

SGSE

Soluciones Globales de Seguridad Electrónica

GALAXY MONITOR

Installation Manual

AVIGILON™ | TECHNOLOGY
INTEGRATIONS | PARTNER

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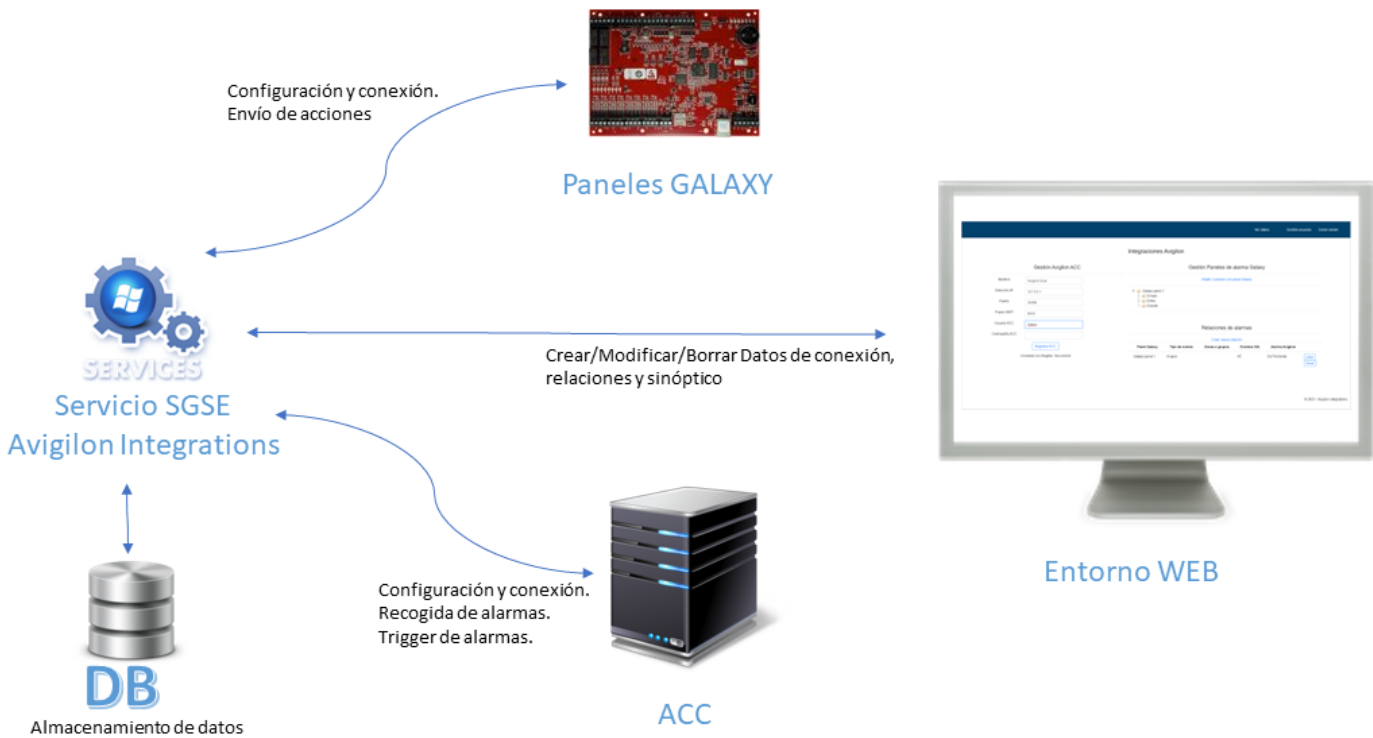
1. Document versions

Version	Date	Author	Description
1.0	09/2023	JAFUNES	First version of document

2. Introduction

Galaxy Monitor is an application that facilitates the full integration of all Galaxy intrusion panels, regardless of which model they are, into the Avigilon Unity platform, thereby enabling the linking of the alarms created within Avigilon with the events produced by the Galaxy intrusion panels.

Additionally, the Galaxy Monitor is interactive, which means that actions can be performed on the partitions, zones and outputs that have been configured in the Galaxy panels through a synoptic panel. The synoptic panel enables the status of the panel to be checked in real time. This software solution also includes a web service that facilitates the representation in visual form of the devices integrated into one or several plans, as well as their statuses, which makes it possible to interact with them.



3. Installation requirements

The hardware and software required for the application are as follows:

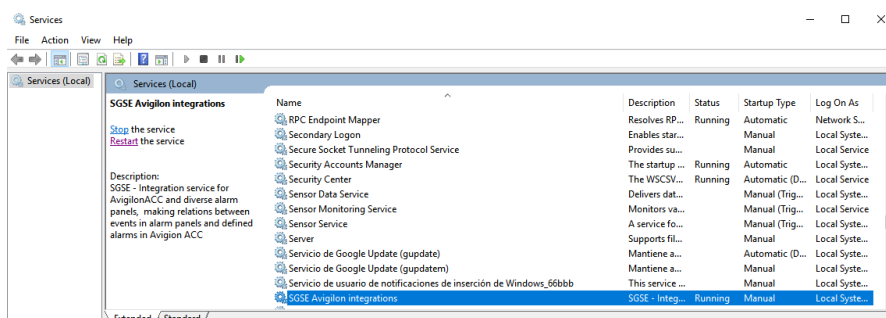
Hardware/software	Description
Licence	Licence for each panel and element
CPU	Minimum: Intel Core i3 or similar
Operating system	Minimum: Windows 10
Hard disk space	Minimum: 300MB
RAM	Minimum: 8GB
ACC version	ACC7 or later
SQL	SQL 2019 or later

4. Architecture

The application is presented in two different environments:

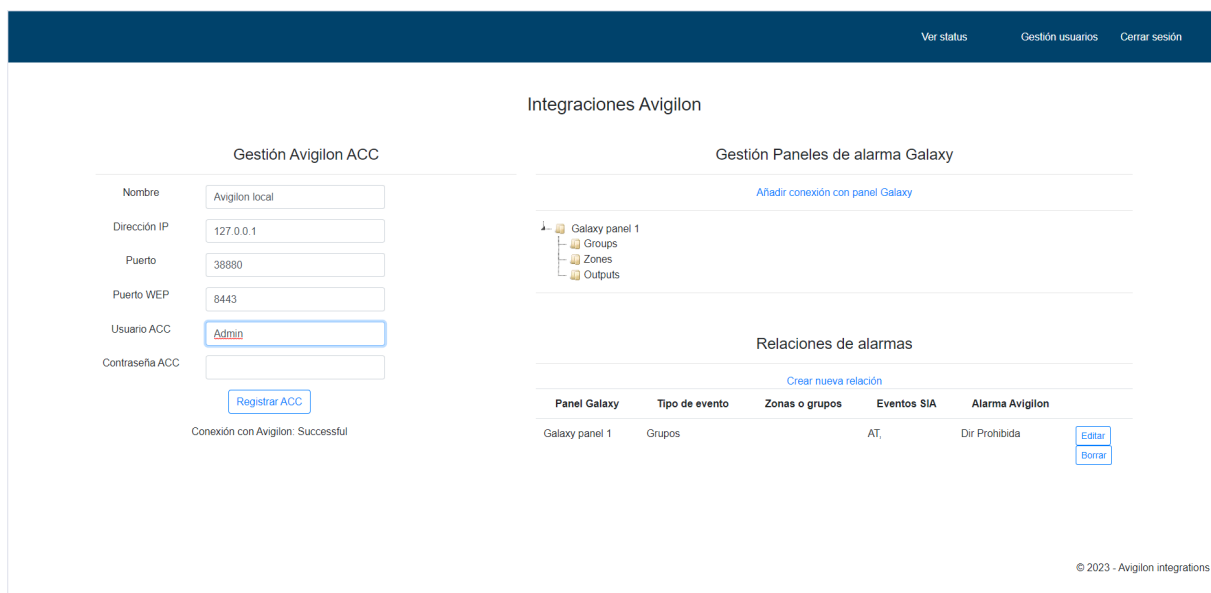
- **Avigilon integrations service**

This is the main application for the integration. It stores all recorded information, initiates communication with the alarm panels, connects to the ACC, and manages the links between the ACC alarms and the panel events that set off those alarms, which can be managed by the ACC client.



- **Web-based management application**

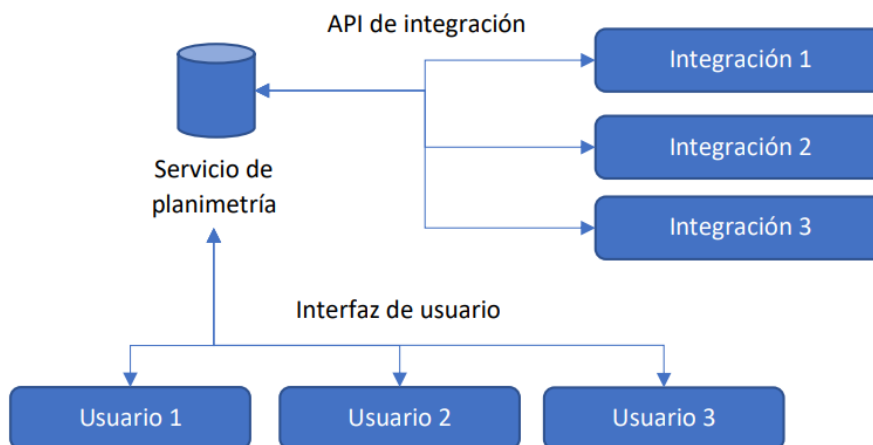
The web application acts as a management interface between the intrusion panels and the ACC platform. This facilitates the creation, modification, updating and deletion of the links between the panel events and the ACC alarms.



The web management application will not work if the Avigilon Integrations service is not active. It is always important to check that the service is up and running so that **the web management application** can display all the information.

- **Planimetry service**

The diagram below shows the architecture of this software solution:



The web service displays an application programming interface (API) integration that is used to transfer information about the integrated devices to the planimetry service. It also displays a user interface through which it is possible to create plans and depict the devices that have been registered by means of the API integration.

5. Installation

SGSE Avigilon integration service installation

Before starting the installation, please check that the following software has been installed on your computer:

- Internet Information Services (IIS)

[Plan an ASP.NET Website on IIS | Microsoft Learn](#)

- SQL Server 2018 (or later)

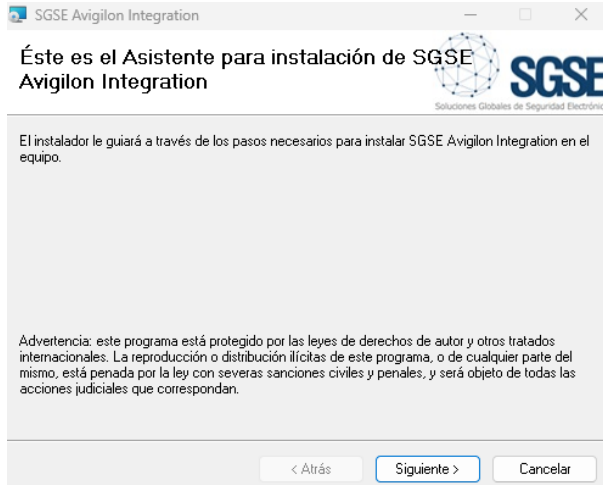
[SQL Server Downloads | Microsoft](#)

- SQL Server Management Studio (2018 or later)

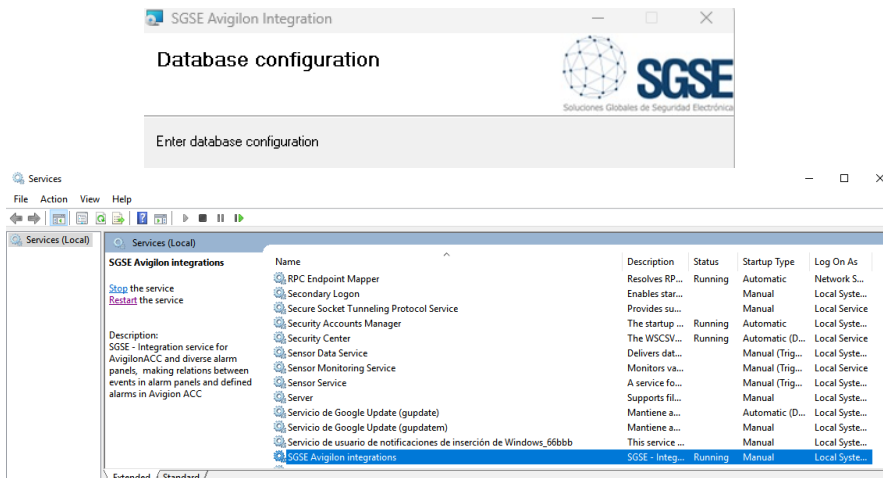
[Download SQL Server Management Studio \(SSMS\) - SQL Server Management Studio \(SSMS\) | Microsoft Learn](#)

Once the installation of the software above has been completed, the installation of the service can commence.

First of all, run the MSI installation file:



Then select the installation path for the database tables and enter the database connection string where everything is to be installed:

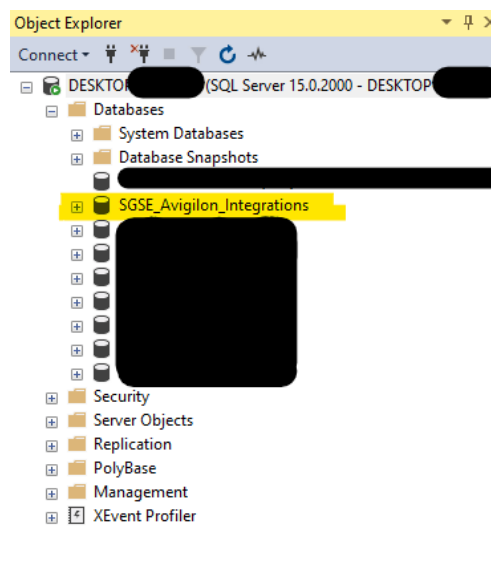


Please complete the process by confirming the installation. Once the installation has been completed, the service will appear in Windows services. You can access the services by pressing the "windows + R" keys simultaneously and running the "services.msc" command, or by searching for the "Services" application in the start menu search function.

As well as creating the service, the installer generates a new database and an application in Internet Information Services (IIS), both of which are essential for the correct functioning of the integration. We can check that the database and the application have been created successfully using the programs below.

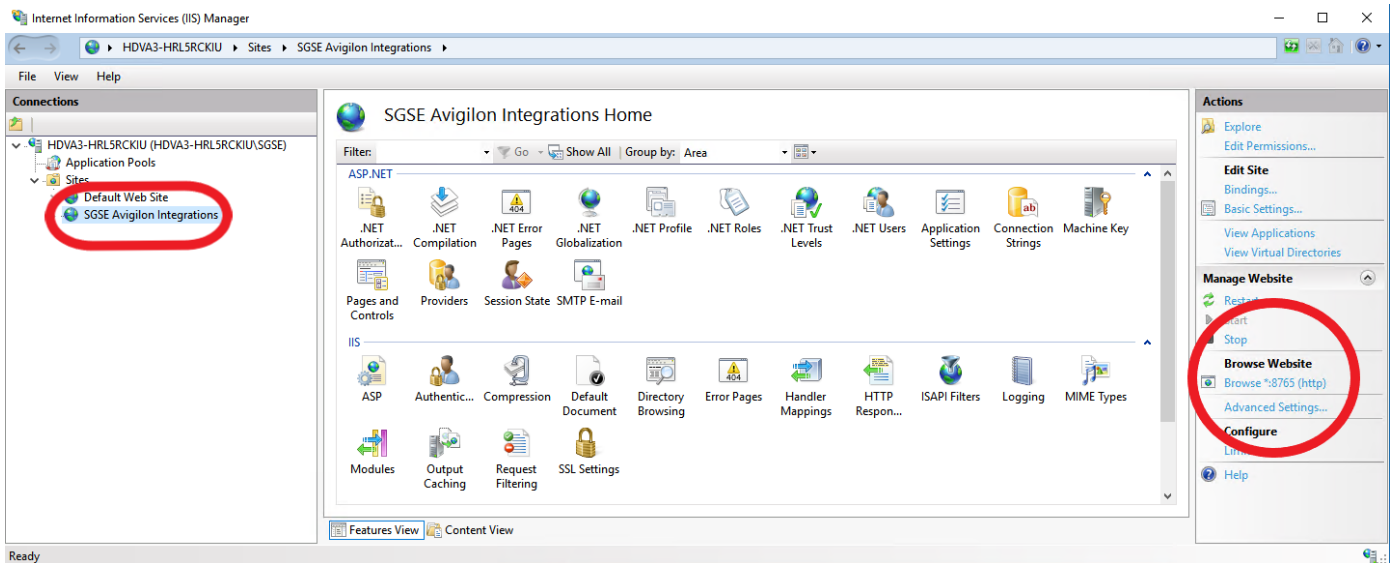
SQL Server Management Studio (SQL database management tool)

Open the server configured in the installation using SQL Server Management Studio. After logging in, you will see that the **SGSE_Avigilon_Integrations** database has been created in the **Databases** folder.



Internet Information Services

Open Internet Information Services (IIS) to verify that the web application has been created successfully. The application will appear under the name of *SGSE Avigilon Integrations* in the **Sites** folder. You can check whether the service is available on portal 8765 on the right-hand section, under the heading "Browse Website".



The newly created site can be tested by viewing the website in IIS. If everything is working correctly, the login page for the application will appear in the default web browser.

Iniciar sesión

Nombre de usuario

Contraseña

¿Recordar cuenta?

La licencia no es válida para este equipo.

Proporcione el siguiente UID a SGSE para que se genere su licencia

1SLYO71-166Q8VB-11COZD5-1WGMK53



The application will only work with a valid licence generated by SGSE. You will need to submit the code that appears on the "UID" screen to SGSE and SGSE will then send the licence to you.



Iniciar sesión

Nombre de usuario

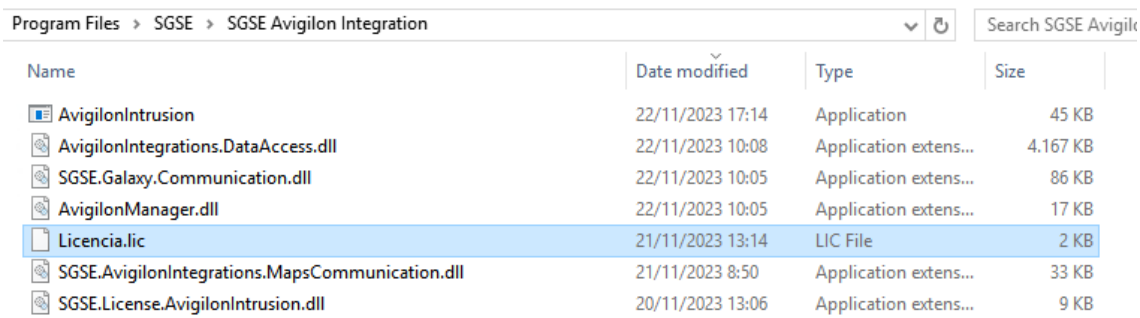
Contraseña

¿Recordar cuenta?

Iniciar sesión



Upon receipt of the licence, it will need to be saved in the "C:\Program Files\SGSE\SGSE Avigilon Integration" folder. If the default location is changed, the licence will need to be saved in the selected folder.



Name	Date modified	Type	Size
AvigilonIntrusion	22/11/2023 17:14	Application	45 KB
AvigilonIntegrations.DataAccess.dll	22/11/2023 10:08	Application extens...	4,167 KB
SGSE.Galaxy.Communication.dll	22/11/2023 10:05	Application extens...	86 KB
AvigilonManager.dll	22/11/2023 10:05	Application extens...	17 KB
Licencia.lic	21/11/2023 13:14	LIC File	2 KB
SGSE.AvigilonIntegrations.MapsCommunication.dll	21/11/2023 8:50	Application extens...	33 KB
SGSE.License.AvigilonIntrusion.dll	20/11/2023 13:06	Application extens...	9 KB

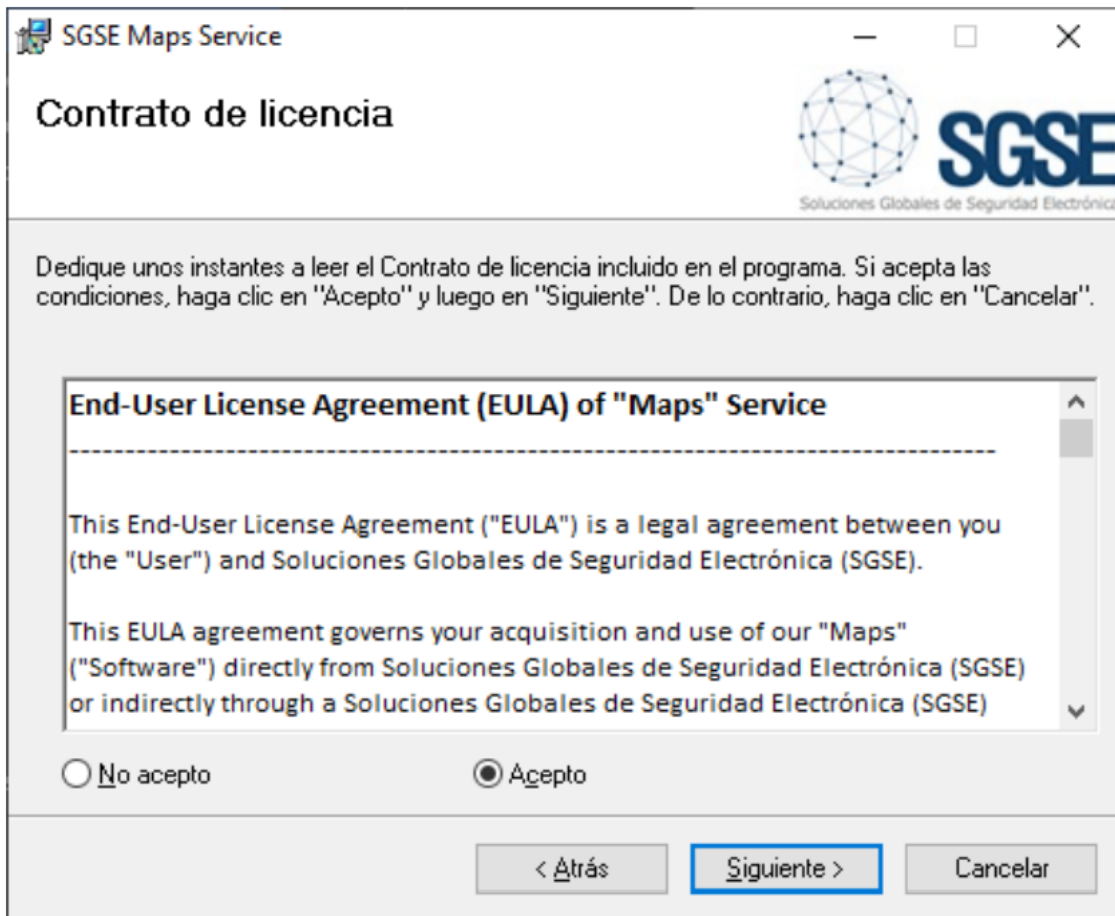
Once the above steps have been completed, the service will need to be restarted for the reading of the licence to take effect and for the service to work.

Planimetry service installation

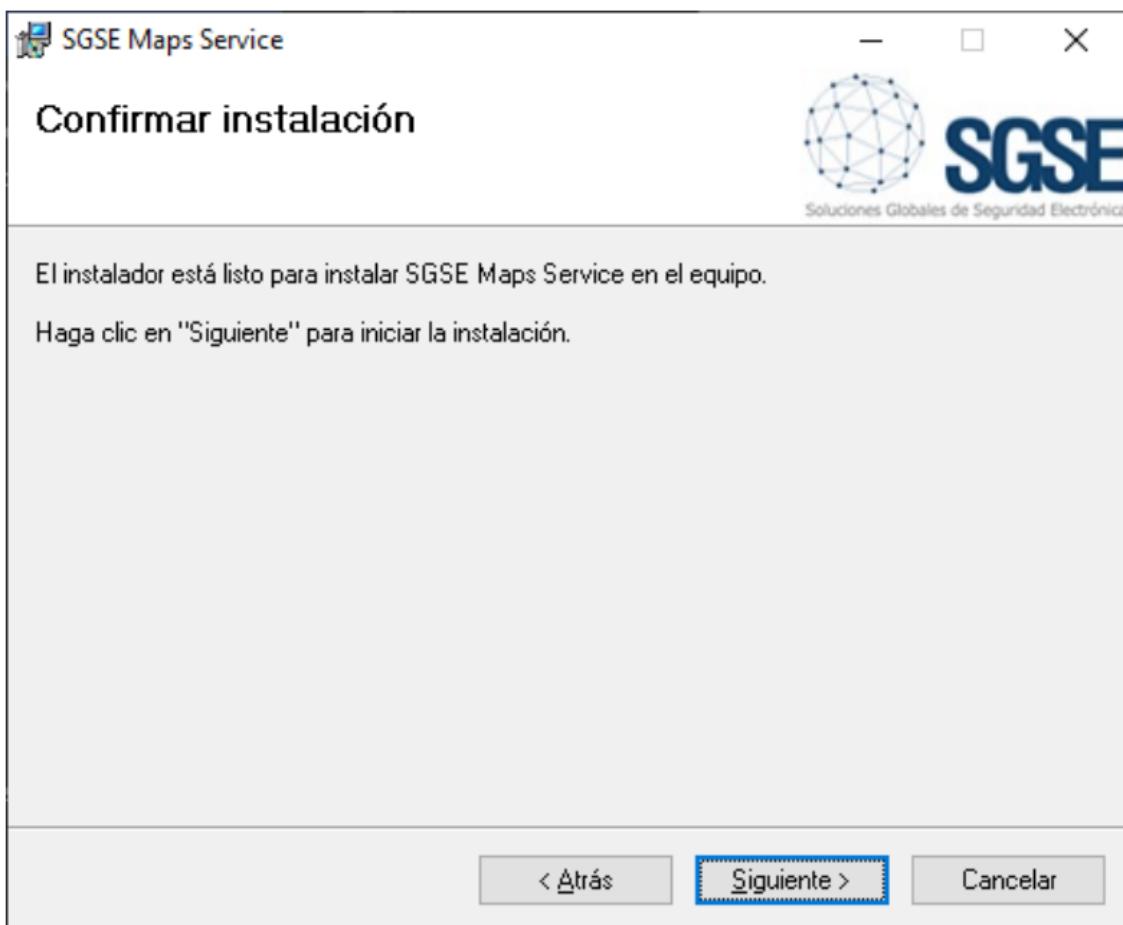
To install the service, just run "SGSE Maps Service Installer.msi" with administrator permissions. This installer is supplied by SGSE and the process is automatic. The installer will take you through a series of dialogue boxes through which you will be asked to accept the End User License Agreement. The plugin cannot be used if the End User License Agreement is not accepted. The installer will also ask you to specify which connection string links to the SQL Server database server that is to be used for the creation of the database and the database user. The following images show all the dialogue boxes that will appear during the installation process for the applications mentioned previously.



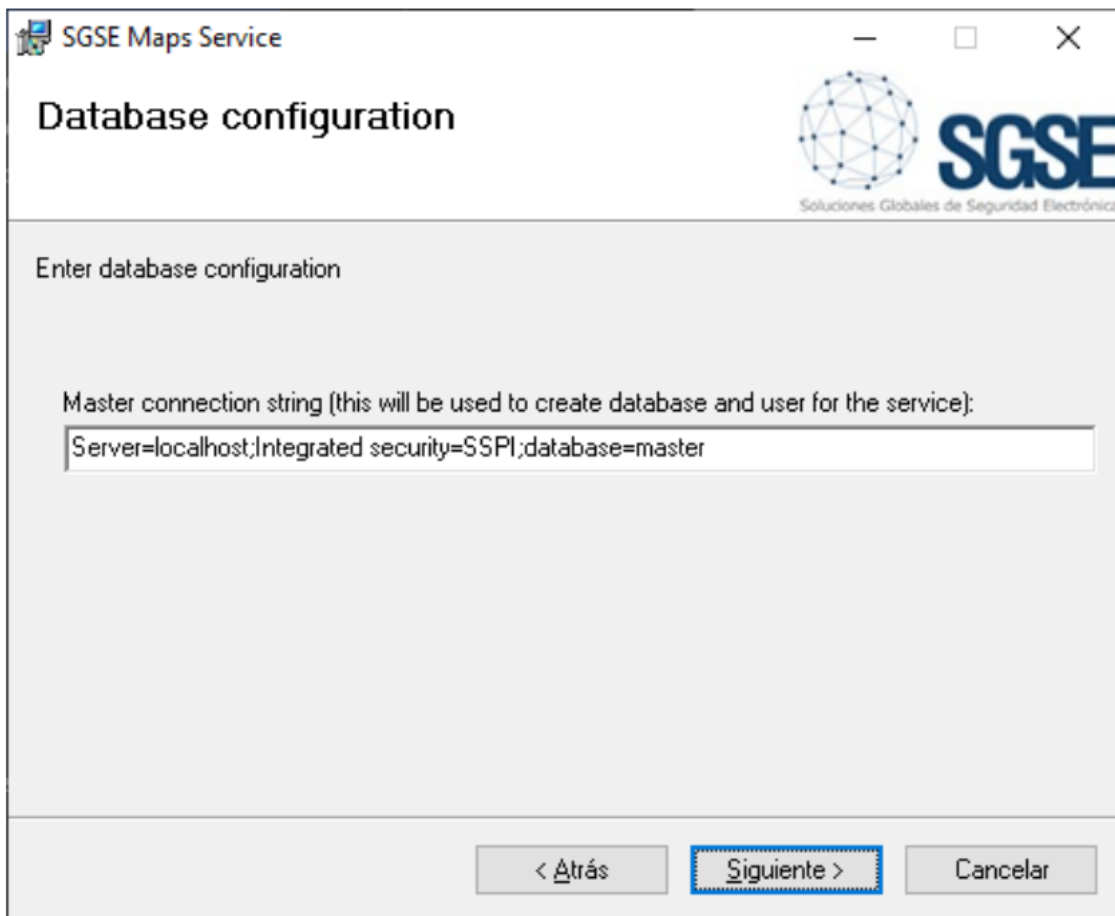
Click "Next >" to start the installation.



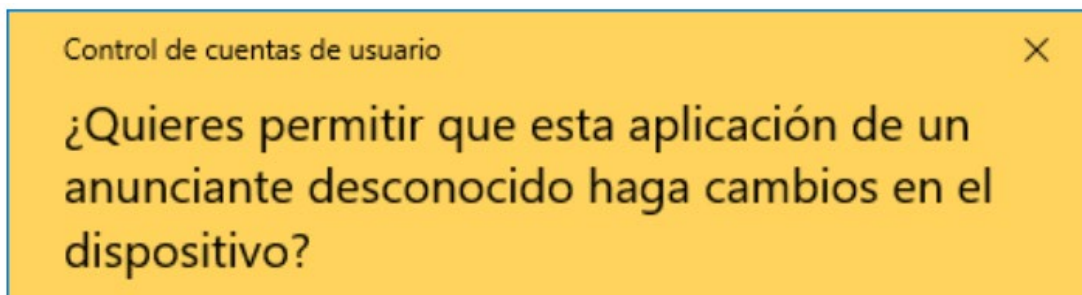
You need to read and accept the End-User License Agreement in order to proceed with the installation.



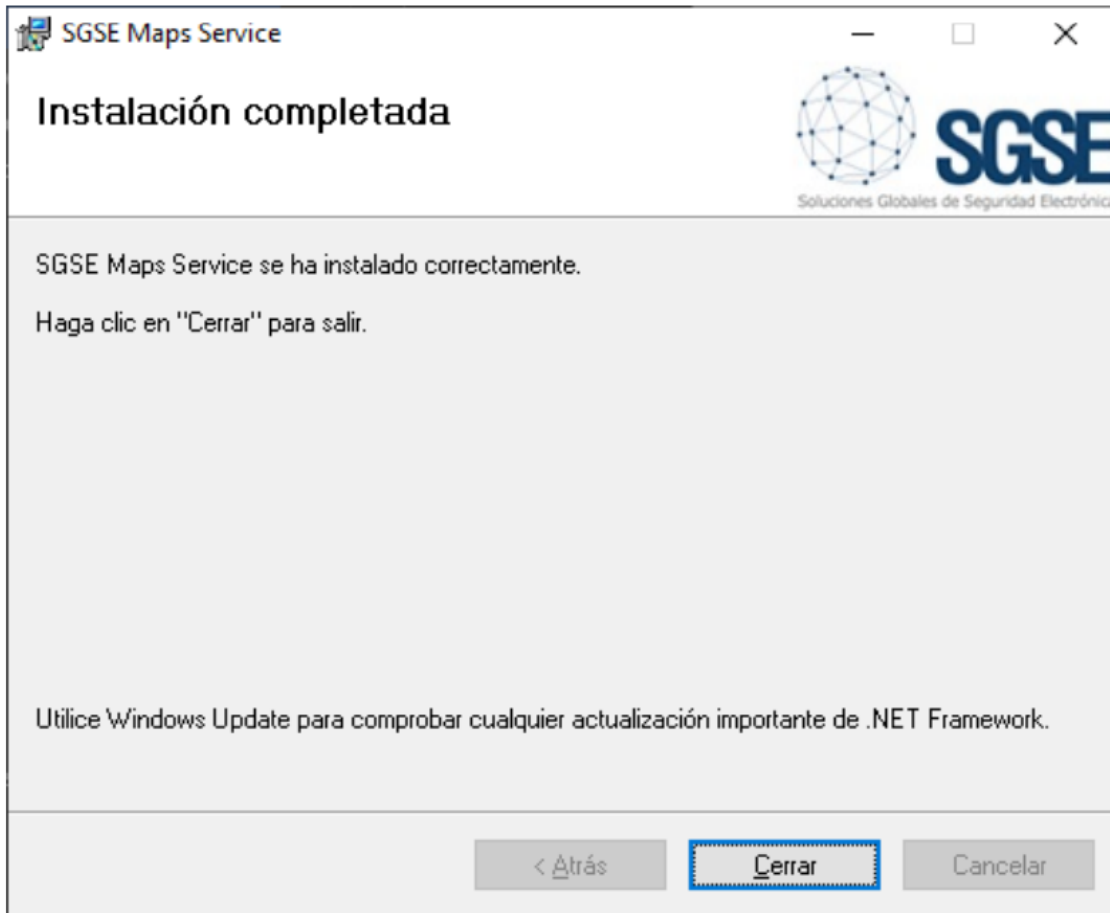
Click "Next >" to continue.



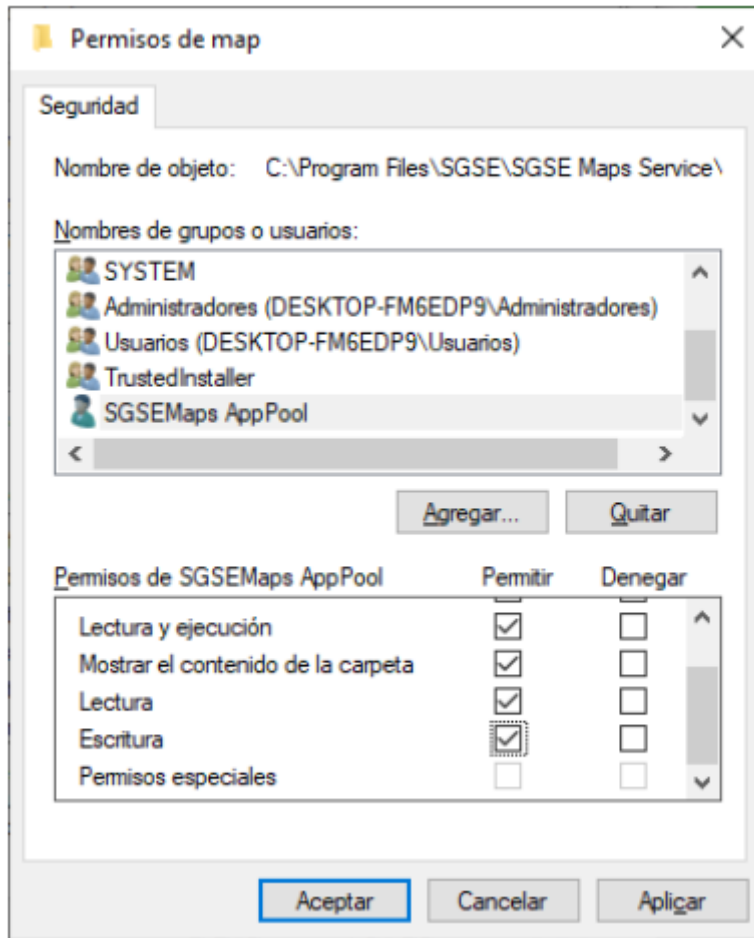
When this dialogue box appears, enter the connection string or leave the default one (if applicable) unchanged and then click "Next >" to proceed with the installation of the files for the software.



If a Windows User Account Control dialogue box appears, you should consent to allowing the installer to continue with the installation.



Once the installation is completed, click on "close". The service will now be installed on your system. For the service to work correctly, read and write permissions will need to be assigned to the "SGSEMaps AppPool" user for the "C:\Program Files\SGSE\SGSE Maps Service\wwwroot\img\map" folder.



6. Configuration

SGSE Avigilon integration service configuration

First of all, an administrator user account needs to be created. This can only be set up the first time the service is run. However, it is possible to change the administrator user's details at a later date.

Access the site created in IIS (the default site will be <http://localhost:8765>) and click on the "register as a new user" link.

Iniciar sesión.

Nombre de usuario

Contraseña

¿Recordar cuenta?

[Registrarse como usuario nuevo](#)

Create a new user account by filling out the form and then click on the "register" button.

Crear una cuenta nueva.

Nombre de usuario

Contraseña

Confirmar contraseña

With the administrator user account set up, the main page for the configuration of the service can be accessed.

First of all, you will need to connect to the Avigilon Control Center and add the connection details to the ACC.

[Ver status](#) [Gestión usuarios](#) [Cerrar sesión](#)

Integraciones Avigilon

Gestión Avigilon ACC

Nombre

Dirección IP

Puerto

Puerto WEP

Usuario ACC

Contraseña ACC

[Registrar ACC](#)

Gestión Paneles de alarma Galaxy

[Añadir conexión con panel Galaxy](#)

Relaciones de alarmas

[Crear nueva relación](#)

© 2023 - Avigilon integrations

Enter the information and click on the "Register ACC" button.

You will then need to add a connection to a Galaxy panel by clicking on the "add connection to Galaxy panel" link.

[Ver status](#) [Gestión usuarios](#) [Cerrar sesión](#)

Integraciones Avigilon

Gestión Avigilon ACC

Nombre

Dirección IP

Puerto

Puerto WEP

Usuario ACC

Contraseña ACC

[Registrar ACC](#)

Gestión Paneles de alarma Galaxy

[Añadir conexión con panel Galaxy](#)

Relaciones de alarmas

[Crear nueva relación](#)

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You can configure the Galaxy panels in different ways depending on the panel model and the way it communicates.

Create GalaxyPanel

Name

ModelCode

CommunicationModule Type

ProtocolPIN

[Back](#)

Groups

Select All

- A1
- A2
- A3
- A4
- A5
- A6
- A7
- A8

Zones

Select All

- 1001
- 1002
- 1003
- 1004
- 1005
- 1006
- 1007
- 1008
- 1011
- 1012
- 1013
- 1014
- 1015
- 1016
- 1017
- 1018

Outputs

Select All

- 1001
- 1002
- 1003
- 1004
- 1011
- 1012
- 1013
- 1014
- 1021
- 1022
- 1023
- 1024
- 1031
- 1032
- 1033
- 1034

With both sections completed and the connections established between the ACC and the Galaxy panel(s), links with the alarms can be created by clicking on the "alarm relationships" link.

[Ver status](#)
[Gestión usuarios](#)
[Cerrar sesión](#)

Integraciones Avigilon

Gestión Avigilon ACC

Nombre

Dirección IP

Puerto

Puerto WEP

Usuario ACC

Contraseña ACC

Gestión Paneles de alarma Galaxy

[Añadir conexión con panel Galaxy](#)

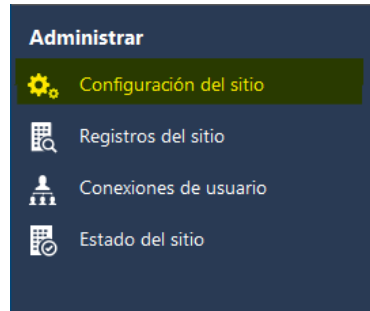
Relaciones de alarmas

[Crear nueva relación](#)

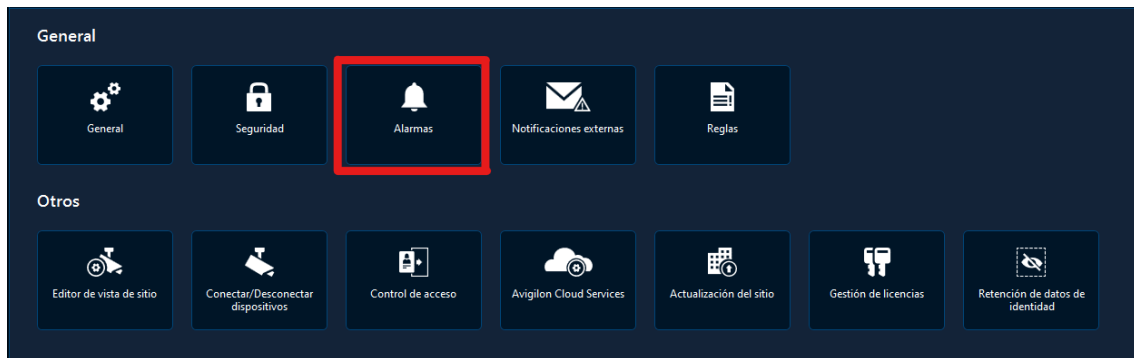
© 2023 - Avigilon integrations

Before proceeding to set up the links with the alarms, you will need to create the alarms in the Avigilon platform.

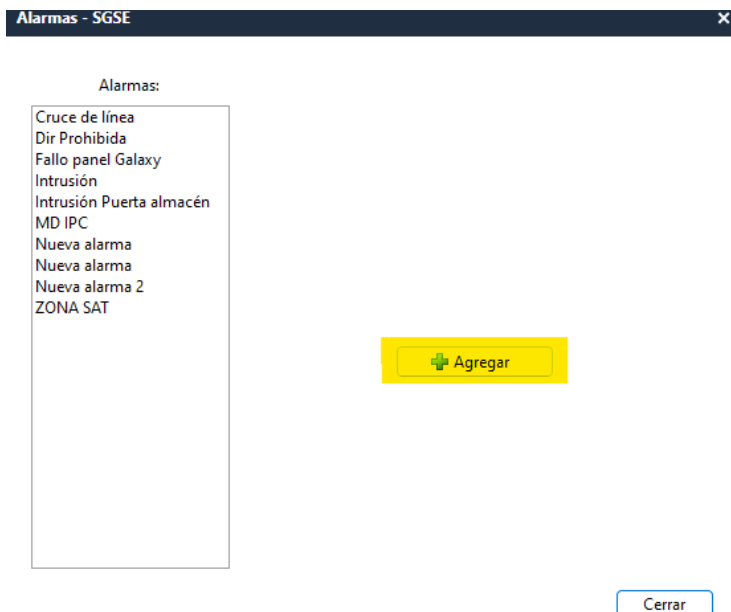
Go to site configuration:



Open alarm management:



Follow the steps shown to create a new alarm:



Once the parameterised alarms have been set up in Avigilon, you can then proceed to create links between them. Choose which events in the Galaxy panels will set off the alarms in Avigilon.

Crear relación

Cancelar

Panel Galaxy	Zona de acción Galaxy	Evento SIA (Galaxy)	Alarma Avigilon
Galaxy panel 1	Zona <input type="checkbox"/> Select All <input checked="" type="checkbox"/> Cristal exterior	<input type="checkbox"/> ACPower_Trouble <input checked="" type="checkbox"/> Burglary_Alarm <input type="checkbox"/> Burglary_Trouble <input type="checkbox"/> Closing_ClosingReport <input type="checkbox"/> Fire_Alarm <input type="checkbox"/> Fire_Trouble <input type="checkbox"/> Holdup_Alarm <input type="checkbox"/> Holdup_Trouble <input type="checkbox"/> PhoneProgram_LineTrouble <input type="checkbox"/> Opening_OpenReport	Dir Prohibida

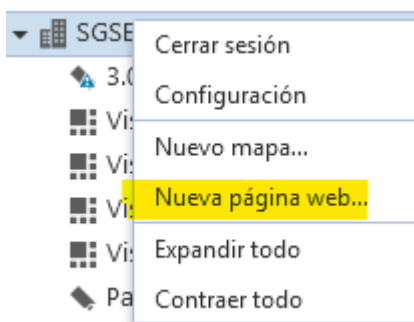
Planimetry web service configuration

The web service will have the following configuration values by default: database connection string (this will attempt to connect to the local machine by default with the credentials that were created during installation). This connection string can be changed in the "appsettings.json" file, which is located in the "C:\Program Files\SGSE\SGSE Maps Service" folder.

7. Operation

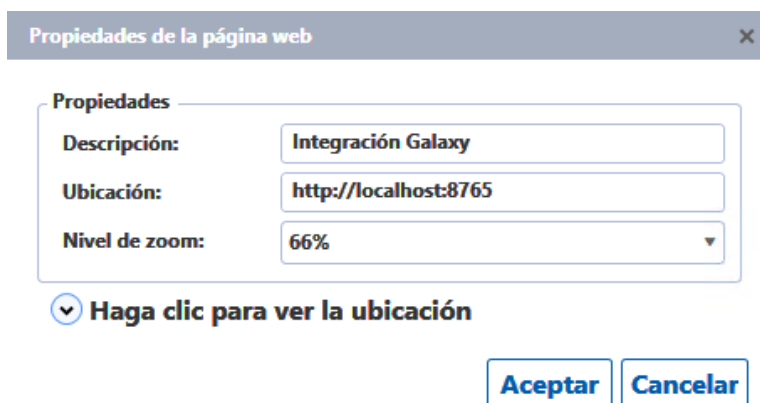
Using the Avigilon platform

In the ACC, several views can be set up that can load a web page. The access URL for the management application can be configured on the web page.



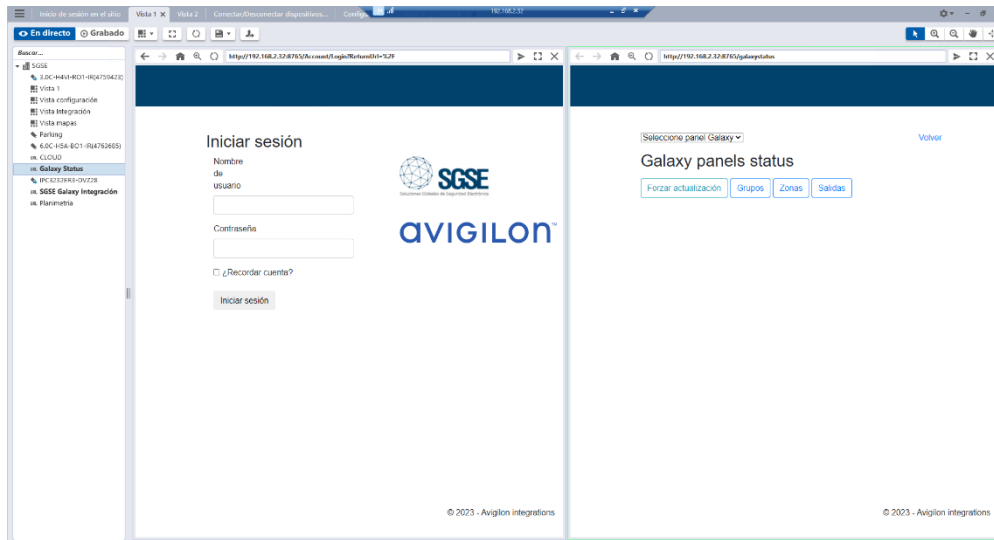
You can change the URL used to access the service in the "location" field.

Doing this will enable you to see the full extent of the alarm panel management in the ACC.



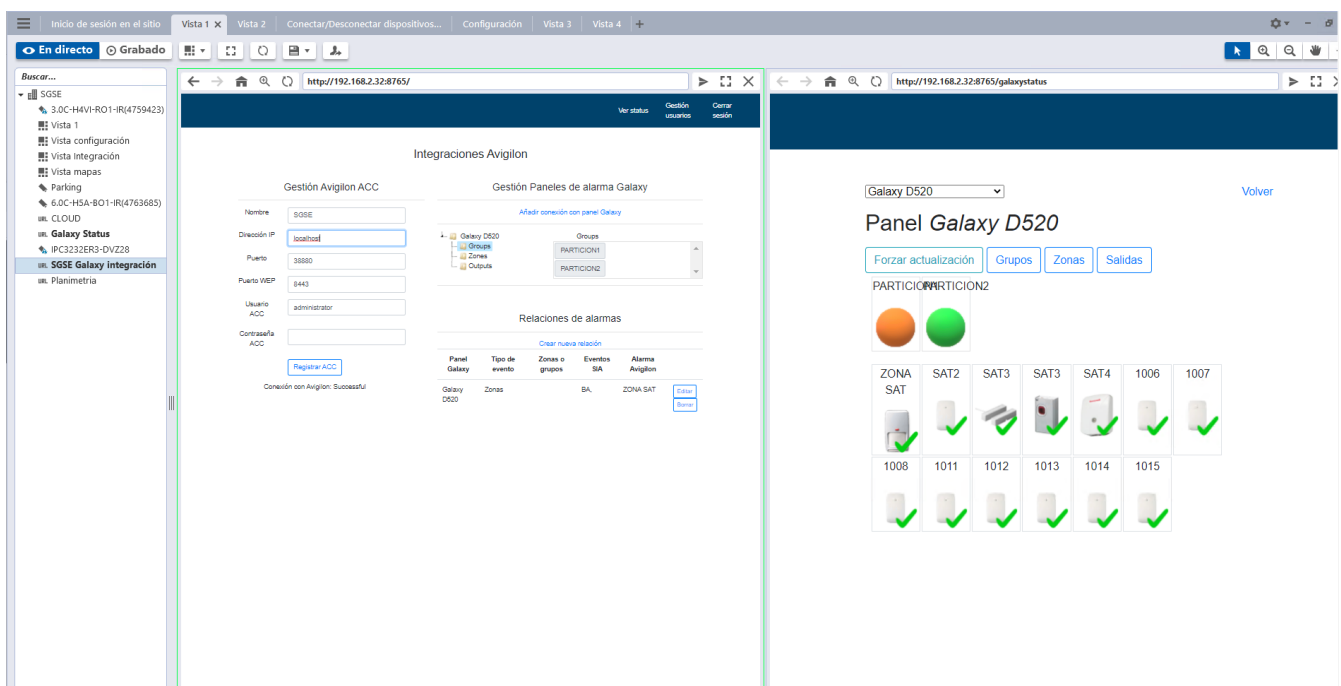
With the view set up, it can be dragged to any of the quadrants to display the information.

To access the synoptic view, which shows the status of the alarm panel, just click on the URL below.



<https://{{dirección o DNS}}:8765/galaxystatus>

The synoptic view shows the current status of the zones, groups and outputs configured in the panel. Actions can be performed on these elements in this view.



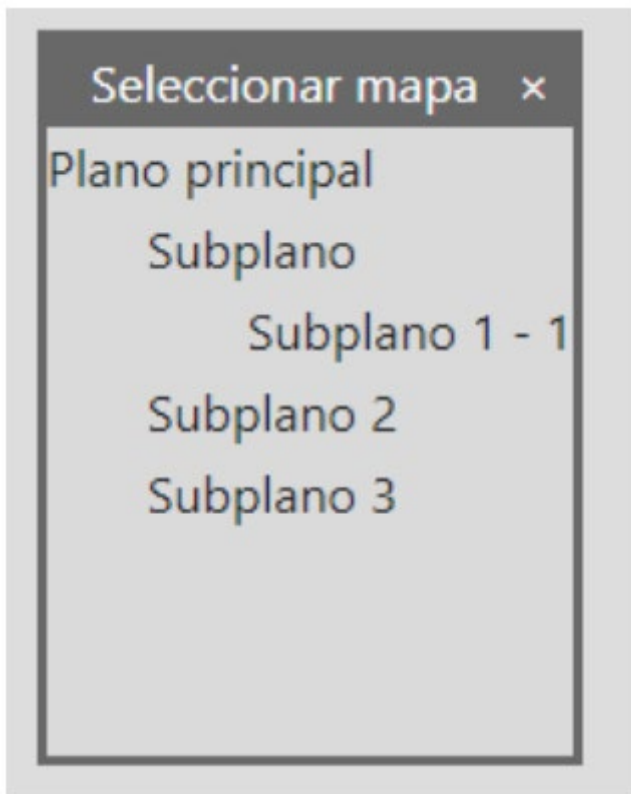
Using the planimetry manager

This application can be accessed through the "http://SGSEMaps/" URL or through another application. If the user is not authenticated, a login screen will appear where they can enter a username and password to get access to the system.

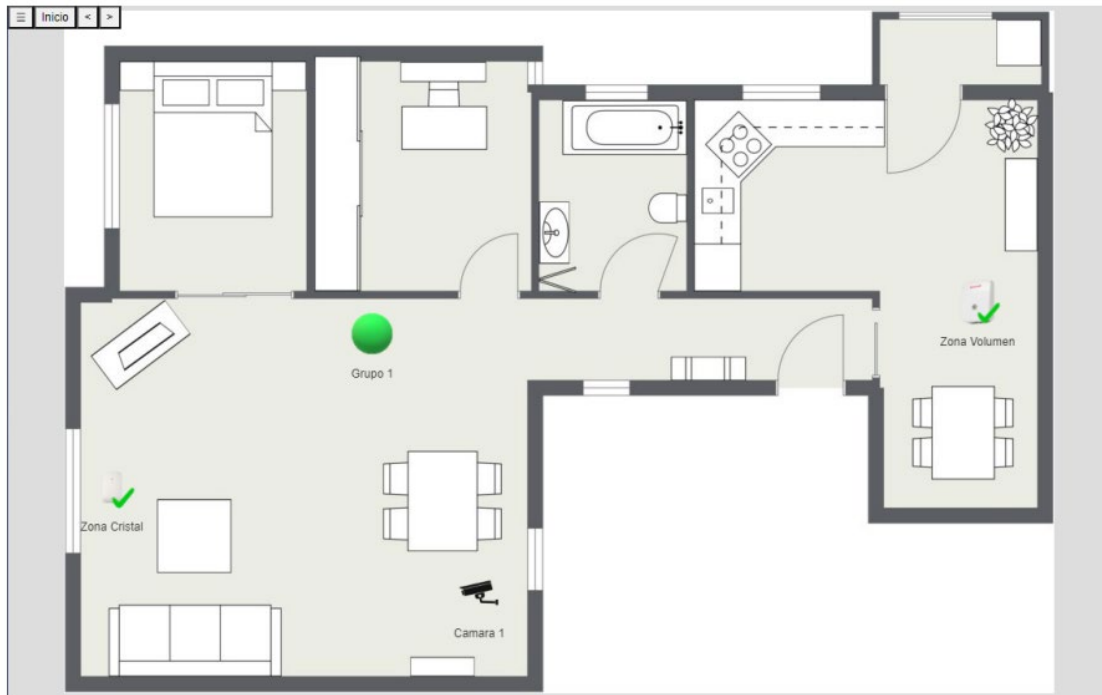
An admin user account with the password "Admin-123" would already have been set up by default. There are two user profiles: administrator and user.

User profile

If you access the user interface without choosing any particular plan, a pop-up window will appear so you can choose which plan to use as the parent plan.


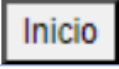




Once a plan has been selected, it will be displayed on the screen.

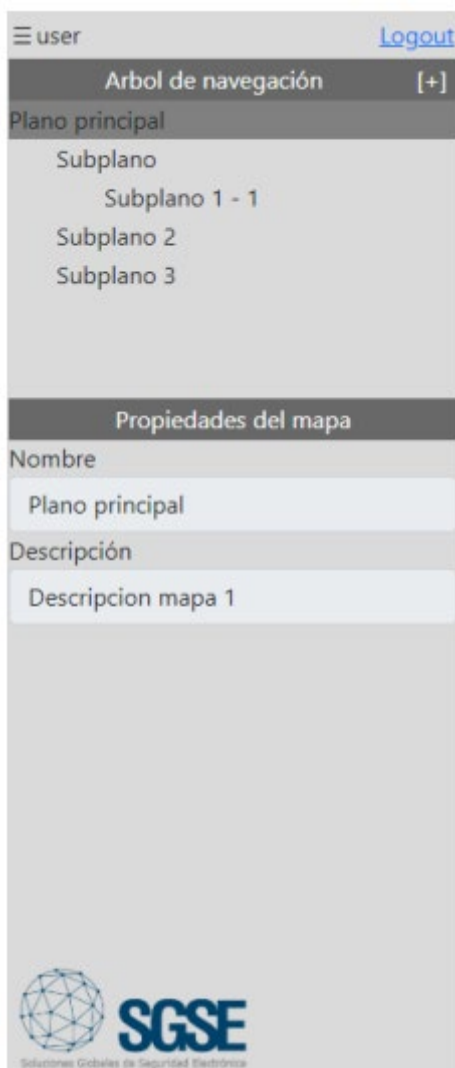


Navigation buttons


You will find the following buttons in the top left-hand corner.

	Muestra u oculta el panel lateral
	Sitúa la navegación en el plano inicial
	Sitúa la navegación en el plano anteriormente seleccionado
	Sitúa la navegación en el siguiente plano si anteriormente se usó el botón de atrás

Sidebar



The sidebar will display the user information as well as the navigation tree containing the parent floor plan along with its corresponding child plans.

Clicking on the button  will close the current navigation tree and a pop-up window that enables you to choose a new parent plan will be displayed.

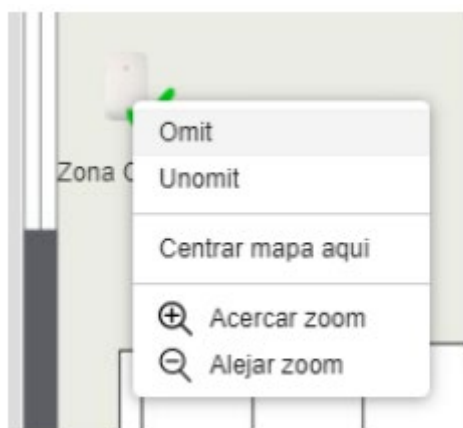
The names of the plans may be highlighted with a particular colour in the navigation tree. The colour will depend on the status of the devices shown on the plan.

The information associated with the selected plan will be displayed below the navigation tree.

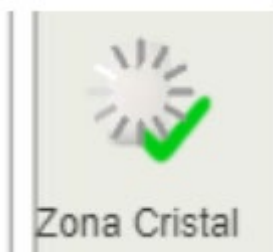
Within the plan

Two types of elements may be displayed in the plan: the devices themselves and the hotspots. The devices are classified by type and there may be commands available that enable different actions to be performed on them. To send a command to a device, place the mouse over the icon and right-click on it.

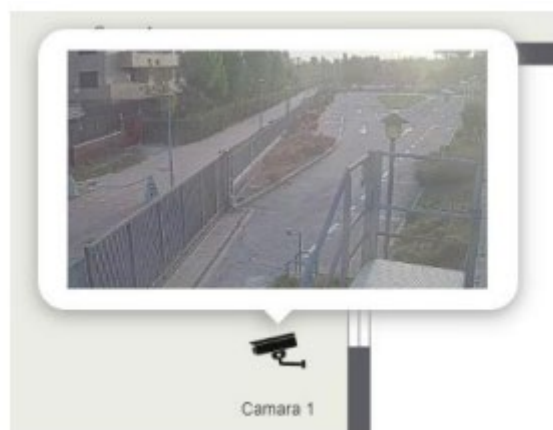
A pop-up menu will appear with the different actions available for each device.



Clicking on one of the actions will cause a circular progress indicator to appear over the icon to show that the command has been sent. This indicator will disappear once the action has been completed.



If the device supports video preview, hovering the mouse over it will display the live image.

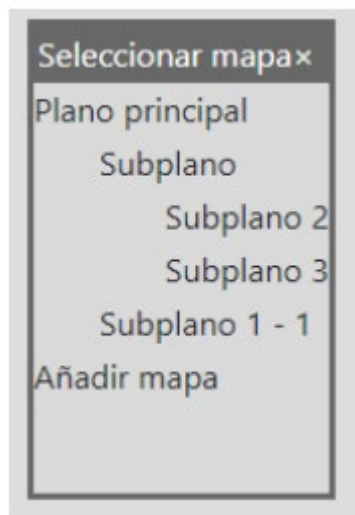


The hotspots represent a particular area of a plan. Clicking on a hotspot will take you straight to the corresponding plan.



Administrator profile

The administrator profile has all the same features as the user profile, as well as various tools to create and modify plans. A new plan can be added via the pop-up window or the navigation tree.

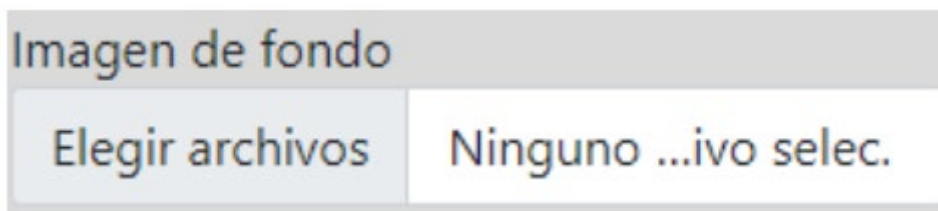


To create a new plan, click on "add plan". The new plan created will be the corresponding child of the selected plan. To create a parent plan, please use the pop-up window.


Once a plan has been selected, it will be displayed on the screen with an interface that is similar to that of the user profile.


Sidebar


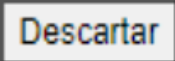
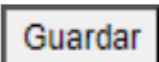
In the plan properties section of the sidebar, a background image option will appear among the plan information, which enables you to select a new image for the plan's background. The image will not be set until the plan is saved.



Editing mode

The edit button will appear in the top right-hand corner . Clicking on this button will turn on editing mode for the selected plan.

In editing mode  the edit button will be replaced by the following buttons:

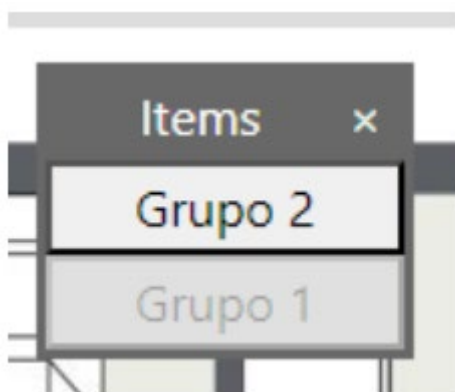
	Elimina el plano actual
	Descarta los cambios efectuados en el plano y sale del modo edición
	Guarda los cambios efectuados en el plano y sale del modo edición

A window with various tools will also appear to facilitate the addition of new elements to the plan.



The contents of this window will depend on the different types of devices that have been specified during the API integration.

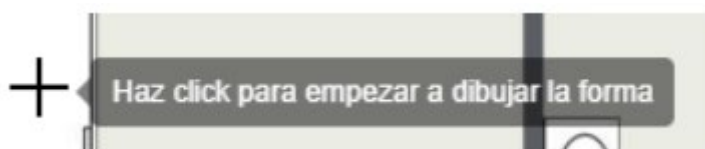
Clicking on one of the device types will bring up another window with a list of registered devices of that type.



You can drag a device from this window to any area of the plan. To remove an element from the plan, click on it then press the delete button on the keyboard.

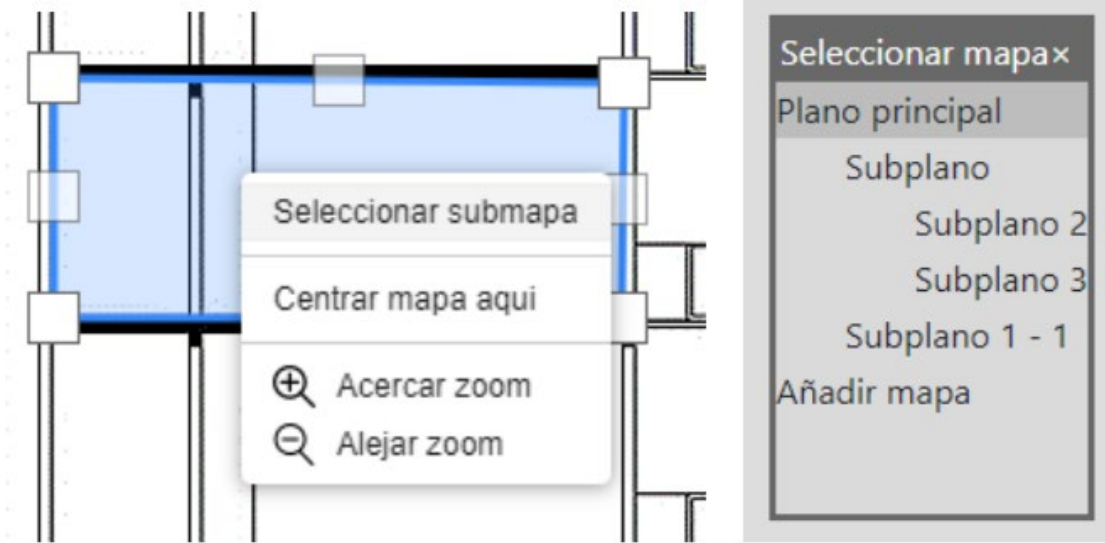
The "hotspot" option is independent of the integration and works in the way mentioned below.

After clicking on the "hotspot" button, the mouse cursor will turn into a cross and the following message will appear next to it:



In editing mode, areas shaped like polygons can be created by clicking on the plan several times. You have to click on the polygon's starting point at the end to close the polygon. Once the polygon has been created, clicking on it will make some boxes appear at the vertices that will enable you to make changes to it. As is the case with the icons, the polygon can be deleted by pressing the delete button on the keyboard while it is selected for editing.

Right-clicking on a polygon will display the "select child plan" option, which will open a pop-up window that shows the plan hierarchy and enables the user to navigate to any area within this hierarchy.



8. Troubleshooting

The service does not seem to be connecting to Avigilon.

Check that the connection details are correct, as well as the username and password.

The service is not connecting to the alarm panels.

Check that the connection details and connection type are correct.

I cannot create links between events and alarms.

Check that Avigilon is connected and that connections to each of the alarm panels have been created.

I am trying to create links to the alarms but there are no Avigilon alarms available to connect to.

Check that the Avigilon ACC connection details are correct, as well as the username and password.

Check in the ACC that alarms have been created to which events can be linked.

The service is not running properly because it is not loading fully.

Check that the communications with the Avigilon ACC and the panels are working, that the communications ports are accessible and that the IP addresses are correct.

An error message appears whenever I try to save a background image to a plan

If you have selected a background image for the plan and the "error loading background image" error message appears when you try to save the plan, check that the web service has the read and write permissions for the "C:\Program Files\SGSE\SGSE Maps Service\wwwroot\img\map" folder.

Further information

For more information, please see the information available online or contact SGSE at the following email address: info@sgse.eu.