



## DraGon User Guide

*This document describes the installation and usage of DraGon, the web application for SOA Governance, by eBM WebSourcing.*

DraGon Team

Anne-Marie BARTHE <[anne-marie.barthe@ebmwebsourcing.com](mailto:anne-marie.barthe@ebmwebsourcing.com)>

Olivier FABRE <[olivier.fabre@ebmwebsourcing.com](mailto:olivier.fabre@ebmwebsourcing.com)>

- December 2008 -



(CC) EBM WebSourcing - This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/>



# Table of Contents

Structure of the document .....	3
1. Pre-requisites .....	4
2. Presentation of DraGon .....	5
3. Installation .....	6
3.1. Configure a database and a Lucene index .....	6
3.2. Installing the application .....	7
3.3. Accessing the application .....	8
4. DraGon Administration .....	10
4.1. Initialize DraGon Database .....	10
5. DraGon organizations management .....	11
5.1. Create an organization .....	11
5.2. View/edit an organization .....	11
5.3. Add posts to an organization .....	13
5.4. Create a post .....	14
5.5. View/edit a post .....	14
5.6. Delete a post .....	14
5.7. Create a person .....	15
5.8. View/edit a person .....	15
5.9. Delete a person .....	16
5.10. How does the search engine work ? .....	16
5.11. Search organizations .....	16
5.12. Search persons .....	17
6. DraGon services management .....	18
6.1. How to import a service .....	18
6.2. View service's information (purpose, endpoints, actors, etc.) .....	18
6.3. View service's endpoints .....	21
6.4. Search services .....	23
7. DraGon SLA management .....	24
7.1. Create an agreement .....	24
7.1.1. Pre-requisites .....	24
7.1.2. Create an agreement between a client and a provider .....	24
7.2. Edit an agreement .....	25
7.3. Search agreements .....	26
7.4. Import an agreement .....	26
8. DraGon Runtime Management .....	28
8.1. Add a Runtime Manager .....	28
8.2. Edit a Runtime Manager and Synchronize Execution Environment with DraGon Registry .....	28
8.3. Edit an Execution Environment .....	29
8.4. Edit a Processor .....	29
8.5. Edit an Environement Federation .....	30
8.6. Search Runtime Manager, Processor, Execution Environments and Environment Federations .....	30

# Structure of the document

This document describes the installation and the use of DraGon. It is designed for DraGon users.

# Chapter 1. Pre-requisites

Before installing the DraGon web application, be sure that you have installed the following elements :

- A [JDK 1.5.0](#) or later,
- A servlet container like [Apache Tomcat 5.5.26](#) or later,
- A Web navigator like :
  - [Firefox 2.0](#) or later with Javascript activated,
  - [Chrome](#) with Javascript activated,
  - [Internet Explorer 6](#) or later with Javascript activated,
  - [Opera 9.6](#) or later with Javascript activated,
  - [Safari 3.1.2](#) or later with Javascript activated.
- Optional : A relational database like :
  - [MySQL 5.0](#) or later,
  - [HSQL 1.8.0](#) or later, etc.

By default, DraGon is configured to use HSQL database, which is embedded into Dragon (the HSQLDB is configured in memory mode).

## Chapter 2. Presentation of DraGon

DraGon is made of five parts :

- **Administration** : allows you to manage DraGon database, settings, etc.
- **Organizations management** : allows you to manage the entities like organizations, posts and persons.
- **Services management** : in this section you can add services to the registry, search services into the registry, etc.
- **SLA management** : this part of DraGon allows you to create, edit, delete service agreements of the registered services for the registered organizations.
- **Runtime Management** : allows you to connect DraGon to a Service execution environment like an Enterprise Service Bus (PEtALS), an Application Server, etc.

Please note that the application is available in English and soon in French ! In the future, to change the used language, click on the choosen country flag (located on the top right side of the application).

# Chapter 3. Installation

## 3.1. Configure a database and a Lucene index

The default configuration of the DraGon application uses an HSQL database, in non-persistent mode (memory mode). That means that when the servlet container is stopped, all the data are deleted (because they were not persisted).

You may want to change this configuration : use HSQL database but in file mode (to persist data), or change the HSQL database for a MySQL database for example. We will see how to do that.

DraGon uses a Lucene index to store information about stored entities to provide advanced search capabilities. The default configuration stores the index in memory. So, if the servlet container is stopped, the index is lost. This default setting must only be used with a non-persistent storage (HSQLDB in memory mode). This configuration must be modified if you use a persistent storage like HSQLDB in file mode or MySQL. We will see below, how to configure a file system directory for index purpose.

DraGon is packaged as a war. To change the database configuration, you have to *unzip the war* archive. Go into the *WEB-INF* directory and open the *dragon.properties* file.

The default dragon.properties file is (NB : here, we have disabled the MySQL configuration and enabled the HSQLDB configuration, Indexation is set in memory mode) :

```
#####
### DataSource properties
#####

## MySQL DataSource
# jdbc.driverClassName = com.mysql.jdbc.Driver
# jdbc.url = jdbc:mysql://localhost:3306/dragon
# jdbc.username = root
# jdbc.password = ebm31
# jdbc.hibernate.dialect = org.hibernate.dialect.MySQL5InnoDBDialect
# jdbc.hibernate.hbm2ddl.auto = update
# jdbc.hibernate.show_sql = false

## In Memory HSQL DataSource
jdbc.driverClassName = org.hsqldb.jdbcDriver
jdbc.url = jdbc:hsqldb:mem:dragon
jdbc.username = sa
jdbc.password =
jdbc.hibernate.dialect = org.hibernate.dialect.HSQLDialect
jdbc.hibernate.hbm2ddl.auto = update
jdbc.hibernate.show_sql = false

#####
### Indexation properties
#####

## In Memory Index
compass.index.url = ram://compass

## File System Index
# compass.index.url = file://c:/compass
```

The HSQL DataSource (in memory mode) is the one used by default. You also have a MySQL configuration which is disabled by default.

Let's have a look at the available parameters (these parameters values are to adapt according to the used database) :

- **jdbc.driverClassName** : this is the JDBC driver which enables the connection between the Java application and the database. A list of available JDBC drivers is available at [JDBC Data Access API](#).
- **jdbc.url** : this is the URL of the database.
- **jdbc.username** : this is the username of the account used to access to the database.
- **jdbc.password** : this is the password of the account used to access to the database.
- **jdbc.dialect** : this is the Hibernate dialect allowing the translation of SQL information to the targeted database. Available Hibernate dialects are :
  - **DB2** : org.hibernate.dialect.DB2Dialect

- **DB2 AS/400** : org.hibernate.dialect.DB2400Dialect
- **DB2 OS390** : org.hibernate.dialect.DB2390Dialect
- **PostgreSQL** : org.hibernate.dialect.PostgreSQLDialect
- **MySQL** : org.hibernate.dialect.MySQLDialect
- **MySQL 5 with InnoDB** : org.hibernate.dialect.MySQL5InnoDBDialect
- **MySQL with InnoDB** : org.hibernate.dialect.MySQLInnoDBDialect
- **MySQL with MyISAM** : org.hibernate.dialect.MySQLMyISAMDialect
- **Oracle (any version)** : org.hibernate.dialect.OracleDialect
- **Oracle 9i/10g** : org.hibernate.dialect.Oracle9Dialect
- **Sybase** : org.hibernate.dialect.SybaseDialect
- **Sybase Anywhere** : org.hibernate.dialect.SybaseAnywhereDialect
- **Microsoft SQL Server** : org.hibernate.dialect.SQLServerDialect
- **SAP DB** : org.hibernate.dialect.SAPDBDialect
- **Informix** : org.hibernate.dialect.InformixDialect
- **HypersonicSQL** : org.hibernate.dialect.HSQLDialect
- **Ingres** : org.hibernate.dialect.IngresDialect
- **Progress** : org.hibernate.dialect.ProgressDialect
- **Mckoi SQL** : org.hibernate.dialect.MckoiDialect
- **Interbase** : org.hibernate.dialect.InterbaseDialect
- **Pointbase** : org.hibernate.dialect.PointbaseDialect
- **FrontBase** : org.hibernate.dialect.FrontbaseDialect
- **Firebird** : org.hibernate.dialect.FirebirdDialect
- **HSQLDB** : org.hibernate.dialect.HSQLDialect
- **jdbc.hbm2ddl.auto** : this parameter defines if the application creates a new database from scratch (create) or only update an existing database (update). Update mode also create a database if it doesn't exist. Except for an HSQLDB in memory mode, it is recommended to set the value at **update**.

Let's have a look at the available parameter for the indexation :

- **compass.index.url** : the index URL, "ram://path" for an in memory index, "file://path" for a file system persisted index.

## 3.2. Installing the application

DraGon is packaged as a WAR archive, you just have to deploy it in your servlet container.

If you have previously unwar the DraGon archive to set your own database configuration, you have two ways :

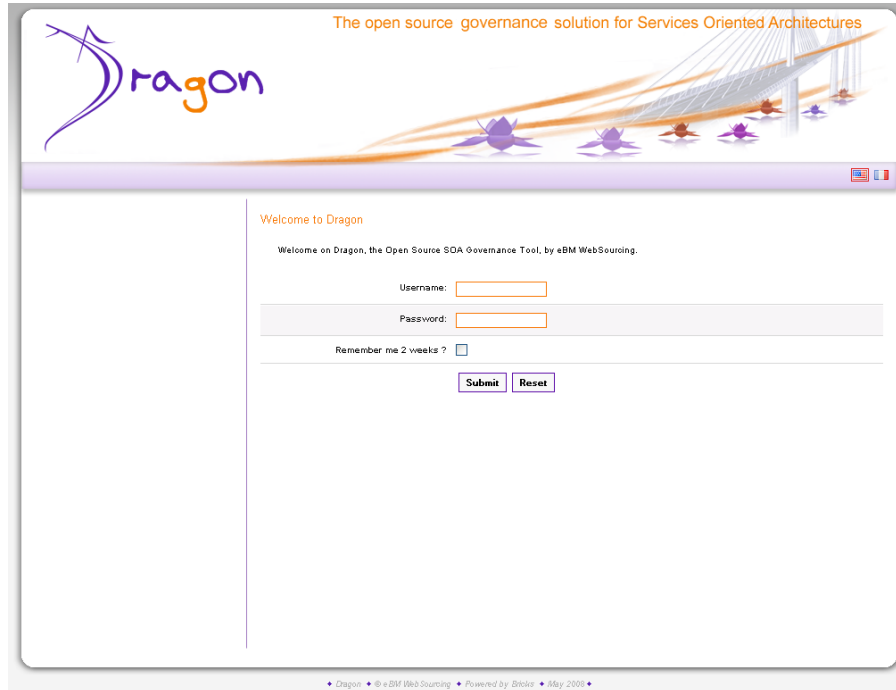
- Copy/paste your DraGon directory directly into your serlet container,

- Zip your Dragon directory as a WAR archive, then copy/paste this new archive into your servlet container (into the WebApp directory if you use Tomcat).

For instance, Tomcat users just have to copy the war to the *webapps* directory and wait for Tomcat to deploy the application.

### 3.3. Accessing the application

Once deployed, DraGon can be accessed in your web browser through the address [http://host:port/dragon- \$\{\$ version-number \$\}\$ /Dragon](http://host:port/dragon-<math>\{</math>version-number<math>\}</math>/Dragon). If your server configuration has "localhost" as host, 8080 as port, the URL for DraGon V1.0 is : <http://localhost:8080/dragon-1.0/Dragon>.



You reach the Login page of the application. You can choose to remember your logging information for two weeks.

DraGon is setup with two default users :

- An **administrator** allowed to access to all DraGon features : Username "**dragon**" / Password "**dragon**"
- A **simple user** having limited access rights : Username "**user**" / Password "**user**"

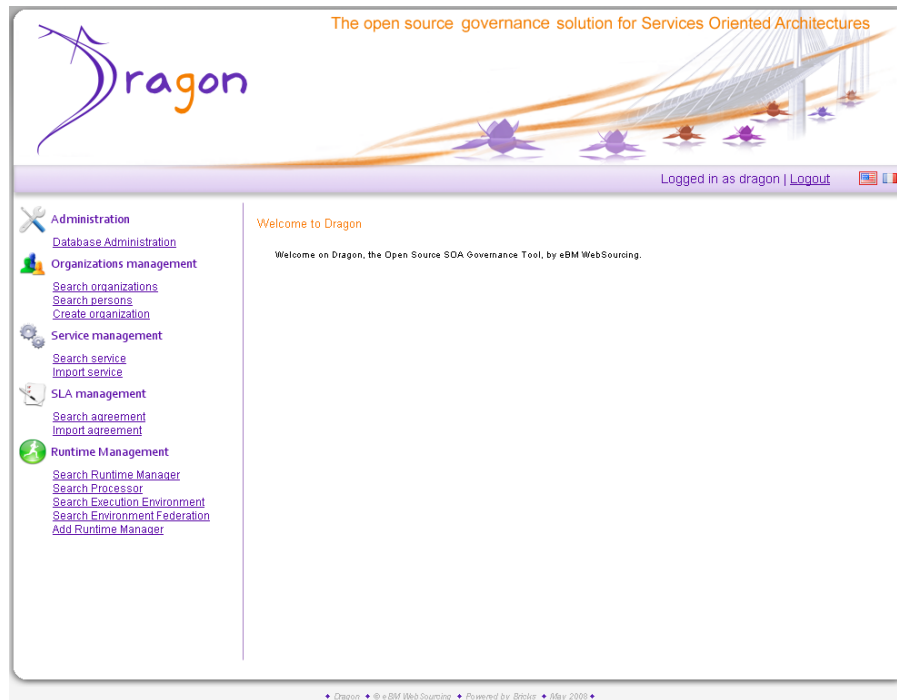
You can add/remove users by editing the applicationContext-security.xml file that sits in the same directory as the dragon.properties file ( $\{$ dragon-root $\}$ /WEB-INF/). You must edit this part of the file :

```
<authentication-provider>
- <password-encoder -hash="md5" -/>
- <user-service>
- - - <user -name="dragon" -password="8621ffdbc5698829397d97767ac13db3"
- - - -authorities="ROLE_USER, -ROLE_ADMIN" -/>
- - - <user -name="user" -password="ee11cbb19052e40b07aac0ca060c23ee"
- - - -authorities="ROLE_USER" -/>
- </user-service>
</authentication-provider>
```

Two roles are available : **ROLE\_ADMIN** and **ROLE\_USER**. All users must have at least the **ROLE\_USER** role.

Passwords must be encoded in md5. An online encoder is available at [http://7thspace.com/webmaster\\_tools/online\\_md5\\_encoder.html](http://7thspace.com/webmaster_tools/online_md5_encoder.html).

Once you are successfully logged in, you can see the following screen :



Please note that in the following screenshots, when you see a **field with a yellow foreground**, it means that **the field is required**.

# Chapter 4. DraGon Administration

## 4.1. Initialize DraGon Database

You could initialize the DraGon database by providing an XML dataset that conforms to the **dragon-dataset.xsd** XML schema included in the `${dragon-root}/WEB-INF/classes/dataset/`. Some dataset samples are available in this directory. To load a dataset simply fill the following field with the dataset file URL :

Database Administration

Dataset URL

You can load a dataset sample available in the "`${dragon-root}/WEB-INF/classes/dataset/`" directory by entering an URL like this : `classpath:dataset/dataset-file-name`

To load a dataset available at `c:\dataset\dataset.xml`, enter the following URL : `file:///c:/dataset/dataset.xml`

# Chapter 5. DraGon organizations management

## 5.1. Create an organization

What is an organization ? This can be a company, a part of a company, a unit of a company. An organization provides services, human resources (called **person** here), has positions (called **post** here). To create an organization, you have to fill :

- The name of the organization,
- The contact e-mail of the organization,
- The name of the city where the organization is located,
- The name of the country where the organization is located.

Optional elements to fill are :

- The legal status of the organization,
- The type of organization (Small Business, etc.),
- The business domain of the organization (IT, Motors, etc.),
- The Website of the organization,
- The Mother organization name of the organization (the current new organization can be a part/ an unit of an other organization,
- Concerning the organization's address : the street number, the street name, the zipcode, the state.

The screenshot shows the 'Create a new organization' form in the DraGon web application. The form is titled 'Create a new organization' and is located on the right side of the page. The left side of the page contains a navigation menu with categories like Administration, Organizations management, Service management, SLA management, and Runtime Management. The form fields are as follows:

- Name: Laccera
- Type of organization: Grand groupe
- Is it a legal entity?:
- Business: Aeronautique
- Web site: http://www.laccera.com
- Email address: constant@laccera.com
- Mother organization: No mother organization
- Street Number: 12
- Street: Esplanade Charles de Gaulle
- Complement (flat, building...): Bâtiment 4
- Zipcode: 78450
- City: Villepreux
- State: Ile-de-France
- Country: France

At the bottom of the form, there are 'Submit' and 'Reset' buttons. The page footer indicates 'DraGon - © 2008 Web Country - Powered by Drupal - May 2008'.

## 5.2. View/edit an organization

The next screen after creating an organization is the "View/Edit" screen. The screen is set on view mode (default). To edit the data, you have to click on the Edit button.

You can see three tabs :



- The Identity card tab : there you can view the previous data that you have given to register the current organization.

Organization: Lacoera

Identity Card | Organization's posts | Organization's persons

Name: Lacoera

Type of organization: Grand groupe

Is it a legal entity?

Business: Aeronauticals

Web site: http://www.lacoera.com

Email address: contact@lacoera.com

Mother organization: No mother organization

Street Number: 12

Street: Esplanade Charles de Gaulle

Complement (flat, building,...): Bâtiment 4

Zipcode: 79450

City: Villepreux

State: Île-de-France

Country: France

Edit Delete

- The Organization's posts tab : there you can view the various positions of the organization (e.g.: manager, developer, etc.).

You can also add a position to the list. For this purpose, you can create a new Post (i.e. create a new position, available for all the companies registered on DraGon into the posts' list), or you can add an existing position, chosen via the posts' list.

Organization: Lacoera

Identity Card | Organization's posts | Organization's persons

Add Post Create Post

1 - 4 / 4

Name	Nature	Delete
<a href="#">Java Developer</a>	IT	Delete
<a href="#">Junior Java Developer</a>	IT	Delete
<a href="#">Quality Manager</a>	Technical	Delete
<a href="#">Sales Manager</a>	Sales	Delete

We will see later how to create (see Section 5.4, “Create a post”) and add (see Section 5.3, “Add posts to an organization”) posts to an organization. Note that if you click on the name of the post in the list, you can see the complete “id card” of this post and edit its information.

Post: Quality Manager

Name: Quality Manager

Post nature: Technical

Post Description: In an organization that produces goods or provides services, the person in charge of quality control ( the activity of checking that the goods or services are of an acceptable standard)

Edit

- The Organization's persons tab : there you can view the several persons who have a role on the SOA governance into the current organization.

You cannot create a person if there is no post linked (via "create" or "add" actions seen below) to the organization. You need to create a person, who will automatically appear into the list. A person has a firstname, a middlename, a lastname, a post, an e-mail address, a phone number and a localization (where does he/she work ?).

Organization: Lacoera

Identity Card | Organization's posts | Organization's persons

Create Person

1 - 4 / 4

Last name	First name	Middle name	Localization	Email	Post	Delete
<a href="#">ALLOULA</a>	Mariam		Quality Dpmt. 2	m.aloula@lacoera.com	Quality Manager	<a href="#">Delete</a>
<a href="#">DEJEAN</a>	Adrien		CIS Dpmt. 3	a.dejean@lacoera.com	Java Developer	<a href="#">Delete</a>
<a href="#">BELAUD</a>	Christophe		CIS Dpmt. 1	c.belaud@lacoera.com	Junior Java Developer	<a href="#">Delete</a>
<a href="#">FAYOLLE</a>	Myriam		Sales Dpmt. 3A	m.fayolle@lacoera.com	Sales Manager	<a href="#">Delete</a>

We will see later how to create a person (see Section 5.7, "Create a person"). Note that if you click on the name of a person in the list, the complete data about him/her appears, and you can edit it.

Person: FAYOLLE Myriam

Title: Ms.

First name: Myriam

Middle name:

Last name: FAYOLLE

Email address: m.fayolle@lacoera.com

Phone number: 0263345796

Localization: Sales Dpmt. 3A

Organization: Lacoera

Post: Sales Manager

Edit Delete

### 5.3. Add posts to an organization

Previously, we have seen that an organization owns several posts. A post can be also linked to many companies (ex : "HR Manager" is a position owned by many companies). So, you can add to Company B a post previously created for Company A (this post was automatically added to Company A). You don't need to duplicate this post to add it to Company B.

Come back on the View/Edit form of the organization. We have the following screen :

Organization: Lacoera

Identity Card | Organization's posts | Organization's persons

Add Post Create Post

1 - 4 / 4

Name	Nature	Delete
<a href="#">Java Developer</a>	IT	<a href="#">Delete</a>
<a href="#">Junior Java Developer</a>	IT	<a href="#">Delete</a>
<a href="#">Quality Manager</a>	Technical	<a href="#">Delete</a>
<a href="#">Sales Manager</a>	Sales	<a href="#">Delete</a>

Click on the Add Post Button. Now you see a list of posts :

Add post

Name: Business Engineer, CEO, CIS Manager, Draughtsman, HR Manager, HR Manager Assistant, Production Manager, Senior Java Developer

Submit

A multiple selection is allowed (by pressing CTRL while clicking on the name of the posts you want to add to the current organization). After validating your choice, you automatically go back to the list of posts.

Please note that the posts list to add is updated after each adding of post. As a consequence, an added post won't appear in the list so you cannot add twice the same post (avoiding double data).

When the list is empty, the *Add button* is disabled (it's time to think about creating new posts !).

## 5.4. Create a post

If there is no post matching the position you want to add to the organization, you have to create it. Go back on the *Organization's post tab*. Click on the *Create Post* button : you are now on a form to create a post. This post will be automatically added to the current organization and will be also available into the list of available posts to add of the other organizations.

To create a post, you have to fill :

- The name of the post (ex: Developer),
- The nature/type of the post (ex: IT),
- The description of the post (a brief description that underlines the skills of the post).

Create a new post

Name	<input type="text"/>
Post nature	<input type="text"/>
Post Description	<input type="text"/>

## 5.5. View/edit a post

When you click on a post into the list of posts, you can see its whole information and edit (click on the *Edit button* to change data).

Post: Quality Manager

Name	Quality Manager
Post nature	Technical
Post Description	In an organization that produces goods or provides services, the person in charge of quality control ( the activity of checking that the goods or services are of an acceptable standard)

## 5.6. Delete a post

To delete a post from the list of posts of an organization, you have only to click on the *Delete link* at the right side of the array. A message box asks you to confirm the deletion of the post s(the post is not deleted from the database, only the link between the post and the current organization is broken). The deleted post is now available into the choice list of the Add post form... so you can add it again !



### Caution

If a post is used by a person in the current company, the Delete link is disabled. Only a non-used post can be deleted !

## 5.7. Create a person

The **next step** you should do is to create persons. What is a person ? This not a user. This is someone who has interactions with services, as a manager, a designer, a developer, a hot liner, etc.

A person is linked to an organization and has a post. To create a person, go into the "Organisation's persons" tab of an organization.

Organization: Lacoera

Identity Card | Organization's posts | Organization's persons

Create Person

1 - 4 / 4

Last name	First name	Middle name	Localization	Email	Post	Delete
<a href="#">ALLOULA</a>	Mariam		Quality Dpmt. 2	m.aloula@lacoera.com	Quality Manager	<a href="#">Delete</a>
<a href="#">DEJEAN</a>	Adrien		CIS Dpmt. 3	a.dejean@lacoera.com	Java Developer	<a href="#">Delete</a>
<a href="#">BELAUD</a>	Christophe		CIS Dpmt. 1	c.belaud@lacoera.com	Junior Java Developer	<a href="#">Delete</a>
<a href="#">FAYOLLE</a>	Myriam		Sales Dpmt. 3A	m.fayolle@lacoera.com	Sales Manager	<a href="#">Delete</a>

Click on the button "Create person", fill in the following form.

Create a new person

Title

First name

Middle name

Last name

Email address

Phone number

Localization

Post

The mandatory fields are :

- The title of the person,
- The first name of the person,
- The last name of the person,
- The Email address of the person,
- The post of the person.

Optional fields to fill are :

- The middle name of the person,
- The phone number of the person,
- The localization of the person (ex. : Building 5, office B45),

## 5.8. View/edit a person

When you click on the name of a person (into the list of persons of the current organization), you see the View/Edit form.

Person: FAYOLLE Myriam

Title	Ms.
First name	Myriam
Middle name	
Last name	FAYOLLE
Email address	m.fayolle@lacoera.com
Phone number	0263345796
Localization	Sales Dpmt. 3A
Organization	Lacoera
Post	Sales Manager

[Edit](#) [Delete](#)

You can edit the data : click on the *Edit button*, then you are allowed to write in the fields or the form. Then save.

## 5.9. Delete a person

To delete a person from the list of persons of an organization, you have only to click on the *Delete link* at the right side of the array. A message box asks for confirmation of the deletion of the person (the person is definitively deleted from the database, you cannot undo this action).

## 5.10. How does the search engine work ?

Before presenting the search forms, have a look on the DraGon search engine.

The search engine is based on the logical expression **AND**. e.g., you are searching a company located in *Villepreux*, whose name is *Lacoera*. And, you are making a search on two fields : the organization's name and the organization's city. The search engine will return all the results that contain *Lacoera* into the *name field* and/or the *city field* **AND** that contain *Villepreux* into the *name field* and/or the *city field*.

You can use wildcards in the keywords :

- To perform a single character wildcard search use the "?" symbol. To search for "text" or "test" you can use the search: te?t
- To perform a multiple character wildcard search use the "\*" symbol. To search for test, tests or tester, you can use the search: tes\*
- Note: You cannot use a \* or ? symbol as the first character of a search*
- To escape special characters like + - & & || ! ( ) { } [ ] ^ " ~ \* ? : \ use the \ before the character. For example to search for **(test):toto** use the query: \((test)\):toto

## 5.11. Search organizations

In the left vertical menu, you have a link to the *Search Organizations form*.

Search organizations

SEARCH KEY WORDS

Keywords

---

SEARCH ON

Properties:  Organization name  
 Type of organization  
 Localization  
 Business Domain

[Submit](#) [See All](#)

You can restrict search results by ticking search criteria (restrict the number of fields where the key words will be searched).

To display the list of all Organizations in DraGon database push the "See All" button.

E.g., if you tick "Organization name" and "Business Domain", with the context of the "Lacoera Villepreux" search seen previously, there will be no search results, because there is no organization which name equals "Lacoera" or "Villepreux" and business domain equals "Lacoera" or "Villepreux" ("Villepreux" is only present in a city name !).

Search organizations

SEARCH KEY WORDS

Keywords:

---

SEARCH ON

Properties:  Organization name  
 Type of organization  
 Localization  
 Business Domain

---

Organizations Found

1 - 1 / 1

Name	Type	Business	Localization
<a href="#">Lacoera</a>	Grand groupe	Aeronauticals	Villepreux

To access the organization data, click on its name : the view/edit form appears.

## 5.12. Search persons

In the left vertical menu, you have a link to the *Search Persons form*.

Search persons

SEARCH KEY WORDS

Keywords:

---

SEARCH ON

Properties:  Person name  
 Organization  
 Post

You can restrict search results by ticking search criteria (restrict the number of fields where the key words will be searched).

To display the list of all Persons in DraGon database push the "See All" button.

For example, we search all the *Java developers* from the organization named *Lacoera*. So we tick *Organization* and *Post*.

Search persons

SEARCH KEY WORDS

Keywords:

---

SEARCH ON

Properties:  Person name  
 Organization  
 Post

---

Persons Found

2 elements

Title	Last name	First name	Middle name	Email	Phone number	Localization
Mr.	<a href="#">DEJEAN</a>	Adrien		a.dejean@lacoera.com	0263345678	CIS Dpmt. 3
Mr.	<a href="#">BELAUD</a>	Christophe		c.belaud@lacoera.com	0263345679	CIS Dpmt. 1

To access the person data, click on its name : the view/edit form appears.

# Chapter 6. DraGon services management

In this part of the documentation, we will see how to import services into DraGon's registry, how to search services, add organization's and person's roles on services and endpoints (very usefull for the Service Level Agreement, aka SLA).

## 6.1. How to import a service

Importing a service into DraGon's registry is really simple. Go to the "Import service" page. You will see this :

Load an existing service

WsdL URL

You have only to copy/paste the URL of the service's WSDL into the field, then validate.

Load an existing service

WsdL URL

You will arrive on a new screen, displaying the service(s) described by the uploaded WSDL and then registered into DraGon.

New services

1 - 1 / 1

Name	Category
<a href="http://www.webservicex.net/BarCode">http://www.webservicex.net/BarCode</a>	

To access to a service's information (like the roles of the actors (provider, consumer, developer, user, etc.), categorization, brief description of the aim of the service, etc.), click on the service's name : you will arrive on the *View/Edit form* of the service.

## 6.2. View service's information (purpose, endpoints, actors, etc.)

You have several tabs on this form. The first is the **service's ID card**. There, you can fill pieces of information about its category, its purpose and other stuff (select the *Edit button* to edit/add data).

Service: <http://www.webservicex.net/BarCode>

Identity Card | WSDL | Endpoints | Organizations' roles | Person's roles

Name

Category

Purpose

Other information

The second tab is named **WSDL**. If you click on it, the service WSDL (the same as the one which you gave the URL previously) appears.

Service: <http://www.webservice.net/BarCode>

```

<?xml version="1.0" encoding="ISO-8859-1"?>
<definitions xmlns:tns="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/" xmlns:w3="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:tns="http://microsoft.com/wsdl/mime/textMatching/" xmlns:tns="http://www.webservice.net/"
xmlns:wsd="http://schemas.xmlsoap.org/wsdl/" targetNamespace="http://www.webservice.net/">
<type>
<schema elementFormDefault="qualified" targetNamespace="http://www.webservice.net/">
<element name="GenerateBarcode">
<complexType>
<sequence>
<element maxOccurs="1" minOccurs="1" name="BarcodeParam" type="tns:BarcodeData"/>
</sequence>
</complexType>
</element>
<complexType name="BarcodeData">
<sequence>
<element maxOccurs="1" minOccurs="1" name="Height" type="string"/>
<element maxOccurs="1" minOccurs="1" name="Width" type="string"/>
<element maxOccurs="1" minOccurs="1" name="Angle" type="string"/>
<element maxOccurs="1" minOccurs="1" name="Ratio" type="string"/>
<element maxOccurs="1" minOccurs="1" name="Module" type="string"/>
<element maxOccurs="1" minOccurs="1" name="Left" type="string"/>
<element maxOccurs="1" minOccurs="1" name="Top" type="string"/>
<element maxOccurs="1" minOccurs="1" name="CheckSum" type="boolean"/>
<element maxOccurs="1" minOccurs="0" name="FontName" type="string"/>
<element maxOccurs="1" minOccurs="0" name="Barcode" type="string"/>

```

The third tab is named **Endpoints**. This tab displays all of the service's endpoints. As you can see the endpoints are defined into the service's WSDL).

Service: <http://www.webservice.net/BarCode>

Name	Network address	Protocol
<a href="#">BarcodeHttpGet</a>	http://www.webservice.net/generbarcode.asmx	GET
<a href="#">BarcodeSoap</a>	http://www.webservice.net/generbarcode.asmx	http://schemas.xmlsoap.org/soap/http
<a href="#">BarcodeHttpPost</a>	http://www.webservice.net/generbarcode.asmx	POST

Like for services, view information about endpoints is possible. You just have to click on the endpoint's name and its information will be displayed. We will detail it later (see [Section 6.3, "View service's endpoints"](#)).

The fourth tab is named **Organization's roles**. This tab displays the roles of the organizations. If the service is newly registered, there is no organization's role at all.

Service: <http://www.webservice.net/BarCode>

No element

Organization	Role	Delete
<input type="text"/>	All	<a href="#">Delete</a>

No data

To add an organization's role, it is very simple. Click on the 'Create organization's role' button, then fill in the form : choose an organization, then choose a role and validate.

Add an organization's role

Organization:

Role:

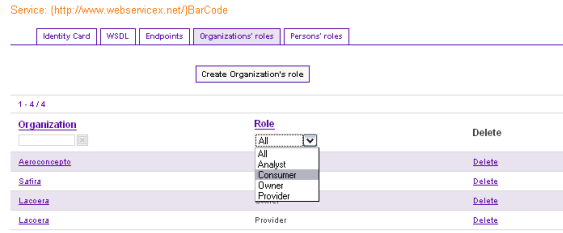
Then, the organization's role appears into the array :

Service: <http://www.webservice.net/BarCode>

1 - 4 / 4

Organization	Role	Delete
<a href="#">Assoconcepis</a>	Consumer	<a href="#">Delete</a>
<a href="#">Saffia</a>	Consumer	<a href="#">Delete</a>
<a href="#">Lacocera</a>	Owner	<a href="#">Delete</a>
<a href="#">Lacocia</a>	Provider	<a href="#">Delete</a>

You can filter the array data by role. E.g. select the *user* role into the list :



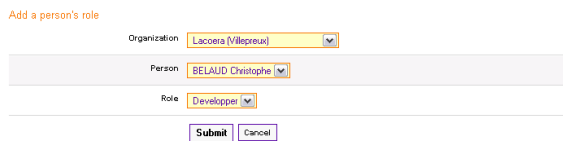
and you obtain :



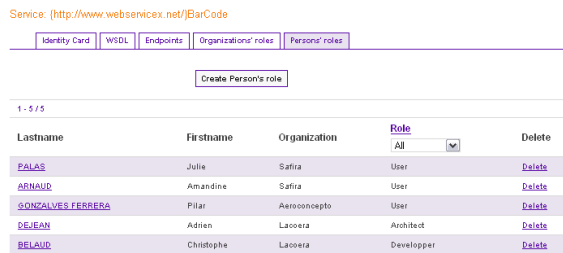
The fifth and last tab is named **Person's roles**. This tab displays the roles that persons of an organization have on the current service. If the service is newly registered, there is no person's role at all.



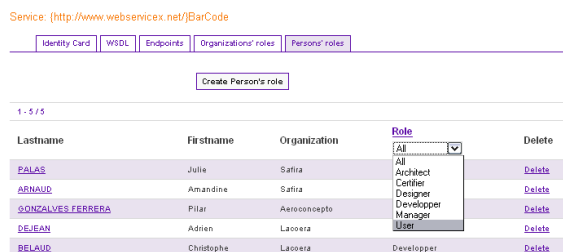
To add a person's role, it is very simple. Click on the 'Create person's role' button, then fill in the form : choose an organization, choose a person, then choose a role and validate.



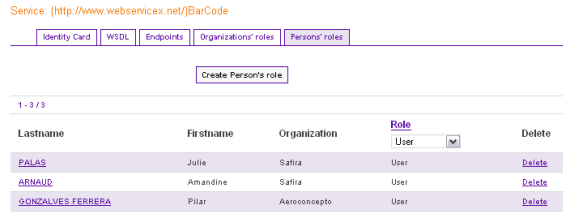
Then, the person's role appears into the array :



You can filter the array data by role. E.g. select the *user* role into the list :



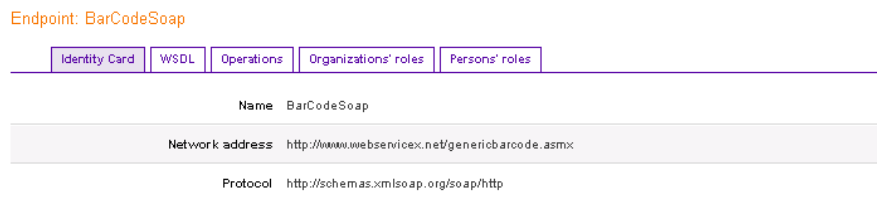
and you obtain :



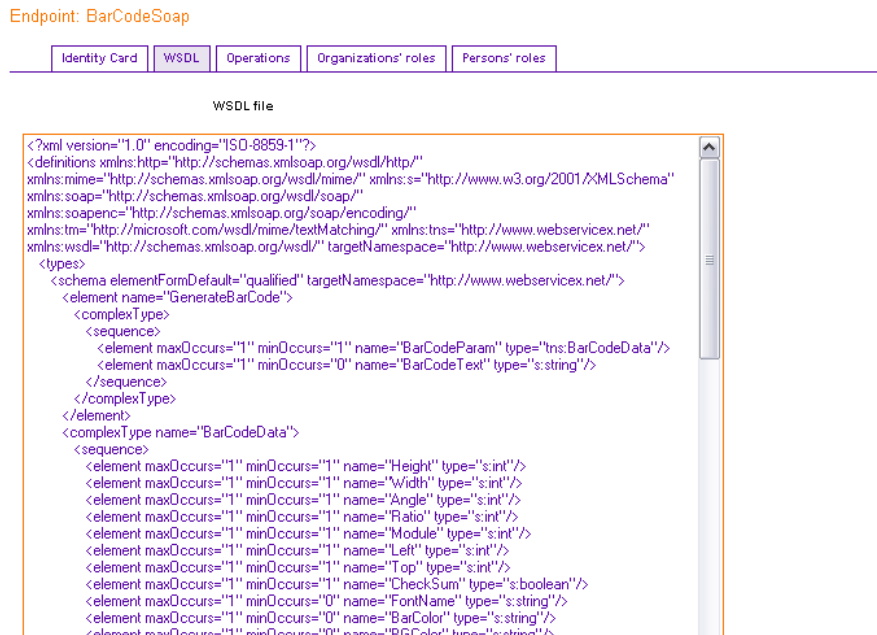
## 6.3. View service's endpoints

To view and edit information about an endpoint (like the roles of the actors (provider, consumer, developer, user, etc.)), click on the endpoint name (reachable via the 'Endpoints' tab of the Service View/Edit screen, as seen previously).

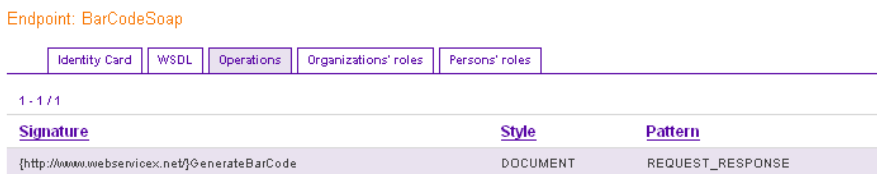
You will arrive on the endpoint's ID card. There, you can fill pieces of information about its category, its purpose and other stuff.



The second tab is named 'WSDL'. If you click on it, the service WSDL (which owns the current endpoint) appears.



The third tab is called 'Operations'. This tab displays all the endpoint's available operations, as you can see below.



The fourth tab is named 'Organization's roles'. This tab displays the roles of the organizations. If the service (and so, the endpoint) is newly registered, there is no organization's role at all.

Endpoint: BarCodeSoap

Identity Card | WSDL | Operations | Organizations' roles | Persons' roles

Create Organization's role

---

No element

Organization	Role	Action	Delete
<input type="text"/>	All		

No data

To add an organization's role, it is very simple. Click on the 'Create organization's role' button, then fill in the form : choose an organization, then choose a role and validate.

Add an organization's role

Organization: Lacoera [Villepreux]

Role: Owner

Submit Cancel

Then, the organization's role appears into the array :

Endpoint: BarCodeSoap

Identity Card | WSDL | Operations | Organizations' roles | Persons' roles

Create Organization's role

---

1 - 2 / 2

Organization	Role	Action	Delete
<input type="text"/>	All		
<a href="#">Aeroconcepto</a>	Consumer	<a href="#">Create Agreement</a>	<a href="#">Delete</a>
<a href="#">Lacoera</a>	Owner		<a href="#">Delete</a>

You can observe that when an organization is a **consumer**, a link named **Create Agreement** appears (see previous figure). It is a link to go to the form to create a Service Level Agreement (see [Chapter 7, DraGon SLA management](#)).

The fifth and last tab is named 'Person's roles'. This tab displays the roles that persons of an organization have on the current endpoint. If the service (and so, the endpoint) is newly registered, there is no person's role at all.

Endpoint: BarCodeSoap

Identity Card | WSDL | Operations | Organizations' roles | Persons' roles

Create Person's role

---

No element

Lastname	Firstname	Organization	Role	Action	Delete
			All		

No data

To add a person's role, it is very simple. Click on the 'Create person's role' button, then fill in the form : choose an organization, choose a person, then choose a role and validate.

Add a person's role

Organization: Lacoera [Villepreux]

Person: BELAUD Christophe

Role: Architect

Submit Cancel

Then, the person's role appears into the array :

Endpoint: BarCodeSoap

Identity Card | WSDL | Operations | Organizations' roles | **Persons' roles**

Create Person's role

1 - 2 / 2

Lastname	Firstname	Organization	Role	Action	Delete
<a href="#">DEJEAN</a>	Adrien	Laoera	Architect		<a href="#">Delete</a>
<a href="#">GONZALVES FERRERA</a>	Pilar	Aeroconcepto	User	<a href="#">Create Agreement</a>	<a href="#">Delete</a>

You can observe that when a person is a **user**, a link named **Create Agreement** appears (see previous figure). It is a link to go to the form to create a Service Level Agreement (see [Chapter 7, DraGon SLA management](#)).

## 6.4. Search services

The use of the services search engine is similar to the one for the organizations and the persons. Enter your keywords, select the fiels where the engine will search on.

Search a service

SEARCH KEY WORDS

Keywords:

SEARCH ON

Properties

- Name
- Category
- Operations
- Protocol
- Purpose
- Other information
- Organization (and role)

To display the list of all Services in DraGon database push the "See All" button.

The results are displayed as following :

Service Found

1 elements

Name	Category
<a href="http://www.webservices.net/BarCode">http://www.webservices.net/BarCode</a>	Utilities

# Chapter 7. DraGon SLA management

This section defines how create, edit, search or import a Service Level Agreement (SLA) contract based on WS-Agreement specification (see WS-Agreement at <http://www.ogf.org/documents/GFD.107.pdf> )

## 7.1. Create an agreement

### 7.1.1. Pre-requisites

Before creating an agreement, you must:

- import a technical service (see Section 6.1, “How to import a service”).
- create a client organization and/or person (see Section 5.1, “Create an organization” or Section 5.7, “Create a person”). This organization or person will represent in the next section the client of service. The client is the initiator of the creation of the agreement.

### 7.1.2. Create an agreement between a client and a provider

To create an agreement on a service endpoint, you must go to the edit page of a service endpoint (see Section 6.3, “View service's endpoints”) and add a role to the client organization or person

- For a client organization, you must add the "Consumer" role.
- For a client person, you must add the "User" role".

Endpoint: CurrencyConverterSoap

Identity Card | WSDL | Operations | Organizations' roles | Persons' roles

Create Person's role

1 - 1 / 1

Lastname	Firstname	Organization	Role	Action	Delete
Salatge	Nicolas	eBM WebSourcing	User	Create Agreement	Delete

Once the role added, the "Create Agreement" action appears. Click on it to see the following page.

Create agreement

Name: MySLAContract

Client Endpoint: Salatge\_Nicolas\_CurrencyConverterSoap\_clientEnr

Provider Endpoint: CurrencyConverterSoap

Client Name: Salatge\_Nicolas

Provider Name:

Expiration Time: 08/2008 .H: 8 M: 8 S: 8

Endpoint Name: CurrencyConverterSoap

Service Name: [http://istec.de/CurrencyConverter/CurrencyConverter/CurrencyConverter

Submit Reset

This page allows you to create an agreement on the selected endpoint. On this page, you must (or can) precise the following items:

- Name: the name of agreement. This item is mandatory.
- Client Endpoint Name: the name of the client endpoint. This item is mandatory.
- Provider Name: the name of the provider of the endpoint.
- Expiration Time: the date of expiration of the contract.

Once the mandatory items are filled, click on *Submit* button to go to the edit page. The way to edit an Agreement is explained in the next section: [Section 7.2, "Edit an agreement"](#)

## 7.2. Edit an agreement

The edit page of an agreement is made of five tabs:

- The "Agreement Manager" tab: this tab allows you to control the state of agreement.

- The "Identity card" tab: this tab allows you to modify the name and the expiration time of the SLA contract.

- The "Service Description Term" tab: this tab only allows you to see information about the service of provider.

- The "Service Properties" tab: this tab allows you to define measurable and exposed properties associated with a service, such as response time and throughput. The properties are used in expressing service level objectives (SLO). All the defined terms are explained at <http://www.ogf.org/documents/GFD.107.pdf>

- The "Guarantee Terms" tab: this tab allows you to create guarantee concerning the client or provider. Inside, you can define SLO and the associated rewards and/or penalties. All the defined terms are explained at <http://www.ogf.org/documents/GFD.107.pdf>

- The "WS-Agreement" tab: this tab allows you to see the WS-agreement of this contract

Agreement

Agreement Manager | Identity Card | Service Description Terms | Service Properties | Guarantee Terms | WS-Agreement

WS-Agreement file

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<agreement xmlns:ns1="http://schemas.xml.org/graasp/2007/03/ws-agreement"
xmlns:ns2="http://www.w3.org/2005/08/addressing"
xmlns:ns3="http://com.ebnwebbsourcing.sla/agreementExtensions" ns1:AgreementId="2">
  <Name>MySLAContract</Name>
  <Context>
    <agreementInitiator xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ns2:EndpointReferenceType">
      <Address>Salatje_Nicolas_CurrencyConverterSoap_clientEndpoint</Address>
    </agreementInitiator>
    <agreementResponder xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ns2:EndpointReferenceType">
      <Address>CurrencyConverterSoap</Address>
    </agreementResponder>
    <ServiceProviderAgreementResponder/>
    <ExpirationTime>2008-08-08T06:08:08</ExpirationTime>
  </Context>
  <Terms>
    <all>
      <ServiceDescriptionTerm ns1:Name="MySLAContract_terms">
        ns1:ServiceName="CurrencyConverterSoap">
          <referenceProperties>
            <canonicalName/>
            <wsdlUri file://service_wsdl</wsdlUri>
          </referenceProperties>
        </ServiceDescriptionTerm>
      </ServiceReference ns1:Name="MySLAContract_terms" ns1:ServiceName="CurrencyConverterSoap">
        <EndpointReference>
          <Address>CurrencyConverterSoap</Address>
        </EndpointReference>
      </ServiceReference>
    </all>
  </Terms>
</agreement>
```

## 7.3. Search agreements

In the left vertical menu, you have a link to the Search Agreements form.

Search agreement

Search agreement

Name

Client Endpoint

Provider Endpoint

To display the list of all Agreements in DraGon database push the "See All" button.

Agreement Found

1 elements

Name	Client Endpoint	Provider Endpoint	State	Delete
MySLAContract	Salatje_Nicolas_CurrencyConverterSoap_clientEndpoint	CurrencyConverterSoap	Pending	<a href="#">Delete</a>

If you click on one of the name of the displayed agreements, you can access to the View/Edit form of the chosen agreement (see Section 7.2, "Edit an agreement").

## 7.4. Import an agreement

Importing an agreement into DraGon's registry is really simple. Go to the "Import agreement" page. You will see this :

Import agreement

WS-Agreement description URL

You have only to copy/paste the URL of the WS-Agreement into the field, then validate.



### Caution

If you work on a Windows or DOS OS, please think to change all the "\" into "/" and put at the beginning of the path "file:/" (e.g. : your file is at "C:\Docs\Agreements\agreement.xml", you put "file:///C:/Docs/Agreements/agreement.xml" into the field of the form).

If you work on Unix OS, put "file:/" at the beginning of the path.

You'll arrive on a new screen, displaying the agreement(s) described by the uploaded WS-Agreement and then registered into DraGon.

Agreement Found

1 elements

<u>Name</u>	<u>Client Endpoint</u>	<u>Provider Endpoint</u>	<u>State</u>	<u>Delete</u>
<a href="#">MySLAContract</a>	Salatge_Nicolas_CurrencyConverterSoap_clientEndpoint	CurrencyConverterSoap	Pending	<a href="#">Delete</a>



**Note:**

Only the WS-Agreements created with Dragon editor are editable. Other agreements are only viewable.

# Chapter 8. DraGon Runtime Management

This chapter describe how to connect DraGon to a Service Execution Platform like an Enterprise Service Bus (PEtALS, etc.), an Application Server (Jonas, JBoss, etc.).

In this chapter you will heard about Runtime Manager, Processor, Execution Environment, Environment Federation. Here are the description of each concepts :

- **Runtime manager** : this entity is an agent that have a high level vision of a Service Execution Platform or a group of Service Execution Platform (Federation, Grid, etc.). It is the communication intermediate between DraGon and the Service Execution Platform(s). It implements a connection interface provided by the DraGon project.
- **Processor** : this entity is a server that host Service Execution Platform. For exemple it could be an IBM Server.
- **Execution Environment** : this entity is a Service Execution Platform like an ESB node (PEtALS single node, etc.), an Application Server (Jonas server, etc.)
- **Environment Federation** : this entity is a group of Execution Environment (Service Execution Platform) that follow a given federation pattern like FEDERATION, GRID, DISTRIBUTED, etc. PEtALS domains, which are group of PEtALS nodes, are examples of Environment Federation.

## 8.1. Add a Runtime Manager

To add a runtime manager to DraGon registry, you just have to provide the address of the manager connection service :

The screenshot shows a web form titled "Add Runtime Manager". It contains a single text input field with the label "Address" and a "Submit" button below it.

The manager connection service must be a Web Service that implements the WSDL connection interface provided by the DraGon project. An implementation of this interface is already available for the PEtALS Service Platform.

Once you have successfully added a new Runtime Manager, you are redirected to the edition page of the newly imported Runtime Manager.

## 8.2. Edit a Runtime Manager and Synchronize Execution Environment with DraGon Registry

The first tab, "Identity Card", provides information about the Runtime manager itself like its name and address.

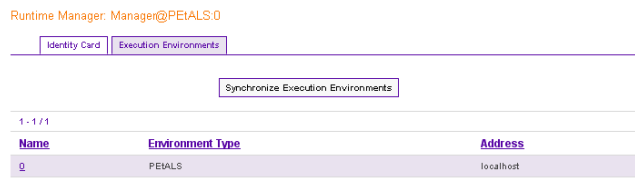
The screenshot shows the "Identity Card" tab for a Runtime Manager named "Manager@PEtALS.0". The address is listed as "http://localhost:9001/petalsAw/DragonService". There are "Edit" and "Return" buttons at the bottom.

The second tab, "Execution Environments", show the list of Execution Environments managed by this Runtime Manager. The first time you show this tab, no execution environments are available.

The screenshot shows the "Execution Environments" tab. It features a "Synchronize Execution Environments" button. Below it is a table with the following structure:

Name	Environment Type	Address
No data		

You must synchronize your manager with the DraGon registry to see managed execution environments. Simply push the "Synchronize Execution Environments" button.

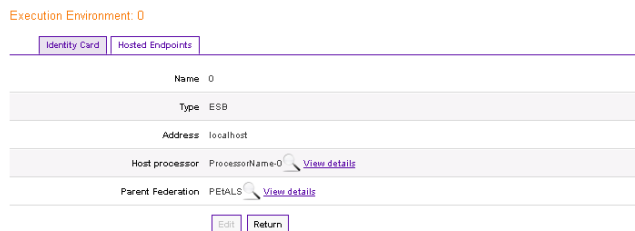


All managed execution environments are synchronized, but also linked endpoints with their descriptions (so related Services, Interface, etc.), host processors (Servers, Mainframes, etc.) and environment federations.

You can click on the execution environment name to see all information about it.

### 8.3. Edit an Execution Environment

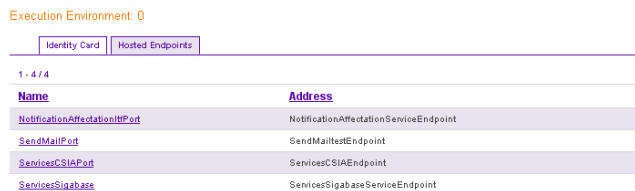
The first tab of the Execution Environment editor provides identity information like its name, type (ESB, Application Server, etc.), address (host address), host processor (the server that host the exec env) and parent federation if the exec env is member of a group of exec envs (in case of federation, distribution, grid, etc.)



If you click on the host processor "view details" link, you are redirected to the Processor editor page.

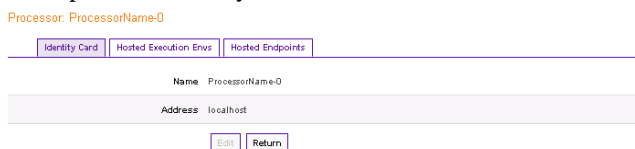
If you click on the parent federation "view details" link, you are redirected to the Environment Federation editor page.

The second tab of the Execution Environment editor provides the list of all endpoints hosted on this execution environment.

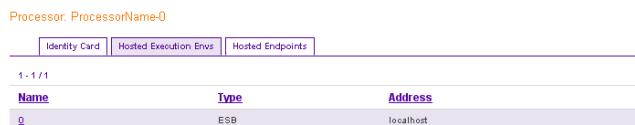


### 8.4. Edit a Processor

The first tab of the Processor editor provides identity information like its name and address (IP v4 address).



The second tab of the Processor editor provides the list of all Execution Environments hosted on this processor.



The third tab of the Processor editor provides the list of all endpoints hosted on the processor. This list contains all endpoints hosted on all execution environments hosted on this processor.

Processor: ProcessorName-0

Identity Card Hosted Execution Envs Hosted Endpoints

1 - 4 / 4

Name	Address
<a href="#">NotificationAffecation:HPod</a>	NotificationAffecationServiceEndpoint
<a href="#">SendMailPod</a>	SendMailtestEndpoint
<a href="#">ServicesCSIAPod</a>	ServicesCSIAEndpoint
<a href="#">ServicesSigabasa</a>	ServicesSigabaseServiceEndpoint

## 8.5. Edit an Environment Federation

The first tab of the Processor editor provides identity information like its name and federation pattern (Distributed, Federated, Grid, etc.).

Environment Federation: PEALS

Identity Card Execution Environments

Name PEALS

Pattern DISTRIBUTED

[Edit](#) [Return](#)

The second tab of the Processor editor provides the list of all Execution Environments that are members of this federation.

Environment Federation: PEALS

Identity Card Execution Environments

1 - 1 / 1

Name	Environment Type	Address
<a href="#">Q</a>	PEALS	localhost

## 8.6. Search Runtime Manager, Processor, Execution Environments and Environment Federations

DraGon GUI provides search interfaces for Runtime Manager, Processor, Execution Environment and Environment Federations. These search capabilities are similar to the other search capability of the DraGon GUI.