Incendo Online SDK Installation

V3.0

Services Business Unit

January 7, 2010

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Contents

Document change history

Version	Date	Purpose of Modification	Author
1.0	04/08/2009	Initial release	P. Polechtchouk
1.1	24/09/2009	Updated Postgress configuration info (section 3.2.2)	P. Polechtchouk
1.2	07/01/2009	Remove obsolete section 5.3.2 – do not deploy index.tml and associated resources anymore Updated screenshots	V.Lang

1. Introduction

This document describes how to install and operate the Incendo Online V3.0 SDK. The SDK can be installed on Windows or Linux systems.

Incendo Online SDK consists of the following:

- Incendo Online SDK Gateway
- Incendo Online terminal simulator (Windows only)
- TML application examples
- Supporting documentation

2. Installation Requirements

Incendo Online SDK components can be installed on a single machine or distributed over several servers. The recommended (and easiest) way is to install all components on the same machine.

2.1. Third-party applications

Incendo Online SDK requires some third -party software:

- Java 6 JRE or JDK (for Incendo Gateway and Tomcat web server)
- Database server (used by the Incendo Gateway and some TML application examples). A number of different databases can be used, but the recommended and officially supported databases are:
  - PostgreSQL, and
  - MySQL
- Apache Tomcat 5.5 or later for the TML Application examples

Additionally, a web browser is required to access the Incendo Gateway GUI. Supported web browsers are Microsoft Internet Explorer (version 7 or later) and Mozilla Firefox (version 3 or later).

2.2. Port requirements

A number of available ports are necessary for the installation of the Incendo Gateway and the essential third-party applications.

2.2.1. Incendo Gateway ports

Incendo Gateway requires 4 available ports. The default settings are:

Port number	Description
61001	Initialisation Service port
61000	Data exchange port
8090	Web GUI HTTP port
8453	Web GUI HTTPS (SSL) port

2.2.2. Apache Tomcat ports

Apache Tomcat by default uses the port **8080**.

2.2.3. Database server ports

By default, MySQL uses port **3306**.
PostgreSQL will listen on port **5432**.

3. Installing the third-party applications

Before installing the Incendo Gateway, you should set up the necessary third-party applications.

3.1. Installing Java JRE or JDK

Incendo Online Gateway requires Java 6 to be installed on the machine that is to be used as the Gateway server.

Java JRE or JDK can be downloaded from the following location:
http://java.sun.com/javase/downloads/index.jsp

Follow the instructions on Sun's website to set up Java for your operating system.

3.2. Installing the database server

Incendo Gateway requires a database server. While a number of different databases can be used, the two officially supported databases are MySQL and PostgreSQL.

3.2.1. Installing MySQL database server

Incendo Gateway is compatible with MySQL 5.1 or later.
Follow the instructions on http://dev.mysql.com/ to download it and set it up.

Note: the path to the MySQL Server **bin** directory should be added to the system variable PATH.

3.2.2. Installing PostgreSQL database server

Incendo Gateway is compatible with PostgreSQL 8.2 or later.
It is available from http://www.postgresql.org/

Follow the set up instruction for your system.

You will also need to:

- Create a password for the **postgres** superuser.
- Modify **pg_hba.conf** configuration file to allow **md5** type access from the **localhost** and the Incendo Gateway server (if different from the localhost).
- Make sure that Postgress listens for the Gateway connection - **listen_addresses = '*'** in the **postgresql.conf**

Note: for Windows, the path to the PosgreSQL **bin** directory should be added to the system variable PATH.

3.3. Installing Apache Tomcat

TML Application Examples require Apache Tomcat 5.5 or later. The installation instructions and the binaries for your operating system are available at http://tomcat.apache.org/

4. Installing Incendo Gateway components

Incendo Gateway is a communication backbone that connects Ingenico Browser - enabled terminals to the Application Servers.

Note: Incendo SDK Gateway is limited in the number of concurrent terminal sessions. Only one terminal can be connected to the Gateway at any given time.

Incendo SDK Gateway is delivered as an **SDK-[version]-dev.zip** archive.

To install the Incendo SDK Gateway, follow these steps:

1. Uncompress the Gateway package
2. If MySQL is used, deploy MySQL JDBC connector
3. Create the Gateway database
4. Configure the Gateway

4.1. Uncompressing the Gateway package

Unzip the **SDK-[version]-dev.zip** to a directory of your choice (for example C:\gateway), while preserving the path information. This directory will be referred to as the **[INCENDO_HOME]** directory.

[INCENDO_HOME] should contain the following sub-directories:

Directory	Description
bin	The scripts used for running the Gateway
config	Configuration files
doc	Web services definitions
lib	Java libraries
log	Default place for the log files
sql	Database creation scripts
websrv	GUI web server

4.2. Deploying MySQL JDBC connector

Note: this is only relevant if you use MySQL as your Gateway database server

To use MySQL server with the Incendo Gateway, you need to deploy a MySQL JDBC driver. To do that:

1. Download it from http://dev.mysql.com/downloads/connector/j/5.1.html
2. Extract the package into a temporary directory an find a file named **mysql-connector-java-[version]-bin.jar** Copy this file to the **[INCEDO_HOME]/lib/common** directory.
3. Rename it to **mysql-connector-java.jar**

4.3. Creating Incendo Gateway database

The database creation scripts are in the [INCENDO_HOME]/sql directory. Each database that may be used with the Incendo Gateway has a corresponding sub-directory. However, only MySQL and PostgreSQL are officially supported.

In addition to the Gateway database, a database user account named **oe** with the password **ingenico** is created. Incendo Gateway uses these credentials to access the database.

4.3.1. MySQL

MySQL database creation scripts should be executed from the **[INCENDO_HOME]/sql/mysql** directory.

For Windows, the general command-line syntax for running the MySQL script is:
recreate.cmd [account] [password]
For Linux,
./recreate.sh [account] [password]
where [account] and [password] are optional parameters corresponding to database server access credentials – the ones you specified when installing or configuring the database server.
The script can be run without parameters. In this case the account **root** with an empty password is assumed by default.

4.3.2. PostgreSQL

PosgreSQL database creation scripts should be executed from the **[INCENDO_HOME]/sql/postgres** directory.
For Windows, the general command-line syntax for running the PostgreSQL script is:
recreate.cmd [superuser]
For Linux,
./recreate.sh [superuser]
where the [superuser] is an optional parameter corresponding to the superuser name you specified when installing the database server; you have to run the script with this parameter only if when installing PostgreSQL you specified the superuser name other than the **postgres**.
The script can be run without parameters in which case the superuser name **postgres** will be assumed by default.
Once you initiated the script execution, you'll be asked to specify two passwords:

1. When the line reading **Password for user postgres:** appears, type the password you specified for the superuser's account when installing PostgreSQL. Be very attentive when doing so, since your input is not going to be displayed in the current window. Confirm the password by pressing **Enter**.

A set of information messages is output into the current window. Then the line **Password for user oe:** appears.

2. Type **ingenico** and then press **Enter**. (The password you are entering is not displayed in the current window.)

A set of information messages in output into the current window again. Then the line **Press any key to continue...** is displayed.

3. Press any key (say, Enter) to complete the script execution.

4.4. Configuring the Incendo Gateway

Incendo Gateway is configured by editing the **oegw.properties** file in the **[INCENDO_HOME]/config** directory.

It is recommended to keep the default settings where possible. However, you will need to modify **oegw.properties** file if you are using a database server other than MySQL running on localhost.

4.4.1. Changing the Gateway database settings

Open the **oegw.properties** file in a text editor. The default database connection parameters are:
oegw.db.name=MySQL
oegw.db.jdbc=com.mysql.jdbc.Driver
oegw.db.url=jdbc:mysql://localhost:3306/oegw?autoReconnect=true

If your database server is not MySQL, you will need to comment these lines (by placing a **#** character at the start of each line), and uncomment the lines that correspond to your database.

For example, for PostgreSQL the settings would be:
oegw.db.name=PostgreSQL
oegw.db.jdbc=org.postgresql.Driver
oegw.db.url=jdbc:postgresql:oegw

If your database is not running on the same server as Incendo Gateway, you need to specify the database server IP in the **oegw.db.url** parameter. For example, suppose that your database is set up on the server with the IP 10.10.10.10. Then, for MySQL, the setting would be
oegw.db.url=jdbc:mysql://10.10.10.10:3306/oegw?autoReconnect=true
For PostgreSQL,
oegw.db.url=jdbc:postgresql://10.10.10.10:5432/oegw

5. Installing TML Application Examples

TML Application Examples include:

- A set of ready-to-use TML payment application examples, namely:
  - Magnetic stripe card transaction processing example (**MAGCARD**)
  - Smart card transaction processing example (**ICCEMV**)
  - Basic TML Payment Application (**BTMLPA**) implementing transaction processing logic for both types of payment cards, that is, magnetic stripe and smart cards
- BTMLPA Web GUI – a web application intended for remote monitoring and control of BTMLPA's operation.

Note: before installing the TML Application Examples, you should install the third-party applications and the Incendo Gateway.

To complete the installation of TML Application Examples you will need to:

1. Uncompress the installation package
2. Create BTMLPA database
3. Deploy web components on the Apache Tomcat web server
4. Configure the BTMLPA

5.1. Uncompressing the TML Application Examples package

TML Application Examples come as a single archive with the name **oe-examples-[version]-dev.zip**

First, you should unpack the archive into a directory of your choice (for instance, c:/examples). This directory will be referred as the EXAMPLES_HOME directory.

This directory should contain the following sub-directories:

Directory	Contents
/	The file **web.xml** that you may require for registering TML MIME type
/btmlpa	Basic TML payment application (BTMLPA) .war archives, database creation scripts and Java sources
/iccemv	ICC EMV example .war archive and Java sources
/magcard	Magnetic card example .war archive and Java sources
/trans	Transaction example .war archive and Java sources
/payment	Java sources for the payment libraries used by the TML Application Examples
/tml-toolkit	Java sources for various TML post processing utilities used by the Application Examples
/lib	jar libraries used by the examples

5.2. Creating the BTMLPA database

Basic TML Payment Application requires a database. The database creation scripts are in the **[EXAMPLES_HOME]/btmlpa/sql** directory. Each database that may be used with the BTMLPA has a corresponding sub-directory. However, only MySQL and PostgreSQL are officially supported.

The script execution results in creation of BTMLPA database. In addition to that, a database user account named **btmlpa** with the password **ingenico** is created. BTMLPA then uses these credentials to access the database.

5.2.1. MySQL

MySQL database creation scripts should be executed from the **[EXAMPLES_HOME]/btmlpa/sql/mysql** directory.

For Windows, the general command-line syntax for running the MySQL script is:
recreate.cmd [account] [password]
For Linux,
./recreate.sh [account] [password]
where [account] and [password] are optional parameters corresponding to database server access credentials – the ones you specified when installing or configuring the database server.
The script can be run without parameters. In this case the account **root** with an empty password is assumed by default.

5.2.2. PostgreSQL

PosgreSQL database creation scripts should be executed from the **[EXAMPLES_HOME]/btmlpa/sql /postgres** directory.
For Windows, the general command-line syntax for running the PostgreSQL script is:
recreate.cmd [superuser]
For Linux,
./recreate.sh [superuser]
where the [superuser] is an optional parameter corresponding to the superuser name you specified when installing the database server; you have to run the script with this parameter only if when installing PostgreSQL you specified the superuser name other than the **postgres**.
The script can be run without parameters in which case the superuser name **postgres** will be assumed by default.
Once you initiated the script execution, you'll be asked to specify two passwords:

1. When the line reading **Password for user postgres:** appears, type the password you specified for the superuser's account when installing PostgreSQL. Be very attentive when doing so, since your input is not going to be displayed in the current window. Confirm the password by pressing **Enter**.

A set of information messages is output into the current window. Then the line **Password for user btmlpa:** appears.

2. Type **ingenico** and then press **Enter**. (The password you are entering is not displayed in the current window.)

A set of information messages in output into the current window again. Then the line **Press any key to continue...** is displayed.

3. Press any key (say, Enter) to complete the script execution.

5.3. Deploying web components

You need to deploy the TML Application Examples on the Apache Tomcat web server that you have installed previously.

To do that you need to:
1. Deploy the TML Application Examples **.war** files
2. Register the TML MIME type
3. Keep in mind the path of homepage of each web components.

5.3.1. Deploying the .war files

Most of the web components are supplied as web archive (**.war**) files.

File	Component	Location
trans.war	TRANS	\trans
magcard.war	MAGCARD	\magcard\webapp
iccemv.war	ICCEMV	\iccemv\webapp
btmlpa.war	BTMLPA	\btmlpa\webapp
btmlpawg.war	BTMLPA Web GUI	\btmlpa\webapp

You will need to deploy these files on Apache Tomcat web server. To do that, you will have to copy them to the **[path to Tomcat]\webapps** folder (for example, C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps).
The server will automatically extract the contents of the web archives during the subsequent startup.

Note: When deploying a new version of a **.war** file on Apache Tomcat web server, delete the folder that has the same name as the **.war** file.
For example, to deploy a new version of **magcard.war**, your have to perform the following operations in the **[path to Tomcat]\webapps** folder:
1. overwrite the existing magcard.war with its new version, and
2. delete the folder magcard.

The changes will take effect on the subsequent startup of the web server.

5.3.2. Registering TML MIME type

To enable Apache Tomcat web server to recognise TML documents, you need to register TML MIME type by mapping the **.tml** extension to the MIME type **text/tml**.
You can do it by editing the Apache Tomcat's configuration file **web.xml** – a deployment descriptor which contains MIME mappings. This file is located in **[path to Tomcat]\webapps\ROOT\WEB-INF** folder (for example, C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\ROOT\WEB-INF).

To do that, follow these steps:
1. Navigate to the [path Tomcat]\webapps\ROOT\WEB-INF folder and locate the file web.xml.
2. Open the file in a text editor.
3. Insert the following lines at the very end of the file, just before the closing **</web-app>** tag:

```
<mime-mapping>
    <extension>tml</extension>
     <mime-type>text/tml</mime-type>
```

```
</mime-mapping>
```

4. Save and close the file.
5. Restart Tomcat – if it is (or was) running.

5.3.3. Starting Homepage

Once you deployed the web components supplied as web archive (**.war**) files on Apache Tomcat web server and restarted Tomcat, you'll see that each web components have its own starting homepage in **[path to Tomcat]\webapps** folder (for example, C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps).

Each component has two directories - **5100** for monochrome version and **8550** for color. The applications use a filter to automatically dispatch to a particular version based on the terminal type.

When defining these services in the Incendo Web GUI you should use the following parameters:

Web component	Base URI	Start page
TRANS	[Tomcat URI]/trans	/tmlapp.tml
MAGCARD	[Tomcat URI]/magcard	/magcard.tml
ICCEMV	[Tomcat URI]/iccemv	/iccemv.tml
BTMLPA	[Tomcat URI]/btmlpa	/tmlapp.tml

Note: it is essential that the start page has a / character.

5.4. Configuring BTMLPA

Note: You only need to perform the actions described in this section if you are a database server other than MySQL on localhost.

Once you deployed BTMLPA and started Tomcat, you'll see the file **btmlpa.properties** in **[path to Tomcat]\webapps\btmlpa\WEB-INF\classes** folder (for example, C:\Program Files\Apache Software Foundation\Tomcat 5.5\webapps\btmlpa\WEB-INF\classes).

Open the **btmlpa.properties** file in a text editor. The default database connection parameters are:
btmlpa.db.name=MySQL
btmlpa.db.jdbc=com.mysql.jdbc.Driver
btmlpa.db.url=jdbc:mysql://localhost:3306/btmlpa?autoReconnect=true

If your database server is not MySQL, you will need to comment these lines (by placing a **#** character at the start of each line), and uncomment the lines that correspond to your database.

For example, for PostgreSQL the settings would be:
btmlpa.db.name=PostgreSQL
btmlpa.db.jdbc=org.postgresql.Driver
btmlpa.db.url=jdbc:postgresql://localhost:5432/btmlpa

If your database is not running on the same server as the Apache Tomcat, you need to specify the database server IP in the **btmlpa.db.url** parameter. For example, suppose that your database is set up on the server with the IP 10.10.10.10. Then, for MySQL, the setting would be

btmlpa.db.url=jdbc:mysql://10.10.10.10:3306/oegw?autoReconnect=true

For PostgreSQL,

btmlpa.db.url=jdbc:postgresql://10.10.10.10:5432/oegw

Note: once you have modified the **btmlpa.properties** file, you need to restart the Apache Tomcat for the new settings to take effect.

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6. Installing the Terminal Simulator

Incendo Terminal Simulator is a software application for Windows® that emulates an Ingenico terminal with Incendo Browser loaded and running. The Simulator is a handy tool for testing and debugging TML applications as well as for producing demos.

OpenEstate Terminal Simulator is supplied as an archive (**.zip**) file with a name **oebr-win32-[version].zip**

To install OpenEstate Terminal Simulator, extract the contents of the archive into one of the folders on your computer. This folder hereafter is referred to as the SIMULATOR_HOME directory.

Note: the terminal simulator work only under Windows, so if you have set up the Incendo Gateway under Linux environment, you will need to use another machine for the simulator.

7. Operating the Incendo Gateway

This chapter briefly describes basic Incendo Gateway operations.

7.1. Starting Incendo Gateway

To start Incendo Gateway:

1. Navigate to the [INCENDO_HOME]/bin directory
2. Run **oegw.cmd** script (Windows) or **oegw.sh** script (Linux)
3. The first time you run the Gateway, you will be prompted for a passphrase. This passphrase will be used to encrypt the passwords in the configuration file and in the database. The following times, you will need to enter this passphrase for the Gateway to start.

7.2. Stopping Incendo Gateway

To stop Incendo Gateway, select the window where it is running and press press the **Ctrl** and the **C** keys simultaneously and then confirm the termination.

Note: if you are running the gateway as a background process in Linux, you can terminate it with a **kill** command.

7.3. Accessing the Incendo Gateway GUI

Once Incendo Gateway is started, it is managed via a web-based interface. Use your web browser to access the https://localhost:8453/oegui/ URI.

Note: depending on your set up, you may need to substitute your Gateway IP instead of localhost.

Your browser may give you a certificate warning. Accept the certificate to see the login page.

Use the following credentials to access the GUI for the first time:
login: **admin**
password: **Adm1nist**

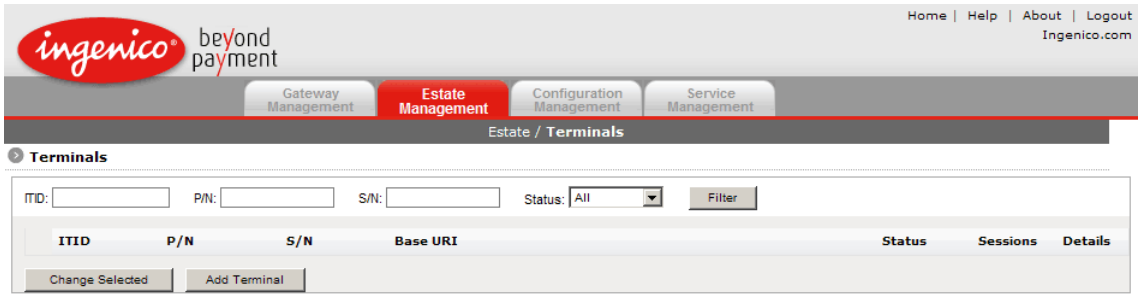
You will be prompted to change your password on the first login.

7.4. Adding a new terminal to the Gateway

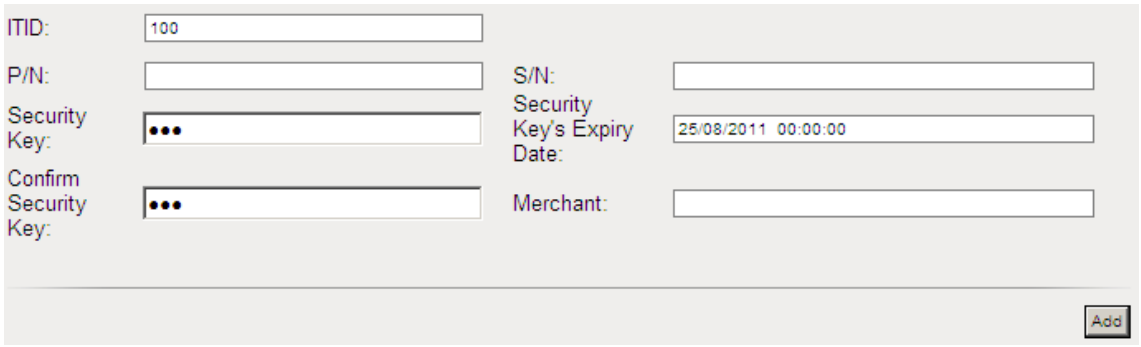
Before a terminal can connect to the Incendo Gateway it must be added to the gateway database.

To do that:

1. Once you have logged in to the Incendo Gateway GUI, access the **Estate Management** tab.



2. Click the **Add Terminal** button at the bottom of the screen.



3. Enter the details of the terminal you wish to add into the pop-up window and click the **Add** button

Note: use ITID **100** and the security key **100** for your first terminal. These are the defaults for the Terminal Simulator, and this ITID is also present in the BTMLPA database.

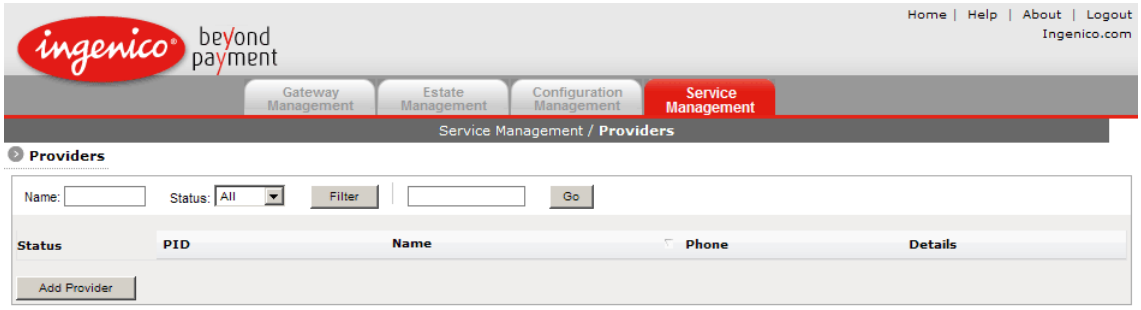
The status of the newly added terminal will be **New** - it still needs to be initialized.

However, first we will add a service provider and a service.

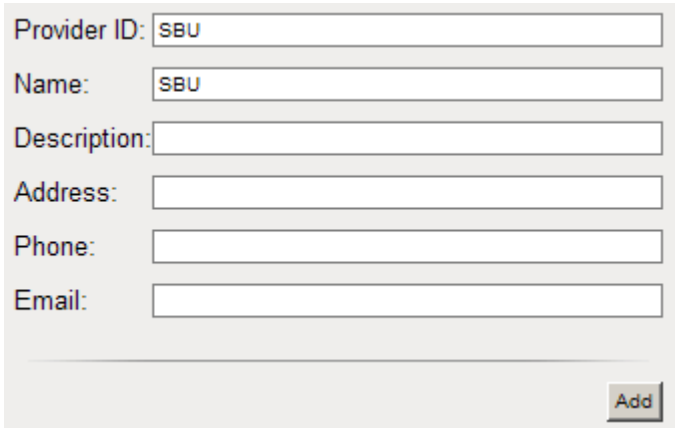
7.5. Adding a Service Provider

To add a Service Provider:

1. Access the **Service Management** tab



2. Use the **Add Provider** button



3. Enter the provider details into the pop-up window and click the **Add** button

Note: with the current version of Incendo SDK (v3.0.0.0) you must use the same provider name and ID. This will be fixed in the subsequent versions

The next step is to add a service.

7.6. Adding a Service

Once there is a least one Service Provider, you can add a service to a terminal. This consists of 4 steps:

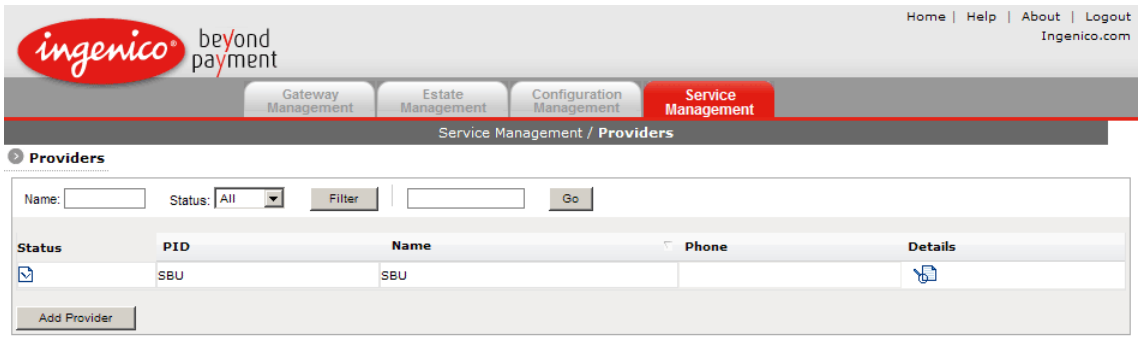
1. Add a service to a Service Provider
2. Enable a service
3. Subscribe a terminal to a service
4. Activate a service on the terminal

We will use BTMLPA Application Example as a sample service.

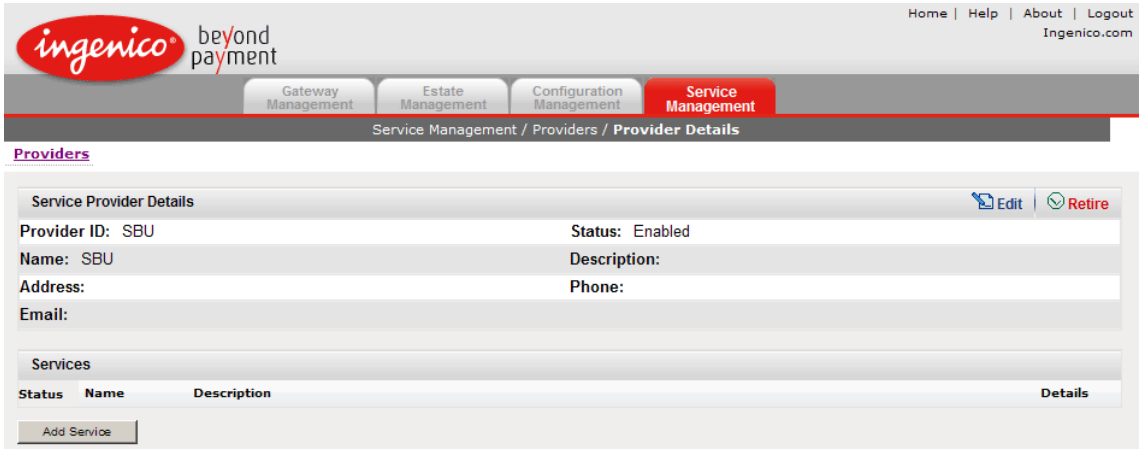
7.6.1. Adding a service to a Service Provider

To add a new service to a Service Provider:

1. In the **Service Management** tab click on the **Details** icon ( ) of the provider.



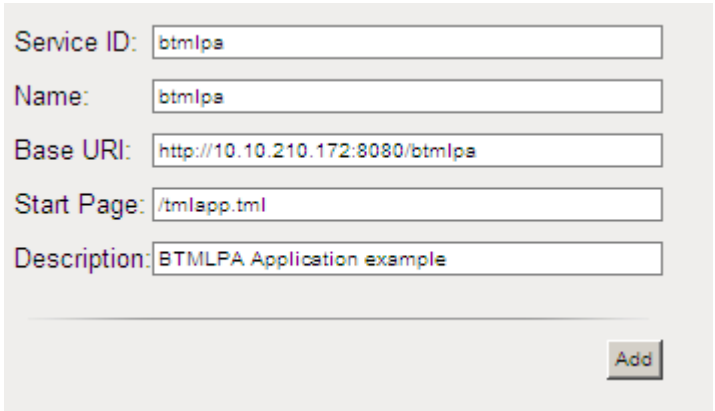
You will see **Provider Details** area for this provider.



2. Click **Add Service** button and enter the service details in the pop-up window.

Note: use the IP and port of your Apache Tomcat server.

Note 2: add web component name in Base URI field



Note: see section **5.3.3** on page 15 for the Base URI and the Start Page parameters for each example service.

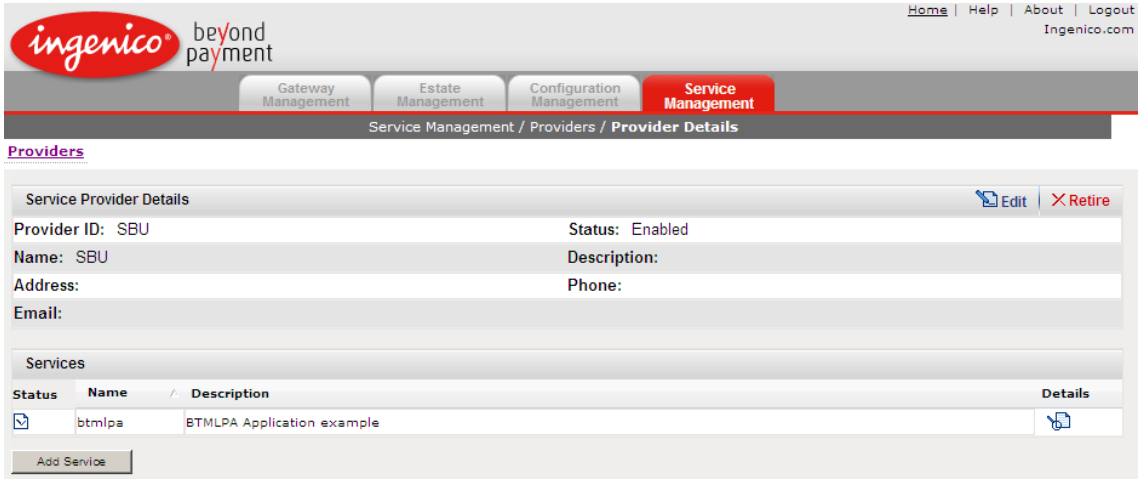
3. Click the **Add** button and the service will be added to the provider.

The next step is to enable this service.

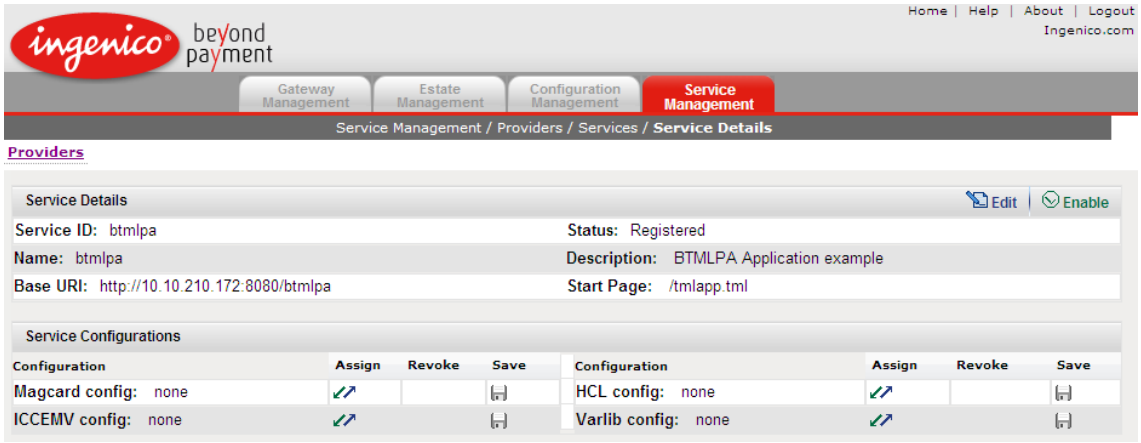
7.6.2. Enabling a service

Before a service can be used, it must be enabled by the Service Provider:

1. In the Provider Details window, click on the Details icon ( ) of the service.



You will see a **Service Details** area for this service.



2. Click the **Enable** link.

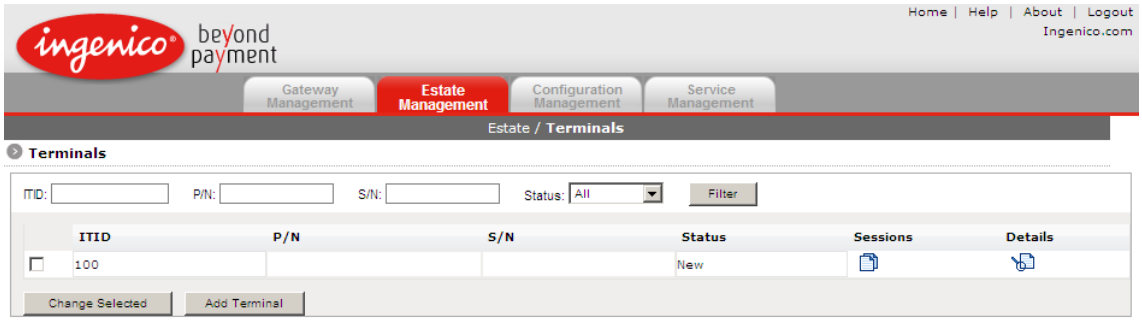
You will be informed that the service status has been changed and it is now Enabled.

The next step is to subscribe to a terminal this service.

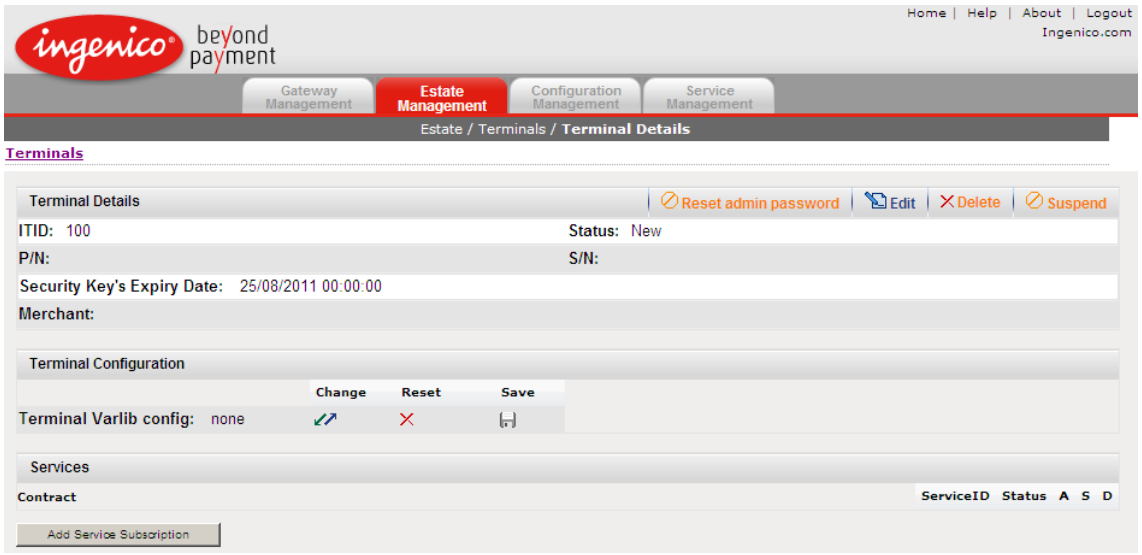
7.6.3. Subscribe a terminal to a service

A terminal must be linked to service before it can access it.

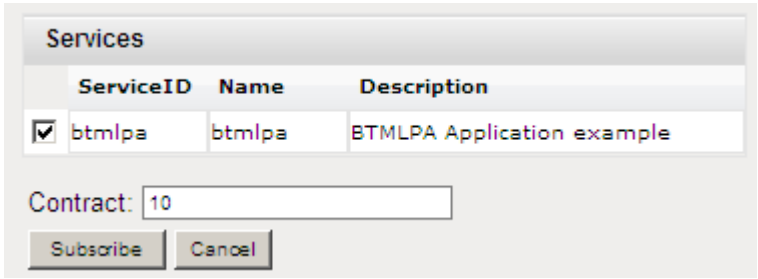
1. Access the **Estate Management** tab and click on the **Details** icon ( ) of the terminal.



The **Terminal Details** page will be displayed.



2. Click the **Add Service Subscription** button. You will see a list of available services.



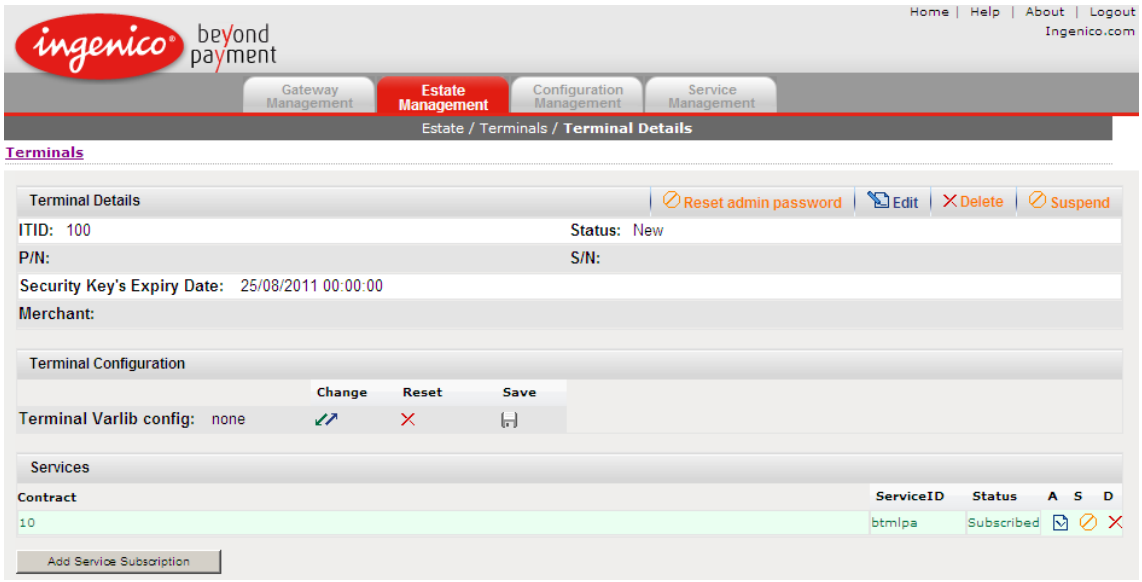
3. Tick the services you wish to add, enter the contract id and click the **Subscribe** button.

Note: for SDK, the contact id can be any string.

The service will be added to the terminal. It will have a Subscribed status, and still needs to be activated.

7.6.4. Activating a service

A subscribed service must be activated before it can be used.



To do that, access the **Terminal Details** area and click the **A**ctivate icon ( ) for the service you wish to turn on.

The service should now be accessible to this terminal.

Note: other service actions you can perform here are **S**uspend and **D**elete.

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8. Operating the Terminal Simulator

8.1. Starting the Simulator

To start Incendo Online Terminal Simulator:

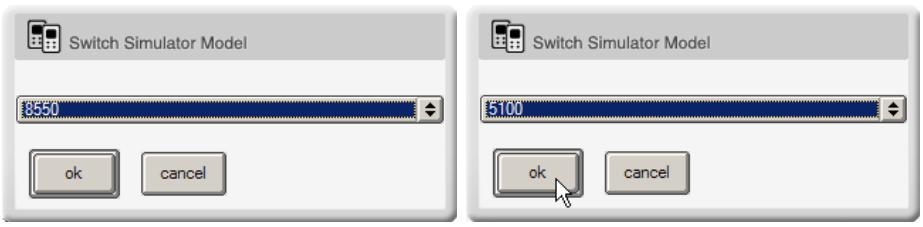
1. Navigate to [SIMULATOR_HOME] folder.
2. Run the **oebr.exe** file by double-clicking its icon 

A set of windows belonging to the Simulator's user interface is displayed on the screen

8.2. Switching between the terminal models

Incendo Online Terminal Simulator can emulate different terminal models, namely, *Ingenico 8550* and *Ingenico 5100*. By default, the Simulator works as an *Ingenico 8550* terminal.
To switch the Simulator into a different terminal model emulation mode, for example, to make it work as *Ingenico 5100* (when it is working as an *Ingenico 8550* terminal):

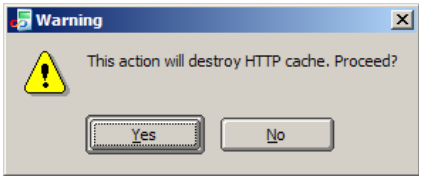
1. Click the round **M** button  in the upper part of the **Terminal** window. The **Switch Simulator Model** window is displayed.



2. In the **Switch Simulator Model** window, select **5100** from the list, and then click **ok**

The **Warning** window is displayed. You are asked to confirm your intention to switch the terminal model.

3. Click **Yes** in the **Warning** window. The **Terminal** window is updated. OpenEstate Terminal Simulator has switched into *Ingenico 5100* emulation mode.



Note: every time you switch the terminal model you will have to re-initialize your terminal. If you wish to use the Simulator in different modes, it is best to install the Terminal Simulator package into several directories. The Simulator in each directory can then be set to a particular terminal model, and then activated with the Gateway.

8.3. Configuring the terminal

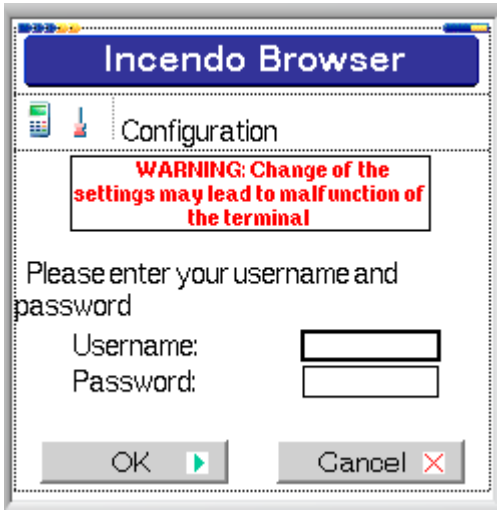
To access the Gateway you may need to modify the terminal configuration.

Note: this process is the same for Terminal Simulator or for an Incendo Browser-enabled terminal.

8.3.1. Accessing the Configuration menu

1. Select **Configuration** from the Incendo Browser menu

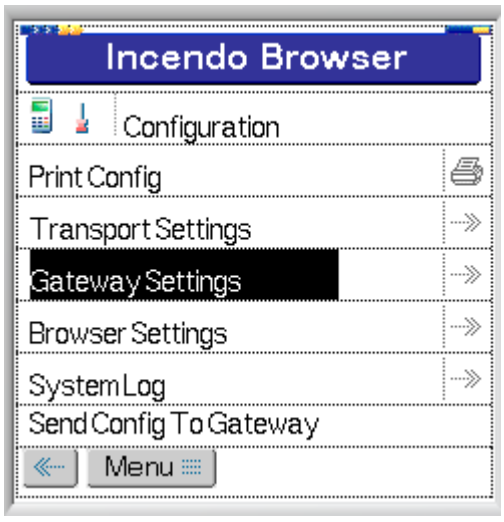
You will see a login screen



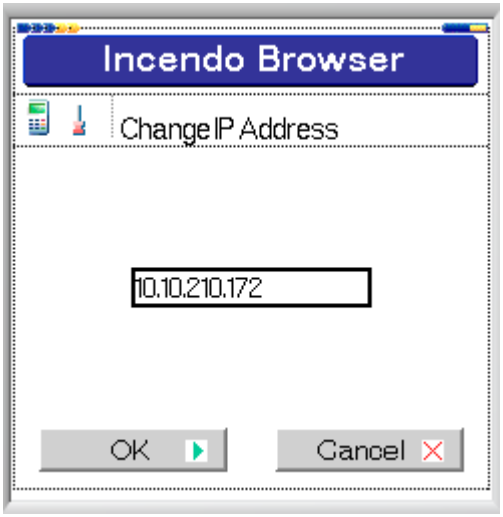
2. Using the keys or the virtual keyboard enter the default credentials:
username: **admin**
password: **Adg5678**
3. Click **OK** button.
You will be asked to pick a new password. Once you enter a new password, you will see the Configuration menu.

8.3.2. Modifying the Gateway IP

The default IP for accessing Incendo Online Gateway is 127.0.0.1
To modify the Gateway settings:
1. In the Configuration menu, access Gateway **Settings** link



2. Then, select **Change IP Address**
3. Use the input field to enter the new IP



4. Click **OK** to save changes

Click **Menu** button to go back to the Incendo Browser menu

8.4. Initializing a terminal

Before you can access the Incendo Gateway, the terminal needs to be initialized.

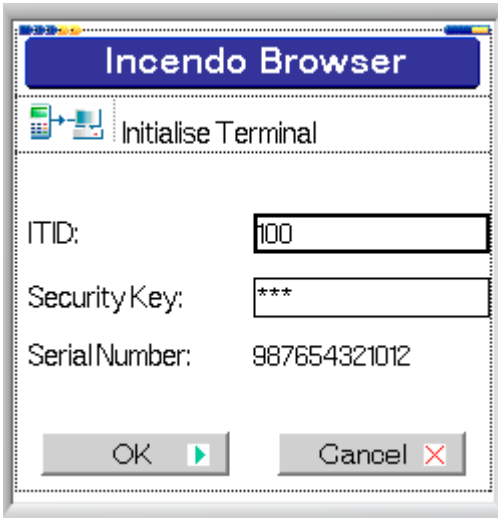
You can only initialize the terminals with the ITIDs that have already been added to the Gateway database via its GUI.

Note: if you have been following this document in a sequence, you have already added a terminal with ITID **100** to the database.

To initialize a terminal:

1. Use the **Initialise Terminal** link in the Browser menu

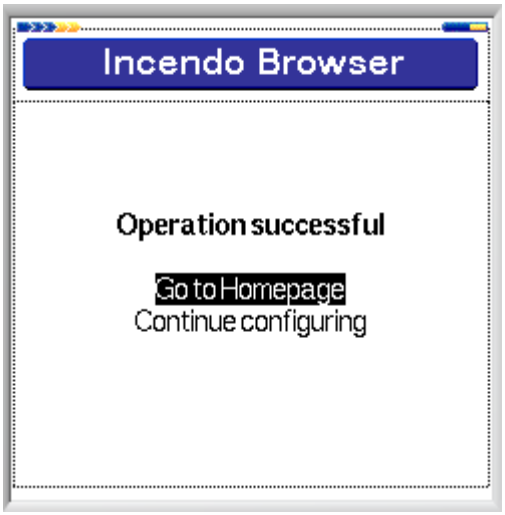
You will be asked to enter the ITID and the security key.



2. We will use the defaults - ITID **100** and the security key **100**
3. Click **OK**.

The terminal will connect to the Gateway using the initialization port (61001) and the terminal will be activated.

You will see an **Operation Successful** screen once the initialization is finished.



8.5. Using the services list

The services list is the main entry point for operation of the Incendo Online Browser-enabled terminal. The Browser receives a list of services that have been activated for this terminal from the Incendo Gateway.

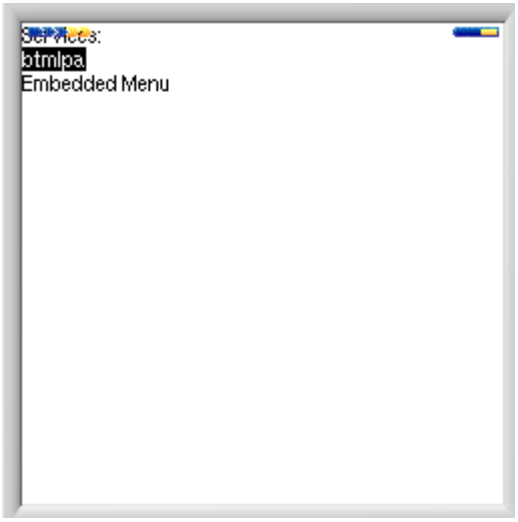
Note: the services are added to the terminals via the Incendo Gateway GUI.

8.5.1. Accessing the active services list

Once the terminal has been initialized, to access the active services list use the **Go to Homepage** link of the Browser menu.

8.5.2. Accessing a service

To access a service, simply use its link in the services list



If you have been following this document in a sequence, you should have one service available for your terminal. Use **btmlpa** link to access BTMLPA Application Examples.

After the images and the TML pages have been loaded from the web server, you should see the BTMLPA Application Example menu on your terminal screen.