

Galigeo Enterprise G19.0 Installation Guide

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Introduction

In this chapter:

[About this document](#)

[Application description](#)

About this document

PUBLIC CONCERNED BY THIS GUIDE

This document should be used by people in charge of the preparation and the execution of the installation and the technical parameters of the Galigeo Enterprise platform. It is also addressed to people in charge of the maintenance.

DOCUMENT GOAL

This document presents the technical architecture of the Galigeo Enterprise Solution. It describes the technical pre-requisites and the installation steps.

READING CONVENTIONS

	<i>Steps to follow</i>
	<i>Notice</i>
	<i>Advice</i>
	<i>Careful</i>
	<i>Example</i>

Application description

Galigeo Enterprise is a platform for consultation and analysis of business data hosted by a database management system (DBMS). That data can then be represented into thematic maps.

The solution can be decomposed into the following parts:

- The Galigeo Enterprise portal itself ;
- A web administration console used to define the business queries, the links between BI data and the cartographic services ; as well as the creation of thematic analysis that can then be visualized in the Galigeo Enterprise portal.
- ESRI ArcGIS Server to manage the map services and produce cartographic information.

Chapter 1: Pre-requisites

In this chapter:

[Architecture Schema](#)

[Supported DBMS](#)

[ArcGIS Server](#)

[ArcGIS Online](#)

[Galigeo Server](#)

[Galigeo Installer](#)

[Network](#)

[Client](#)

1.1 Architecture Schema

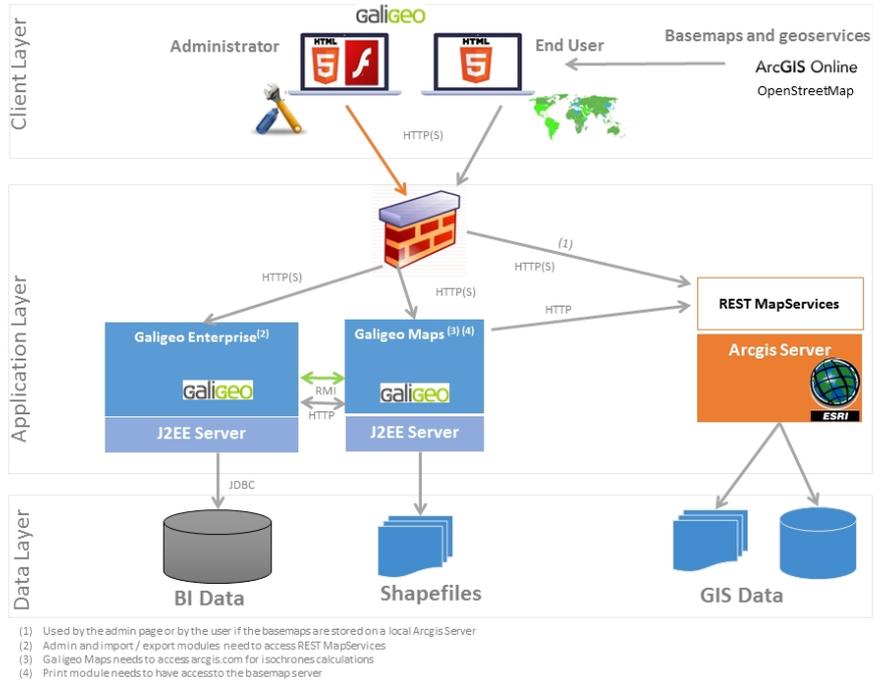
The solution is based on third party architecture (Intranet/Internet) composed of the following elements:

- **Data Layer** - Data Servers are used to manage business data and cartographic data.
 - Business data are generally managed into a data warehouse hosted by a DBMS and feed by an ETL for example.
 - Cartographic data can either be manage through a DBMS (SDE Server, Spatial extension...) or flat files (shp files, ...).
- **Application Layer** - This layer controls the data exchange and connections between the Client Layer and the Data Layer.
 - **Applications server** – It is a J2EE container hosting the dynamic execution of the Galigeo Enterprise web applications. Galigeo Enterprise Portal also controls the authentication/access through LDAP.
 - **ArcGIS server** – manages the cartographic services and provides a feature service (using the REST interface) used by the Galigeo Enterprise portal to ingest vector data.
 - **HTTP server** – Optionally used to provide a unique visible entity to the clients.
- **Client Layer** – The client, presented as the Galigeo Enterprise portal End User, is a user interface used for the consultation and the analysis of business data through a dynamic map application interface. The client access the application using a Web browser via Intranet/Internet.

The complete architecture includes the tools for managing and administering this system: The Galigeo Enterprise administration module, DBMS administration tools as well as ArcGIS Desktop and Manager (ESRI).

Flex Architecture:

HTML5 Architecture:



Galigeo Enterprise components are installed on dedicated Galigeo server.

1.2 Supported DBMS

DBMS	Version	Remarque
Oracle	10g 11g	NA
PostGre SQL	8.x 9.1.3 / 9.1.4	<p>With 9.1.3 version, there is a known bug concerning sub-queries. This can affect Galigeo Enterprise functioning.</p> <p>This bug has been fixed with 9.1.4 version.</p> <p>See note: "<i>Fix planner's handling of outer PlaceholderVars within subqueries</i>" http://www.postgresql.org/docs/9.3/interactive/release-9-1-4.html</p>
SQL Server	2005 2008	NA
Sybase IQ	Sybase IQ 12.7	NA
MS Access ODBC 32 bits extension .mdb only	2000 2003 2007	Not supported with Tomcat 8 / Java 1.8 as Oracle does not deliver anymore, since Java 1.8, the jdbc.odbc driver used to connect to MS Access.
Vertica	9.1	NA
SAP Hana	1.5.0	NA

1.3 ArcGIS Server

The ArcGIS server can be used as a map service and feature service for the Galigeo Enterprise maps.

Galigeo Enterprise does not require to install any additional component on the ArcGIS server.

Item	Pre-requisite	Notices	Check tests
ESRI Products ArcGIS Server	<p>ArcGIS Server 10.1x, 10.2x, 10.3x, 10.4x, 10.5x, 10.6x</p> <p>With the following tools:</p> <ul style="list-style-type: none"> • ArcMap/ArcGIS for Desktop: for creating map projects • ArcGIS Manager to publish and manage map services • ArcGIS REST API Admin to manage the REST map services (in particular to clear the cache) 	<p>The ArcSDE version is independent with Galigeo Enterprise.</p>	<p><u>1st test</u> – Check ArcGIS Manager - launch its url:</p> <p>Ex ArcGIS 10 java:</p> <p>http://esri-srv:8099/arcgismanager/main/login.jsf</p> <ul style="list-style-type: none"> - The login screen should display. - Connect with an arcgismanager account and access the map services page <p><u>2nd test</u> – ArcGIS REST API admin available - same thing:</p> <p>Ex ArcGIS 10 :</p> <p>http://esri-srv:8399/arcgis/rest/admin</p>
Map Service	<p>ArcGIS Server Map service published from a MXD or a MSD with in particular the options "Export Map" and "Query" (to set during the publishing)</p> <p>The ArcGIS MapServices used by Galigeo Enterprise must be available via REST from the client machines and also from Galigeo Server machine.</p>	<p>Using the MSD file format is recommended.</p> <p>Secured MapServices are not supported</p>	<p><u>1st test</u> – Open the REST url:</p> <p>Ex ArcGIS 10:</p> <p>http://esri-srv:8399/arcgis/rest/services</p> <p>The list of available mapservices should be displayed.</p> <p><u>2nd test</u> – Mapservice access via REST - click on a mapservice:</p> <p>Ex of mapservice REST URL:</p> <p>http://esri-gis:8399/arcgis/rest/services/ggoMapService/MapServer</p> <p>The mapservice properties and layers displays.</p>
GIS Database	<p>Not important for Galigeo Enterprise</p> <p>Galigeo Enterprise neither accesses directly to the GIS database</p>	<p>All ArcGIS supported formats</p>	<p>NA</p>



The connection to ArcGIS Server is done both through Galigeo Server and the client. **This means that the application server, e.g. Tomcat, and the client (web browser) must see ArcGIS Server.**

1.4 ArcGIS Online

Galigeo Enterprise offers the possibility to connect automatically to ArcGIS Online (AGOL). The credentials are activated as soon as the appropriate license key is declared in Galigeo Administration console.



The connection to ArcGIS Online is done through Galigeo Server, the one that hosts Galigeo cartographic viewer. **This means that the application server, e.g. Tomcat, must see arcgis.com without any proxy authentication.**

1.5 Galigeo Server

The Galigeo server hosts the Galigeo Enterprise web components.

Softwares pre-requisites:

Item	Pre-requisite	Notices	Check tests
OS	Windows Server 2008, 2012, 2016 all editions RedHat Enterprise Linux 5, 6	NA	NA
Java Environment	Java Development Kit (JDK) 1.7.0_xx 1.8.0_xx	NA	<p><u>1st test (basic):</u> type in a shell command prompt : java -version</p> <p>Example of expected result: java version "1.7.0_17" ...</p> <p><u>2nd test:</u> in the application server configuration console, check what Java version is used.</p> <p>Ex Tomcat - Check the parameter « Java Virtual Machine » in the tab « Java » of the configuration console: C:\jdk1.7.0_17\jre\bin\server\jvm.dll</p>
Applications Server	Tomcat 7.0.x (with jdk 1.7) Tomcat 8.0.x (with jdk 1.8) Tomcat 8.5.x (with jdk 1.8)	NA	<p>Go to the application server URL. The version number usually displays:</p> <p>Ex Tomcat: http://ggo-srv:8080</p>

We recommend to use a 64 bits Tomcat application server and Java machine.

Minimum and recommended resources sizing for Galigeo Tomcat application server (64 bits):

Component	Minimum	Recommended for 5 concurrent users (concurrent sessions)
Processor #core	Type Intel Xeon 2 cores	Type Intel Xeon 4 cores multithread
Tomcat Memory	4 Go RAM	8 Go RAM
Disk space (Tomcat + Galigeo)	2 Go	10 Go SAS 15k rpm ou SSD



For proper operation of HTML5 Print module, image or PDF, it is important that the Galigeo Server has access to base maps, either on internet or intranet.

1.6 Galigeo Installer

Galigeo Installer is used to install Galigeo Enterprise components on Galigeo server.

Item	Pre-requisite	Notices	Check tests
OS	Windows Server 2008, 2012, 2016 all editions RedHat Enterprise Linux 5, 6	NA	NA
Java Environment	Java Runtime Environment (JRE) 1.7.0_xx 1.8.0_xx	Included in the JDK.	Type in a command prompt: java -version Example of expected result: java version "1.7.0_17"
Galigeo Server	The Galigeo installation folder must be readable and writable by the installer and the application server (ex: Tomcat 8.x)	Ideally, run the installer with the same user and same Java Environment as the application server.	NA

1.7 Network

This table lists the ports used for all the modules involved with Galigeo Enterprise. The ports must be available from the calling application, which might in some cases require some firewall adjustment.



The default port values might be different in the real situation.

Port	Protocol	Opened on	Used by	Default Value	Firewall rule
Galigeo Tomcat Port	HTTP(S)	Galigeo Server	- Galigeo (<i>local</i>) - Client (<i>from client to Galigeo server</i>)	8080	Open in the direction Client → Galigeo
RMI Port (Remote Method Invocation : Standard J2EE)	TCP/IP	Galigeo Server	Galigeo (<i>local</i>)	1099	NA
HTTP Port used by the ArcGIS REST services	HTTP(S)	GIS Server	- Galigeo Server to query ArcGIS server mapservice ; and basemaps (html5 print) (<i>from Galigeo server to ArcGIS server</i>) - Galigeo client: to query ArcGIS server basemaps if any	8399	Open in the direction Client → GIS Galigeo Server must have access to the REST services with the same url as the client.
DBMS Port	JDBC	DBMS Server	Galigeo Server to query Data (<i>from Galigeo server to DBMS Server</i>)	1521 (Oracle)	Open in the direction Galigeo Server → DBMS Server
LDAP Port if LDAP activated	LDAP	LDAP Server	Galigeo Server for LDAP authentication (<i>from Galigeo server to</i>	389	Open in the direction Galigeo Server → LDAP Server

			<i>LDAP Server)</i>		
Access to ArcGIS Online	HTTPS	arcgis.com	Galigeo Server to query ArcGIS Online <i>(from Galigeo server to ArcGIS Online)</i>	443	Open in the direction Galigeo Server → AGOL

1.8 Client

The web browser on the client machine is used to access Galigeo Enterprise Portal.

Item	Recommended	Notices	Check tests
OS	Windows Seven, 8.1, 10 desktop	NA	NA
HTML5 Client Web browser	Internet Explorer: 11, Edge FireFox: 64, 65 Chrome: 71, 72	Javascript activated IE compatibility mode is not supported	Go to web browser Menu > About to know its version
Excel	Excel 2003, 2007 et 2010	For Excel Georeports	NA



For proper operation of Galigeo Application, it is important that the client browser has access to base maps, either on internet or intranet.



Sizing the client machine

- We recommend to use Windows Seven, 8.1 or 10 with 4 to 8 Go of RAM

Chapter 2: Galigeo installer

In this chapter:

[Global Overview](#)

[Launch the installer](#)

2.1 Global Overview

The file **GaligeoEnterprise_G19.0_Installer.jar** is located at the root of the CD. The program **generates 4 configured web applications ready to be deployed.**

Web Application	Description	Notices
geodashboard.war	"Business Intelligence" module and entry point to the Galigeo portal. Process BI data and manage the refresh of this data according to the selected prompts.	Installation and deployment process takes place on the Galigeo server.
Galigeo.war	Galigeo HTML5 cartographic viewer + print module	
geodashboardsqld-admin.war	Main webapp of the administration console. It can be used to define SQL queries, joins, declare cartographic service, etc.	
geodbadmin.war	Used to setup some more specific parameters to a Galigeo map	

2.2 Launch the installer

The installer needs a JRE Java 1.7 or 1.8. It can be launched in two ways:

Mode	When	Description	Notices
Graphical	A window manager is available. Ex: Windows 2008 Server	<ul style="list-style-type: none"> Double-click on the file GaligeoEnterprise_G19.0_Installer.jar From a command prompt, type: java -jar GaligeoEnterprise_G19.0_Installer.jar 	NA
Command Line	No window manager. Ex: Linux RedHat	From a command prompt: java -jar GaligeoEnterprise_G19.0_Installer.jar -console	This mode is only in English. The installation steps are the same as with the graphical interface.



We recommend to **run the installer with the same user account and same Java Environment as the application server.**

Chapter 3: Install Galigeo components

In this chapter:

[Where the installation takes place?](#)

[Installation steps - graphical mode](#)

[Installation steps - console mode](#)

[Deploy the web applications](#)

[Tomcat Configuration](#)

[Admin Console - local installation of ESRI JS API](#)

3.1 Where the installation takes place?

The installation takes place on Galigeo Sever.



The installation steps described in this chapter concern new installations.

If Galigeo is already installed, see chapter "[Update an existing installation](#)".

<**GALIGEO_HOME**> is the Galigeo installation directory. It can be either an existing directory or a new one created during the installation.



Example of <**GALIGEO_HOME**> :

Windows: **D:\products\galigeo**

Linux : **/products/galigeo**

<**GGO_TOMCAT_HOME**> is the root directory of Tomcat Server.



Example of <**GGO_TOMCAT_HOME**> :

Windows: **D:\products\tomcat**

Linux : **/products/tomcat**

3.2 Installation steps - graphical mode

If the server doesn't have a window manager, go to **section "Installation steps - console mode"**.

- **Start the installer:** double-click on the file or type **java -jar GaligeoEnterprise_G19.0_Installer.jar** in a shell console

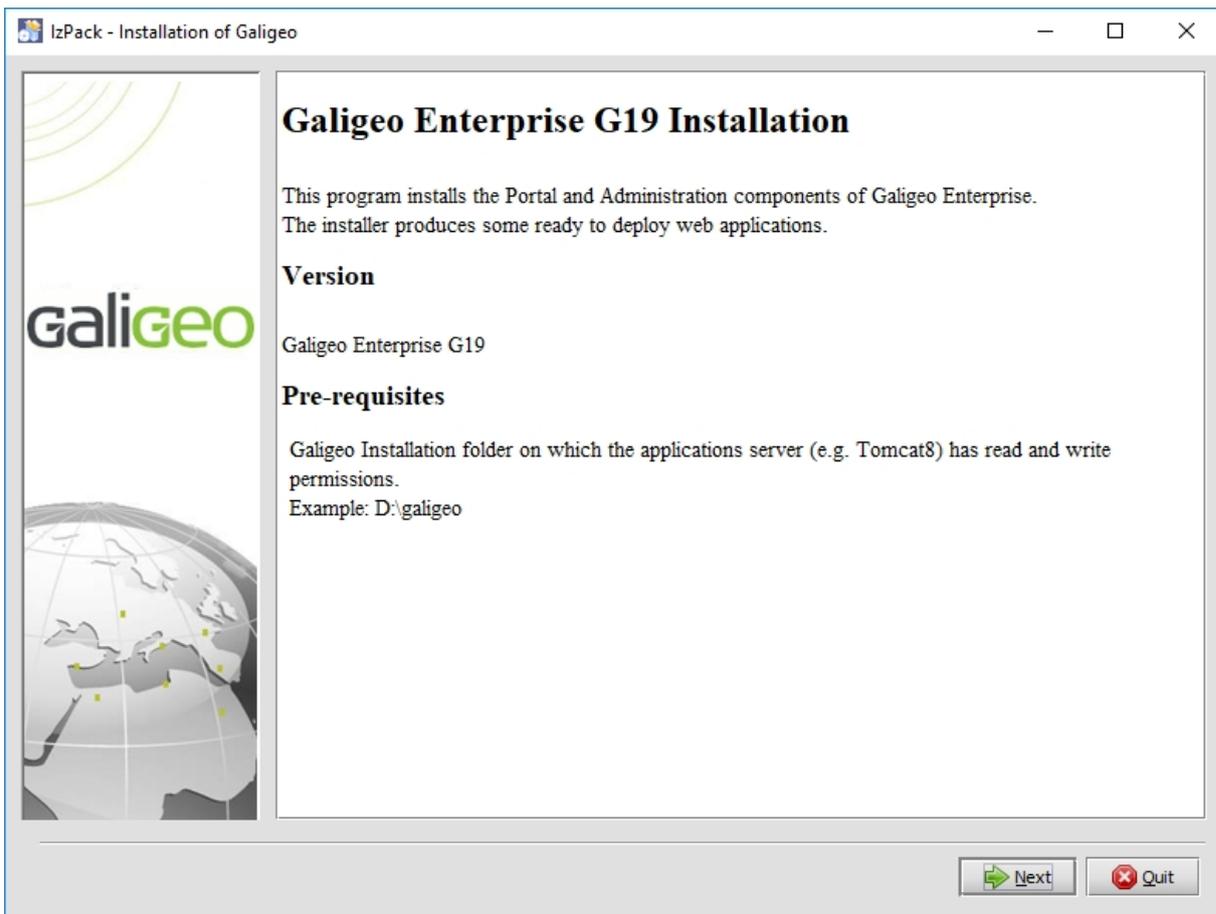


We recommend to **run the installer with the same user account and same Java Environment as the application server.**

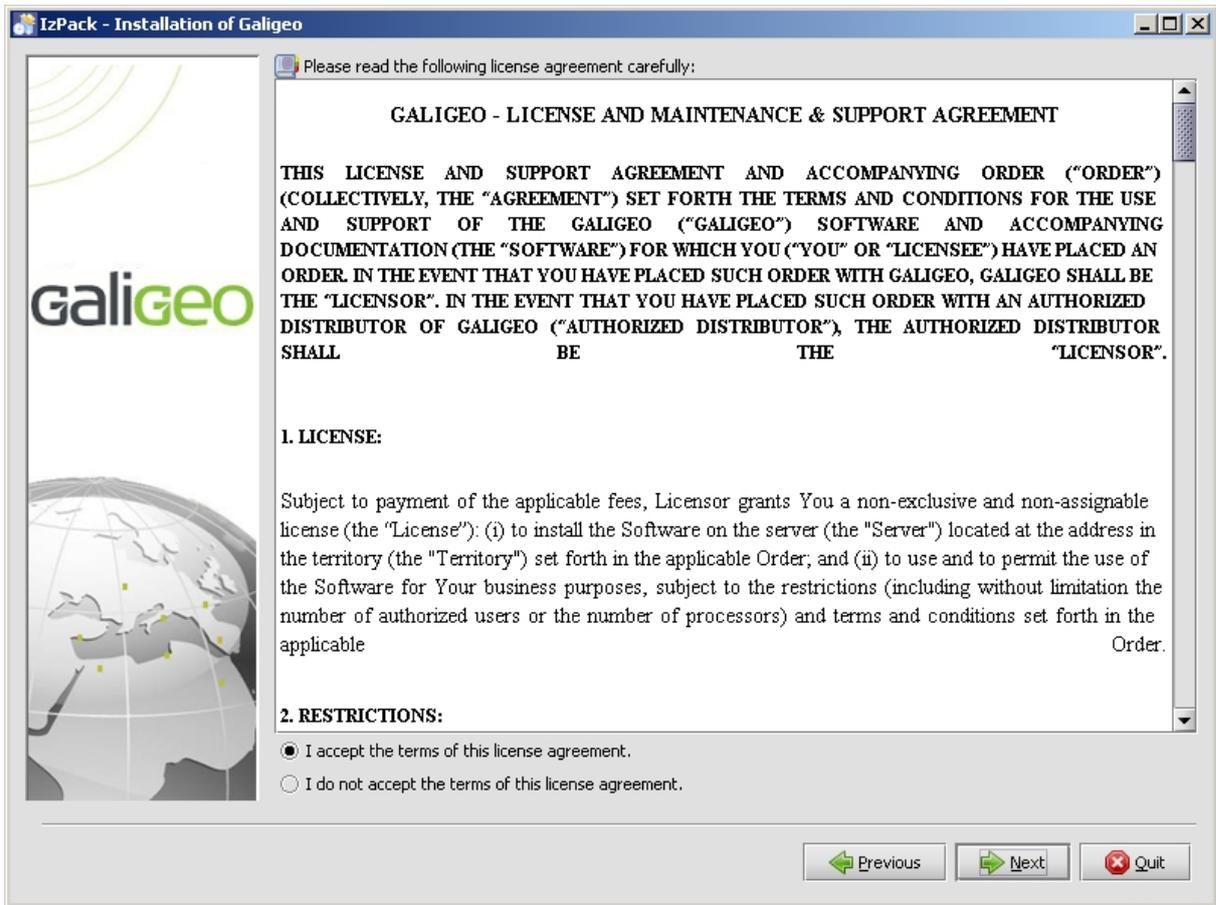
- **Language selection:** select "eng" then click [OK]



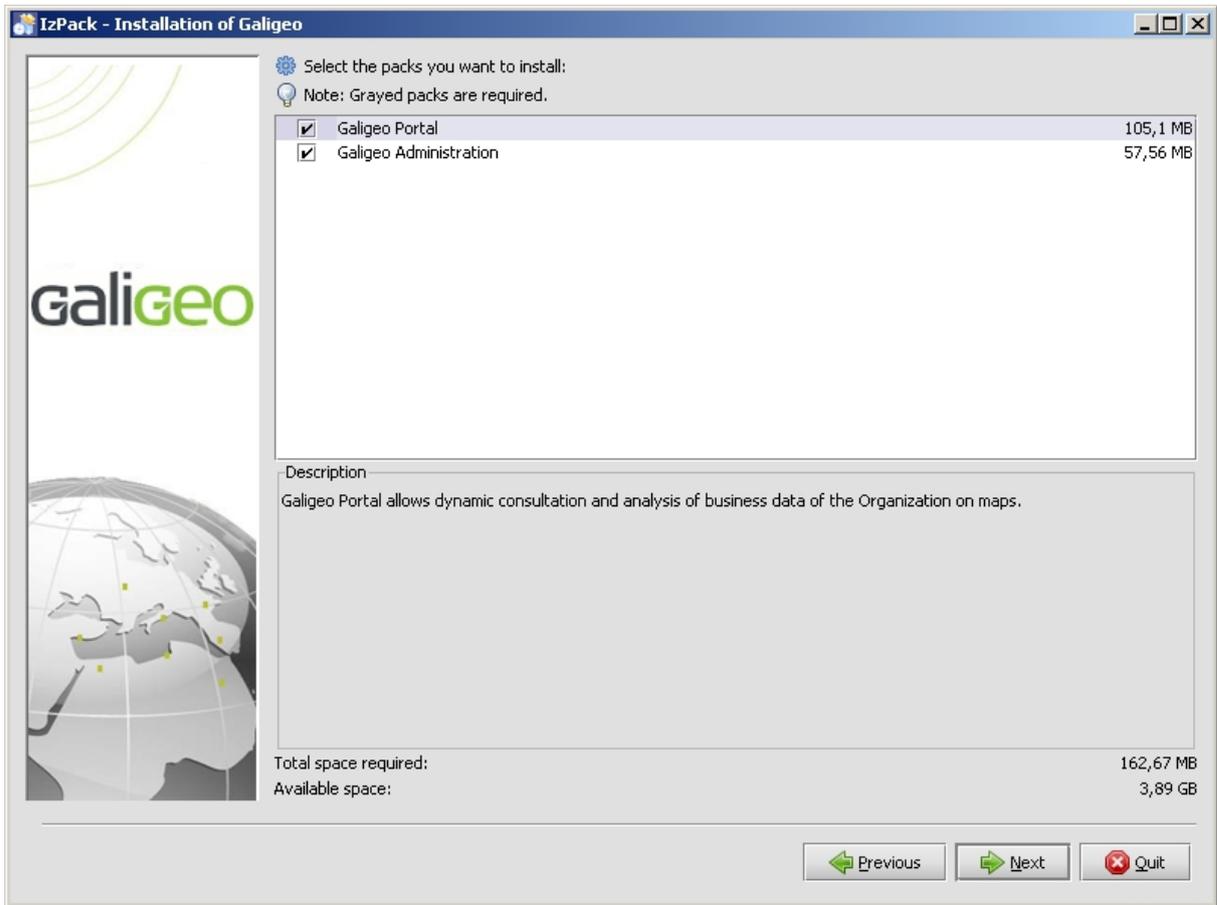
- **Welcome panel:** click [Next]



- **License agreement:** Accept the license then click [Next]



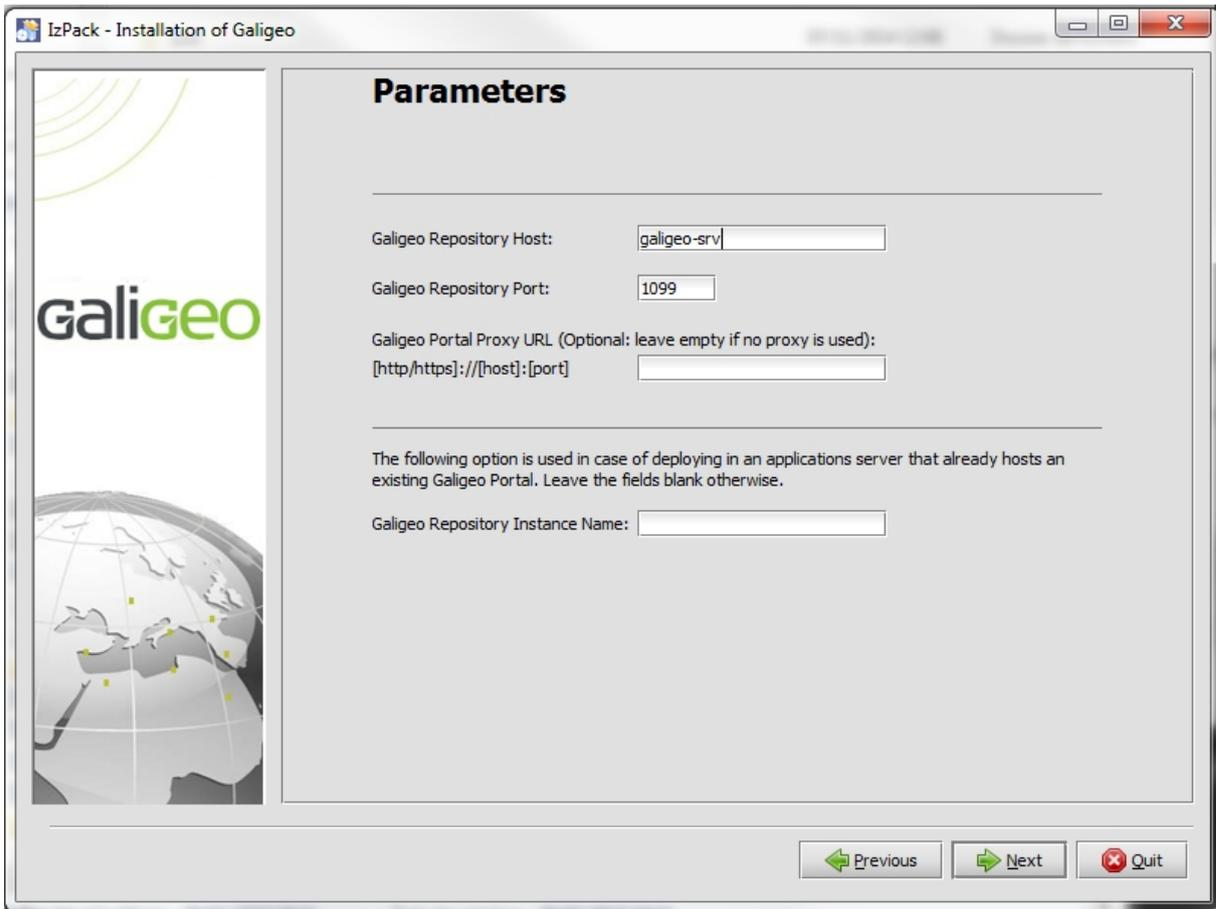
- **Installation Packs:** check **"Galigeo Portal"** and **"Galigeo Administration"** then click [Next]



- **Installation folder:** specify the directory where Galigeo will be installed, for example : D:\products\galigeo (if the directory doesn't exist, it will be created) then click [Next]



- **Installation Parameters:** Specify the parameters according to the table above then click [Next]



Parameter	Recommendation	Example
Galigeo Repository Host	It is the host name of Galigeo Server. This parameter is automatically filled. Check that host name is correct. Change otherwise.	mygaligeoserver
Galigeo Repository Port	Keep the default value 1099. If the installer says the port is already used, then try a new value, 1098 for example.	1099
Galigeo Portal Proxy URL (optional)	To specify if Galigeo Portal is accessed through a proxy server from the client machines (application server not directly called). Is of type [http/https]://[host]:[port] Leave empty otherwise.	http:// myorganization.com
Galigeo Repository Instance Name (optional)	Not used for a standard installation. Leave empty	NA

- **Web applications generation - step 1:** wait the first step to complete then click [Next]
- **Web applications generation - step 2:** wait the second step to complete then click [Next]

- **Installation summary:** Click [Quit]. The installer produces 4 webapps, **geodashboard.war, Galigeo.war, geodashboardsqld-admin.war and geodbadmin.war** [ready to be deployed in the dedicated application server \(ex Tomcat 8.x\)](#).

3.3 Installation steps - console mode

- **Launch the installer:** type `java -jar GaligeoEnterprise_G19.0_Installer.jar -console` in a shell command prompt



We recommend to **run the installer with the same user account and same Java Environment as the application server.**

- **License agreement:** read the agreement (Type [Enter] to scroll), type 1 to accept then [Enter]

```
shall be required to pay to Licensor (i) the costs and expenses incurred in ass
amounts that Licensor has actually received in association with the Agreement a
ue Licensor under this Section shall be immediately due and payable.

15. GENERAL PROVISIONS:
This Agreement constitutes the entire agreement between the parties pertaining t
al agreement previously existing with respect to the subject matter herein. The
sor unless approved in writing by a duly authorized representative of Licensor,
sor's prior written consent. Any assignment or delegation of Your rights under t
that Licensor may assign all or part of Licensor's rights and/or obligations un
its Authorized Distributors's rights and obligations hereunder to any third part
e to the benefit of GALIGEO and the Owners as third party beneficiaries of this
s of this Agreement against You; and (iii) GALIGEO and the Owners accept its thi
cable. In the event that any provision of the Agreement is found unlawful, void
law, and the other provisions shall remain in full force and effect. Except with
lays in performance hereunder due to causes beyond its reasonable control.

16. GOVERNING LAW AND JURISDICTION:
This Agreement shall be governed by the internal laws of the Territory, excludin
Nations Convention on Contracts for the International Sale of Goods from this A
ion with the interpretation or the performance hereof shall be referred to the c
press Enter to continue, X to exit
press 1 to accept, 2 to reject, 3 to redisplay
1
```

- **Packs to install:** select - type 1 then [Enter] - "**Galigeo Portal**" and "**Galigeo Administration**"

```
Select the packs you want to install:

[x] GeoDashboard Portal (GeoDashboard Portal allows dynamic consultation and ana
lysis of business data of the Organization on maps.)
input 1 to select, 0 to deselect:
1
[x] GeoDashboard Administration (GeoDashboard Administration Console.)
input 1 to select, 0 to deselect:
1
[<required>] modulesVersions

...pack selection done.
press 1 to continue, 2 to quit, 3 to redisplay
```

- **Installation folder:** specify the directory where the product will be installed, for example: `D:\products\galigeo` (if the directory doesn't exist, it will be created) then validate

```
Installation Folder
-----
Installation folder:
[C:\Program Files\GeoDashboard]
D:\products\geodashboard
press 1 to continue, 2 to quit, 3 to redisplay
1
```

- **Installation parameters:** fill the parameters according to the [table described in the graphical mode section](#) then validate

```
Parameters
-----
Galigeo Repository Host: [ggo-port-jmg]

Galigeo Repository Port: [1099]

GeoDashboard Portal Proxy URL <Optional: leave empty if no proxy is used>:
[http/https]://[host]:[port] []

[ ] SSL Proxy <Optional: do not check if no SSL proxy is used>
input 1 to select, 0 to deselect:

-----

The following option is used in case of deploying in an applications server that
already hosts an existing GeoDashboard Portal. Leave the fields blank otherwise
.

Galigeo Repository Instance Name: []

press 1 to continue, 2 to quit, 3 to redisplay
```

- **Web applications generation:** Wait this step to complete. The installer produces 4 webapps, **geodashboard.war**, **Galigeo.war**, **geodashboardsqld-admin.war** and **geodbadmin.war** [ready to be deployed in the dedicated application server \(ex Tomcat 8.x\)](#).

```
Set XML logfile parameter: Setting infoup file...
Starting process Archiving geodashboardsqld-admin... (17/18)
Archive: Re-pack D:\products\geodashboard\modules\geodashboardsqld-admin...
Archive: Re-pack D:\products\geodashboard\modules\geodashboardsqld-admin...
Archive: Done D:\products\geodashboard\webapps\geodashboardsqld-admin.war
Starting process Archiving geodbadmin... (18/18)
Archive: Re-pack D:\products\geodashboard\modules\geodbadmin...
Archive: Re-pack D:\products\geodashboard\modules\geodbadmin...
Archive: Done D:\products\geodashboard\webapps\geodbadmin.war
Archive: Done D:\products\geodashboard\webapps\geodbadmin.war
[ Console installation done ]
```

3.4 Deploy the web applications

The installer produces 4 webapps, **geodashboard.war**, **Galigeo.war**, **geodashboardsqld-admin.war** and **geodbadmin.war** that are ready to be deployed on the dedicated Galigeo application server.

The following steps describe the deployment on Tomcat 8.x:

- On Galigeo Server, go to the directory **<GALIGEO_HOME>/webapps** (ex: D:\products\galigeo\webapps). It contains the 4 webapps produced by the installer:
 - **geodashboard.war, Galigeo.war**: Galigeo Portal
 - **geodashboardsqld-admin.war, geodbadmin.war**: Galigeo Administration
- Stop the Galigeo Tomcat service
- copy above war files to **<GGO_TOMCAT_HOME>/webapps/** (ex: D:\products\tomcat\webapps\)
- Restart Galigeo Tomcat Service.

3.5 Tomcat Configuration

Memory Configuration

In order to get some optimal performances in Galigeo, you need to modify Tomcat's default memory parameters.

Once this change is done, you need to restart Tomcat.

We recommend to use a 64 bits Tomcat application server and Java machine.

Tomcat is installed as a service

- Open the Tomcat configuration console,
- Go to the tab "Java",
- In the area « Java Options » add the two following lines:

`-Xrs`

`-XX:MaxPermSize=256M`

- Set the parameter "Initial memory pool" at **128**
- Set the parameter "Maximum memory pool" according to recommendations given in chapter [1.5 Galigeo Server](#)
 - 64 bits Tomcat+JVM example: 4096 (there is no limit for a 64 bits JVM)
 - 32 bits Tomcat+JVM 32 example: 1024 (32 bits JVM is limited to 1536)

Tomcat starts as a script "startup.bat"

- Edit the file `<GGO_TOMCAT_HOME>/bin/catalina.bat`
- At the beginning of the script, add the line:

64 bits Tomcat+JVM example:

```
set JAVA_OPTS=%JAVA_OPTS% -Xmx4096m -Xrs -XX:MaxPermSize=256m
```

32 bits Tomcat+JVM example:

```
set JAVA_OPTS=%JAVA_OPTS% -Xmx1024m -Xrs -XX:MaxPermSize=256m
```

Special characters

To display and print correctly special characters, you need to apply the following settings.

Once changes are done, you need to restart Tomcat.

Add parameter `-Dfile.encoding=UTF-8`

Tomcat is installed as a service

- Open the Tomcat configuration console,
- Go to the tab "Java",
- In the area « Java Options » add the two following lines:

`-Dfile.encoding=UTF-8`

Tomcat starts as a script "startup.bat"

- Edit the file **<GGO_TOMCAT_HOME>/bin/catalina.bat**
- At the beginning of the script, add the line:

```
set JAVA_OPTS=%JAVA_OPTS% -Dfile.encoding=UTF-8
```

Add parameter `URIEncoding="UTF-8"`

- Edit file **<GGO_TOMCAT_HOME>/conf/server.xml**,
- Go to tag `<Connector port="8080" ..` corresponding to Tomcat port (by default 8080), and modify or add the parameter **`URIEncoding="UTF-8"`**

Example:

```
<Connector port="8080" protocol="HTTP/1.1" connectionTimeout="20000"
  redirectPort="8443" URIEncoding="UTF-8"/>
```

3.6 Admin Console - local installation of ESRI JS API

If Galigeo Administrator client web browser has no Internet access, the ESRI javascript API needs to be deployed locally. For this, on Galigeo server, follow the instructions given at:

```
<BOE_TOMCAT_HOME>/webapps/geodashboardsqld-admin/admin/js_api/
arcgis_v32_local_install.txt
```

3.7 Font installation**Installation of the ESRI fonts**

The fonts contains a library of symbols used by the thematics.

- Unzip the zip file `Tools\font_esri.zip` in a folder
- On Windows, select all the `.ttf` file, right click then choose "Install"
- On Unix / Linux the font installation depends on the distribution

Installation of Windows fonts on Unix / Linux for print module

Windows fonts are used by the HTML5 print module and may be missing on the Unix / Linux server. They need to be installed. This action can be easily accomplished via the native package installer for each Unix / Linux distribution.

For example, for a Debian Linux distribution type (like Ubuntu), the following command needs to be issued:

```
sudo apt-get install ttf-mscorefonts-installer
```

Chapter 4: Update an existing installation

In this chapter:

[Update procedure](#)

4.1 Update procedure

The procedure takes place on Galigeo Sever.

Galigeo Portal and Administration tool are already deployed in the Galigeo Tomcat server.

This may be a previous version of Galigeo or current one. See annex "[Knowing the version of Galigeo components](#)".

<**GALIGEO_HOME**> is the Galigeo installation directory. This directory already exists from the previous installation.



Example of <GALIGEO_HOME> :

Windows: **D:\products\galigeo**

Linux : **/products/galigeo**

<**GGO_TOMCAT_HOME**> is the root directory of Galigeo Tomcat Server.



Example of <GGO_TOMCAT_HOME> :

Windows: **D:\products\tomcat**

Linux : **/products/tomcat**

- Stop Galigeo Tomcat service
- **Backup installed Galigeo repository.** See annex "[Backup of Galigeo repository](#)"
- With installer do installation steps "[Installation steps - graphical mode](#)" or "[Installation steps - console mode](#)":
 - **Select the existing <GALIGEO_HOME> directory as installation folder**
- Go to <**GGO_TOMCAT_HOME**>/webapps (ex: D:\products\tomcat\webapps\), **delete** or **move** in a backup directory outside tomcat the following elements:
 - Folders **geodashboard, Galigeo, geodashboardsqld-admin and geodbadmin**
 - Files **geodashboard.war, Galigeo.war, geodashboardsqld-admin.war and geodbadmin.war**
- Go to <**GALIGEO_HOME**>/config (ex: D:\products\galigeo\config), and **inactivate current config.json file by renaming it config.json.old**, for example. The new config.json file is automatically generated on the first display of a map. If the old file has been customized (ex: custom basemaps), the customization has to be transferred to the new file
- Go to <**GALIGEO_HOME**>/webapps (ex: D:\products\galigeo\webapps), **copy the webapps geodashboard.war, Galigeo.war, geodashboardsqld-admin.war and**

geodadmin.war, produced by installer, to **<GGO_TOMCAT_HOME>/webapps**

- **Empty Tomcat cache:** go to **<GGO_TOMCAT_HOME>/work/Catalina/localhost/** and remove folders **geodashboard, Galigeo, geodashboardsqld-admin, and geodadmin**
- Restart Galigeo Tomcat service.



If update is done on G17.0, **cartographic viewer name ha changed** from **ggo_carto_viewer(-ssl)** to **Galigeo**. In Administration console > Parameters, update the following informations:

- **Galigeo GIS module Client URL** parameter
- If Direct Shape feature is used (**MapServices Type = Shape**), update **MapServices REST access URL** parameter and **each MapService** (MapServices tab) using Direct Shape.



If you plan to use Territory management tool, some advanced users (Administration > Users tab) have to be declared/updated with Designer role.

Chapter 5 : Uninstall Galigeo

In this chapter:

[Uninstall Procedure](#)

5.1 Uninstall Procedure

The procedure takes place on Galigeo Sever.

<GALIGEO_HOME> is the Galigeo installation directory.



Example of <GALIGEO_HOME> :

Windows: **D:\products\galigeo**

Unix / Linux : **/products/galigeo**

<GGO_TOMCAT_HOME> is the root directory of Galigeo Tomcat Server.



Example of <GGO_TOMCAT_HOME> :

Windows: **D:\products\tomcat**

Unix / Linux : **/products/tomcat**

- Stop Galigeo Tomcat service
- **Backup <GALIGEO_HOME> directory and all its content**
- **Backup existing Galigeo map configurations files.** See annex "[Backup of Galigeo repository](#)"
- Delete <GALIGEO_HOME> directory
- Go to <GGO_TOMCAT_HOME>/webapps (ex: D:\products\tomcat\webapps\), **delete** the following elements:
 - Folders **geodashboard, Galigeo, geodashboardsqld-admin, geodbadmin**
 - Files **geodashboard.war, Galigeo.war, geodashboardsqld-admin.war, geodbadmin.war**
- **Empty Tomcat cache:** go to <GGO_TOMCAT_HOME>/work/Catalina/localhost/ and remove folders **geodashboard, Galigeo, geodashboardsqld-admin, geodbadmin**
- Restart Galigeo Tomcat service

Chapter 6: Setting Galigeo parameters

In this chapter:

[Access to administration console](#)

[License key](#)

[Galigeo parameters](#)

[Proxy - Internet access from Galigeo server](#)

[LDAP Access](#)

6.1 Access to administration console

Setting Galigeo components parameters is done in Galigeo web administration console.

Galigeo administration console URL is the following:

`http://<GGO_TOMCAT_SERVER>:<GGO_TOMCAT_PORT>/geodashboardsqld-admin/index.do`



`http://ggo-srv:8080/geodashboardsqld-admin/index.do`

6.2 License key

ACCESS TO LICENSE KEY SETTINGS

In the administration console, go to **[Parameters]** > **[License]** tab.

Current license

LICENCE'S FEATURES

The current license contains the following information:

Property	Description
Current License	Whether it's valid or not: NONE or VALID or INVALID . Example : VALID
Organization	Name of your organization. Example : MyCompany
Contact	Contact associated with this license. Example : admin@mycompany.com

License Type	License type for the current license: Development or Production or Partner . Example : Production
Max Users	Maximum number of advanced Galigeo users. Ref the tab [Users/Roles]> [Users] in the administration console. Example : 5
End Date	End date of validity AAA/MM/JJ. Example : 2014/2/20
Comments	Other comments.

DISPLAY CURRENT LICENSE KEY

Click on **[Display current key]** button, the license is displayed in the right text area.

DELETE LICENSE KEY

Click on **[Delete]** button and confirm deletion.



Deletion is permanent.

Declare a new license

Do the following steps to add a new license:

Inside the text area "**New License**", copy/paste the license key provided by Galigeo, click on the button **[OK]**:



If the format of the new license is incorrect, you will get an alert.

The process cannot be continued.



If a license already exists, it is overridden.

6.3 Galigeo parameters

BI module

In the administration console, go to **[Parameters]** > **[Application]** tab.

Set the parameters and validate by clicking on **[Update]** button.

Parameter	Description
XLS georeports template folder	<p>Hosts XLS templates for Galigeo Excel georeports</p> <p>Example : <GALIGEO_HOME>/xlsTemplate (D:/products/galigeo/xlsTemplate)</p> <p>The folder <GALIGEO_HOME>/xlsTemplate is created during installation process. Tomcat user must have read and write access to this folder.</p>
Galigeo xml files storage directory	<p>Stores a copy of business data as XML files.</p> <p>Only used for checking data in debugging mode.</p> <p>Example : <GALIGEO_HOME>/xml (D:/products/galigeo/xml)</p> <p>The folder <GALIGEO_HOME>/xml is created during installation process. Tomcat user must have read and write access to this folder.</p>

GIS module

In the administration console, go to **[Parameters]** > **[Application]** tab.

Set the parameters and validate by clicking on **[Update]** button.

Parameter	Description
Galigeo GIS module URL	<p>URL to access HTML5 map viewer from clients web browser.</p> <p>http://<GALIGEO_WEB_SERVER_NAME>:<GALIGEO_WEB_SERVER_PORT>/Galigeo/viewer.jsp</p> <p>Example: http://ggo-srv:8080/Galigeo/viewer.jsp</p>
MapServices Type	<p>ArcGIS Server, Shape or AGOL</p> <ul style="list-style-type: none"> • ArcGIS Server: when using the map services of an in the house ESRI ArcGIS Server or the public map services of ArcGIS Online • Shape: when using geographic data directly processed by the Galigeo server • AGOL: when using private cloud map services of your ArcGIS Online enterprise account
ArcGIS MapServices REST access URL	<p>According of what was selected at the previous point:</p> <p>For ArcGIS Server, enter the REST URL to the list of map services of your ArcGIS Server</p> <p>http://<AGS_SERVER>:8399/arcgis/rest/services</p> <p>For the other 2 options the URL is entered automatically:</p> <p>For Shape:</p> <p>http://<Viewer Server>/Galigeo/feature/shape/0/rest/services</p> <p>For AGOL:</p>

	<p><a href="http://<Viewer Server>/Galigeo/feature/ggobo4sp5/1099/agol/services">http://<Viewer Server>/Galigeo/feature/ggobo4sp5/1099/agol/services</p>
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For ArcGIS Online, the access is done through a login/password unique to the enterprise account that has to be encrypted in the license.
Contact Galigeo to generate your license.

6.4 Proxy - Internet access from Galigeo server

In the administration console, go to **[Parameters]** > **[Proxy]** tab.

Some features require that the application server can access Internet (print basemaps, drivetime). If necessary, you can define the proxy settings that will be used the application to access the external services.

This page allows to define the proxy settings set up by the organization's network team. Parameters are:

- **Proxy hostname** : Proxy Server hostname or IP
- **Proxy Port** : Proxy Server port
- **ssl** (optional) : Defines whether to access a https site (ex : https://www.arcgis.com/). In practice, first do tests without checking this option.
- **Non Proxy Hosts:**
 - A list of hosts that should be reached directly, bypassing the company proxy. This is a list of patterns separated by '|'. The patterns may start or end with a '*' for wildcards. Example: ***.my-company.com|localhost**
 - **Notice: in the specific case of print module Non Proxy Hosts**, use full host name (no wildcards). Example: **my.local.arcgiserver**, for local operational layers, if any.

What are the domains/URLs you have to declare in the company proxy?

According to the feature you want to use, you have to declare the following URLs in the company proxy.

Notice: http or https protocol depends whether Galigeo web application is accessed through http or https from client web browsers.

Feature	Domain to be reached thru http or https	Examples of URLs
Isochrony/ drivetime tool (license required)	arcgis.com	http://www.arcgis.com/... http://route.arcgis.com/arcgis/rest/services/... https://route.arcgis.com/arcgis/rest/services/...
Print Base Maps "ArcGIS Online" (All)	server.arcgisonline.com	http://server.arcgisonline.com/ArcGIS/rest/services/Canvas/World_Dark_Gray_Base/MapServer/tile/3/1/1 https://server.arcgisonline.com/ArcGIS/rest/services/World_Imagery/MapServer/tile/3/3/2

Print Base Map "OpenStreetMap"	tile.openstreetmap.org	http:// a. tile.openstreetmap.org /3/1/2.png https:// c. tile.openstreetmap.org /3/0/2.png
Print Base Map "OpenStreetMap"	tile.osm.org	http://b.tile.osm.org /3/3/1.png https://c.tile.osm.org /3/7/4.png
Print Base Map "OpenStreetMap Black and White"	tiles.wmflabs.org	http://a.tiles.wmflabs.org /bw- mapnik/3/6/3.png https://b.tiles.wmflabs.org /bw- mapnik/3/4/3.png
Print Base Map "OpenStreetMap Hot"	tile.openstreetmap	http://c.tile.openstreetmap.fr/ hot/3/7/1.png https://b.tile.openstreetmap.fr/ hot/3/3/1.png
Print Base Map "OpenStreetMap Hydda Full"	tile.openstreetmap.se	http://a.tile.openstreetmap.se/ hydda/full/3/2/1.png https://a.tile.openstreetmap.se/ hydda/full/3/7/2.png
Print Base Maps "Stamen" (All)	stamen-tiles- *.a.ssl.fastly.net	http://stamen-tiles- a.a.ssl.fastly.net /toner/3/1/2.png https://stamen-tiles- c.a.ssl.fastly.net /toner- background/3/4/4.png

6.5 LDAP Access

In the administration console, go to **[Parameters]** > **[Application]** tab.

Set the LDAP parameters and validate by clicking on **[Update]** button.

Paramètre	Description
Use LDAP authentication to access Galigeo portal	Set to "true" to enable the LDAP authentication to access the Galigeo Portal, "false" otherwise (in which case no authentication is required to enter the application).
LDAP URL	URL to access LDAP example: <code>ldap://serveur ldap:389</code>
LDAP Administrator Distinguished Name (DN)	Complete DN identifier for the LDAP administrator account example: <code>cn=Manager,dc=corp,dc=galigeo,dc=com</code>
LDAP Administrator Password	Password for the administrator account
LDAP Accounts Search Base DN	The database name of the LDAP accounts having access to Galigeo Portal: <ul style="list-style-type: none"> - The list of users available from the tab [user/roles] > [Users] comes from that database - Only the users from that database can connect to Galigeo Portal. - The database is explored recursively. Example : <code>ou=people,dc=corp,dc=galigeo,dc=com</code>
LDAP Account Attribute	The LDAP attribute identifying the users for connecting to the Galigeo portal. This attribute should be a unique identifier for each user in the LDAP search database. Example : uid If for the user Jonh Doe we have uid=jdoe , then its Galigeo login will be jdoe .
LDAP Account Object Class	Specify a class of LDAP object that identifies the users (opposed to the classes identifying organizations or groups for example). Example : <code>inetOrgPerson</code>

Chapitre 7 : Annexes

In this chapter:

[Backup of Galigeo repository](#)

[Restore Galigeo repository from a backup](#)

[Knowing the version of Galigeo components](#)

7.1 Backup of Galigeo repository

The procedure takes place on Galigeo server.

This operation back-ups application settings of Galigeo and may be useful when a new Galigeo version is installed.

<GALIGEO_HOME> is the Galigeo installation directory.



Example of <GALIGEO_HOME> :

Windows: **D:\products\galigeo**

Unix / Linux : **/products/galigeo**



Tomcat service is stopped and restarted during backup procedure.

- Stop Galigeo Tomcat service
- **Copy**, at least, **the following directories** from <GALIGEO_HOME> to a backup directory <GGO_BACKUP>, outside Tomcat:
 - **/config**
 - **/contexts**
 - **/dataset**
 - **/images**
 - **/network**
 - **/query**
 - **/shp**
 - **/templates**
 - **/themes**
 - **/tm**
 - **/WEBIGEO_REPOSITORY/tables**
 - **/xlsTemplate**
- Restart Tomcat service

Notice: some directories may be empty or not exist, depending on license type and/or the usage of the application

7.2 Restore Galigeo repository from a backup

The procedure takes place on Galigeo server.

<GGO_BACKUP> is the path to the **backup** directory from a previous version of Galigeo repository.

<GALIGEO_HOME> is the Galigeo installation directory.



Example of <GALIGEO_HOME> :

Windows: **D:\products\galigeo**

Unix / Linux : **/products/galigeo**



Tomcat service is stopped and restarted during restore procedure.

- Stop Galigeo Tomcat service
- **Copy** the directories listed in previous chapter "[Backup of Galigeo repository](#)" from <GGO_BACKUP> to <GALIGEO_HOME>
- Restart Tomcat service

7.3 Knowing the version of Galigeo components

<GALIGEO_HOME> is the Galigeo installation directory on Galigeo Server.



Example of <GALIGEO_HOME> :

Windows: **D:\products\galigeo**

Linux : **/products/galigeo**

<GGO_TOMCAT_HOME> is the root directory of Tomcat Server on Galigeo Server.



Example of <GGO_TOMCAT_HOME> :

Windows: **D:\products\tomcat**

Linux : **/products/tomcat**

The below table give the path to version files.

	Version file location	Example
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All components	<GALIGEO_HOME>/ modules.versions.txt	geodashboard_war.version=Galigeo G19.0;BI-CONNECTOR - GEODB-SQLD;b610148 Galigeo_war.version=Galigeo G19.0;HTML5-VIEWER/PRINT;b[gaia-viewer]11269;b[print]11245 geodashboardsqld-admin_war.version=Galigeo G19.0;ADMIN-MAIN - GEODB-SQLD;b610160 geodbadmin_war.version=Galigeo G19.0;ADMIN-PROMPTS - GEODB-SQLD;b610163 ggo_installer.version=Galigeo G19.0;INSTALLER GEODB-SQLD;b610171
Webapp geodashboard	<GGO_TOMCAT_HOME>/webapps/geodashboard/version.txt	version=Galigeo G19.0;BI-CONNECTOR - GEODB-SQLD;b610148
Webapp Galigeo	<GGO_TOMCAT_HOME>/webapps/Galigeo/version.txt	version=Galigeo G19.0;HTML5-VIEWER/PRINT;b[gaia-viewer]11269;b[print]11245
Webapp geodashboardsqld-admin	<GGO_TOMCAT_HOME>/webapps/geodashboardsqld-admin/version.txt	version=Galigeo G19.0;ADMIN-MAIN - GEODB-SQLD;b610160
Webapp geodbadmin	<GGO_TOMCAT_HOME>/webapps/geodbadmin/version.txt	version=Galigeo G19.0;INSTALLER GEODB-SQLD;b610171

