

innoVi Edge CI (Customer Installed) Installation Guide

Version: 15-May-2023

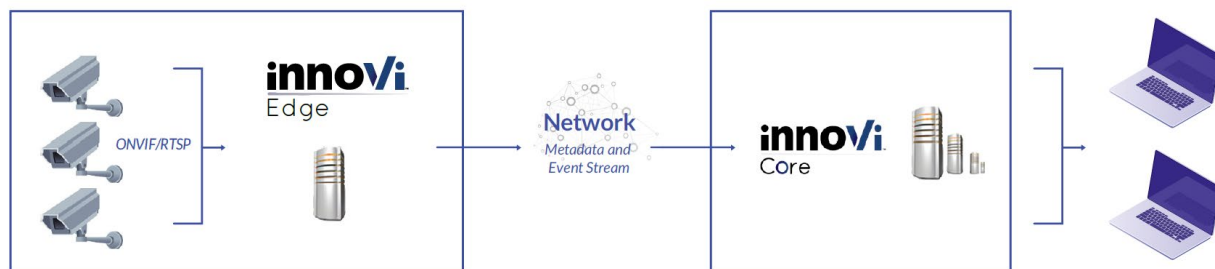
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1. Overview

Note: any reference to innovi Edge™ in this document refers to innovi Edge™ CI (Customer Installed).

innovi Edge™ enables the deployment of Agent Vi's software on a customer's hardware to connect ONVIF / RTSP fixed IP cameras from the camera's network to a centralized innovi Core. Agent Vi innovi system can have one or multiple innovi Edges that process the video stream, transforming it into Agent Vi's proprietary metadata before sending it to an innovi Core, which will then perform all central management and advanced analysis.



The steps for installing and configuring innovi Edge are as follows:

1. Install Agent Vi's software on innovi edge
2. Connect innovi Edge to the cameras' network and to innovi Core. This step is performed once, as part of the initial on-site installation of innovi Edge, using innovi Edge's local settings
3. Connect ONVIF / RTSP video streams to innovi. This step can be performed once innovi Edge is connected to the innovi Core and is comprised of configuration of each ONVIF / RTSP video stream. This step is performed using the innovi portal

2. Networking Prerequisites

1. Internet access for software installation

During software installation or updates, innoVi must access various repositories on the internet (Linux / Docker hub) to download software components.

All downloads are over HTTP/HTTPS (outbound ports 80/443).

No inbound ports are required.

2. Firewall settings:

2.1. innoVi Edge to innoVi Core

For cloud-based deployments, the site's firewall must allow innoVi Edge to access the following endpoints (outbound traffic):

- *.innovi.io:443

These are innoVi cloud service addresses, required for the innoVi Edge to continuously communicate with innoVi

- *.docker.com:443, *.docker.io:443

These addresses are required when connecting the innoVi Edge to your innoVi account and when performing innoVi Edge software upgrades.

The Docker address redirects traffic to different IP addresses and third party DNS names (for example cloudfront.net). The addresses being used are beyond Agent Vi control. See the following related docker forum response: <https://forums.docker.com/t/adding-rules-to-the-firewall-for-docker-pull-commands/38206>

It is advised to verify with the site's network administrator that these requirements are fulfilled, prior to arriving at the site

2.2. innoVi Edge to innoVi Video Sources

If there is a firewall between the innoVi Edge and video sources, ONVIF / RTSP ports should be open.

Default ports:

- ONVIF: 80 (unencrypted), 443 (encrypted)
- RTSP: 554

3. DNS server:

innoVi Edge requires access to a DNS server. In case there is no DNS server in the network, access to external DNS must be enabled (for example, to Google's DNS [8.8.8.8:53](https://www.google.com/dns))

3. Usernames and Passwords

Make sure you have the following credentials:

1. **innovi Edge local** username and password:

The local username and password are only used to configure innovi Edge's local settings.

The default local username is 'agentvi' while the default local password is 'PASSWORD'. Once innovi Edge is connected to the innovi account it is strongly advised to change the default password to prevent unauthorized access to innovi Edge.

2. **innovi** username and password:

To connect innovi Edge to a specific innovi account and start adding ONVIF / RTSP devices, you will need an innovi account username and password.

Note: If you do not have the credentials above, please contact your innovi account administrator

4. innovi Software Installation Procedure

Lines with \$ **xxx** format show Ubuntu OS commands to be entered.

1. Open SSH connection to your innovi Edge server

2. Verify server resources

- OS version

```
$ lsb_release -a
```

Ensure the OS version is Ubuntu 20.04

- CPU Model

```
$ lscpu
```

Ensure the CPU model and number of CPU(s) match the required specification. The line starting with CPU(s) shows the number of logical cores available

- Memory

```
$ free -m
```

Ensure the available memory matches the required specification

- Storage

```
$ lsblk
```

Ensure the available storage matches the required specification

3. Browse to home folder
`$ cd ~`
4. Download the installation script
`$ wget https://tinyurl.com/2gsehxppe --trust-server-names`
5. Make the script executable:
`$ chmod +x custom_edge_installer_innovi.sh`
6. Run the installation script
`$ sudo bash ./custom_edge_installer_innovi.sh`
7. The available network interfaces are displayed. Identify your active network interface name (mapped to the IP of the Edge Device) and enter its name.
NOTE: If your edge machine is configured with multiple network interfaces for redundancy / high availability purposes, contact Agent Vi Customer Support for further instructions
8. In case the installation script exits at any point with an error, contact Agent Vi Customer Support with the error output
9. Wait until message **Done.** is displayed
10. Check the installation status

Two docker containers are included:

- Device Manager
- Analytics Service

```
$ docker ps -a
```

Output example:

```
Done.
root@frat-ubuntu22:/home/agentvi# docker ps -a
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS          NAMES
67ff58171ebd   agentvi/innovi-device-manager:2.1.1741  "/innovi-device-man..."  About a minute ago  Up About a minute  innovi-device-manager
```

Device Manager container should be running. The Analytics Service container will run once the innoVi Edge is added to the innoVi account

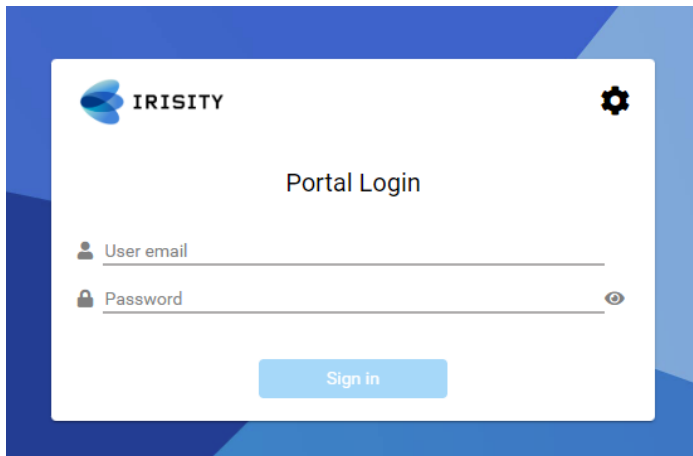
11. Your innoVi Edge is now ready to be added to your innoVi account

5. Adding the innovi Edge device to the innovi account

The innovi Edge device must be connected to a network that allows constant access to the innovi Core endpoints.

Note: the innovi edge can be added only to a dedicated folder and not to the account root folder. Ensure you have created a folder to which the innovi Edge will be added to.

1. Using your web browser, navigate to innovi Edge Device IP address. The innovi Edge Device webpage is displayed:

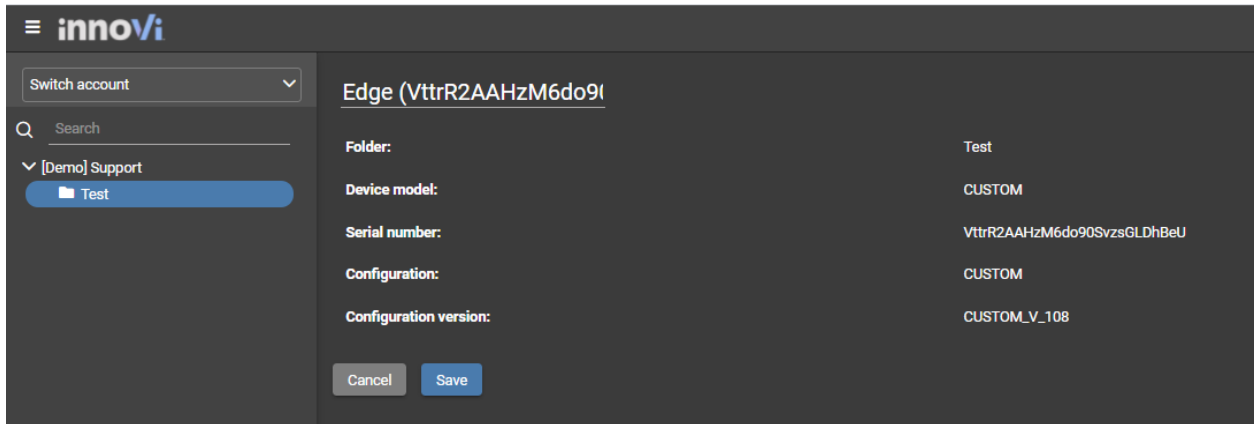


2. Use your innovi username and password to login and add the innovi Edge device to the innovi account.

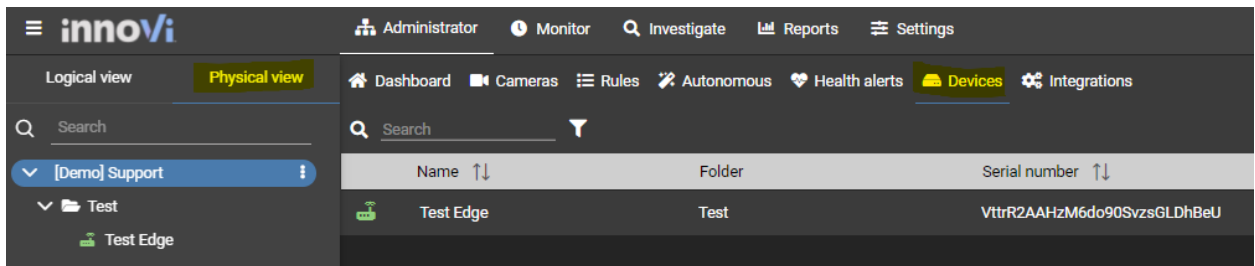
Note:

The innovi Edge Device includes an automatic **connectivity test** feature that tests innovi Edge Device ability to connect to the required innovi Core cloud endpoints over the internet. If one or more of the required endpoints is inaccessible, the innovi Edge Device webpage will show an error message indicating which endpoints cannot be reached. Please configure the firewall to allow outbound traffic from the innovi Edge Device network to all listed innovi Core endpoints.

3. Once signed in, a list of available folders is displayed (the innovi account administrator grants access privileges to specific folders). Select the folder to which you want the innovi Edge Device to be added to:

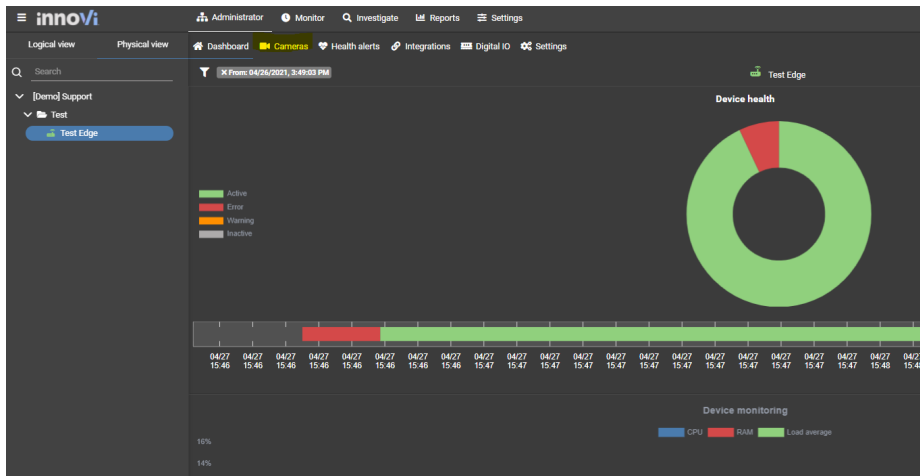


- Once the folder is selected, the innovi Edge will be added to the list of devices
- Select **Physical Devices** → **Devices** tab to view the list



- Once the edge device is fully installed, the Edge' icon is turned green. The device is now ready to add cameras

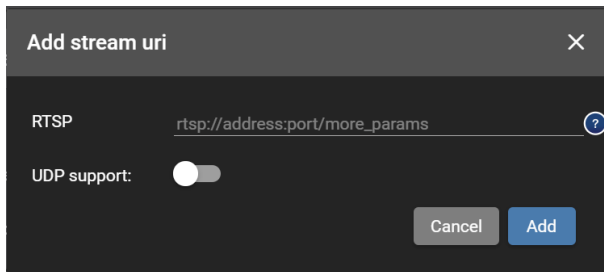
6. Adding ONVIF / RTSP video streams



1. Click the innovi Edge
2. Click **Cameras**
3. Click the **Add** button to add a camera

The screenshot shows the 'Add camera' configuration form. At the top, there is an 'Add' button and a search field. Below this, there is a 'Camera name' field. The form is divided into several sections: 'General', 'Video source', and 'Analytics'. In the 'General' section, there are fields for 'Active' (toggle), 'External ID' (text field with a help icon), 'Live video resolution' (dropdown menu set to 'Medium'), 'Minimum time between events' (text field set to '30' with a 'Seconds' label and a help icon), 'Recording' (toggle), and 'Send metadata' (toggle). In the 'Video source' section, there is a 'Video stream source' field with an 'Add' button and a help icon, a 'Sync time to stream' toggle, and a 'Stream info' field showing 'N/A'. In the 'Analytics' section, there is a 'Type' dropdown menu set to 'CCD' and a help icon. At the bottom of the form, there are buttons for 'Delete camera', 'Detach camera', 'Activate', 'Deactivate', 'Cancel', and 'Save'.

In the **Video stream source** field, click the **Add** button



Enter the RTSP/ONVIF camera URL, click **Add**

Click **Save**

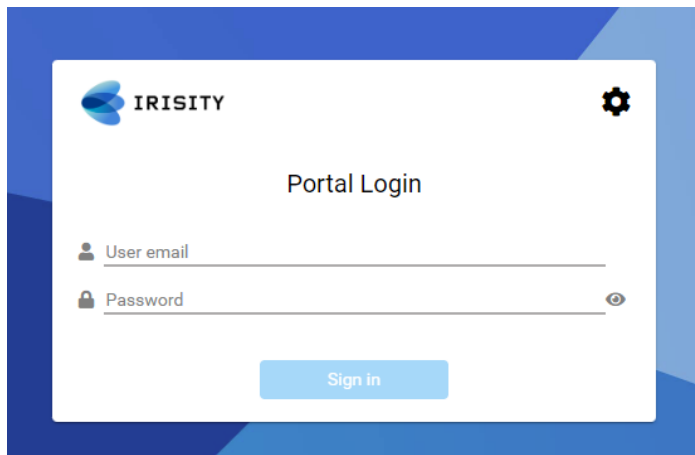
The camera is added, and live video should be available

7. innoVi Edge Settings

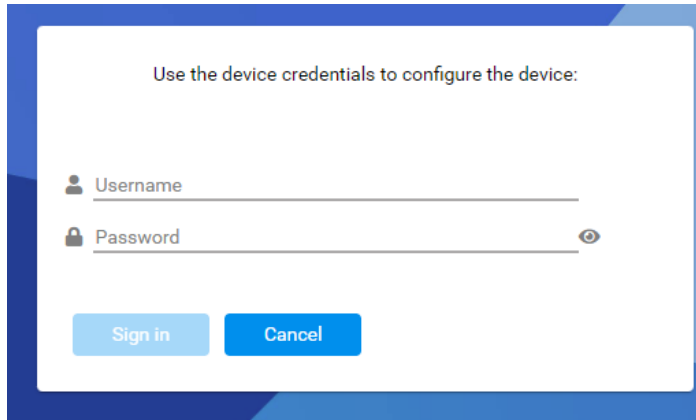
innoVi Edge is configured with some default parameter. The following chapters explain how to change them.

Make sure innoVi Edge is connected to the innoVi account: login to the innoVi account and make sure innoVi Edge appears in the list of devices .

Using your web browser, navigate to innoVi Edge IP address. The innoVi Edge webpage is displayed. Click the wheel icon:



In the opened window, populate default username (agentvi) and a default password (PASSWORD):



Use the device credentials to configure the device:

Username _____

Password _____

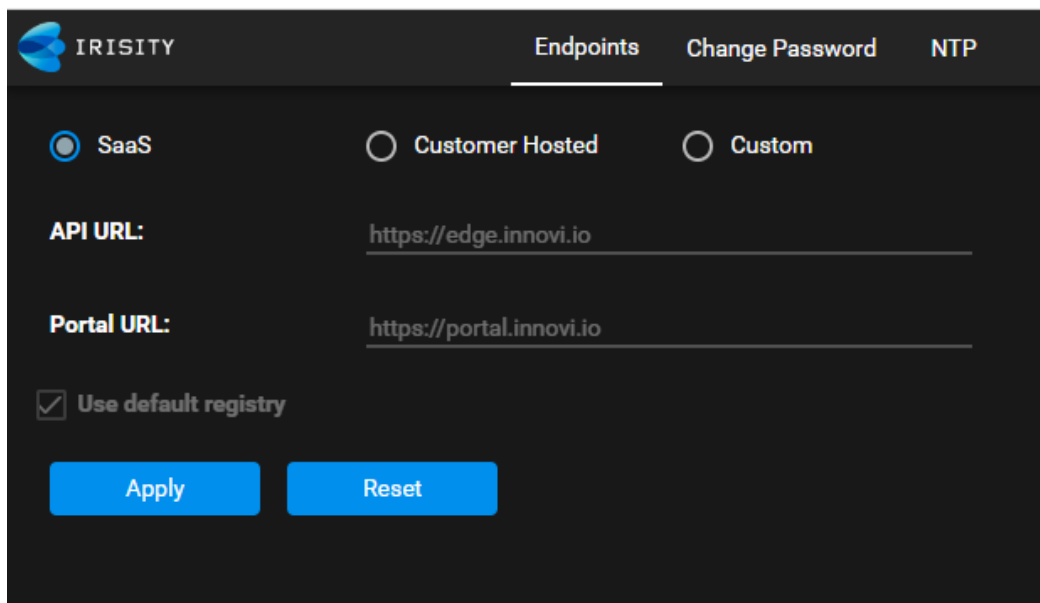
Sign in Cancel

Once login is successful, select the relevant tab.

7.1. Endpoints

innovi Edge is configured with default Endpoints settings as follows:

- **SaaS:** to access the Agent Vi hosted service
- **Customer Hosted:** to access the innovi Core in a customer hosted deployment
- **Custom:** manually set for custom deployment



IRISITY Endpoints Change Password NTP

SaaS Customer Hosted Custom

API URL:

Portal URL:

Use default registry

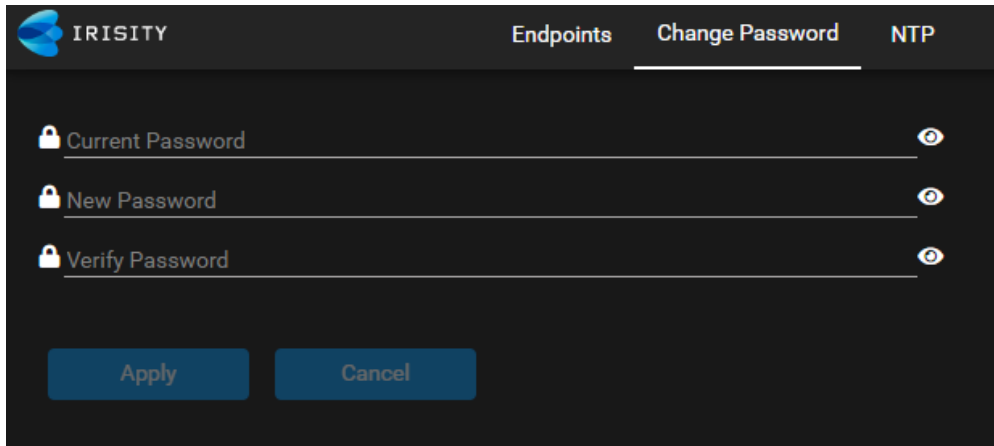
Apply Reset

7.2. Password

innovi Edge is configured with a default username (agentvi) and a default password (PASSWORD).

It is strongly advised to change the default local password once innovi Edge is connected to the innovi account. This will prevent unauthorized access to the innovi Edge local settings.

1. Select the **Change Password** tab



The screenshot shows a dark-themed web interface for changing a password. At the top left is the IRISITY logo. To the right are three tabs: 'Endpoints', 'Change Password' (which is selected and underlined), and 'NTP'. Below the tabs are three password input fields, each with a lock icon on the left and an eye icon on the right. The fields are labeled 'Current Password', 'New Password', and 'Verify Password'. At the bottom of the form are two buttons: 'Apply' and 'Cancel'.

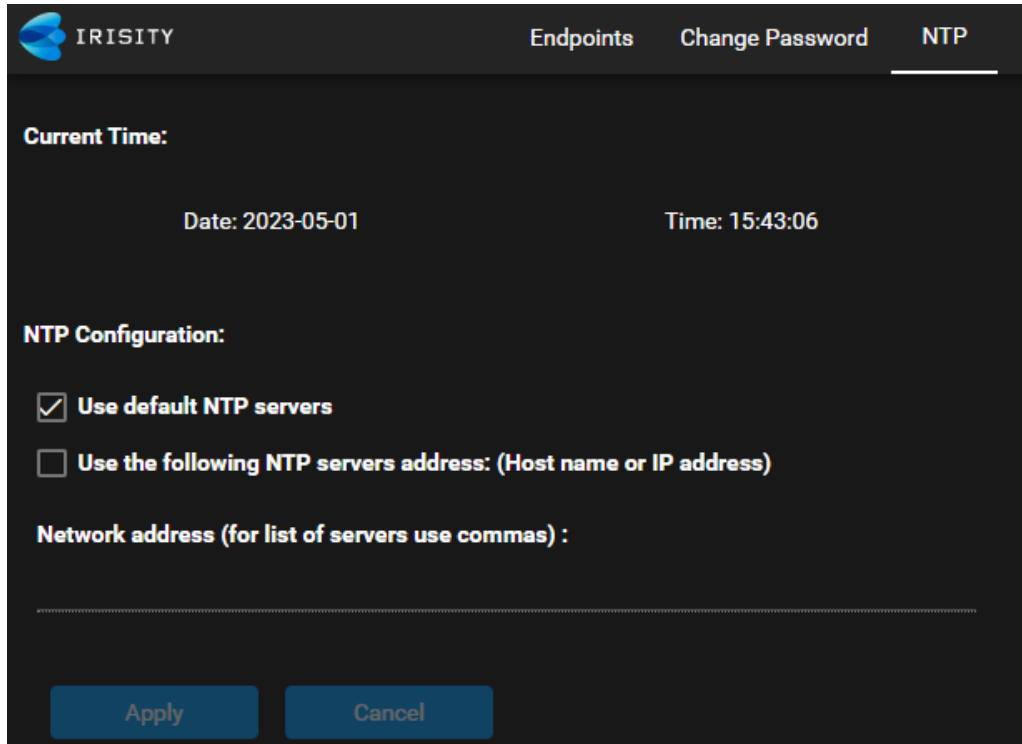
2. Set a new password and retype it
3. Click **Apply**

Note:

In case you forget the innovi Edge revised local password, you can log into innovi account, open the innovi Edge page, go to the 'Settings' tab and reset the password to the default settings.

7.3. NTP

Change device NTP configuration as follows:



The screenshot shows the NTP configuration page in the Irisity web portal. The page has a dark theme and a top navigation bar with the Irisity logo and three menu items: 'Endpoints', 'Change Password', and 'NTP'. The 'NTP' menu item is selected. Below the navigation bar, the page is divided into two sections. The first section, 'Current Time:', displays the date as '2023-05-01' and the time as '15:43:06'. The second section, 'NTP Configuration:', contains two checkboxes. The first checkbox, 'Use default NTP servers', is checked. The second checkbox, 'Use the following NTP servers address: (Host name or IP address)', is unchecked. Below the checkboxes is a text input field labeled 'Network address (for list of servers use commas) :'. At the bottom of the page, there are two buttons: 'Apply' and 'Cancel'.

The default NTP configuration is set to sync time with the Ubuntu operating system installed on the device.

Mark the **Use the following NTP...** checkbox to select a different NTP server/s.

8. Contact Agent Vi Support

- Use the innoVi support form on Agent Vi's website: <https://support.agentvi.com/support/innovi-request/>
- Email csteam@irisity.com