner`, in *HTML parser* tab. This tab can be opened by following the procedure "To access a configuration category in the Configuration page" on page 4 - 12.

This tab includes an Advanced properties section that can be opened by following the procedure "To access the advanced properties of a configuration category" on page 4 - 13. In the Advanced properties section, configure the advanced parameters of the HTML parser, based on Mozilla `XULRunner`.

- [Properties](#)
- [Advanced properties](#)

#### PROPERTIES

- **Max connections (from 1 to 65535):** This preference limits the total number of HTTP connections Convertigo can open using `XULRunner`. If more connections are needed, they are queued until a connection "slot" is available. This preference takes values between 1 and 65535 inclusive.
- **Max connections per server (from 1 to 255):** This preference limits the total number of HTTP connections Convertigo can make using `XULRunner` to a single server. If more connections are needed, they are queued until a connection "slot" is available. This preference takes values between 1 and 255 inclusive.
- **Max persistent connections per server (from 1 to 10):** This preference limits the total number of HTTP keep-alive connections Convertigo can make using `XULRunner` to each site, if a proxy server is not configured. If more connections are needed, they are queued until a connection "slot" is available. This preference takes values between 1 and 10 inclusive.



*HTTP keep-alive connections can be re-used for multiple requests, as opposed to non-keep-alive connections, which are limited to one request. Using keep-alive connections improves performance.*

- **Override User-Agent:** This option defines a user-agent string to replace the standard `XulRunner` user-agent, which is for example: `Mozilla/5.0 (X11; U; Linux i686 (x86_64); en-US; rv:1.9.0.17)`, with `"X11; U; Linux i686 (x86_64)"` being a variable part depending on the operating system.

## ADVANCED PROPERTIES

- **Override Accept-Language header:** This option defines an `accept-language` header value to replace the standard XULRunner `accept-language` header value, which is for example: `en-us,en;q=0.8,fr-fr;q=0.5,fr;q=0.3`.
- **Allow image:** General parameter that enables or disables the **Image rendering** property of the browser. This value can be overridden using a *Browser property change* statement in HTML transactions.
- **Allow plugin:** General parameter that enables or disables the **Plugin feature** property of the browser. This value can be overridden using a *Browser property change* statement in HTML transactions.
- **Check cache validity (false could increase latency):** This preference defines how often to check for a new version of a cached page. Default value is `true`, meaning it checks for a new version when the cached page is out of date. If set to `false`, checking for a new version of a page is done once per session (a session starts when the first application window opens and ends when the last application window closes).



*When a page is loaded, it is cached so it doesn't need to be downloaded to be redisplayed. If the page changes after a previous visit, you may want to redownload it anyway to get the updated page. This preference can be used in such cases.*

- **Enable screen rendering during parse (should be disabled):** This preference defines whether the application will interrupt parsing a page to respond to UI events. If `true`, parsing can be interrupted to process UI events. Default value is `false`, parsing cannot be interrupted, the application will be unresponsive until parsing is complete.
- **XULRunner path:** This preference allows you to change the XULRunner used by Convertigo (should never be changed except for very advanced users).
- **XULRunner work directory:** This preference allows you to change the XULRunner working directory (should never be changed except for very advanced users).



***Beware that these two last options have to be used by very advanced users, or on the advice of the Convertigo team. Otherwise, this could lead to a non-functioning XULRunner feature.***

### 4.2.8 HTTP client

Edit the parameters of the HTTP client in *HTTP client* tab. This tab can be opened by following the procedure "To access a configuration category in the Configuration page" on page 4 - 12.

- **Maximal number of HTTP connections (from 1 to 65535):** This preference limits the total number of HTTP connections Convertigo can open using HTTP client. If more connections are needed, they are queued until a connection "slot" is available. This preference takes values between 1 and 65535 inclusive.
- **Maximal number of HTTP connections per host (from 1 to 255):** This preference limits the total number of HTTP connections Convertigo can make using HTTP client to a single server. If more connections are needed, they are queued until a connection "slot" is

available. This preference takes values between 1 and 255 inclusive.



*HTTP client is used in Convertigo in: HTTP connector, Site Clipper connector, HTML connector (to make the initial connector connection in stateless mode), HTTP statement.*

#### 4.2.9 Network

Edit the network parameters in *Network* tab. This tab can be opened by following the procedure *"To access a configuration category in the Configuration page"* on page 4 - 12.

- **Use DNS reverse search for finding host names:** If checked, this option makes Convertigo perform reverse DNS checks on client IP addresses. Resolved client names will then be used along with IP in log files and *Connections* page.



***Check this option only if you are sure the Convertigo Server is able to reach a DNS server that serves reverse DNS requests, or response times will greatly deteriorate.***

- **Maximum allowed size of a complete multipart request (in bytes). Value -1 indicates no limit.:** This parameter allows to define the maximum allowed size of a multipart request to Convertigo, in bytes. Default value is -1, indicating that the request size is not limited.
- **Maximum allowed size of a single uploaded file (in bytes):** This parameter allows to define the maximum allowed size of one uploaded file when sending a multipart request to Convertigo, in bytes.



*Since version 6.1.10, Convertigo allows to receive multi-part requests. The programmers can then develop forms that will be used to upload files to Convertigo as input variables of transactions/sequences. The transactions/sequences variables can be define as a file upload using the **Is a file upload** property.*

#### 4.2.10 Proxy

Configure the Convertigo Server unified proxy in the *Proxy* tab. This tab can be opened by following the procedure *"To access a configuration category in the Configuration page"* on page 4 - 12.

- **Proxy mode:** In this parameter, three different modes are available to configure the proxy:
  - ▶ **disabled:** No proxy.
  - ▶ **automatic:** Using this mode, it is possible to automatically configure the proxy through a proxy auto-configuration (PAC) file. The URL of this file has to be set in **Autoconfiguration proxy url** parameter.
  - ▶ **manual:** The proxy must be configured manually by filling different fields:
    - **Proxy port:** Port which has to be used by the proxy,
    - **Proxy host:** Address of the proxy server,
    - **Do not apply proxy settings on:** In this field, it is possible to configure the domains



to which the proxy should *not* be applied.

- **Proxy authentication method:** This parameter allows to choose what authentication method the proxy should use. The value is to be chosen amongst the following values:
  - ▶ anonymous
  - ▶ basic
  - ▶ NTLM
- **Username and Password:** Finally, these parameters allow to set the credentials to be used by the proxy.



*Since version 6.0, Convertigo includes a unified HTTP proxy for the following connectors: HTML connector, HTTP connector and Site Clipper connector.*

*Previously, each connector had its own proxy configuration, configured through its properties. Now that the proxy is unified, only one configuration exists for these connectors.*

*The proxy configuration set thanks to this administration page will be used by all HTTP, HTML and Site Clipper connectors of all Convertigo projects on the server.*

#### EXAMPLES

##### Configuring a proxy with basic authentication

- 1 **Proxy mode:** manual
- 2 **Proxy port:** 3128
- 3 **Proxy host:** 192.168.100.9
- 4 **Proxy authentication method:** basic
- 5 **Username:** steph
- 6 **Password:** 123

In case of NTLM authentication, if the proxy is related to LDAP, the username must be preceded by domain name.

##### Auto-Configuring proxy

- 1 **Proxy mode:** automatic
- 2 **Autoconfiguration proxy url:** `http://192.168.100.141:18080/qualif/proxy.pac`

#### 4.2.11 Security token

Edit the security token parameters for portal authentications in *Security token* tab. This tab can be opened by following the procedure "To access a configuration category in the Configuration page" on page 4 - 12.

This tab includes an Advanced properties section that can be opened by following the procedure "To access the advanced properties of a configuration category" on page 4 - 13. In the Advanced properties section, configure the advanced parameters of security tokens for portal authentication.

- Properties
- Advanced properties

## PROPERTIES

- **Security tokens lifetime (in seconds):** This parameter allows to define the lifetime of security tokens generated by the Convertigo server to authenticate an execution context when running a transaction/sequence in a widget of a portal. The security token must be used by the widget to authenticate an execution context within this lifetime. Otherwise, it will not be validated.
- **Security token generator passphrase:** This parameter allows to define the passphrase used by the Convertigo server to generate the encrypted security token and then to decrypt it when receiving it in a transaction/sequence's execution request.



***The default Security token generator passphrase is `c8o-password`. It is strongly recommended to change it as soon as you use this functionality of portal widgets authentication.***



*Since version 6.1.10, Convertigo includes a portal widgets authentication process. It allows any widget to use a security token in order to authenticate the context of execution of the transactions/sequences that it runs for getting data.*

*The authenticated context requirement for executing a transaction/sequence in the Convertigo server is defined in each transaction/sequence itself by the **Authenticated context required** property.*

## ADVANCED PROPERTIES

- **Storage mode:** This parameter allows to choose how the Convertigo server stores the valid security tokens during their lifetime. This property can take the following values:
  - ▶ **memory:** The valid security tokens and their parameters (like their lifetime) are stored in the Convertigo server memory. This is the default value, mostly recommended for a single-instance Convertigo Server. Besides, this is a simpler configuration as you have nothing to configure, the following properties are not used.
  - ▶ **database:** The valid security tokens and their parameters are stored in an external database. This is the recommended configuration for multiple instances of Convertigo Server, which would need to share the generated tokens. When using this value, you have to fill the following properties.



*When using **database** mode for storing security tokens, Convertigo uses **Hibernate** (version 3.3) to connect to this database. The following properties, that allow configuring the connection to the security token database, are based on Hibernate configuration.*

*For more information, see the Hibernate documentation at: **<http://docs.jboss.org/hibernate/orm/3.3/reference/en/html/session-configuration.html>***

- **SQL Dialect:** This parameter defines the `Hibernate SQL Dialect` to use to optimize SQL requests to the security tokens database with correct syntaxes.





For more information on the Hibernate Dialects, see the Hibernate documentation at: <http://docs.jboss.org/hibernate/orm/3.3/reference/en/html/session-configuration.html#configuration-optional-dialects>

- **JDBC driver:** This parameter defines the JDBC driver to use for connecting to the security tokens database. Any driver already existing in Convertigo for SQL connector can be used, until it corresponds to the defined `Dialect`. You can refer to the *SQL connector* documentation in the *Reference Manual* for more information about existing drivers.



Other drivers than those existing for SQL connector may be used. They only have to be installed in Convertigo before use.  
Request for Convertigo support for installing a new SQL driver in Convertigo.

- **JDBC URL:** This parameter defines the JDBC URL to use for connecting to the security tokens database. The URL depends on the specified driver. You can refer to the *SQL connector* documentation in the *Reference Manual* for more information about existing drivers and related connection URLs.
- **JDBC username** and **JDBC password:** These parameters define the username and password to use for connecting to the security tokens database.



For more information on the Hibernate JDBC configuration, see the Hibernate documentation at: <http://docs.jboss.org/hibernate/orm/3.3/reference/en/html/session-configuration.html#configuration-hibernatejdbc>

#### 4.2.12 SSL

Edit the communication security parameters in SSL tab. This tab can be opened by following the procedure "To access a configuration category in the Configuration page" on page 4 - 12.

- **SSL debug output (requires JVM restart):** This option, when activated, makes the Java machine write traces about SSL dialogs in Convertigo in `stdout` console.



SLL dialogs are used in Convertigo in every connector trying to reach the host it is configured to connect to using SSL, i.e. when the connector's SSL mode property is checked.



**If you activate this option, you will have to restart the Java machine as it is the one writing traces, it does not take the property into account directly.**

- **SSL issuers:** This parameter allows to enter a list os SSL issuers to be added to the standard issuers list, used to validate client certificates.



*The Certificates page of the Administration Console defines certificates positioned on projects requiring them. When Convertigo tries to validate a client certificate, this certificate is validated by a list of issuers. These issuers have to be known for the certificate to be validated completely. The standard list of issuers may be incomplete, this is why this property exists.*

#### 4.2.13 Cache

Edit the cache parameters in *Cache* tab. This tab can be opened by following the procedure "To access a configuration category in the Configuration page" on page 4 - 12.

- **Cache manager class:** This parameter allows you to override the cache management Java class by a class of your own in case of file cache type set in the *Cache* page of the Administration Console.



***Beware that this option has to be used by very advanced users, or on the advice of the Convertigo team. Otherwise, this could lead to a non-functioning cache feature.***

- **File cache directory:** This parameter defines the folder where cache files have to be saved, in the case of file cache type set in the *Cache* page of the Administration Console.



*Two cache types can be chosen, file or database. For more information on the Cache page of the Administration Console, see "Cache" on page 4-34.*

- **Cache scan delay (in seconds):** This parameter defines the time in seconds to wait between two cache cleaning processes. It is taken into account for both file and database cache types.



*Cache cleaning process is the deletion of expired cache entries, found using the expiry date of the cache entry.*

- **Disable Cache:** This option, when activated, deactivates cache feature for the whole server. The running projects can then be tested out of any cache environment.

#### 4.2.14 Legacy Carioca portal

Edit the Carioca portal parameters in *Legacy Carioca portal* tab. This tab can be opened by following the procedure "To access a configuration category in the Configuration page" on page 4 - 12.

- **Default user name** and **Default user password:** These parameters define the default credentials used by Convertigo when no Carioca portal is used for accessing to projects.



*This property is used in relation with the **Carioca access URL** property, when set to the local **minime**. See **Carioca access URL** property description for more information.*

- **Default session key life time (in seconds):** This property defines the time of living of a Carioca session key, in seconds.



*The session key is sent by Carioca portal to authenticate a request made by an authenticated user, and is validated by Convertigo to define the validity of a received request, in the time of validity of this session key.*

- **Carioca access URL:** This property defines the URL of the Carioca portal used to access to Convertigo. By default, it is set to the local **minime**, which is a local mini-Carioca portal used when no Carioca portal is used for accessing to projects.

### 4.2.15 Supervision

Enable the supervision feature in *Supervision* tab. This tab can be opened by following the procedure "To access a configuration category in the Configuration page" on page 4 - 12.

This tab includes an Advanced properties section that can be opened by following the procedure "To access the advanced properties of a configuration category" on page 4 - 13. In the Advanced properties section, configure the advanced parameters of the supervision feature. The following parameters define the database into which the tickets are stored.

- [Properties](#)
- [Advanced properties](#)

#### PROPERTIES

- **Enable supervision:** This option, when checked, enables the supervision feature in Convertigo Server.



*The supervision feature in Convertigo server consists in writing in a database one entry, also known as **ticket**, for each executed transaction or sequence, including its name, relative information, as well as a "score" calculated depending on the connector type. For more information on the supervision feature, see the appendix "Supervision in Convertigo Server" on page A - 16.*

#### ADVANCED PROPERTIES

- **Persistence Dialect:** This parameter defines the `Hibernate Persistence Dialect` to use to optimize SQL requests for the supervision database.



*For more information on the `Hibernate Persistence Dialects`, see the `Hibernate` documentation, point 3.4.1, at: <http://docs.jboss.org/hibernate/orm/3.3/reference/en/html/session-configuration.html#configuration-hibernatejdbc>.*

- **JDBC Driver:** This parameter defines the JDBC driver to use for connecting to the

supervision database.

- **JDBC Username** and **Persistence JDBC Password**: These parameters define the username and password to use for connecting to the supervision database.
- **JDBC URL**: This parameter defines the JDBC URL to use for connecting to the supervision database.



*For more information on the Hibernate JDBC configuration, see the Hibernate documentation at: <http://docs.jboss.org/hibernate/orm/3.3/reference/en/html/session-configuration.html#configuration-hibernatejdbc>.*

#### 4.2.16 Notifications

Enable the notifications feature in *Notifications* tab. This tab can be opened by following the procedure "To access a configuration category in the Configuration page" on page 4 - 12.

This tab includes an Advanced properties section that can be opened by following the procedure "To access the advanced properties of a configuration category" on page 4 - 13. In the Advanced properties section, configure the advanced parameters of the notifications feature.

- [Properties](#)
- [Advanced properties](#)

#### PROPERTIES

- **Notify project deployment**: This option, when checked, enables the notification by email of information about projects deployment on the Convertigo Server.



***Beware that checking this option requires filling the Advanced properties.***

#### ADVANCED PROPERTIES

- **Target email**: this property defines the email address to which notifications will be sent.
- **STMP host**: this property defines the SMTP host of target email.
- **STMP port**: this property defines the SMTP port of target email, default is 465.
- **STMP user**: this property defines the SMTP username of target email.
- **STMP password**: this property defines the SMTP password of target email.

## 4.3 Connections

The *Left menu* contains a link to the *Connections* page. This page displays all of your running connections on the Convertigo Server in real-time.

More information on *Connections* page is coming soon.

## 4.4 Projects

The *Left menu* contains a link to the *Projects* page. This page contains information related to the projects currently deployed on the Convertigo Server.

More information on *Projects* page is coming soon.

## 4.5 Certificates

The *Left menu* contains a link to the *Certificates* page. This page provides information about adding, deleting and reviewing authentication certificates.

More information on *Certificates* page is coming soon.

## 4.6 Logs

The *Left menu* contains a link to the *Logs* page. This page provides traces of Convertigo engine executions, updated in real-time.

More information on *Logs* page is coming soon.



## 4.7 Trace Player

The *Left menu* contains a link to the *Trace player* page. This page displays the saved Legacy screens traces and permits you to configure the playing of these traces.

More information on the *Traces player* page is coming soon.

## 4.8 Cache

The *Left menu* contains a link to the *Cache* page. This page allows you to configure the cache feature.

More information on the *Cache* page is coming soon.

## 4.9 Scheduler

The *Left menu* contains a link to the *Scheduler* page. This page gives you the tools to schedule automatic executions of transactions and/or sequences.

This section introduces the *Scheduler* page and details the different elements of the scheduling functionality:

- [Scheduler page](#)
- [Jobs table](#)
- [Schedules table](#)
- [Scheduled Jobs table](#)

### 4.9.1 Scheduler page

Navigate the *Left menu* using the link to the *Scheduler* page. For an example on how to navigate the *Left menu*, see "To access Configuration page in the Administration Console" on page 4-9.

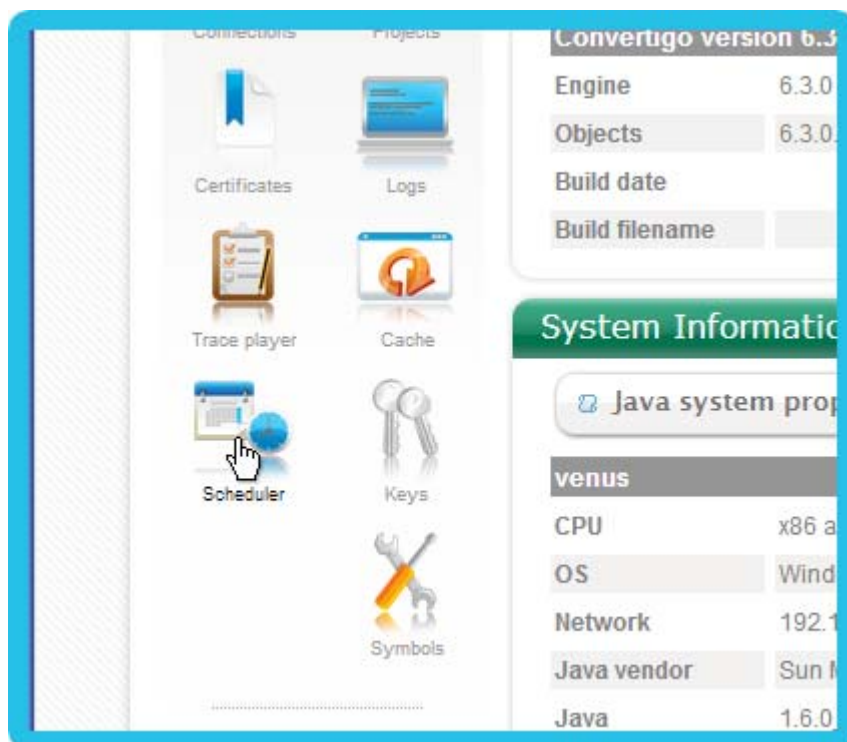


Figure 4 - 20: Accessing Scheduler page

The *Scheduler* page contains three individual tables:

- *Jobs*,
- *Schedules*,
- *Scheduled Jobs*.

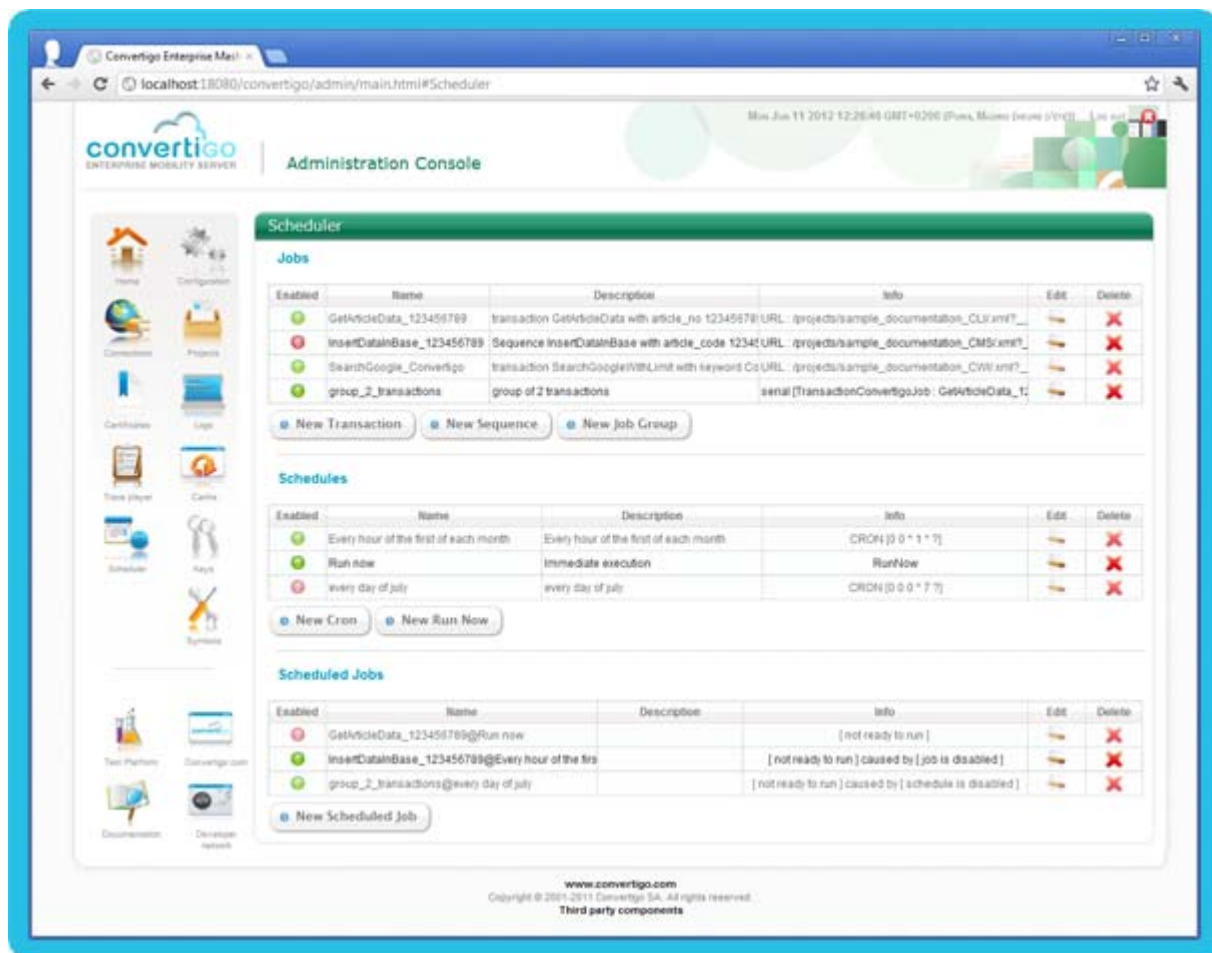


Figure 4 - 21: Administration Console Scheduler page

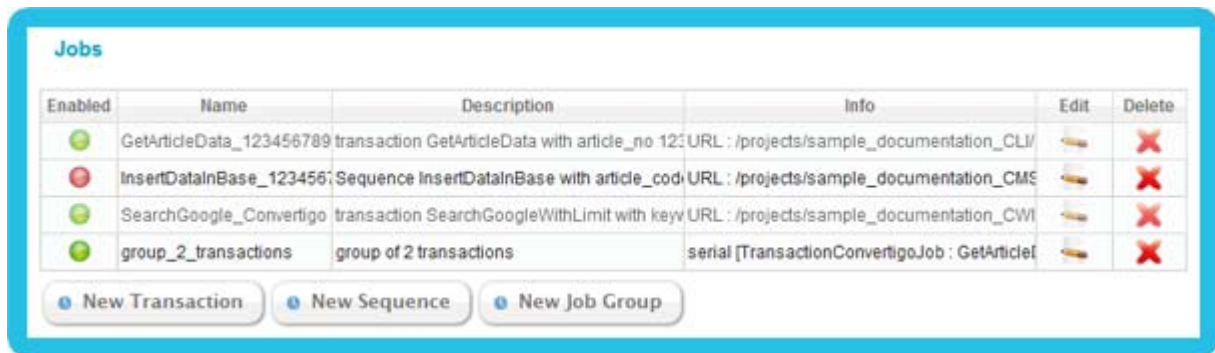
Scheduling a Convertigo sequence or transaction execution consists in creating a scheduled job, which results in the association of a job, also known as task, and a schedule, also known as a time trigger.













#### WHAT'S NEXT

The following sections present in details the three tables on the *Scheduler* page which are the tools to create jobs, schedules and scheduled jobs.

#### 4.9.2 Jobs table

The *Jobs* table lists the existing jobs. A job, also known as task, specifies the object to be executed. It can be a Convertigo transaction, a sequence, or a group of other jobs.



Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789	transaction GetArticleData with article_no 123	URL : /projects/sample_documentation_CLI/		
	InsertDataInBase_123456	Sequence InsertDataInBase with article_cod	URL : /projects/sample_documentation_CMS		
	SearchGoogle_Convertigo	transaction SearchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWI		
	group_2_transactions	group of 2 transactions	serial [TransactionConvertigoJob : GetArticleData]		








Figure 4 - 22: Jobs table

This section is separated in the following paragraphs:

- [Description of the Jobs table](#)
- [Creating a new job](#)
- [Editing a job](#)
- [Deleting a job](#)

### DESCRIPTION OF THE JOBS TABLE

For each job, the *Jobs* table includes the following columns:

- **Enabled:** This column displays a green bullet if the job is enabled and a red bullet if the job is disabled. Only enabled jobs can be executed by a scheduled job. Disabled jobs will not be executed, even if used in an enabled scheduled job.

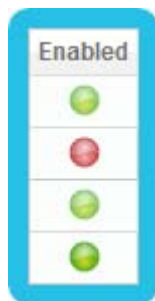
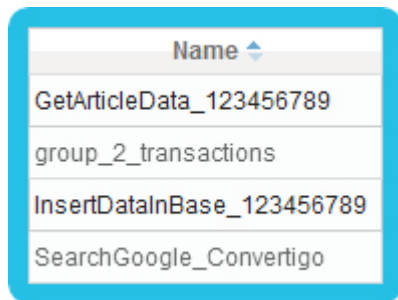


Figure 4 - 23: Jobs table Enabled column



You can change a job's state (enable or disable it) by editing the job. For more information on job edition, see "Editing a job" on page 4-46.

- **Name:** This is the name of the created job, filled by the user at its creation.



Name
GetArticleData_123456789
group_2_transactions
InsertDataInBase_123456789
SearchGoogle_Convertigo

Figure 4 - 24: Jobs table Name column

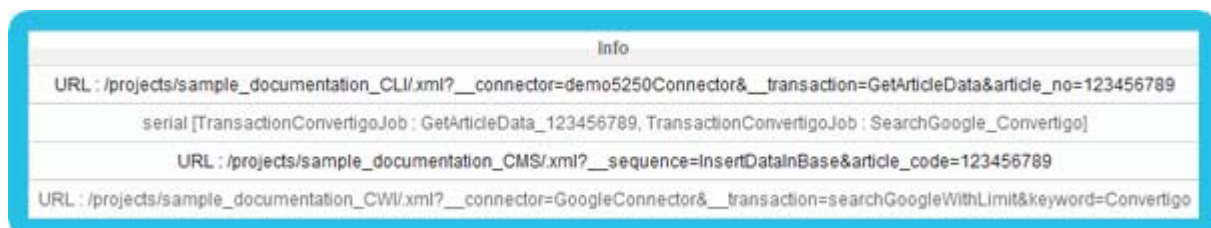
- **Description:** This is the description of the created job, filled by the user at its creation.



Description
transaction GetArticleData with article_no 123456789
group of 2 transactions
Sequence InsertDataInBase with article_code 123456789
transaction SearchGoogleWithLimit with keyword Convertigo



Figure 4 - 25: Jobs table Description column

- **Info:** This column displays:
  - ▶ the execution URL automatically generated from the configured transaction/sequence, in case of a job executing a transaction/sequence,
  - ▶ the type of execution (parrallel/serial) as well as the several jobs that are grouped, including their type (transaction/sequence), in case of a group of jobs.



Info
URL : /projects/sample_documentation_CLI/xml?__connector=demo5250Connector&__transaction=GetArticleData&article_no=123456789
serial [TransactionConvertigoJob : GetArticleData_123456789, TransactionConvertigoJob : SearchGoogle_Convertigo]
URL : /projects/sample_documentation_CMS/xml?__sequence=InsertDataInBase&article_code=123456789
URL : /projects/sample_documentation_CWI/xml?__connector=GoogleConnector&__transaction=searchGoogleWithLimit&keyword=Convertigo

Figure 4 - 26: Jobs table Info column

- **Edit:** This column contains a button  that allows you to edit the job. For more information on job edition, see *"Editing a job"* on page 4-46.
- **Delete:** This column contains a button  that allows you to delete the job. For more information on job deletion, see *"Deleting a job"* on page 4-48.

## CREATING A NEW JOB

The *Jobs* table allows you to create a new job, first step for creating a scheduled job. It can be a Convertigo transaction or sequence, which can be created in a common way, or a group of other jobs.

Find below two procedures that describe how to create both types of job.

**To create a job (transaction or sequence)**

- 1 Click one of the following buttons located beneath the *Jobs* table:
  - **New Transaction:** to schedule a transaction execution,
  - **New Sequence:** to schedule a sequence execution.

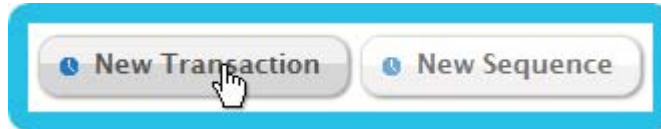


Figure 4 - 27: Transaction/sequence job creation buttons

Once clicked, a window appears in front of the page, depending on the chosen item:

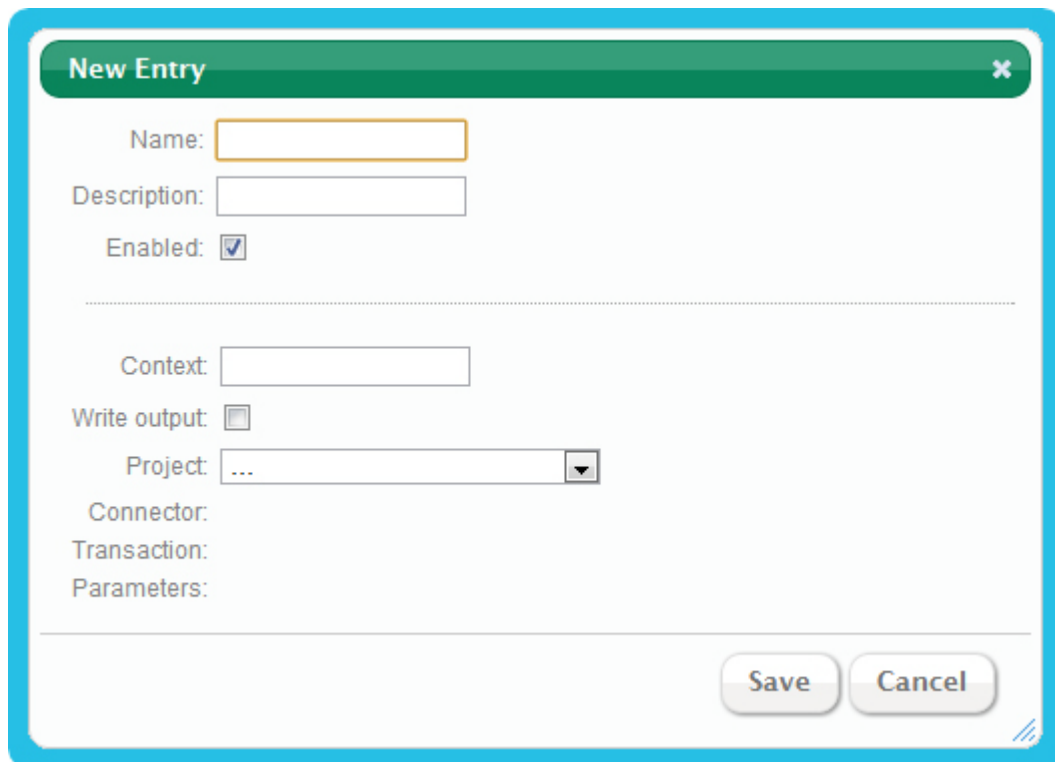


Figure 4 - 28: New job entry - transaction case

The screenshot shows a 'New Entry' dialog box with the following fields and controls:

- Name:** A text input field.
- Description:** A text input field.
- Enabled:** A checked checkbox.
- Context:** A text input field.
- Write output:** An unchecked checkbox.
- Project:** A dropdown menu showing '...'.
- Sequence:** A text input field.
- Parameters:** A text input field.
- Buttons:** 'Save' and 'Cancel' buttons at the bottom right.

Figure 4 - 29: New job entry - sequence case

- 2 Depending on the type of job selected, you have to fill in some information to define the job. Parameters to set are:
- **Name:** A name for this job, as jobs are used in the *Scheduled Jobs* table, it is recommended to give recognizable names to jobs.
  - **Description:** An optional description or notes concerning the job.
  - **Enabled:** Checkbox that allows you to define if the job is *enabled* (checked checkbox) or *disabled* (not checked checkbox). Only enabled jobs can be executed by a scheduled job. Disabled jobs will not be executed, even if used in an enabled scheduled job. This setting is by default set to *enabled*.
  - **Context:** An optional name for the Convertigo context into which the transaction/sequence will run. This name will replace the 'default' default context name.
  - **Write output:** If checked, the XML output of the transaction/sequence will be saved in a file in the Convertigo logs directory after the task is finished. Otherwise, no execution result will be saved (except traces in logs). This setting is not checked by default.
  - **Project:** This combo box lists all deployed projects in the Convertigo Server. Choose the project to use for the job (into which you want to pick a transaction/sequence).
  - **Connector:** (for transaction jobs only) Once a project is selected, this combo box lists all available connectors. Select the required connector to use for the job (into which you want to pick a transaction).
  - **Transaction:** (for transaction jobs only) Once the project and the connector are selected, this combo box lists all available transactions. Select the transaction to use for the job, i.e. the transaction to be executed.



- **Sequence:** (for sequence jobs only) Once a project is selected, this combo box lists all available sequences. Select the required sequence to use for the job, i.e. the sequence to be executed.
- **Parameters:** Once a transaction or a sequence has been selected, its input variables are listed here along with their default values in a table with the following columns:
  - **Name:** Name of the input variable.
  - **Value:** Default variable value. This value can be changed here and will be used if the **Send** checkbox is checked.
  - **Description:** Variable description.
  - **Send:** Check this checkbox if you want to use the modified variable value for this variable. Otherwise, the variable value will not be sent and the default value will be used.

Depending on the job type, you have for example:

- an enabled transaction job is created to execute the `searchGoogleWithLimit` transaction from the `GoogleConnector` connector of the `sample_documentation_CWI` project, including an updated value for the `keyword` variable, set to "Convertigo", and writing the XML output in a file thanks to the **Write output** setting:

Figure 4 - 30: Configuring and saving a new transaction job

- an enabled sequence job is created to execute the `GetXMLData` sequence from the `sample_documentation_CMS` project, including an updated value for the

article\_code variable, set to "123456789", and writing the XML output in a file thanks to the **Write output** setting:

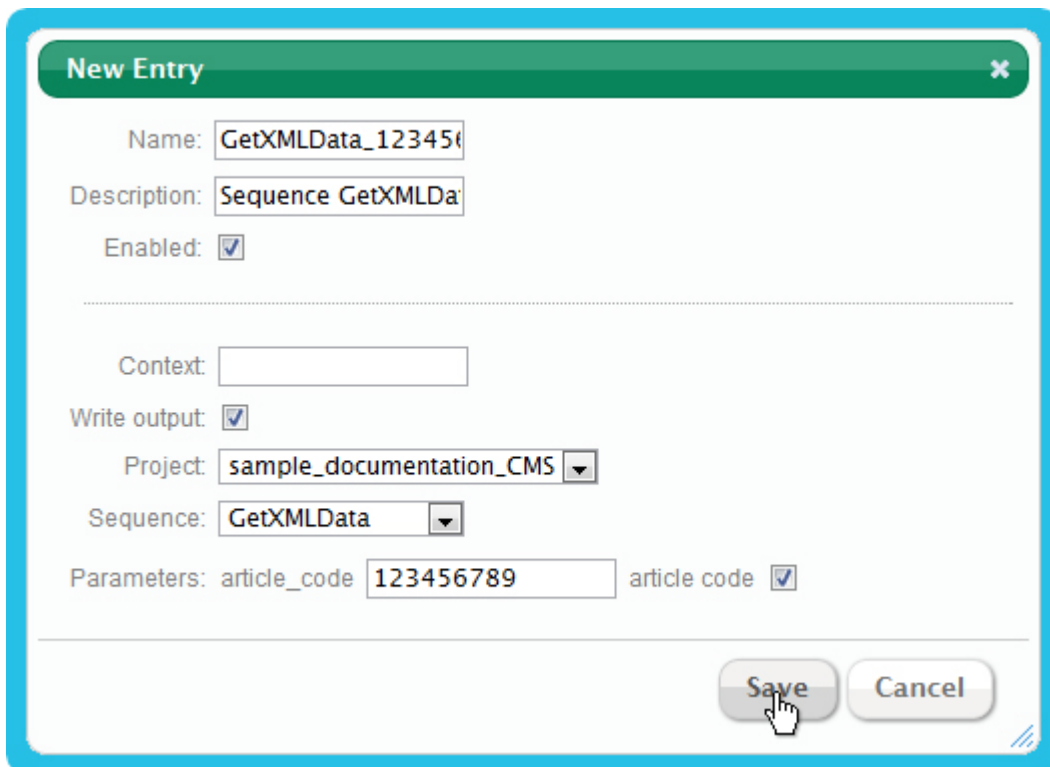


Figure 4 - 31: Configuring and saving a new sequence job

- 3 When you finish specifying the job, click on the **Save** button to create it.

A message window appears to inform that the object was correctly saved:

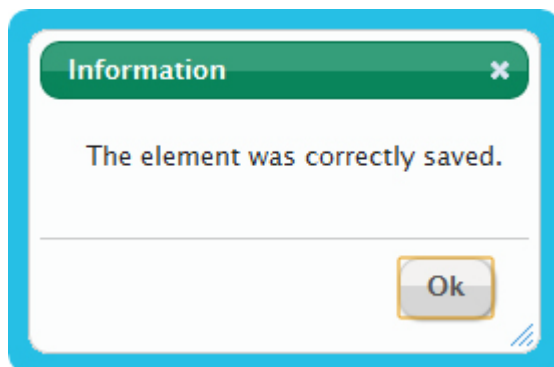
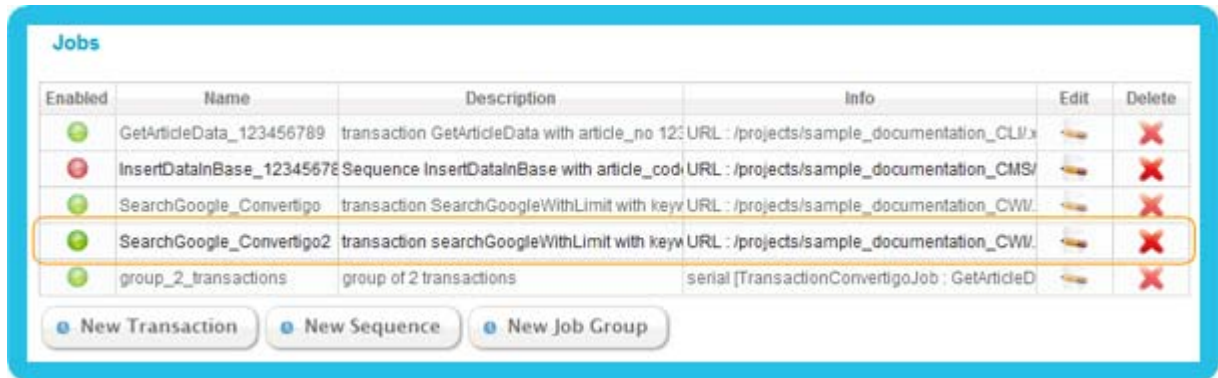


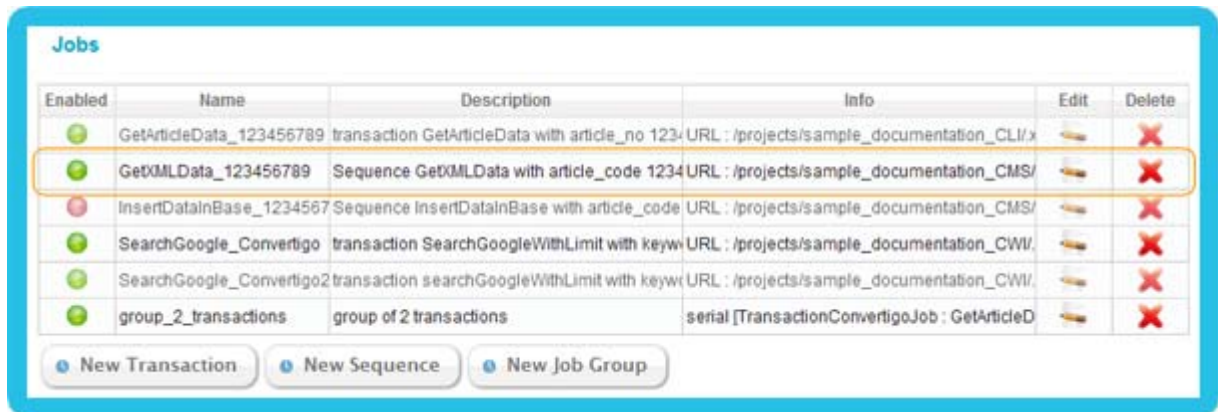
Figure 4 - 32: New job created

- 4 Click on the **Ok** button to close the popup window. The new job appears in the *Jobs* table:



Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789	transaction GetArticleData with article_no 123	URL : /projects/sample_documentation_CLI/x		
	InsertDataInBase_12345678	Sequence InsertDataInBase with article_code	URL : /projects/sample_documentation_CMS/		
	SearchGoogle_Convertigo	transaction SearchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWV/		
	SearchGoogle_Convertigo2	transaction searchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWV/		
	group_2_transactions	group of 2 transactions	serial [TransactionConvertigoJob : GetArticleD		

Figure 4 - 33: Jobs table with the new transaction job



Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789	transaction GetArticleData with article_no 123	URL : /projects/sample_documentation_CLI/x		
	GetXMLData_123456789	Sequence GetXMLData with article_code 1234	URL : /projects/sample_documentation_CMS/		
	InsertDataInBase_1234567	Sequence InsertDataInBase with article_code	URL : /projects/sample_documentation_CMS/		
	SearchGoogle_Convertigo	transaction SearchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWV/		
	SearchGoogle_Convertigo2	transaction searchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWV/		
	group_2_transactions	group of 2 transactions	serial [TransactionConvertigoJob : GetArticleD		

Figure 4 - 34: Jobs table with the new sequence job

### To create a job group

- 1 Click the **New Job Group** button located beneath the *Jobs* table, to schedule a group of jobs containing several transactions or sequences.

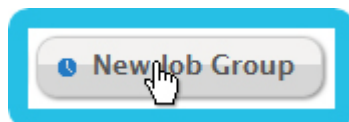


Figure 4 - 35: Job group creation button

Once clicked, a window appears in front of the Administration Console:

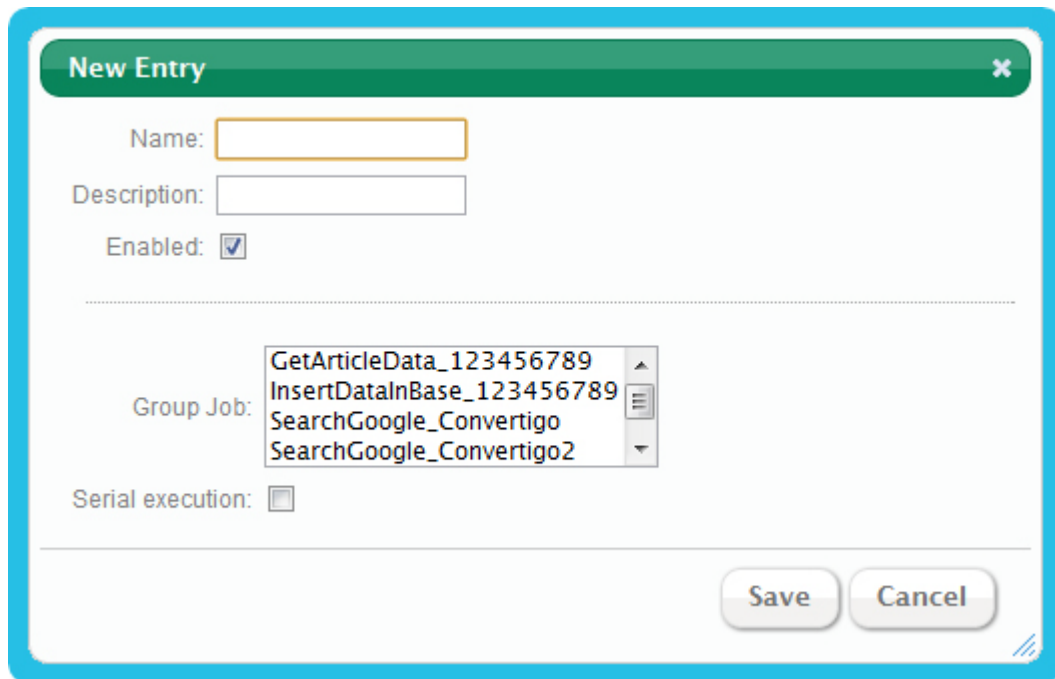


Figure 4 - 36: New job entry - job group case

- 2 You have to fill in some information to define the job. Parameters to set are:
- **Name:** A name for this job, as jobs are used in the *Scheduled Jobs* table, it is recommended to give recognizable names to jobs.
  - **Description:** An optional description or notes concerning the job.
  - **Enabled:** Checkbox that allows you to define if the job is enabled (checked checkbox) or disabled (not checked checkbox). Only enabled jobs can be executed by a scheduled job. Disabled jobs will not be executed, even if used in an enabled scheduled job. This setting is by default set to enabled.
  - **Group Job:** This list enumerates all available transaction/sequence jobs from the Jobs table. Select the jobs to group together in this job group.
  - **Serial execution:** Check this checkbox if you want to execute the chosen transaction/sequence jobs in sequence. Otherwise, they will be executed in parallel, which is the default value.

For example here, a 2-sequences group job is created to execute the `GetXMLData_123456789` sequence job and the `InsertDataInBase_123456789` sequence job in parallel as the **Serial execution** checkbox is not checked:

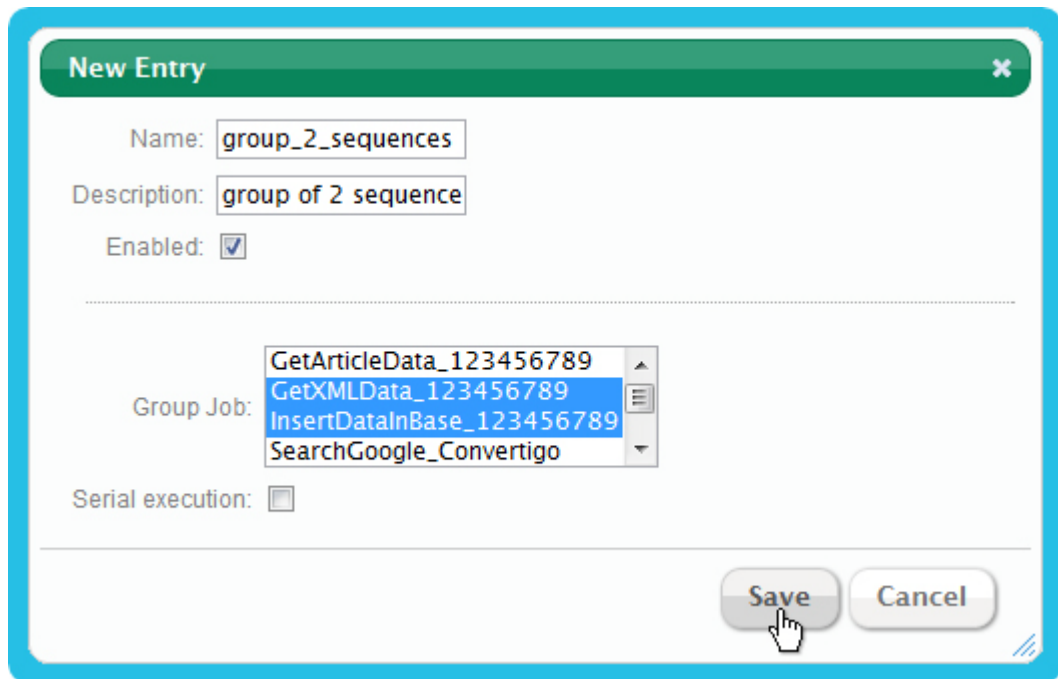
A dialog box titled "New Entry" with a green header bar and a close button (X). It contains several input fields: "Name:" with the value "group\_2\_sequences", "Description:" with the value "group of 2 sequence", and "Enabled:" with a checked checkbox. Below these is a horizontal separator line. Under the "Group Job:" label, there is a list box containing four items: "GetArticleData\_123456789", "GetXMLData\_123456789" (which is highlighted in blue), "InsertDataInBase\_123456789", and "SearchGoogle\_Convertigo". Below the list box is the "Serial execution:" label with an unchecked checkbox. At the bottom right, there are two buttons: "Save" and "Cancel". A mouse cursor is pointing at the "Save" button.

Figure 4 - 37: Configuring and saving a new group job

- 3 When you finish specifying the job, click on the **Save** button to create it.  
A message window appears to inform that the object was correctly saved:

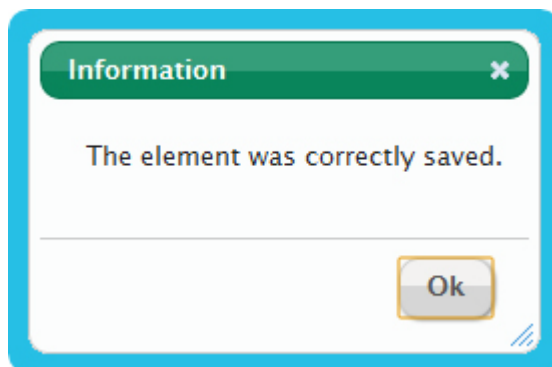
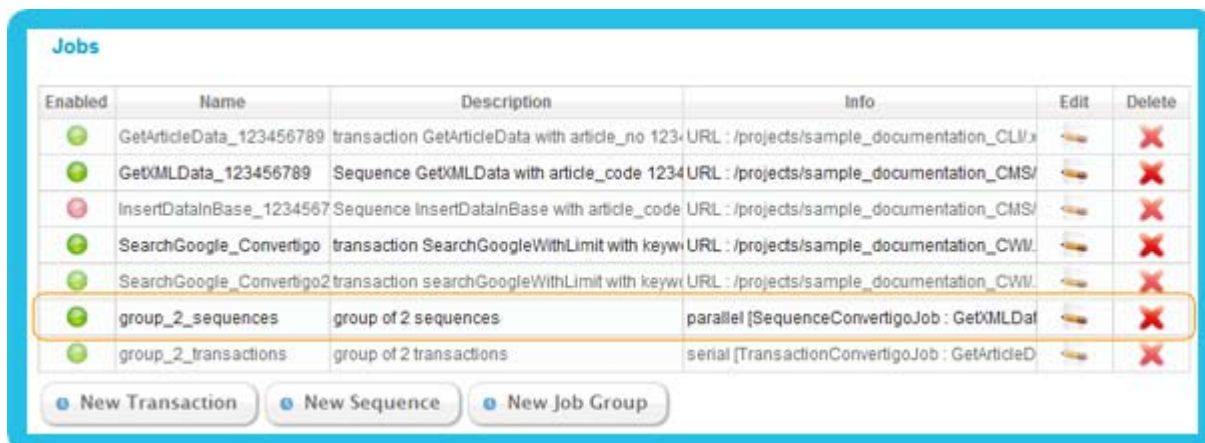


Figure 4 - 38: New job created

- 4 Click on the **Ok** button to close the popup window. The new job appears in the *Jobs* table:



Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789	transaction GetArticleData with article_no 1234	URL : /projects/sample_documentation_CLI/		
	GetXMLData_123456789	Sequence GetXMLData with article_code 1234	URL : /projects/sample_documentation_CMS/		
	InsertDataInBase_1234567	Sequence InsertDataInBase with article_code	URL : /projects/sample_documentation_CMS/		
	SearchGoogle_Convertigo	transaction SearchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWL/		
	SearchGoogle_Convertigo2	transaction searchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWL/		
	group_2_sequences	group of 2 sequences	parallel [SequenceConvertigoJob : GetXMLDa		
	group_2_transactions	group of 2 transactions	serial [TransactionConvertigoJob : GetArticleD		

New Transaction
 New Sequence
 New Job Group

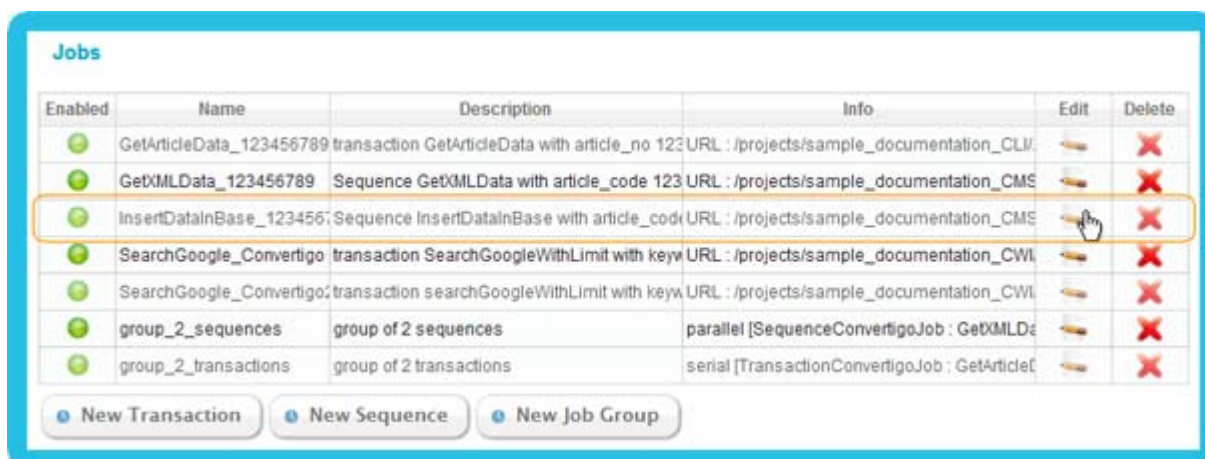
Figure 4 - 39: Jobs table with the new job group

## EDITING A JOB

In the *Jobs* table, the **Edit** column contains a button that allows you to edit an existing job.

### To edit an existing job

- 1 Click on the button of the job line:



Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789	transaction GetArticleData with article_no 1234	URL : /projects/sample_documentation_CLI/		
	GetXMLData_123456789	Sequence GetXMLData with article_code 1234	URL : /projects/sample_documentation_CMS/		
	InsertDataInBase_1234567	Sequence InsertDataInBase with article_code	URL : /projects/sample_documentation_CMS/		
	SearchGoogle_Convertigo	transaction SearchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWL/		
	SearchGoogle_Convertigo2	transaction searchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWL/		
	group_2_sequences	group of 2 sequences	parallel [SequenceConvertigoJob : GetXMLDa		
	group_2_transactions	group of 2 transactions	serial [TransactionConvertigoJob : GetArticleD		

New Transaction
 New Sequence
 New Job Group

Figure 4 - 40: Editing a job

A popup window opens (here in the case of a sequence job):

**Edit Entry** [X]

Name: alnBase\_123456789

Description: Sequence InsertData

Enabled: ☐

---

Context:

Write output: ☒

Project: sample\_documentation\_CMS ▼

Sequence: InsertDataInBase ▼

Name	Value	Description	Send
Parameters:			
article_code	<u>123456789</u>	article code	<input checked="" type="checkbox"/>

[Save] [Cancel]

Figure 4 - 41: Job edition

- 2 Change the values of the job settings you want to edit. For example, enable the job by checking the **Enabled** checkbox:

**Edit Entry** [X]

Name: InsertDataInBase\_12

Description: Sequence InsertData

Enabled: ☒

---

Context:

Write output: ☒

Project: sample\_documentation\_CMS ▼

Sequence: InsertDataInBase ▼

Name	Value	Description	Send
Parameters:			
article_code	<u>123456789</u>	article code	<input checked="" type="checkbox"/>

[Save] [Cancel]

Figure 4 - 42: Edited job



- Click on the **Save** button to save the updated values or click on the **Cancel** button if you want to cancel the job update.
- After clicking on the **Save** button, a message window appears to inform that the object was correctly saved:

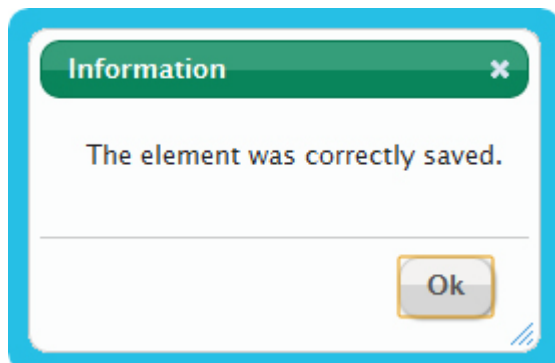


Figure 4 - 43: Job updated

- Click on the **Ok** button to close the popup window. The updated job appears in the **Jobs** table:

A screenshot of the 'Jobs' table in the Convertigo Administration Console. The table has columns: Enabled, Name, Description, Info, Edit, and Delete. The row for 'InsertDataInBase\_123456' is highlighted with a yellow border. Below the table are three buttons: 'New Transaction', 'New Sequence', and 'New Job Group'.

Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789	transaction GetArticleData with article_no 123	URL : /projects/sample_documentation_CLI/		
	GetXMLData_123456789	Sequence GetXMLData with article_code 123	URL : /projects/sample_documentation_CMS		
	InsertDataInBase_123456	Sequence InsertDataInBase with article_code	URL : /projects/sample_documentation_CMS		
	SearchGoogle_Convertigo	transaction SearchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWL		
	SearchGoogle_Convertigo	transaction searchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWL		
	group_2_sequences	group of 2 sequences	parallel [SequenceConvertigoJob : GetXMLDa		
	group_2_transactions	group of 2 transactions	serial [TransactionConvertigoJob : GetArticle		

Figure 4 - 44: Jobs table with the edited job

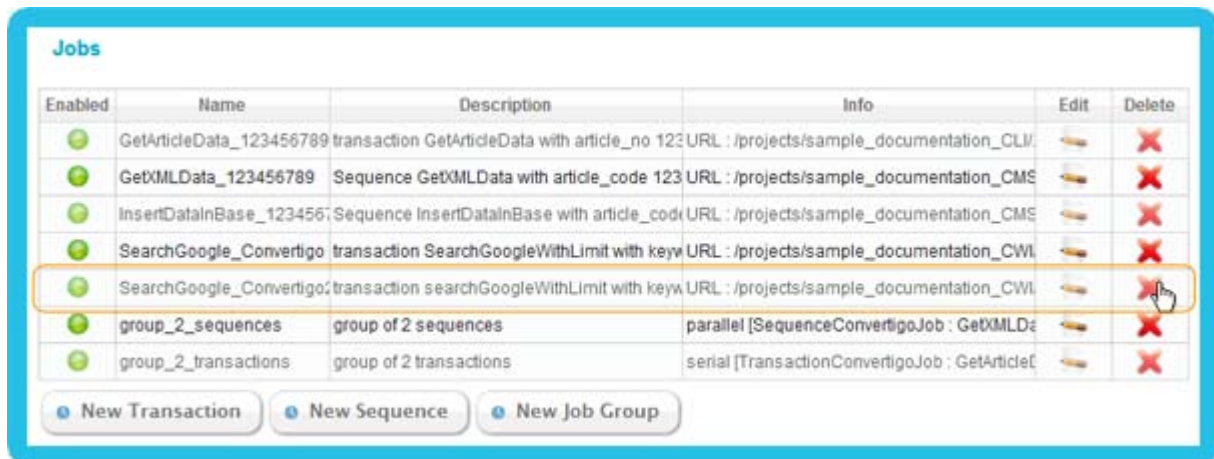
## DELETING A JOB

In the **Jobs** table, the **Delete** column contains a button that allows you to delete an existing job.

### To delete an existing job

- Click on the button of the job line:





Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789	transaction GetArticleData with article_no 123	URL : /projects/sample_documentation_CLI/		
	GetXMLData_123456789	Sequence GetXMLData with article_code 123	URL : /projects/sample_documentation_CMS		
	InsertDataInBase_1234567	Sequence InsertDataInBase with article_code	URL : /projects/sample_documentation_CMS		
	SearchGoogle_Convertigo	transaction SearchGoogleWithLimit with keyw	URL : /projects/sample_documentation_CWL		
	group_2_sequences	group of 2 sequences	parallel [SequenceConvertigoJob : GetXMLDa		
	group_2_transactions	group of 2 transactions	serial [TransactionConvertigoJob : GetArticleC		

New Transaction   New Sequence   New Job Group

Figure 4 - 45: Deleting a job

A popup window opens, asking for a confirmation before deleting the job:

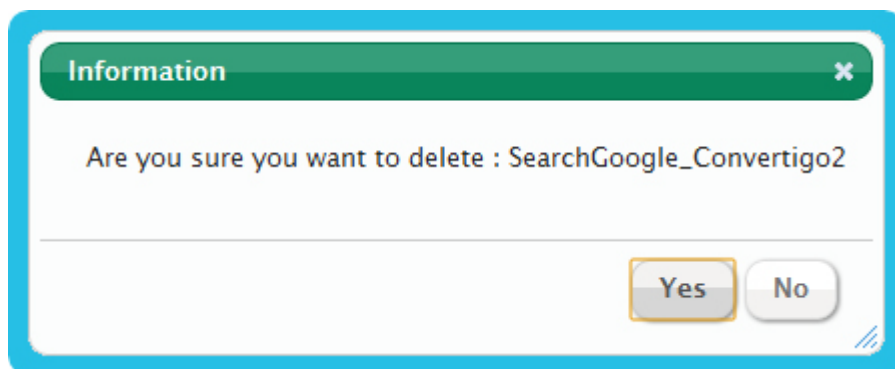
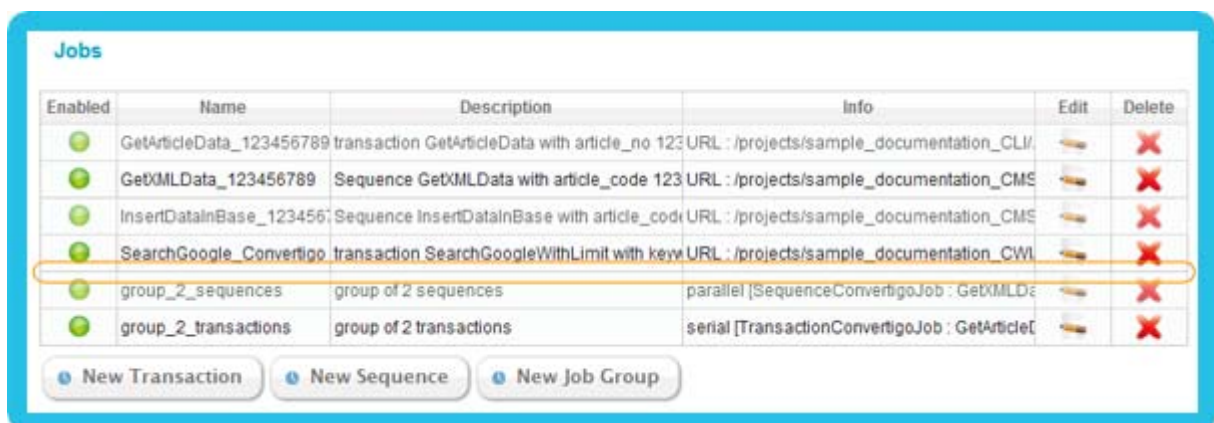


Figure 4 - 46: Job deletion confirmation

- 2 Click on **Yes** to delete the selected job or click on **No** to abort the job deletion.
- 3 After clicking on the **Yes** button, the job is deleted from the *Jobs* table:



Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789	transaction GetArticleData with article_no 123	URL : /projects/sample_documentation_CLI/		
	GetXMLData_123456789	Sequence GetXMLData with article_code 123	URL : /projects/sample_documentation_CMS		
	InsertDataInBase_1234567	Sequence InsertDataInBase with article_code	URL : /projects/sample_documentation_CMS		
	group_2_sequences	group of 2 sequences	parallel [SequenceConvertigoJob : GetXMLDa		
	group_2_transactions	group of 2 transactions	serial [TransactionConvertigoJob : GetArticleC		

New Transaction   New Sequence   New Job Group

Figure 4 - 47: Jobs table without the deleted job

## WHAT'S NEXT

Now that the *Jobs* table is fully described, the following section will present the *Schedules* table.

### 4.9.3 Schedules table

The *Schedules* table lists the existing schedules. A schedule, also known as time trigger, defines a date, time and reccurency of triggering for the object to be executed. It can be a Run Now trigger or a CRON trigger.



Enabled	Name	Description	Info	Edit	Delete
	Every hour of the first of each month	Every hour of the first of each month	CRON [0 0 * 1 * ?]		
	every day of july	every day of july	CRON [0 0 0 * 7 ?]		
	Run Now	run now	RunNow		

New Cron   New Run Now

Figure 4 - 48: Schedules table

This section is separated in the following paragraphs:

- [Description of the Schedules table](#)
- [Creating a new schedule](#)
- [Editing a schedule](#)
- [Deleting a schedule](#)

#### DESCRIPTION OF THE SCHEDULES TABLE

For each schedule, the *Schedules* table includes the following columns:

- **Enabled:** This column displays a green bullet if the schedule is enabled and a red bullet if the schedule is disabled. Only enabled schedules are triggered and launch scheduled jobs. Disabled schedules will not be triggered, even if used in an enabled scheduled job.

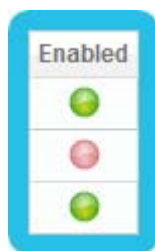


Figure 4 - 49: Schedules table Enabled column



You can change a schedule's state (enable or disable it) by editing the schedule. For more information on schedule edition, see "Editing a schedule" on page 4-57.

- **Name:** This is the name of the created schedule, filled by the user at its creation.

Name
Every hour of the first of each month
every day of july
Run Now

Figure 4 - 50: Schedules table Name column

- **Description:** This is the description of the created schedule, filled by the user at its creation.



Description
Every hour of the first of each month
every day of july
run now

Figure 4 - 51: Schedules table Description column

- **Info:** This column displays:
  - ▶ the type of schedule (RunNow or CRON),
  - ▶ the CRON syntax, in case of CRON schedule.

Info
CRON [0 0 * 1 * ?]
CRON [0 0 0 * 7 ?]
RunNow

Figure 4 - 52: Schedules Info column

- **Edit:** This column contains a button  that allows you to edit the schedule. For more information on schedule edition, see "Editing a schedule" on page 4-57.
- **Delete:** This column contains a button  that allows you to delete the schedule. For more information on schedule deletion, see "Deleting a schedule" on page 4-59.

## CREATING A NEW SCHEDULE

The *Schedules* table allows you to create a new schedule, second step for creating a scheduled job. It can be of two types:

- CRON, which permits you to select a date, time and frequency of future job executions,
- Run Now, which permits you to run a scheduled job immediately after creation.

Find below two procedures that describe how to create both types of job.

### To create a CRON schedule

- 1 Click the **New CRON** button located beneath the *Schedules* table, to define a CRON schedule.

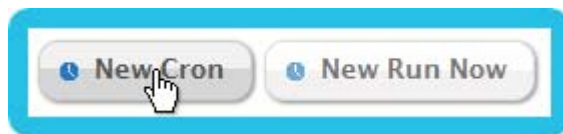


Figure 4 - 53: CRON schedule creation button

Once clicked, a window appears in front of the page:

A screenshot of a 'New Entry' dialog box. It has a green title bar with a close button. Inside, there are fields for 'Name:', 'Description:', and 'Enabled:' (with a checked checkbox). Below these is a horizontal line, followed by a 'Cron:' field containing '0 0 0 \* \* ?'. A link 'Documentation Cron wizard' is below the Cron field. At the bottom right are 'Save' and 'Cancel' buttons.

Figure 4 - 54: New schedule entry - CRON case

- 2 You have to fill in some information to define the CRON schedule. Parameters to set are:
  - **Name:** A name for this schedule, as schedules are used in the *Scheduled Jobs* table, it is recommended to give recognizable names to schedules.
  - **Description:** An optional description or notes concerning the schedule.
  - **Enabled:** Checkbox that allows you to define if the schedule is enabled (checked checkbox) or disabled (not checked checkbox). Only enabled schedules are triggered and launch scheduled jobs. Disabled schedules will not be triggered, even if used in an enabled scheduled job. This setting is by default set to enabled.
  - **Cron:** The CRON syntax defining a time trigger based upon the linux CRON syntax. CRON schedules can be used to start a job at specific times and dates, or periodically. The complete CRON syntax documentation can be accessed by clicking on the *Documentation* link. A wizard can help you build the CRON syntax, it can be opened by clicking on the *Cron wizard* link:

The screenshot shows a 'New Entry' dialog box with a green header and a close button. It contains fields for 'Name', 'Description', and 'Enabled' (checked). Below these is a 'Cron' field with the value '0 0 0 \* \* ?'. A section titled 'Documentation Cron wizard' contains five combo boxes: 'Hours' (set to 'every hour'), 'Minutes' (set to 'every minute'), 'Days of month' (set to 'all'), 'Months' (set to 'all'), and 'Days of week' (set to 'any'). Each combo box has a list of options. Below the wizard section are 'Generate' and 'Cancel' buttons. At the bottom right of the dialog are 'Save' and 'Cancel' buttons.

Hours	Minutes	Days of month	Months	Days of week
every hour	every minute	all	all	any
0	0	1	January	Monday
1	1	2	February	Tuesday
2	2	3	March	Wednesday
3	3	4	April	Thursday
4	4	5	May	Friday
5	5	6	June	Saturday
6	6	7	July	Sunday

Figure 4 - 55: CRON wizard

In the CRON wizard, you can find several combo list into which you can select entries to build your CRON:

- **Hours:** Select the hour of time when you want the CRON to be triggered or "every hour" for it to be triggered every hour.
  - **Minutes:** Select the minutes of time when you want the CRON to be triggered or "every minute" for it to be triggered every minute of the selected hour(s).
  - **Days of month:** Select the days of month when you want the CRON to be triggered or "all" for it to be triggered every day of the selected month(s).
  - **Months:** Select the months when you want the CRON to be triggered or "all" for it to be triggered during all months.
  - **Days of week:** Select the days of the week when you want the CRON to be triggered or "any" for it to be triggered during all days of the week.
- 3 When you finish building the CRON thanks to the wizard, click on the **Generate** button for the CRON syntax to be generated in the **Cron** field, or click on the **Cancel** button to close the wizard.

The screenshot shows the 'New Entry' dialog box with the following fields and options:

- Name:** [Empty text box]
- Description:** [Empty text box]
- Enabled:** ☒
- Cron:** [0 0 0 \* \* ?]
- Documentation Cron wizard**
- Hours:** [every hour] (list: 0, 1, 2, 3, 4, 5, 6; 5 is selected)
- Minutes:** [every minute] (list: 0, 1, 2, 3, 4, 5, 6; 0 is selected)
- Days of month:** [all] (list: 1, 2, 3, 4, 5, 6, 7; 7 is selected)
- Months:** [all] (list: January, February, March, April, May, June, July)
- Days of week:** [any] (list: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday; Monday is selected)
- Buttons:** [Generate] (with a mouse cursor), [Cancel], [Save], [Cancel]

Figure 4 - 56: Using CRON wizard

For example here, the generated CRON will be triggered every day of the year, on the working days of weeks, at 5 AM.

- 4 When you finish specifying the schedule, click on the **Save** button to create it:

The screenshot shows the 'New Entry' dialog box with the following fields and options:

- Name:** [Every working day at]
- Description:** [Every working day at 5]
- Enabled:** ☒
- Cron:** [0 0 5 ? \* 2-6]
- Documentation Cron wizard**
- Buttons:** [Save] (with a mouse cursor), [Cancel]

Figure 4 - 57: Saving a new CRON schedule

- After clicking on the **Save** button, a message window appears to inform that the object was correctly saved:

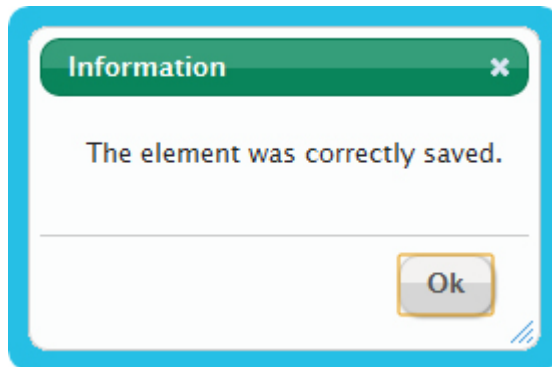


Figure 4 - 58: New schedule created

- Click on the **Ok** button to close the popup window. The new schedule appears in the *Schedules* table:

A screenshot of the 'Schedules' table in the administration console. The table has columns: Enabled, Name, Description, Info, Edit, and Delete. There are four rows of schedules. The second row, 'Every working day at 5', is highlighted with a yellow border. Below the table are two buttons: 'New Cron' and 'New Run Now'.

Enabled	Name	Description	Info	Edit	Delete
	Every hour of the first of each month	Every hour of the first of each month	CRON [0 0 * 1 * ?]		
	Every working day at 5	Every working day at 5	CRON [0 0 5 ? * 2-6]		
	Run Now	run now	RunNow		
	every day of july	every day of july	CRON [0 0 0 * 7 ?]		

Figure 4 - 59: Schedules table with the new schedule

#### To create a Run Now schedule

- Click the **New Run Now** button located beneath the *Schedules* table, to define a Run Now schedule.

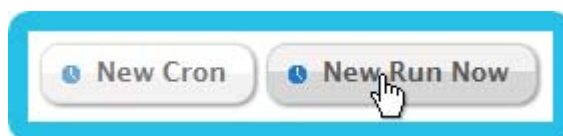
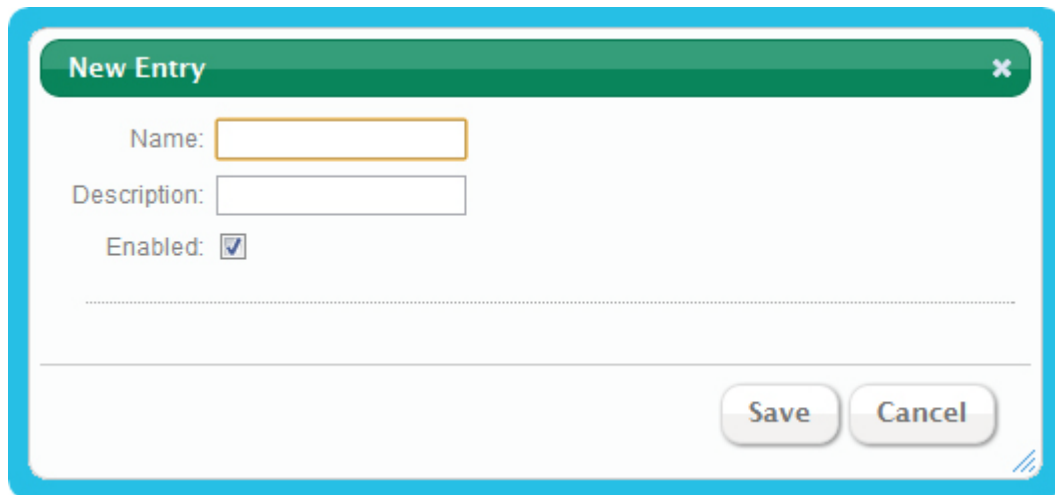


Figure 4 - 60: Run Now schedule creation button

Once clicked, a window appears in front of the Administration Console:



The image shows a 'New Entry' dialog box with a green header bar containing a close button (X). Below the header, there are three input fields: 'Name:' with an empty text box, 'Description:' with an empty text box, and 'Enabled:' with a checked checkbox. At the bottom right, there are two buttons: 'Save' and 'Cancel'.

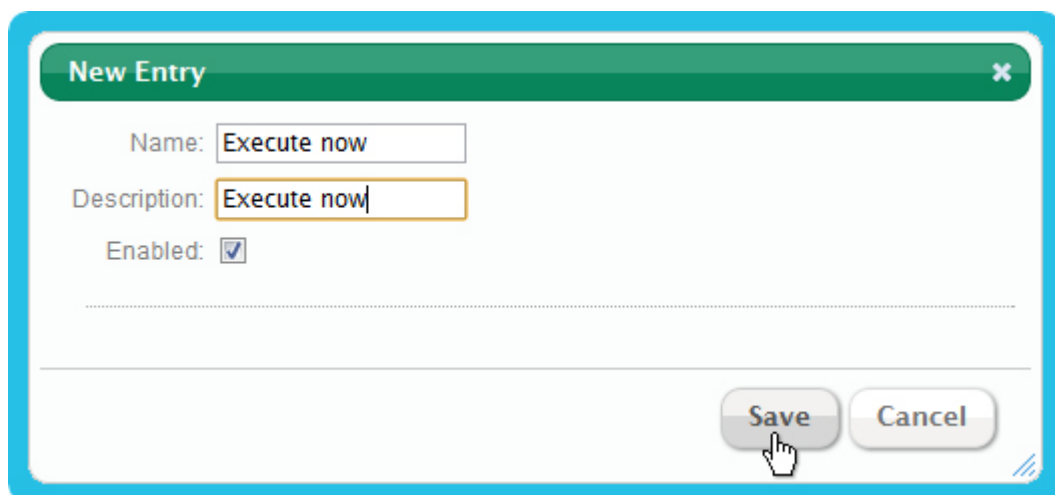
Figure 4 - 61: New schedule entry - CRON case

- 2 You have to fill in some information to define the **Run Now** schedule. Parameters to set are:
- **Name:** A name for this schedule, as schedules are used in the *Scheduled Jobs* table, it is recommended to give recognizable names to schedules.
  - **Description:** An optional description or notes concerning the schedule.
  - **Enabled:** Checkbox that allows you to define if the schedule is enabled (checked checkbox) or disabled (not checked checkbox). Only enabled schedules are triggered and launch scheduled jobs. Disabled schedules will not be triggered, even if used in an enabled scheduled job. This setting is by default set to enabled.



*Scheduled jobs that use an enabled **Run Now** schedule start immediately after creation (or when enabled). Once triggered, such a scheduled job auto-disables itself.*

- 3 When you finish specifying the schedule, click on the **Save** button to create it:



The image shows the 'New Entry' dialog box with the 'Name' field containing 'Execute now' and the 'Description' field also containing 'Execute now'. The 'Enabled' checkbox is checked. A mouse cursor is clicking the 'Save' button.

Figure 4 - 62: Saving a new Run Now schedule

- 4 After clicking on the **Save** button, a message window appears to inform that the object was correctly saved:



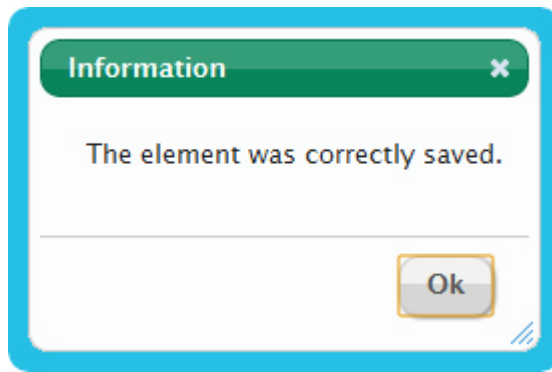


Figure 4 - 63: New schedule created

- 5 Click on the **Ok** button to close the popup window. The new schedule appears in the *Schedules* table:

A screenshot of the 'Schedules' table in the Convertigo Administration Console. The table has six columns: 'Enabled', 'Name', 'Description', 'Info', 'Edit', and 'Delete'. It contains six rows of schedules. The third row, 'Execute now', is highlighted with a yellow border. Below the table are two buttons: 'New Cron' and 'New Run Now'.

Enabled	Name	Description	Info	Edit	Delete
	Every hour of the first of each month	Every hour of the first of each month	CRON [0 0 * 1 * ?]		
	Every working day at 5	Every working day at 5	CRON [0 0 5 ? * 2-6]		
	Execute now	Execute now	RunNow		
	Run Now	run now	RunNow		
	every day of july	every day of july	CRON [0 0 0 * 7 ?]		

New Cron   New Run Now

Figure 4 - 64: Schedules table with the new schedule

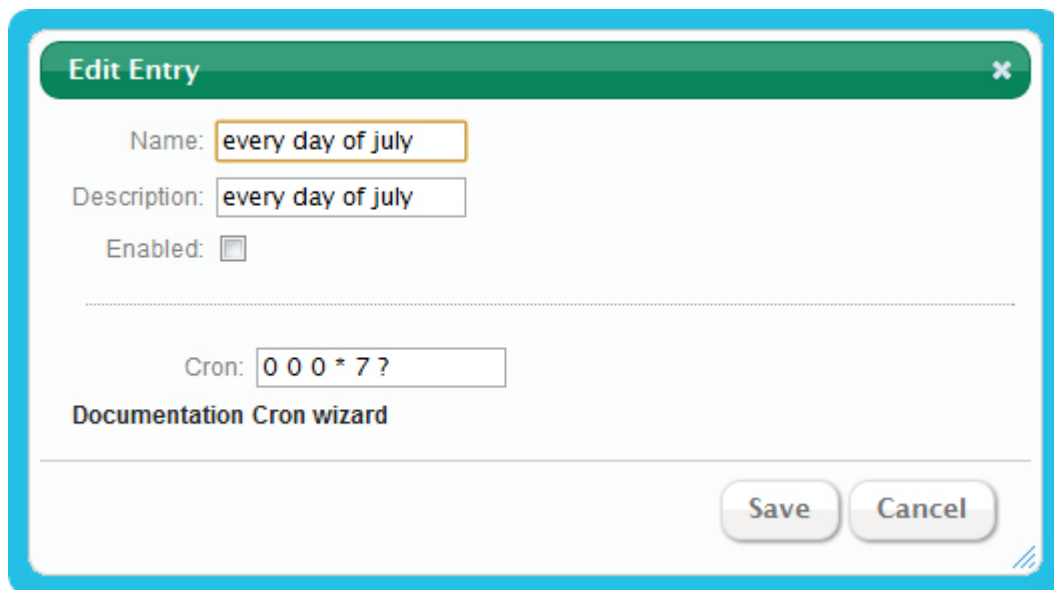
## EDITING A SCHEDULE

In the *Schedules* table, the **Edit** column contains a button that allows you to edit an existing schedule.

### To edit an existing schedule

- 1 Click on the **Edit** button of the schedule line.

A popup window opens (here in the case of a CRON schedule):

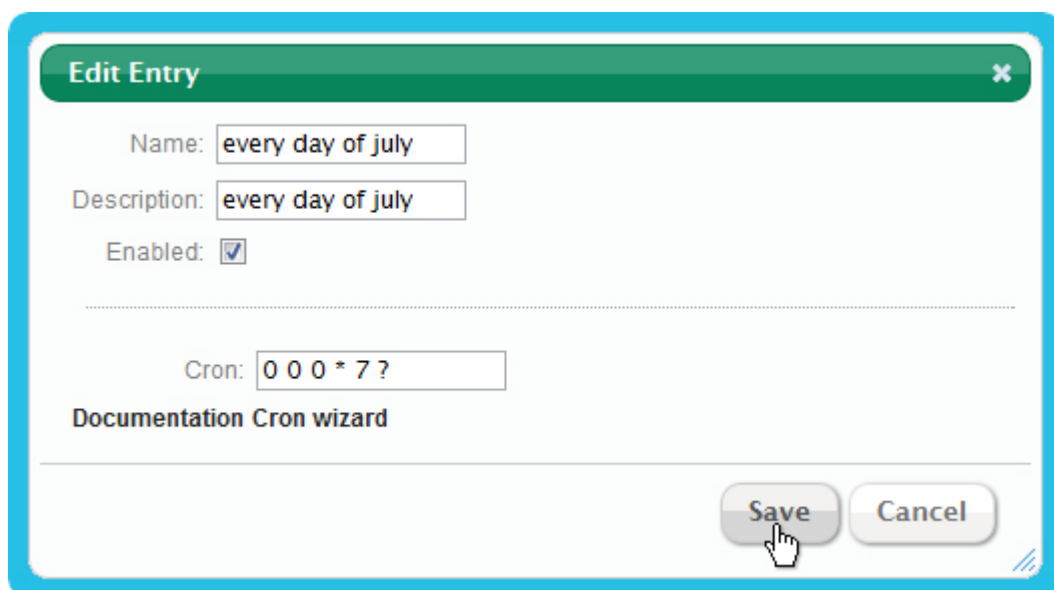


The dialog box titled "Edit Entry" has a green header bar with a close button (X). It contains the following fields and controls:

- Name:** Text input field containing "every day of july".
- Description:** Text input field containing "every day of july".
- Enabled:** A checkbox that is currently unchecked.
- Cron:** Text input field containing "0 0 0 \* 7 ?".
- Documentation Cron wizard**: A link below the Cron field.
- Buttons:** "Save" and "Cancel" buttons at the bottom right.

Figure 4 - 65: Schedule edition

- 2 Change the values of the schedule settings you want to edit. For example, enable the schedule by checking the **Enabled** checkbox:



The dialog box titled "Edit Entry" is shown after the "Enabled" checkbox has been checked. The fields and controls are the same as in Figure 4 - 65, but with the following changes:

- Enabled:** The checkbox is now checked.
- Buttons:** A mouse cursor is pointing at the "Save" button.

Figure 4 - 66: Edited schedule

- 3 Click on the **Save** button to save the updated values or click on the **Cancel** button if you want to cancel the schedule update.
- 4 After clicking on the **Save** button, a message window appears to inform that the object was correctly saved:

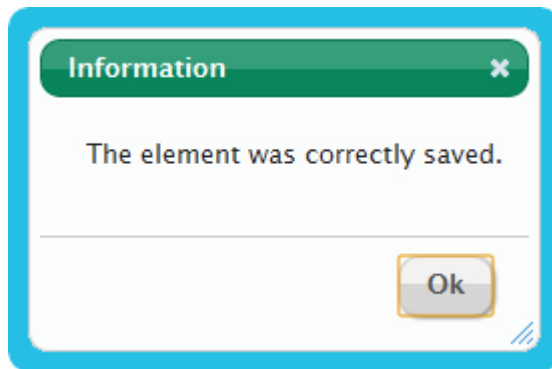


Figure 4 - 67: Schedule updated

- 5 Click on the **Ok** button to close the popup window. The updated schedule appears in the *Schedules* table:

Enabled	Name	Description	Info	Edit	Delete
	Every hour of the first of each month	Every hour of the first of each month	CRON [0 0 * 1 * ?]		
	Every working day at 5	Every working day at 5	CRON [0 0 5 ? * 2-6]		
	Execute now	Execute now	RunNow		
	Run Now	run now	RunNow		
	every day of july	every day of july	CRON [0 0 0 * 7 ?]		

New Cron New Run Now

Figure 4 - 68: Schedules table with the edited schedule

## DELETING A SCHEDULE

In the *Schedules* table, the **Delete** column contains a button that allows you to delete an existing schedule.

### To delete an existing schedule

- 1 Click on the button of the schedule line.

A popup window opens, asking for a confirmation before deleting the schedule:

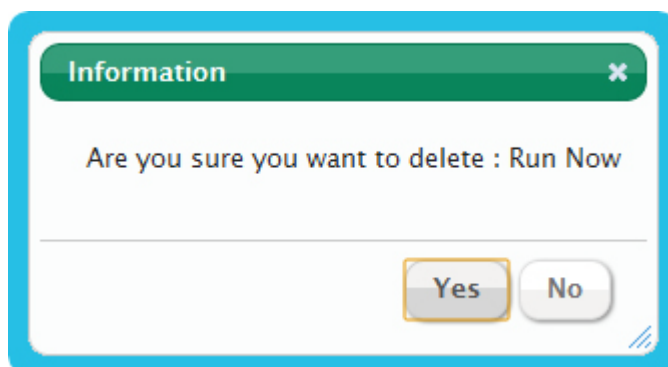


Figure 4 - 69: Schedule deletion confirmation

- 2 Click on **Yes** to delete the selected schedule or click on **No** to abort the schedule deletion.

- 3 After clicking on the **Yes** button, the schedule is deleted from the *Schedules* table:



Enabled	Name	Description	Info	Edit	Delete
	Every hour of the first of each month	Every hour of the first of each month	CRON [0 0 * 1 * ?]		
	Every working day at 5	Every working day at 5	CRON [0 0 5 ? * 2-6]		
	Execute now	Execute now	RunNow		
	every day of july	every day of july	CRON [0 0 0 * 7 ?]		

New Cron New Run Now

Figure 4 - 70: Schedules table without the deleted schedule

## WHAT'S NEXT

Now that the *Schedules* table is fully described, the following section will present the *Scheduled Jobs* table, in which you can combine a job and a schedule previously created.

### 4.9.4 Scheduled Jobs table

The *Scheduled Jobs* table lists the scheduled jobs. A scheduled job is the association of a job and a schedule. Once combined, the job will run at the date and time specified in the schedule. Both the job and the schedule must be enabled, along with the scheduled job, for the scheduled job to be executed.



Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789@Run now		[ not ready to run ]		
	InsertDataInBase_123456789@Every hour of the first		[ not ready to run ] caused by [ job is disabled ]		
	group_2_transactions@every day of july		[ not ready to run ] caused by [ schedule is disabled ]		

New Scheduled Job

Figure 4 - 71: Scheduled jobs table

This section is separated in the following paragraphs:

- [Description of the Scheduled Jobs table](#)
- [Creating a new scheduled job](#)
- [Editing a scheduled job](#)
- [Deleting a scheduled job](#)

## DESCRIPTION OF THE SCHEDULED JOBS TABLE

For each scheduled job, the *Scheduled Jobs* table includes the following columns:

- **Enabled:** This column displays a green bullet if the scheduled job is enabled and a red bullet if the scheduled job is disabled. Only enabled scheduled jobs are executed. Disabled scheduled jobs will not be executed, even if they combine an enabled schedule and an enabled job.

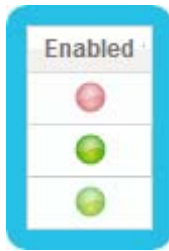


Figure 4 - 72: Scheduled Jobs table Enabled column



You can change a scheduled job's state (enable or disable it) by editing the scheduled job. For more information on scheduled job edition, see "Editing a scheduled job" on page 4-64.

- **Name:** This is the name of the created scheduled job, automatically generated by the Scheduler depending on the combined job and shedule.



Name
GetArticleData_123456789@Run now
InsertDataInBase_123456789@Every hour of the first of each month
group_2_transactions@every day of july

Figure 4 - 73: Scheduled jobs table Name column

- **Description:** This is the description of the created scheduled job, filled by the user at its creation.
- **Info:** This column displays information about the scheduled job's ability to be executed:
  - ▶ first, if the scheduled job is ready or not ready to run,
  - ▶ and, if applicable, the reason why the job is not ready to run (if it is the job or the schedule that is disabled). Nothing is written in this second part if it is the scheduled job itself that is disabled.

Info
[ not ready to run ]
[ not ready to run ] caused by [ job is disabled ]
[ not ready to run ] caused by [ schedule is disabled ]

Figure 4 - 74: Scheduled jobs Info column

- **Edit:** This column contains a button  that allows you to edit the scheduled job. For more information on scheduled job edition, see "Editing a scheduled job" on page 4-64.
- **Delete:** This column contains a button  that allows you to delete the scheduled job. For more information on scheduled job deletion, see "Deleting a scheduled job" on page 4-66.

## CREATING A NEW SCHEDULED JOB

The *Scheduled Jobs* table allows you to create a new scheduled job. Find below the procedure that describes how to create a scheduled job.

### To create a scheduled job

- 1 Click the **New Scheduled Job** button located beneath the *Scheduled Jobs* table, to define a new scheduled job.

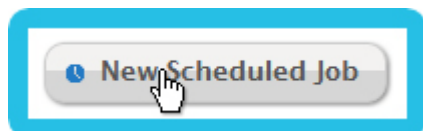


Figure 4 - 75: Scheduled job creation button

Once clicked, a window appears in front of the page:

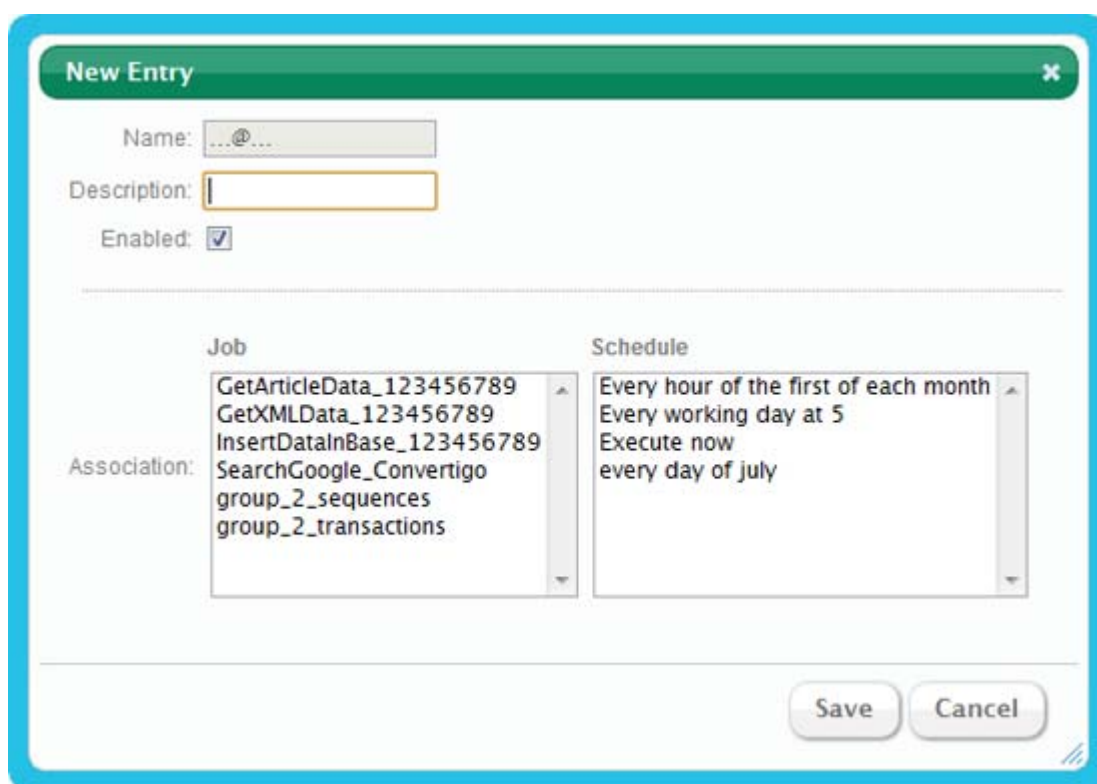


Figure 4 - 76: New scheduled job entry

- 2 You have to fill in some information to define the scheduled job. Parameters to set are:
  - **Name:** A name will automatically be generated for this scheduled job by the *Scheduler*, depending on the combined job and schedule.
  - **Description:** An optional description or notes concerning the scheduled job.
  - **Enabled:** Checkbox that allows you to define if the scheduled job is enabled (checked checkbox) or disabled (not checked checkbox). Only enabled scheduled jobs are executed. Disabled scheduled jobs will not be executed, even if they combine an enabled schedule and an enabled job. This setting is by default set to enabled.
  - **Association:** This is the main configuration of the scheduled job, through which

you can associate the job and the schedule. It presents two lists: **Job** and **Schedule**, each enumerating all existing jobs/schedules. You have to configure the Scheduled Job by associating a job and a schedule, simply by selecting the job and the schedule in each of the two lists.

- 3 When you finish specifying the scheduled job, click on the **Save** button to create it:

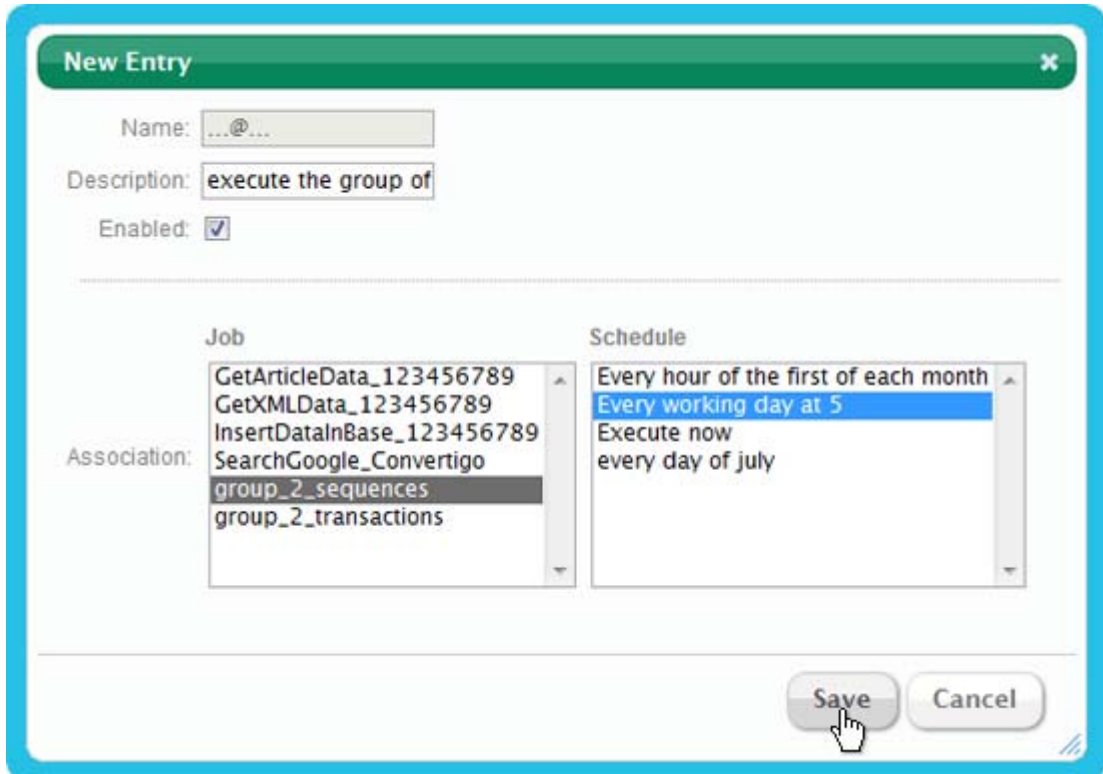


Figure 4 - 77: Saving a new scheduled job

- 4 After clicking on the **Save** button, a message window appears to inform that the object was correctly saved:

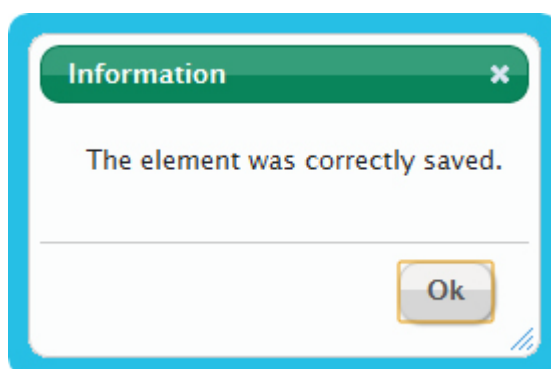


Figure 4 - 78: New scheduled job created

- 5 Click on the **Ok** button to close the popup window. The new scheduled job appears in the *Scheduled Jobs* table:



Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789@Execute now		[ not ready to run ]		
	InsertDataInBase_123456789@Every hour of the first of e		[ ready to run ]		
	group_2_sequences@Every working day at 5	execute the group of 2 sequences every day at 5	[ ready to run ]		
	group_2_transactions@every day of july		[ ready to run ]		

New Scheduled Job

Figure 4 - 79: Scheduled Jobs table with the new scheduled job



Scheduled jobs that use an enabled **Run Now** schedule start immediately after creation (or when enabled). Once triggered, such a scheduled job auto-disables itself.

### EDITING A SCHEDULED JOB

In the *Scheduled jobs* table, the **Edit** column contains a button that allows you to edit an existing scheduled job.

#### To edit an existing scheduled job

- 1 Click on the **Edit** button of the scheduled job line.

A popup window opens:

**Edit Entry**

Name:

Description:

Enabled: ☐

---

Association:

Job	Schedule
GetArticleData_123456789	Every hour of the first of each month
GetXMLData_123456789	Every working day at 5
InsertDataInBase_123456789	Execute now
SearchGoogle_Convertigo	every day of july
group_2_sequences	
group_2_transactions	

Save Cancel

Figure 4 - 80: Scheduled job edition

- 2 Change the values of the scheduled job settings you want to edit. For example, enable the scheduled job by checking the **Enabled** checkbox:



**Edit Entry**

Name:

Description:

Enabled: ☒

---

Association:

Job	Schedule
GetArticleData_123456789	Every hour of the first of each month
GetXMLData_123456789	Every working day at 5
InsertDataInBase_123456789	Execute now
SearchGoogle_Convertigo	every day of july
group_2_sequences	
group_2_transactions	

Figure 4 - 81: Edited scheduled job

- 3 Click on the **Save** button to save the updated values or click on the **Cancel** button if you want to cancel the schedule update.
- 4 After clicking on the **Save** button, a message window appears to inform that the object was correctly saved:

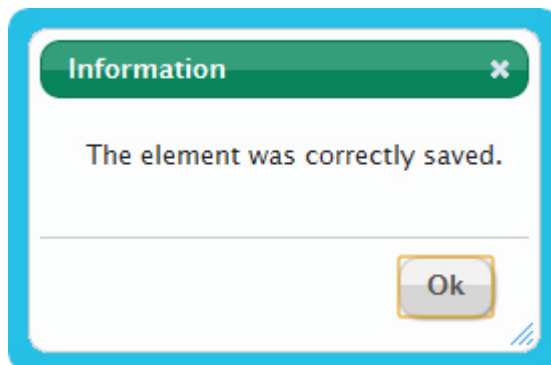


Figure 4 - 82: Scheduled job updated

- 5 Click on the **Ok** button to close the popup window. The updated scheduled job appears in the *Scheduled Jobs* table:

Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789@Execute now		[ currently running ] [ not ready to run ]		
	InsertDataInBase_123456789@Every hour of the first of e		[ ready to run ]		
	group_2_sequences@Every working day at 5	execute the group of 2 sequences every	[ ready to run ]		
	group_2_transactions@every day of july		[ ready to run ]		

New Scheduled Job

Figure 4 - 83: ScheduledJobs table with the edited scheduled job



Scheduled jobs that use an enabled **Run Now** schedule start immediately when enabled. Here, the updated scheduled job is currently running, it is displayed in the **Info** column. Once triggered, such a scheduled job auto-disables itself, this is why the bullet of the **Enabled** column remains red.

### DELETING A SCHEDULED JOB

In the *Scheduled Jobs* table, the **Delete** column contains a button that allows you to delete an existing scheduled job.

#### To delete an existing scheduled job

- 1 Click on the button of the scheduled job line.

A popup window opens, asking for a confirmation before deleting the scheduled job:

Information

Are you sure you want to delete : InsertDataInBase\_123456789@Every hour of the first of each month

Yes No

Figure 4 - 84: Scheduled job deletion confirmation

- 2 Click on **Yes** to delete the selected scheduled job or click on **No** to abort the scheduled job deletion.
- 3 After clicking on the **Yes** button, the scheduled job is deleted from the *Scheduled jobs* table:

Enabled	Name	Description	Info	Edit	Delete
	GetArticleData_123456789@Execute now		[ not ready to run ]		
	group_2_sequences@Every working day at 5	execute the group of 2 sequences every	[ ready to run ]		
	group_2_transactions@every day of july		[ ready to run ]		

New Scheduled Job

Figure 4 - 85: Scheduled Jobs table without the deleted scheduled job

## 4.10 Keys

The Left menu contains a link to the *Keys* page. The *Keys* page permits you to add keys and review active keys.

More information on the *Keys* page is coming soon.



The header graphic for the 'Appendixes' section features a teal-to-blue gradient background. On the left side, there is a collage of semi-transparent images including a computer monitor, a smartphone, and various data charts and graphs. The word 'Appendixes' is written in a large, white, sans-serif font in the center-right area of the header.

# Appendixes

This chapter contains all appendixes related to the *Operating Guide*:

- [Convertigo workspace](#)
- [connector monitoring windows](#)
- [Differences between Convertigo Server and Convertigo Cloud in Administration Console](#)
- [Supervision in Convertigo Server](#)

## A.1 Convertigo workspace

Convertigo plugin and war contain static data, that are not subject to be modified by the user. All other files are in a user directory: the Convertigo workspace.

This section presents the Convertigo workspace, as well as information about setting this directory or updating it:

- [Presentation of Convertigo Workspace](#)
- [Setting Convertigo workspace](#)
- [Updating Convertigo workspace](#)

### A.1.1 Presentation of Convertigo Workspace

The Convertigo workspace is a directory external to the installation directory into which the user has write permissions. This workspace contains all Convertigo user data: the projects, the configuration files, the logs, etc.



*In case of a Convertigo Studio, the user is the Convertigo developer running and using the Studio. In case of a Convertigo Server, the user is the logged account running the Server.*

The default location of the Convertigo workspace depends on the Convertigo type (Studio/Server), the Operating System and the Application Server (for Servers). See the appropriate installation documentation for each case.

The Convertigo workspace contains the following folders and data:

- **cache**: this folder contains the file cache repository, including the cached responses,
- **certificates**: this folder contains the Convertigo installed certificates (client or server),
- **configuration**: this folder contains the configuration files for the Convertigo engine,
- **databases**: this folder contains HSQLDB databases files,
- **logs**: this folder contains the Convertigo engine log files,
- **minime**: this folder contains the default legacy emulator configurations as well as Convertigo licenced keys,
- **projects**: this folder contains the Convertigo projects,



*In case of a Convertigo Studio, the configurable folder is the projects workspace, equivalent to the Eclipse workspace, where the projects are located. That means that the `projects` folder is not present in the Convertigo workspace. Convertigo workspace, containing all the others folders, is located inside the projects workspace, in a `.metadata` folder.*

- **studio**: this folder contains some Studio specific configurations,
- **xulrunner-work**: this folder contains the work directory of embedded xulrunner for HTML connector.



*The Convertigo workspace should be different for each installed/running Convertigo: two Convertigo, for example a Studio and a Server, or two Servers, should never share a workspace directory.*

## A.1.2 Setting Convertigo workspace

It is possible, from Convertigo version 5.1.2, to specify the Convertigo workspace directory. This is done through:

- JVM property
- Installation wizard

### JVM PROPERTY

The Convertigo workspace path is provided through a JVM property:

```
-Dconvertigo.cems.user_workspace_path=  
<absolute_path_to_the_convertigo_workspace_directory>
```

If this JVM property is not provided, search for a file named `.convertigo` and located at the root of the user home. It contains a property giving the path to the Convertigo workspace:

```
cems.user_workspace_path=  
<absolute_path_to_the_convertigo_workspace_directory>
```

### INSTALLATION WIZARD

If you are installing Convertigo Studio with installation package (on Windows), the projects workspace path is configurable after installation at the Studio's first start.

If you are installing Convertigo Server with installation packages (on Windows or on Linux/Tomcat), the Convertigo workspace path is configurable through the installation wizard.

If you are installing convertigo with war file, the Convertigo workspace can be specified, but it depends on the Operating System and the Application Server. Refer to the appropriate installation documentation depending on the Operating System and the Application Server.

## A.1.3 Updating Convertigo workspace

It is possible to update the Convertigo workspace directory after installation, depending on the Operating System and the Application Server. See the appropriate installation documentation depending on the Operating System and the Application Server, or find below other cases.

### LINUX + WEBSHERE CONFIGURATION

If you are using WebSphere application server, and if you want to change the workspace directory after Convertigo installation, the Convertigo workspace can be specified in WebSphere console.

In left menu, expand **Java and Process management > Process definition** and select **Java Virtual Machine**. Then, edit **Generic JVM arguments** to add:

```
-Dconvertigo.cems.user_workspace_path=
```

`<absolute_path_to_the_workspace_directory>`

You have to restart WebSphere server for Convertigo to use the new workspace location.



## A.2 connector monitoring windows

Two windows are connector monitors: the *Legacy connector monitor* and the *HTML connector monitor*.

This section presents both windows as well as the requirements needed for displaying these windows on several server environments:

- [Presentation of the connector monitoring windows](#)
- [Activate the connector monitors on a Windows-based system](#)
- [Activate the connector monitors on a Linux-based system](#)

### A.2.1 Presentation of the connector monitoring windows

Convertigo Server includes two connector monitoring windows:

- [Legacy connector monitor](#)
- [HTML connector monitor](#)

#### LEGACY CONNECTOR MONITOR

The *Legacy connector monitor* is a window that is used for monitoring the screens that are reached by the legacy connectors. It displays a graphical rendering of the legacy connectors currently in use in the active contexts of the Convertigo Server.

It is not instantiated by default after a Convertigo Server installation and has to be activated.

#### HTML CONNECTOR MONITOR

The *HTML connector monitor* is a window that is used for monitoring the pages that are reached by the HTML connectors. It displays a graphical rendering of the HTML connectors currently in use in the active contexts of the Convertigo Server.

It is a necessary tool for the HTML connector to work in Convertigo Server. It is not always visible but it always exists after a Convertigo Server installation (using the Windows installer of the Linux installation file).



*Find more information about the activation and display of both connector monitoring windows in "Activate the connector monitors on a Windows-based system" on page A - 5 and "Activate the connector monitors on a Linux-based system" on page A - 13..*

### A.2.2 Activate the connector monitors on a Windows-based system

This section presents the common configuration to perform on Windows intalled Convertigo Server before activating each of the monitors:

- [Interaction with desktop](#)
- [HTML connector monitor display](#)
- [Legacy connector monitor display](#)

## INTERACTION WITH DESKTOP

After installing a Convertigo Server on a Windows operating system, the Convertigo Server is installed as a service. To be able to display the connector monitors, the service has to be authorized to interact with the desktop.

### **Activate service's interaction with desktop on Windows**

- 1 Open the properties window of the Convertigo Server service:

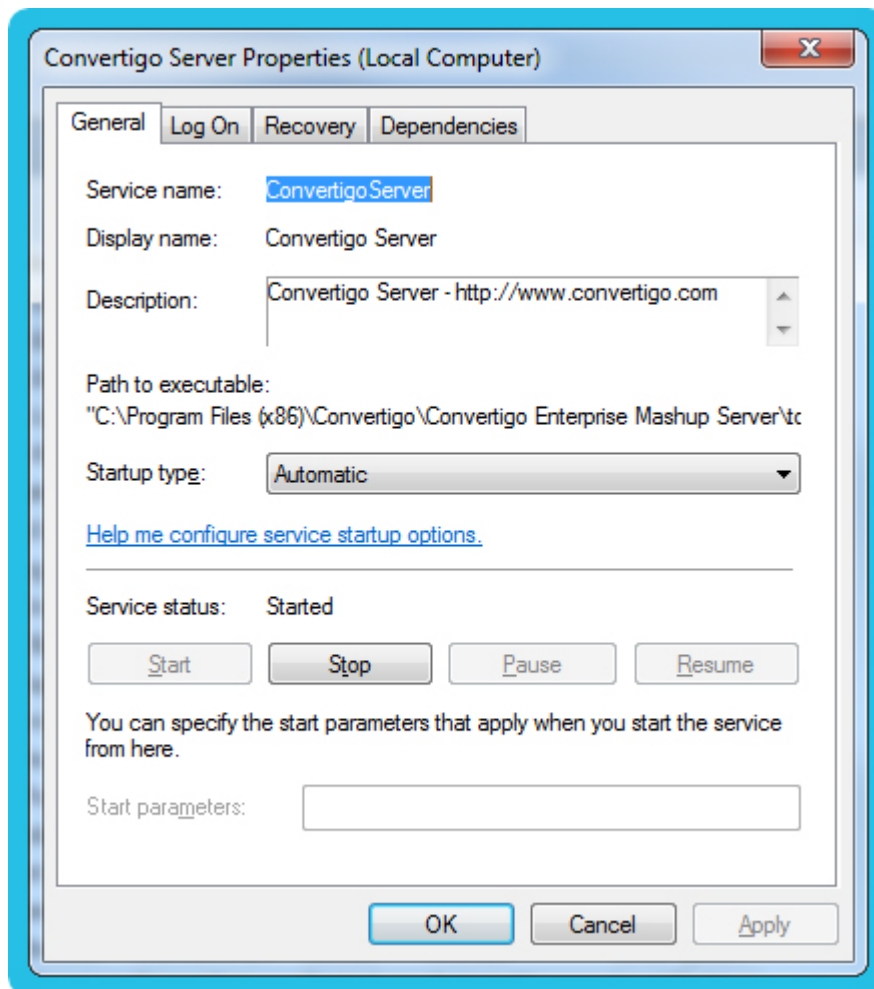


Figure A - 1: Convertigo Server service properties

- 2 You can also find a shortcut icon in Windows taskbar, named *Convertigo Server*. Right-click on this icon and select **Configure...** option:

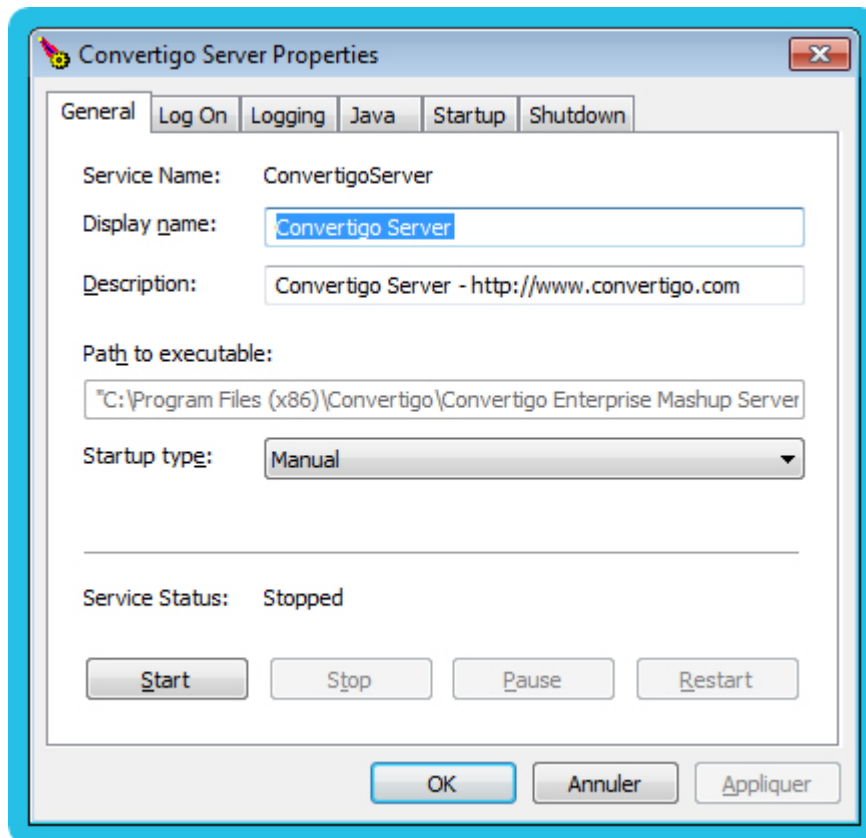


Figure A - 2: Convertigo Server Tomcat Configurator

- 3 Switch to the **Log On** tab:

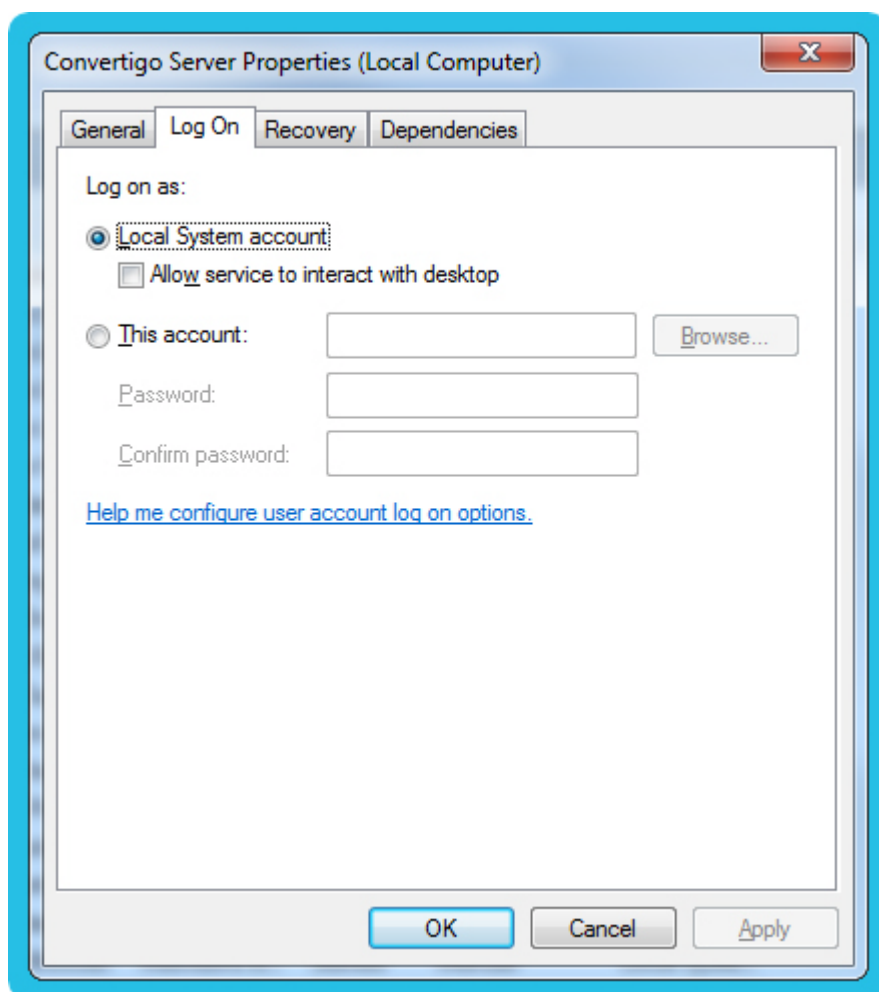


Figure A - 3: Log On tab of Convertigo service properties

- 4 Check the **Allow service to interact with desktop** option:

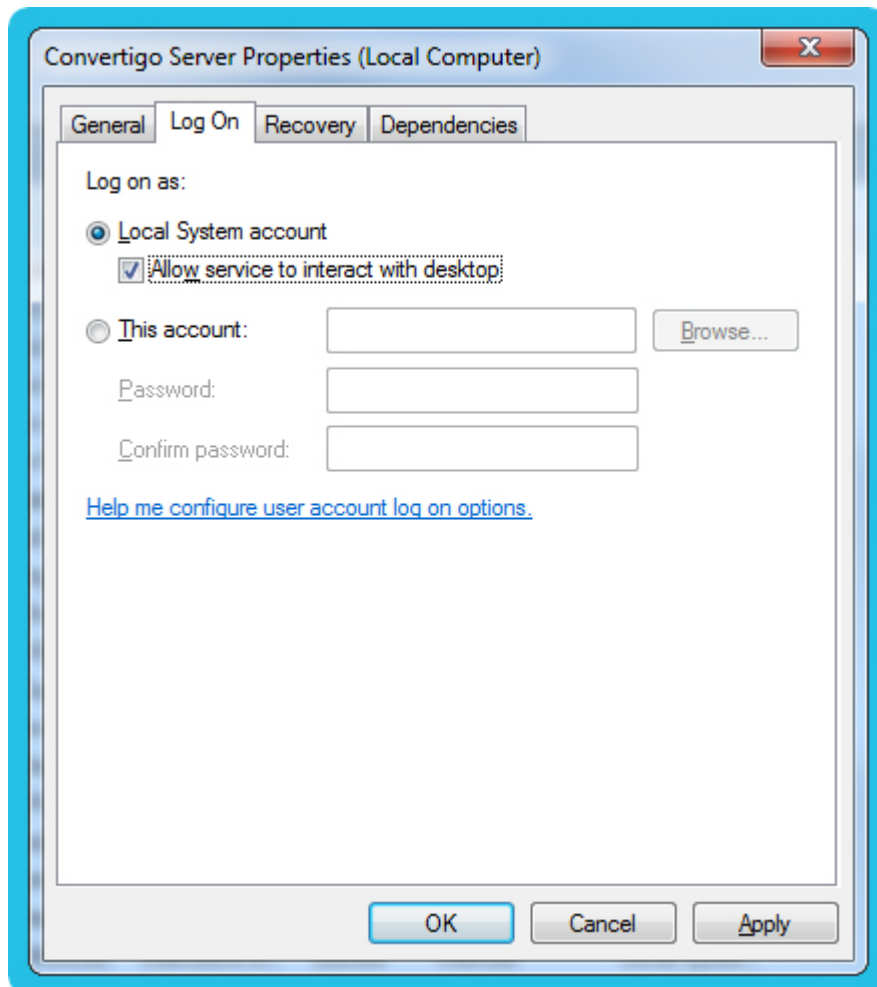


Figure A - 4: Activation of the desktop interaction on the Log On tab of Convertigo service properties

- 5 Click on the **OK** button to validate the option and close the window.

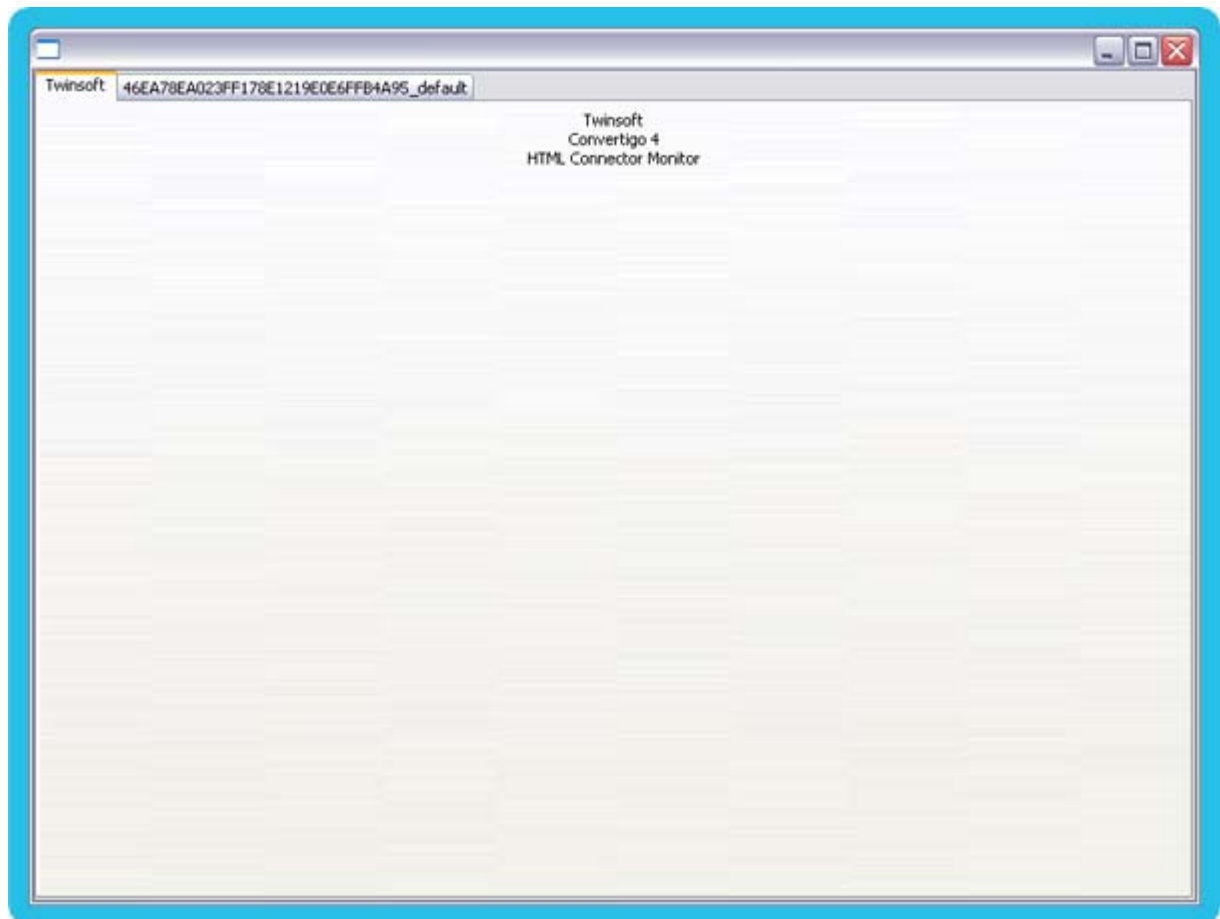


**You may have to restart the service for the property to be completely taken into account.**

### HTML CONNECTOR MONITOR DISPLAY

Now that the service is authorized to interact with the desktop, any transaction execution using an HTML connector displays the *HTML connector monitor*.

Depending on Windows version, the monitor can appear directly on the desktop or popup indicates that the program wants to display a message. While accessing this message, the *HTML connector monitor* appears:



*Figure A - 5: HTML connector monitor*

Every context that will use an HTML connector will be displayed in the same monitor, added in a new a tab:

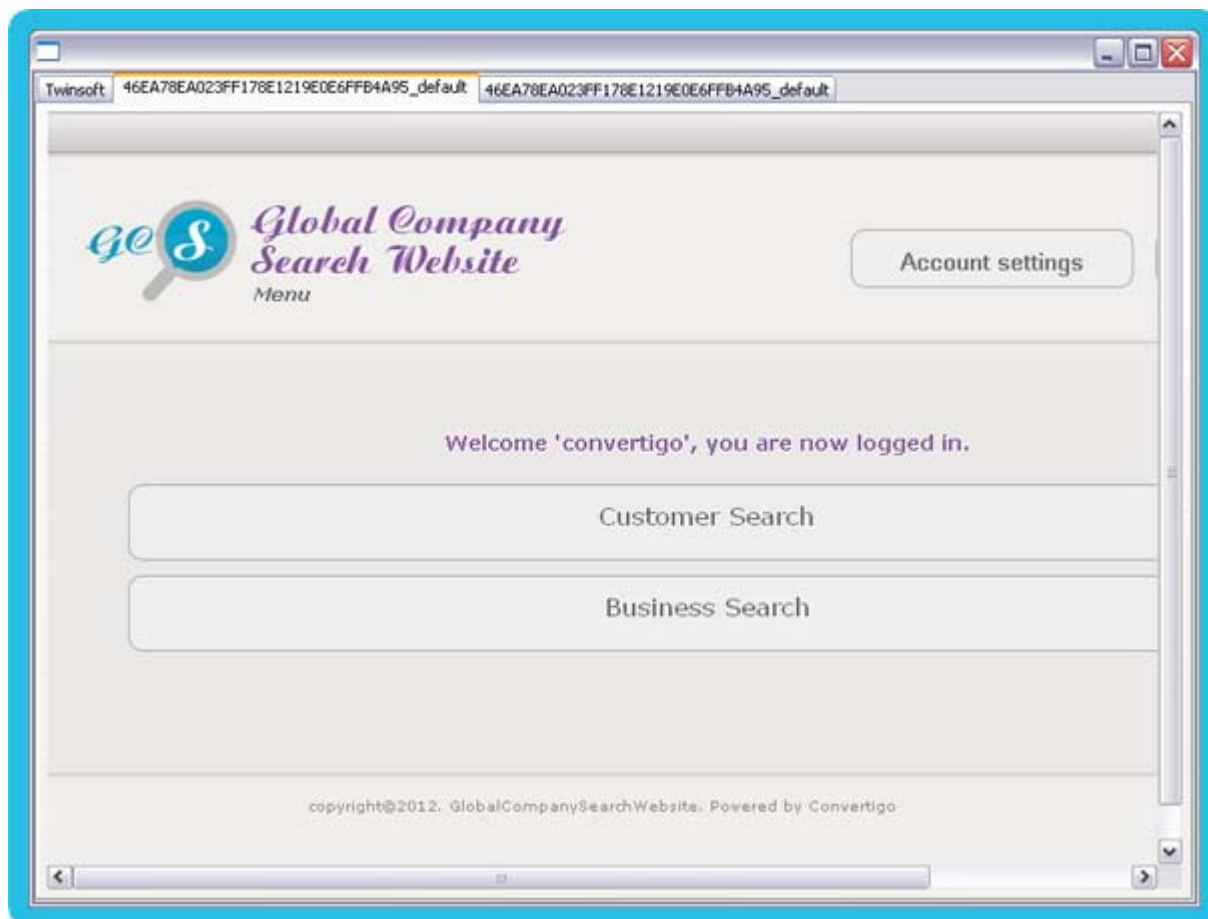


Figure A - 6: Several contexts in HTML connector monitor

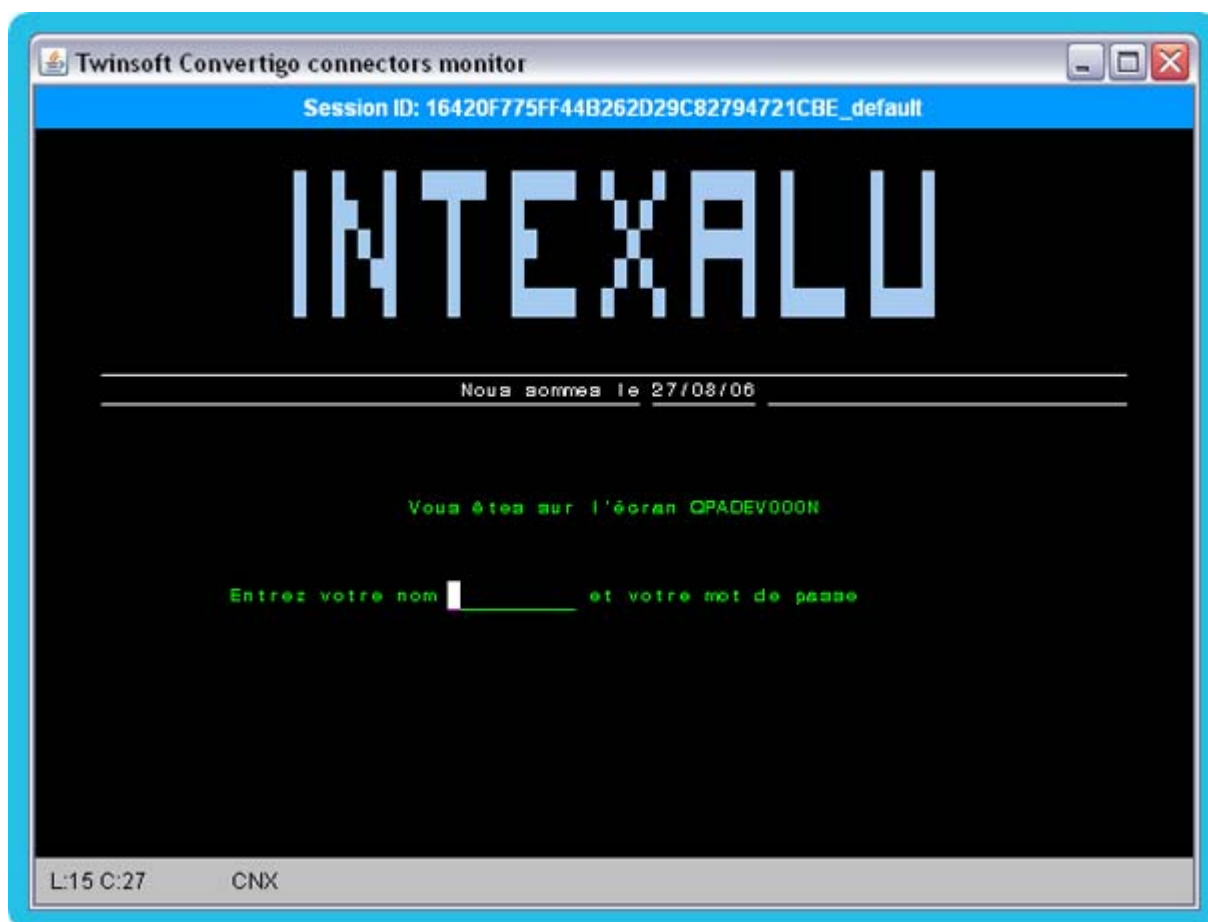


***This window must never be closed as it would cause Convertigo Server to be killed.***

### LEGACY CONNECTOR MONITOR DISPLAY

To display this monitor, an option has to be configured in the Administration Console *Configuration* page, see "*Real-time activity monitoring*" on page 4-18.

After restarting the server, the *Legacy connector monitor* will appear next to the *HTML connector monitor*.



*Figure A - 7: Legacy connector monitor*

Every context that will use a legacy connector will be displayed in the same monitor, next to others:



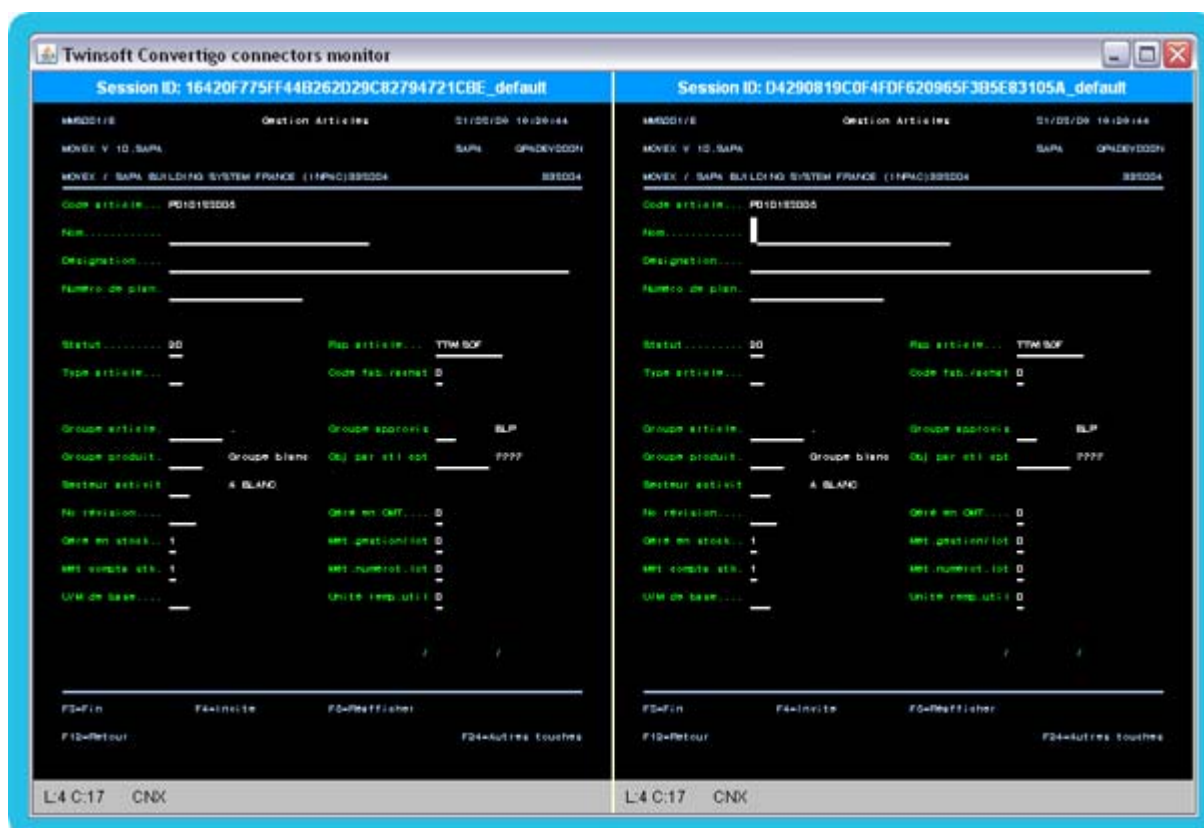


Figure A - 8: Several contexts in Legacy connector monitor



***This window must never be closed as it would cause Convertigo Server to be killed.***

### A.2.3 Activate the connector monitors on a Linux-based system

After installing a Convertigo Server on a Linux operating system, the *HTML connector monitor* is automatically instantiated in an XVNC.

To display the *HTML connector monitor*, you can directly launch a VNC player on port 5903.

To display the *Legacy connector monitor*, an option has to be configured in the Administration Console *Configuration* page, see "*Real-time activity monitoring*" on page 4-18.

After restarting the server, the *Legacy connector monitor* will appear next to the *HTML connector monitor*.



***These windows must never be closed as it would cause Convertigo Server to be killed.***

## A.3 Differences between Convertigo Server and Convertigo Cloud in Administration Console

In Convertigo Cloud, a number of functionalities (pages or configurations) of the Administration Console are not accessible. This appendix lists these differences.

- [Pages](#)
- [Configuration categories and settings](#)

### A.3.1 Pages

The following list shows the pages of the Administration Console that are not available at all in Convertigo Cloud:

- Keys page.

### A.3.2 Configuration categories and settings

*Configuration* page of the Administration Console includes categories, in which is proposed the edition of settings.

This first list shows the categories of *Configuration* page that are not available at all in Convertigo Cloud's Administration Console:

- **Legacy Carioca portal management** category,
- **Billing system** category.

This second list shows the settings that are not available in Convertigo Cloud's Administration Console, from visible categories of *Configuration* page:

- in **Main configuration parameters** category:
  - ▶ Convertigo Server application URL,
  - ▶ (Linux only) Launch Xvnc server using DISPLAY environment variable at startup,
  - ▶ Linux only) Depth parameter for the Xvnc, default is 16,
  - ▶ (Linux only) Geometry parameter for Xvnc, default is 320x240,
  - ▶ Enable the compatibility mode for projects data (required for JSP usage); engine restart required,
- in **Log management** category:
  - ▶ Log4J default appender,
  - ▶ Log4J default appender file,
  - ▶ Log4J default appender layout,
  - ▶ Log4J audit appender file,
  - ▶ Log4J audit appender layout,
- in **HTML parser configuration** category:
  - ▶ XulRunner path,

- ▶ XulRunner work directory,
- in **Cache management** category:
  - ▶ Cache manager class,
  - ▶ File cache directory.



*For more information about the pages or settings described in this appendix, see "Using Convertigo Administration Console" on page 4-1.*

## A.4 Supervision in Convertigo Server

In Convertigo Server, a supervision functionality is available.

This section presents the supervision feature, as well as more detailed information:

- [Supervision feature](#)
- [Ticket content](#)

### A.4.1 Supervision feature

The supervision feature is available in Convertigo Server, as well as for the Convertigo engine embedded in the Studio, but not in Convertigo Cloud. It can be activated in the *Configuration* page of the Administration Console, in *Supervision* tab.

The supervision feature consists in writing in a database one entry, also known as **ticket**, for each executed transaction or sequence. This is useful to monitor the Convertigo Server's activity. The supervision feature produces the raw data, but the management and treatment of these data has to be manually performed and personalised by each Convertigo administrator.

### A.4.2 Ticket content

For each execution of a transaction or sequence, a ticket is inserted in the database. The `Ticket` table contains the following columns:

Table A - 1: Ticket table columns

Column name	Type	Description
<b>id</b>	bigint(20) PK	The primary key of the record, it is an auto-incremented integer.
<b>clientIp</b>	varchar(255)	The IP address of the client that called the transaction or sequence. In the case of a transaction or sequence called by a <i>Call Transaction</i> or <i>Call Sequence</i> step, the IP address is 127.0.0.1.
<b>connectorName</b>	varchar(255)	The name of the connector containing the executed transaction, in case of a transaction. Empty in the case of a sequence.
<b>connectorType</b>	varchar(255)	The <b>type</b> (the name of the Java class) of the connector containing the executed transaction, in case of a transaction. For example: <code>HtmlConnector</code> , <code>JavelinConnector</code> , <code>SqlConnector</code> , <code>HttpConnector</code> , etc. Empty in the case of a sequence.
<b>creationDate</b>	bigint(20)	The ticket creation date and time (as a timestamp).
<b>customerName</b>	varchar(255)	Contains a predefined value: <ul style="list-style-type: none"><li>• <code>CONVERTIGO Studio</code> in case of an execution in a Studio, or</li><li>• <code>CONVERTIGO Server</code> in case of an execution in a Server.</li></ul>
<b>projectName</b>	varchar(255)	The name of the project containing the executed transaction or sequence.
<b>requestableName</b>	varchar(255)	The name of the executed transaction or sequence.
<b>requestableType</b>	varchar(255)	The <b>type</b> (the name of the Java class) of the executed transaction or sequence. For example: <code>GenericSequence</code> , <code>HtmlTransaction</code> , <code>JavelinTransaction</code> , <code>SqlTransaction</code> , <code>XmlHttpRequestTransaction</code> , <code>HttpRequestTransaction</code> , etc.
<b>responseTime</b>	bigint(20)	The response return date and time (as a timestamp).

Table A - 1: Ticket table columns

Column name	Type	Description
<b>score</b>	bigint(20)	The <b>score</b> calculated for this execution. Depending on the executed object, the score is different and calculated with the following method: <ul style="list-style-type: none"> <li>the number of detected screen classes for a transaction executed in one of the connectors with screen classes (Legacy, HTML),</li> <li>1 for another transaction execution (SQL, HTTP, ...),</li> <li>0 for a sequence execution.</li> </ul>
<b>userName</b>	varchar(255)	The username defined for the execution, which is: <ul style="list-style-type: none"> <li>the value of the <code>username</code> property set in the <code>context</code> of execution of the transaction or sequence: <ul style="list-style-type: none"> <li>set using the expression <code>context.set("username", "value")</code></li> <li>retrieved using the expression <code>context.get("username")</code>,</li> </ul> </li> <li>the Carioca portal username, of if no Carioca portal is used, the default Carioca portal username: <ul style="list-style-type: none"> <li>set in the <i>Administration Console Configuration</i> page, in <i>Legacy Carioca portal</i> tab, using property <b>Default user name</b>,</li> </ul> </li> <li><code>user</code> if no previous value is set.</li> </ul>

