



Qlik GeoAnalytics Server Installation Guide

Qlik GeoAnalytics Server September 2019 (4.17)

This is a brief installation guide on how to install the Qlik GeoAnalytics Server for local hosting of services for Qlik GeoAnalytics.

This installation is for Windows (7 or later).

Note that keys and paths are examples and need to be modified for each installation.

This guide serves as an overview guide, please also see the installation guides for each individual product.



Copyright © 1993-2019 QlikTech International AB. All rights reserved.

Qlik®, QlikTech®, Qlik Sense®, QlikView®, Sense® and the Qlik logo are trademarks which have been registered in multiple countries or otherwise used as trademarks by QlikTech International AB. Other trademarks referenced herein are the trademarks of their respective owners.

1. Prerequisites

Make sure Java 8 - 12 is installed, get one from <http://www.oracle.com/technetwork/java/javase/downloads/index.html> or <https://jdk.java.net/> if you need one. The Java SE Server JRE is the preferred one. OpenJDK is also supported. You should select the 64-bit version of Java if you have a 64-bit system.

The Server communicates with http and https. Make sure the ports used (default 80 and 443) are open to the clients.

See the document *Qlik GeoAnalytics Server Requirements* for information on required memory, CPU and disk.

2. Download

Download the Qlik GeoAnalytics Server installation (standalone server for Windows) from the URL provided by Qlik.

3. Install

Run the Qlik GeoAnalytics Server installation program. Parameters set during installation can be changed afterwards by rerunning the same installer. They can also be found in the file C:\ProgramData\Qlik GeoAnalytics Server\config.ini (restart the Qlik GeoAnalytics Server service when changed).

Upgrade:

To upgrade a GeoAnalytics Server to the latest version, run the latest version of the installer. Configurations from the previous installation will be loaded (including data package services).

Warning! Before you upgrade to the latest version of GeoAnalytics Server, check if you have an older version of GeoAnalytics Server than April 2018 installed. If you have an older version, you must upgrade GeoAnalytics Package to 18.04 or later. Older data packages will not work with newer versions of the Server. This is due to a specific update in GeoAnalytics Server. You should upgrade the data package before you upgrade the Server version, if you do it the other way around the map services will stop working on the Client side until you have upgraded the data package too. To upgrade the data package, see the section for upgrading map data in Qlik GeoAnalytics Data Package Installation Guide (Map data and installation guide is available at the Qlik download site).

3.1 Memory configuration

During installation "Max memory" is configured as one of the settings. The recommended setting is 18GB for EnterpriseDataPackage-19.03. (If you are running the Server as a "Local Map Server" instead of Enterprise, then 2GB is enough). Check the data package readme if you are using a different version

of the data package. Operations and especially the route database require a lot of memory. The Memory setting can be changed later by rerunning the same installer or by opening the Java tab in the *Configure Service* desktop app. Changes comes into effect after restarting the service under the General tab. Note that the system memory used by Java can exceed this number.

3.2 HTTPS

Note that you need to enable HTTPS if you use HTTPS for communicating with your Qlik Server. Then you need to get a certificate for your site name, self-signed does not work. The server needs the certificate and private key bundled in either the Java KeyStore or the PKCS12 (.pfx, .p12) format.

You can export certificates from the windows certificate manager by right clicking them, selecting All Tasks > Export.

You will need to select that it should export the private key, and on the Export File Format screen select PKCS #12 and to include all certificates in the certification path.

Then set a password and save it where it can be accessed by the Qlik GeoAnalytics Server.

Additional HTTPS related security settings like HSTS can also be enabled, see *9. Advanced settings* for more details.

3.3 Passwords

Only characters in the ASCII character set are supported in passwords. This applies to all passwords set during installation, including administrator, api and keystore passwords.

3.4 Java 11 or later

The software used to run the server as a Windows service cannot find the Java JDK DLL it needs automatically so you will need to set it manually using the service configuration program.

You do this by starting the *Configure Service* program, found in the start menu, and going to the *Java* tab. There you uncheck *Use default* and select the file `[JDK home folder]\bin\server\jvm.dll` as *Java Virtual Machine* below. You also need to make sure that the *Java 9 Options* field does not contain "--add-modules=java.activation". If it does, remove it since it is not compatible with Java 11 or later.

4. Login and add the Qlik GeoAnalytics Server license

Login to Qlik GeoAnalytics Server Admin Interface from the start menu (`http://localhost:<port>/ravegeo/admin/`) using the *admin* user and password created in the server installation. Use the port specified during installation (default 80).

Add License

Paste the new license in the box below.

```
0000000000000001
PRODUCTLEVEL:90;;2017-12-30
MAPSERVER:YES;;
GEOPLUS:YES;;
GEO_SERVER:YES;;
ABCD-EFGH-IJKL-MNOP-QRST
```

Control number (for LEF):

Then go to the License Administration section and add the license by pasting the LEF you got from Qlik into the text area and clicking Add License.

In the field below you paste the LEF control number.

If the server has internet access it will check with the Qlik license servers daily to see if the LEF has been updated, but you can also force an update check by pressing the "Refresh" button.

If you do not have a license (LEF) for Qlik GeoAnalytics Server please contact a Qlik reseller.

5. Installing and configuring map data

Map data and installation guide is available at the Qlik download site

Follow the Qlik GeoAnalytics Data Package Installation Guide to install and configure the required map data.

If you make a map data upgrade, make sure you have configured enough memory for the new data package (see data package readme).

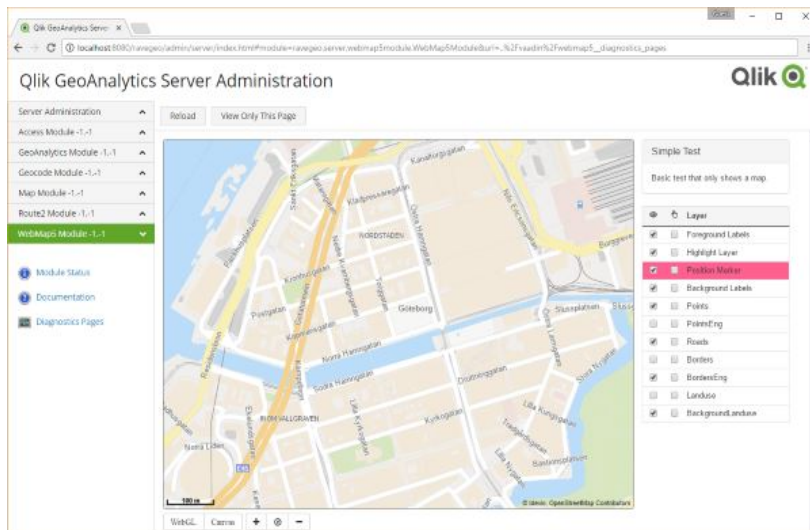
6. Checking the installation

To verify that the installation went well, check that we can display a map.

In the Qlik GeoAnalytics Server administration interface, go to:

WebMap5 Module -> Diagnostics Pages -> (default) Go To Diagnostics Pages
-> Simple Test

It then should display a map that looks something like this:



In WebMap5 Module -> Module Status, there should be (versions might differ):

Configured WebMap Service: osm.15.6

Configured Geometry Services: default

Configured Vector Tile Services: osm.15.6

Configured Maps: tiledraster.15.6, default.16.6, plain.15.6

If you have installed the map services for the Qlik Sense map then additional services should be visible here.

If you have any problems, check the log at:

Server Administration -> View Log

7. Using with Qlik Sense Map

From Qlik Sense April 2018, the built-in Map chart can be used with GeoAnalytics Server in an on-premise solution. For this GeoAnalytics Data Package 18.04 or newer is needed. First, install the data package according the guide including the optional step named "Enable support for Qlik Sense Map" or similar. Then go to your Qlik Sense installation and point the Sense map to the server by editing the file `mapconf.json` in `C:\Program Files\Qlik\Sense\Client\assets` (or similar) and set the URL to the server in the `serverUrl` property and the key you have chosen during data package installation for Sense map users in `serverKey`. Example:

```
{
  "serverUrl": "https://mysite.com",
  "serverKey": "abcdefg"
}
```

Note that every time Qlik Sense is upgraded this file will be overwritten, so it will need to be edited again.

8. Using with Qlik GeoAnalytics

When installing Qlik GeoAnalytics extensions and/or connector for Qlik Sense or QlikView, use the serial of the LEF you used as the server license (the first row of the LEF, 16 digits) as license key.

Do not forget to set the default server URL for them to the local server instead of the defaults pointing to <https://maps.qlikcloud.com>.

For Qlik Sense Server edit the file `/Extensions/ideviomap/settings.js` to

```
define(
{
  "server": "https://myurl.com"
}
);
```

For Qlik Sense Desktop the default url can be changed on step 3 of the GeoAnalytics setup.

For the connector, set `serverURL` in the file

`IdevioGeoAnalyticsConnector.exe.config` which normally is at both:

- `C:\Program Files\Common Files\Qlik\Custom Data\QvIdevioConnector` (for Qlik Sense)
- `C:\Program Files\Common Files\QlikTech\Custom Data\QvIdevioConnector` (for QlikView)

9. Advanced settings

By editing `C:\ProgramData\Qlik GeoAnalytics Server\config.ini` you can enable more advanced features like HSTS, here is a list of additional settings available:

Setting	Type	Default	Description
<code>stsMaxAgeSeconds</code>	Integer	-1	Enables HSTS and sets max-age to the specified value. Disabled if negative.
<code>stsIncludeSubdomains</code>	Boolean	false	Sets <code>includeSubDomains</code> on the HSTS header
<code>disableGzip</code>	Boolean	false	Disables GZIP compression

disableRemoteAdmin	Boolean	false	Disables access to the admin GUI from other computers
sslKeystoreType	String		Certificate key store type. Set to <i>pkcs12</i> for using PKCS#12 certs in Java 7.

They can be added anywhere in the config file, they don't need to be under a specific section.

9.1 IP address / referrer pseudo anonymization for logs

There is now a setting for making all logged IP addresses and referrer information pseudo anonymous.

When enabled, logged referrer headers will be stripped down to only contain protocol, host, and port number. IP addresses will be masked so that for IPv4 the last octet will be set to 0, while IPv6 addresses the last 80 bits will be zeroed.

To enable this, add an attribute called *anonymizeLogging* to the root tag in the file *C:\ProgramData\Qlik GeoAnalytics Server\server3\config\ServerSettings.xml* and set it to *true*.

10. Troubleshooting

If the server fails to start, a good place to start investigating is the logs folder at *C:\ProgramData\Qlik GeoAnalytics Server\server3\logs*.

Log file	Description	Check if
daemon.[date].log	Service log	Service does not start
jetty.log	Jetty log	Service or server fails
main.log	Main server log	Server error or GeoAnalytics does not work

Service does not start after install

Check the log folder, does it contain the file *jetty.log*? If so open it and check the end.

The error "java.net.BindException: Address already in use: bind" means that there is already another program using the port you selected for Qlik GeoAnalytics Server. Either disable / reconfigure that program or change the port for Qlik GeoAnalytics server.

Service fails with error code 1 / daemon log complains about Win32

You get this if the service tries to use 32 bit Java on a 64 bit system.

Make sure that you have 64 bit Java installed and then either:

- Uninstall all versions of 32 bit Java if not needed.
- Or, force the service to use 64 bit Java by opening the service config tool at Start Menu -> Qlik GeoAnalytics Server -> Configure Service. Then go to the Java tab, uncheck *Use default* and as *Java Virtual Machine* you select the file bin\client\jvm.dll (jre\bin\server\jvm.dll if you use JDK) in the Java home folder, usually in Program Files\Java\[java version]\.

11. Links to more info

<http://bi.idevio.com/>

<http://developer.idevio.com/ravegeoserver/>

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>