

Galigeo Print Server - Windows Service Installation Guide

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Introduction

In this chapter:

Public concerned by this guide

Document goal

Reading conventions

About this document

Galigeo Print Server is a third party component of the Galigeo platform. This guide explains how to deploy it as a Windows Service: **Galigeo Print Service**.

Galigeo Print Server installation is optional:

- Galigeo Print Server is needed for WebI PDF scheduling with Galigeo maps.
- It is not needed for Galigeo PDF printing or WebI PDF export with Galigeo maps.

PUBLIC CONCERNED BY THIS GUIDE

This document is aimed at technical persons in charge of the preparation and execution of the Galigeo platform installation as well as persons doing the exploitation.

DOCUMENT GOAL

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

The installation steps of the Galigeo Core Server, is described in a separate [installation guide](#).

READING CONVENTIONS



Steps to follow



Notice



Advice



Careful



Example

Chapter 1: Pre-requisites

In this chapter:

[Architecture Schema](#)

[Galigeo Print Service](#)

[Network](#)

1.1 Architecture Schema

GENERAL ARCHITECTURE

Galigeo is designed as an n-tiers, client-server, architecture deployed on Intranet/Internet:

- The top most layer is the “**presentation tier**” or the user interface. The Galigeo user interface is a thin Internet remote client.
- The “**application tier**” or the business logic tier consists of the WebIntelligence BI server, **Galigeo Server**, and optionally: **Galigeo Print Server** (and/or ArcGIS Server). This tier controls the data exchange and connections between the presentation tier and the data tier (described below). **Note that the** WebIntelligence server also controls the authentication/access through BusinessObjects security model.
- The last layer is the “**data tier**” with database servers where information is stored in and retrieved from DBMS.

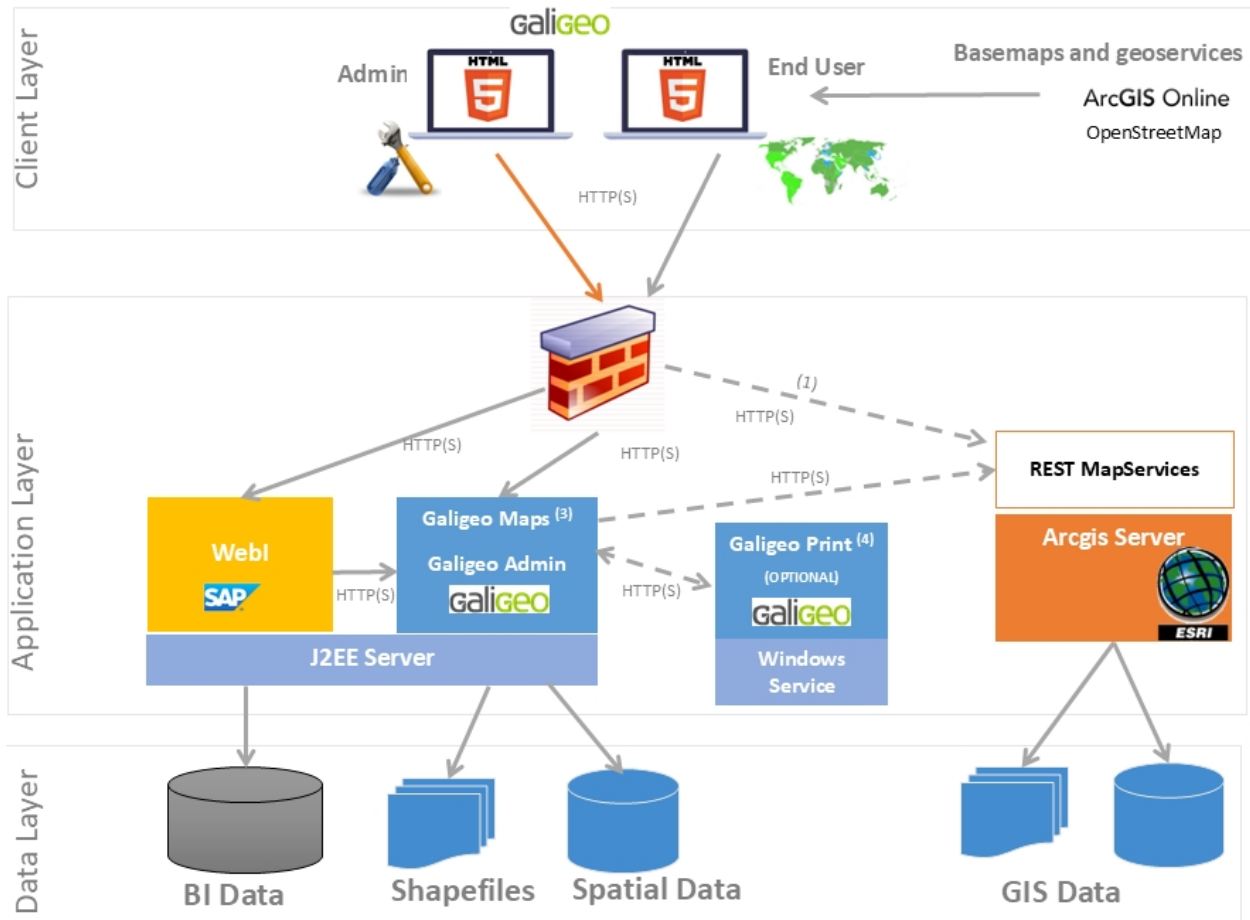
The complete architecture includes the tools for managing and administering this system: The Galigeo Administration console, BusinessObjects Central Management Console and Designer.

Galigeo Server webapp is deployed in BOE Tomcat Server. Galigeo Print Server is deployed as a Windows Service at BOE Server or at another server, depending on prerequisites.

Galigeo Print Service installation is optional:

- Galigeo Print Server is needed for WebI PDF scheduling with Galigeo maps.
- It is not needed for Galigeo PDF printing or WebI PDF export with Galigeo maps.

ARCHITECTURE SCHEMA



- (1) Optional - Used by the user if the basemaps are stored on a local Arcgis Server
- (3) Optional - Galigeo Maps needs to access arcgis.com for isochrones calculations
- (4) The optional Print Server is used for PDF report scheduling. It needs to have access to the basemap server.

1.2 Galigeo Print Service

Galigeo Print Service is a Windows service that communicates, using http, with the Galigeo Server that is deployed in BOE Tomcat at BI Server.

Item	Pre-requisite	Notices	Check test
OS	Windows Server 2016, 2019, 2022 all editions Windows Desktop 11	Galigeo Print Service can be deployed at BOE Server if prerequisites match.	NA
Windows Administrator or privilege	Windows Administrator privilege, <i>run as Administrator</i> , is needed during the installation process	NA	NA
Chrome browser	Chrome version >= 127.0.6533.88	Chrome browser needs to be installed on the Windows server that runs Galigeo Print Service	Go to web browser Menu > About to know its version
Galigeo Server	Galigeo for WebI G23 or G24	Galigeo Server runs within BOE Tomcat at SAP BI Server	<i>Connect to the Galigeo Administration Console and check Galigeo version on the welcome page.</i> Ex: http://boe-srv:8080/ Galigeo <i>Or check the detailed Galigeo version at the following URL:</i> Ex: http://boe-srv:8080/ Galigeo/version.xt
Galigeo Administrator account	Administrator account is needed for configuration in Galigeo Administration Console	NA	<u>See above</u>

1.3 Network

This table lists the ports used in the communication between Galigeo Server and Galigeo Print Server. The ports must be available from the calling application, which might in some cases require some firewall adjustment.

The communication between Galigeo Server and Galigeo Print Server is bi-directional.



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

Port	Protocol	Opened on	Used by	Default Value	Firewall rule
Galigeo / BI Tomcat port (Business Intelligence)	HTTP(S)	BI Server + Galigeo Server	<ul style="list-style-type: none"> - BI Server (<i>from BI server to GGO server as a WebI Custom Element</i>) - Galigeo Client (<i>from client to BI server</i>) - Optional: Galigeo Print Server (<i>to Galigeo Server</i>) 	8080	If Galigeo Print Server is deployed, open in the direction Galigeo Print Server → Galigeo Server
Galigeo Print Server http port	HTTP(S)	Galigeo Print Server	Galigeo Server (<i>to Galigeo Print Server</i>)	3000	Open in the direction Galigeo Server → Galigeo Print Server

Chapter 2: Deploy and Run Galigeo Print Service

In this chapter :

[Where the deployment takes place?](#)

[Deploy & Run Galigeo Print Service](#)

[Print Service Parameters](#)

[Declare Print Server in Galigeo Admin](#)

[Frontal Web Server](#)

2.1 Where the deployment takes place?

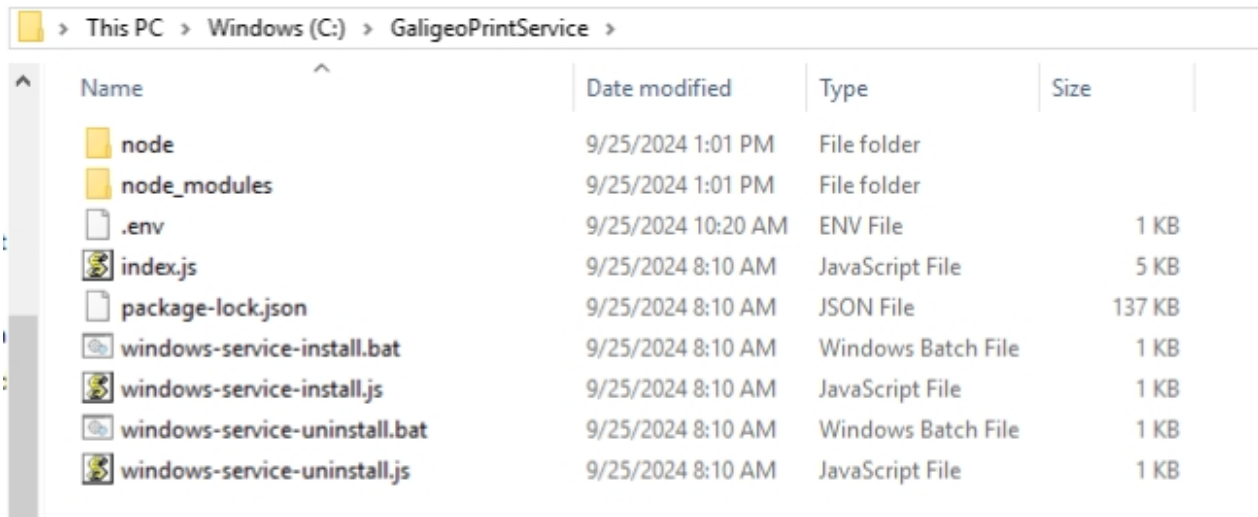
Galigeo Print Service can be deployed at BOE Server if prerequisites match. Otherwise you have to deploy Galigeo Print Service on another Windows Server with appropriate prerequisites.

Most of the steps involves Windows Command-Line Interface (CLI). **Ensure that you have Run as Administrator privilege to run Windows CLI.**

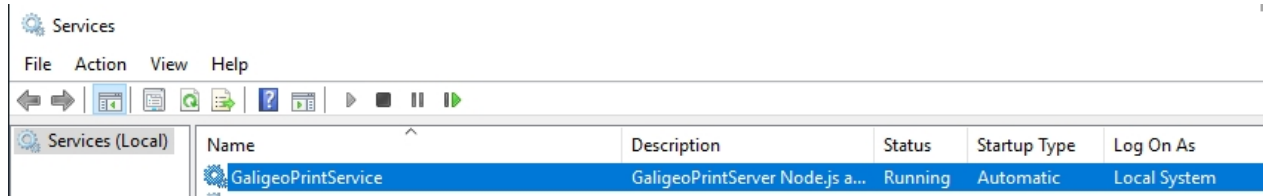
2.2 Deploy & Run Galigeo Print Service

- Unzip **GaligeoPrintService.zip** file from **GaligeoPrintServer_WindowsService.zip** package as a folder somewhere on the server

Example: C:\GaligeoPrintService



- Open and Run a **Windows CLI as Administrator** and navigate to GaligeoPrintService folder
- In Windows CLI run the following command:
windows-service-install.bat
- The installation process ends with the following messages:
...
GaligeoPrintService Install complete.
GaligeoPrintService started.
- Check that Galigeo Print Service is up and running:
 - Check the Windows Services



- In your favorite browser use URL **http://<print-server-name-or-ip>:3000/alive**
 - The browser output should be: ***{"message": "Galigeo Print Server is up and running on container port 3000"}***
- The print server URL is **http://<print-server-name-or-ip>:3000/print**. To be declared in Galigeo Administration (see chapter "[Declare Print Server in Galigeo Admin](#)")

Notice: print server uses HTTP protocol. Switching to HTTPS can be done using a frontal web server (see chapter "[Frontal Web Server](#)")

Notice: The default print server HTTP port is 3000. To expose on a different free port than 3000 (default value), for example 80:



- Stop GaligeoPrintService and navigate to GaligeoPrintService folder
- Edit **.env** file and update PRINT_HTTP_PORT parameter:

PRINT_HTTP_PORT=80

- Restart GaligeoPrintService

2.3 Print Service Parameters

Print Service parameters are stored in **.env** file at the root of GaligeoPrintService folder

Example: C:\GaligeoPrintService**.env**

Any change in .env file needs GaligeoPrintService to be restarted.

Find below the description of parameters

Parameter	Description	Notice
PRINT_HTTP_PORT	The Galigeo Print Server HTTP port	See chapter " Network "
CHROME_EXECUTABLE_PATH	The path to chrome executable	The default value corresponds to Chrome default installation path. May need to be updated if Chrome installation path is different.
HTTP_PROXY, HTTPS_PROXY, NO_PROXY	Company proxy parameters to access internet if needed	For example to access internet basemaps. See chapter " Internet Access "

2.4 Declare Print Server in Galigeo Admin

- Connect to Galigeo Administration Console with Administrator Account:

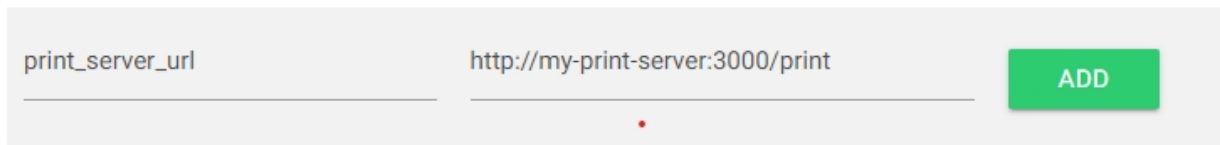
http://<BOE_TOMCAT_SERVER>:<BOE_TOMCAT_PORT>/Galigeo

- Display the (hidden) parameters page:

http://<BOE_TOMCAT_SERVER>:<BOE_TOMCAT_PORT>/Galigeo/viewer/admin/admin_params.jsp

- At the bottom of the page add the new parameter **print_server_url** with value **http://<print-server-name-or-ip>:<print-server-port>/print**

Example:



print_server_url	http://my-print-server:3000/print	ADD
------------------	-----------------------------------	-----

- At any moment the parameter can be updated using amin_params.jsp page.

2.5 Frontal Web Server

Galigeo Print Server can be accessed through a frontal web server with the appropriate proxy/forward/etc rules. For example, to use https protocol with print server URL.



For example:

- Alive URL: **https://my.organization.com/alive**
- Print URL: **https://my.organization.com/print**

Chapter 3: Uninstall Galigeo Print Service

- Open and Run a **Windows CLI as Administrator** and navigate to GaligeoPrintService folder
- In Windows CLI run the following command:
windows-service-uninstall.bat
- The uninstall process ends with the following messages:
...
GaligeoPrintService Uninstall complete.
- GaligeoPrintService folder can now be deleted

Chapter 4: Update an existing installation

The procedure takes place on Galigeo Print Sever using your Windows CLI.

1. Follow the steps from chapter "[Uninstall Galigeo Print Server](#)"
2. Then follow the steps from chapter "[Deploy and Run Galigeo Print Server](#)"

Chapter 5: Internet Access

If Galigeo Print Server has no internet access, to access internet basemaps configured by default with Galigeo Server, you have to declare the following URLs in the company proxy.

Feature	Domain to be reached through https (or http)	Examples of URLs
Print Base Maps "ArcGIS Online" (All)	server.arcgisonline.com	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 Hot/FR"	tile.openstreetmap.fr	http://c.tile.openstreetmap.fr/hot/3/7/1.png https://a.tile.openstreetmap.fr/osmfr/4/6/6.png
Print Base Maps "Stamen Toner"	stamen-tiles-a.ssl.fastly.net	https://stamen-tiles-c.a.ssl.fastly.net/toner-background/3/4/4.png

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

- Stop GaligeoPrintService
- Edit .env file at the root of GaligeoPrintService folder
- Uncomment and update PROXY parameters

Example:

If company proxy URLs are **http://proxy.example.com:3128** and **https://proxy.example.com:3129** and Galigeo Server URL is **https://internal.organization.com/Galigeo**

HTTP_PROXY=http://proxy.example.com:3128
HTTPS_PROXY=https://proxy.example.com:3129
NO_PROXY=internal.organization.com

The NO_PROXY parameter is a coma separated list of hosts that should be reached directly, bypassing the proxy. The patterns may start or end with a '*' for wildcards.

Appendix

In this chapter:

[Logs and troubleshoot](#)

Logs and troubleshoot

Galigeo Print Service logs files are stored in **GaligeoPrintService\daemon** folder. The main log file is ***galigeoprintservice.out.log***.

Example: C:\GaligeoPrintService\daemon\galigeoprintservice.out.log