

Irisity Edge 10 / innoVi Edge 320/325 Installation Guide

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1. Overview

Note: Irisity Edge 10 has replaced both Compact Edge 320 and Compact Edge 325. This guide explains how to install any of these edge devices. All devices are referenced as Compact Edge. Differences in the installation process between Edge 320/325 and Edge 10 are noted in the guide as applicable.

Compact Edge acts as a gateway between the site's video devices and the innoVi Core and must always be connected to innoVi Core and to the video devices.

Compact Edge connects to the various video devices using ONVIF or RTSP protocols, performs initial video analysis and streams metadata to the innoVi Core.

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

1. Connect Compact Edge to the cameras' network and to innoVi Core. This step is performed once, as part of the initial on-site installation of Compact Edge, using Compact Edge's local settings.
2. Connect ONVIF / RTSP video streams to innoVi. This step can be performed once Compact 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. Prerequisites and Design Considerations

Before installing Compact Edge, please review the following prerequisites and design considerations:

2.1. Required Equipment

Make sure the following equipment is available for your use during the installation of Compact Edge:

1. PC / Laptop, preferably with Windows OS
2. RJ45 Ethernet cable to connect Compact Edge to the site's network
3. Computer monitor with HDMI connector (required in some cases)

2.2. Networking

1. Networking schemes:

Compact Edge must always be connected, using a dynamic or static IP address, to a network segment that enables access to the innoVi Core (innoVi Core may be deployed in the cloud or on-premise). Compact Edge connects to the cameras and to the innoVi core using one of the following supported networking schemes:

- **Single network** - Using the same network
- **Virtually separated networks** - Using two network segments on the same physical network (sharing the same Network Interface Card)

- **Physically separated networks** - Using two separate networks (using two network interface controllers)

Note: the video sources must have static IP addresses

2. Firewall settings:

2.1. Compact Edge to innoVi Core

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

- *.innovi.io:443

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

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

These addresses are required when connecting the Compact Edge to your innoVi account and when performing Compact 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 installing the Compact Edge.

2.2. Compact Edge to innoVi Video Sources

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

Default ports:

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

3. DNS server:

Compact 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)

2.3. Usernames and Passwords

Prior to the installation and configuration of Compact Edge, make sure you have the following credentials:

1. Compact Edge local username and password:

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

- For innoVi Irisity Edge 10

The default local username is 'admin while the default local password is 'PasswOrd!'

- For innoVi Edge 320 and innoVi Edge 325
The default local username is 'agentvi' while the default local password is 'PASSWORD'

Once Compact Edge is connected to the innoVi account it is strongly recommended to change the default password to prevent unauthorized access to the Compact Edge.

2. innoVi username and password:

To connect Compact 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 these credentials, contact your innoVi account administrator

2.4. Power Supply

Connect Compact Edge to a stable power supply (100-240V AC).

Note: In case of a power outage, Compact Edge will preserve the power state immediately prior to the power outage

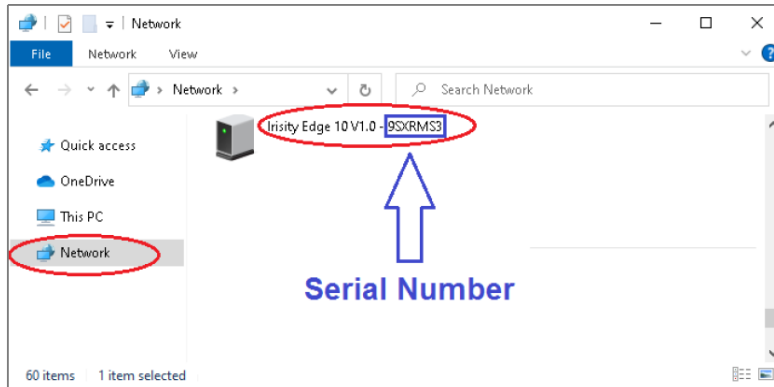
3. Connecting Compact Edge to the Network

Compact Edge must be connected to a network allowing constant access to innoVi Core endpoints.

In most cases, the network has a DHCP server that automatically assigns an IP address. If Compact Edge cannot find a DHCP server, it is automatically set to a default static IP address of 192.168.10.80.

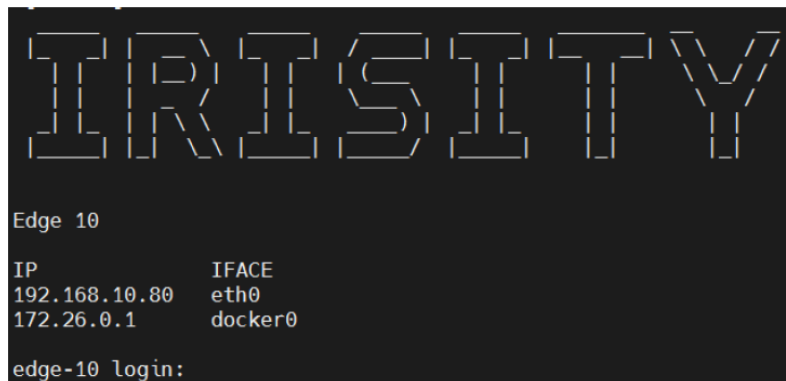
If the designated network has a DHCP server or you already set a static IP address, you can immediately connect Compact Edge to the network. Otherwise, you need to set a static IP (See [Assigning Static IP Address](#)) before connecting the device to the network:

1. Connect Compact Edge to the designated network using RJ45 Ethernet cable
2. Power up Compact Edge by pressing the power button
3. Connect your computer to the same network as Compact Edge
4. Open Windows File Explorer and search for Compact Edge under *Network Devices*. The Compact Edge icon name starts with 'innoVi Edge 320 V1.0' or 'Irisity Edge 10 V1.0' as applicable, followed by its serial number. Example:

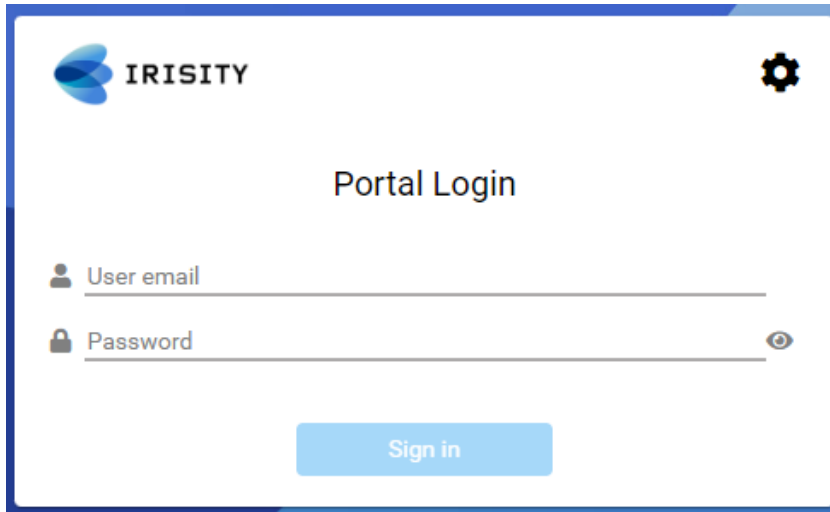


Notes:

- It might take a minute after the power up cycle until Compact Edge is discovered in the network
- If you are using a Mac computer, you should use a Mac compatible UPnP discovery tool rather than Windows File Explorer
- If you are unable to find Compact Edge in the list of Network Devices, UPnP protocol may be disabled in the network. To find Compact Edge's IP address, connect a monitor (using HDMI cable) directly to Compact Edge. You will see Compact Edge's IP address on the screen. The following example is for Irisity Edge 10:



5. Double click the Compact Edge icon, or, using your web browser, navigate to Compact Edge's IP address. The following Compact Edge webpage appears:



3.1. Assigning Static IP Address

Compact Edge will automatically look for a DHCP server in the network. If there is no DHCP server or it fails to obtain an IP address for any reason, it will set to a default static IP address of 192.168.10.80, with subnet mask of 255.255.0.0.

Change this default IP address to an unused static IP address in the designated network segment before you connect Compact Edge to innoVi Core.

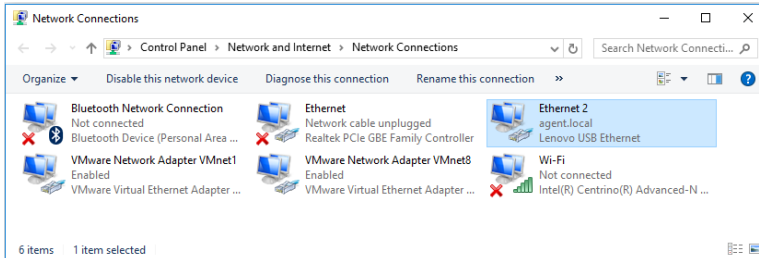
To assign a static IP address to Compact Edge, you will need to:

1. Connect your computer to Compact Edge and set up a temporary private network between the computer and Compact Edge's default network
2. Assign an available static IP in the cameras' network to Compact Edge
3. Connect Compact Edge to the network
4. Revert your computer's network to its original settings

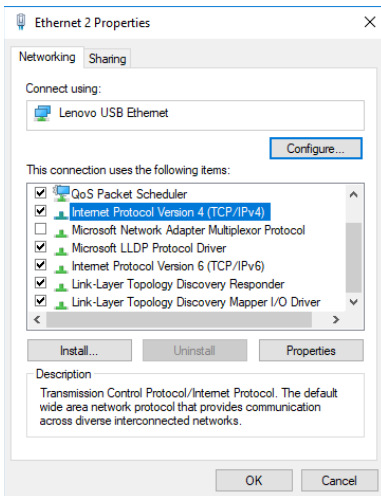
The following sections detail the required steps:

3.2. Connect Your Computer to Compact Edge's Default Network

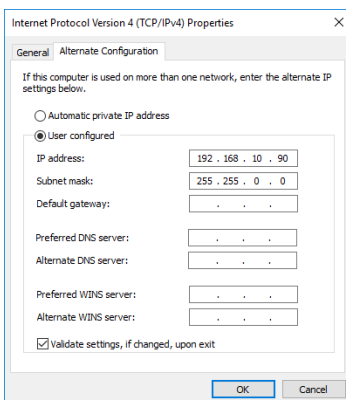
1. Open your computer's *Network Connections*, select the network interface and open its *Properties*:



2. Open *Internet Protocol Version 4 (TCP/IPv4) Properties*:

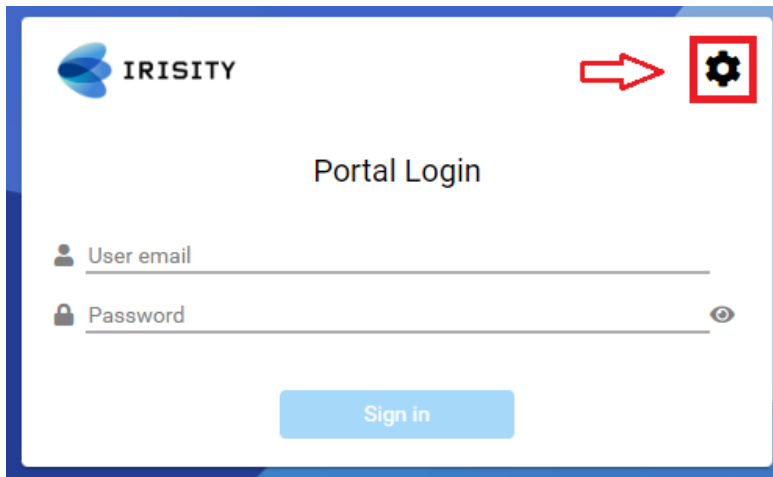


3. Change your computer's existing IP configuration (it is advised to record the original network settings before performing any modification) or add 'Alternate Configuration' to assign the computer a static IP in the Compact Edge default network (subnet mask: 255.255.0.0). Make sure you do not assign the computer with the Compact Edge default IP address of 192.168.10.80.

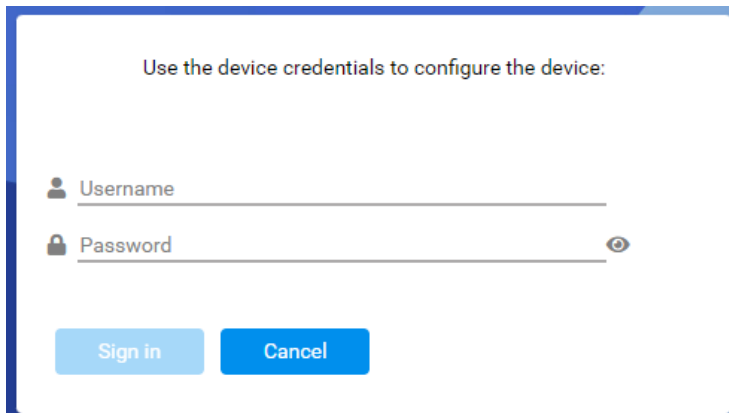


3.3. Assign Static IP Address to Compact Edge

1. Using an Ethernet cable, physically connect your computer to Compact Edge
2. Open your computer's Web Browser and navigate to the Compact Edge webpage at 192.168.10.80
3. Click the Compact Edge configuration icon in the top right corner:



4. Sign in using Compact Edge's local username and password



5. Click the Network tab
6. Uncheck "Automatic configuration using DHCP" and configure the network parameters: the new static IP address in the designated network segment (make sure you use an available IP address), Subnet mask, Default router and Primary DNS server (Secondary DNS server is optional):

IRISITY Endpoints Change Password NTP Network

1. Select the network scheme for the Edge and cameras:

Single network ▾

The Edge device connects to the cameras and to the cloud using the same network

2. Configure the network parameters (NIC:eth0):

Automatic configuration using DHCP

IP address: _____

Subnet mask: _____

Default router: _____

Primary DNS server: _____

Secondary DNS server: _____

Apply Cancel

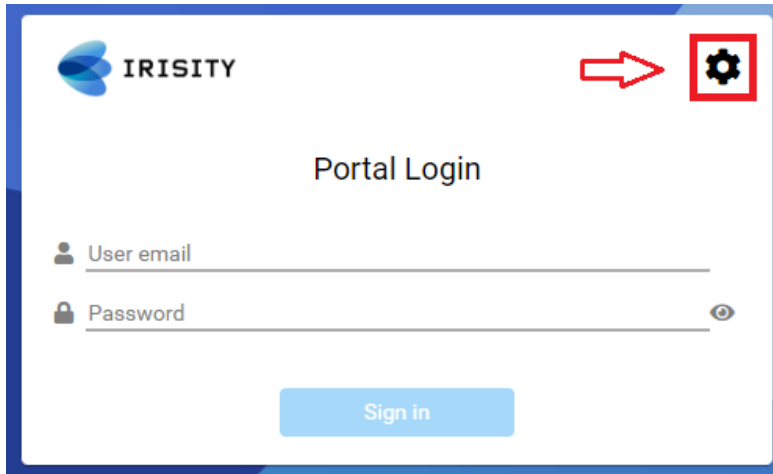
7. Click 'Apply' to accept the changes. Compact Edge will reboot with the newly allocated static IP address
8. Disconnect the Ethernet cable connecting Compact Edge and the computer

3.4. Connecting Compact Edge to Video Sources in a Virtually Separated Network Segment

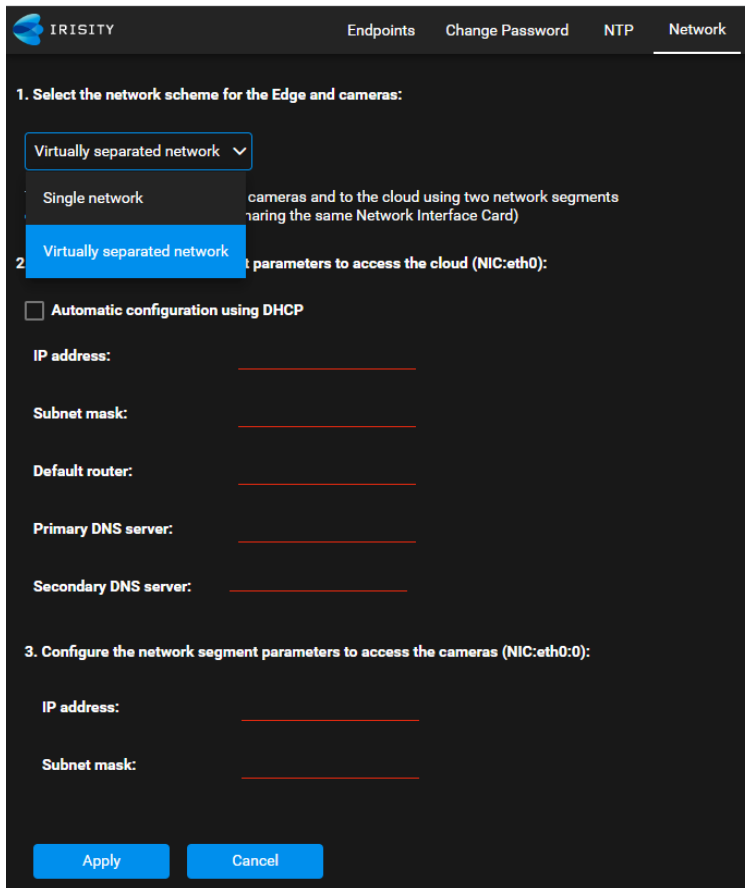
In some networks, Compact Edge should connect to the innoVi Core via one virtual network segment, and to the video sources via another virtually separated network segment.

To configure Compact Edge to access the video source network segment, follow these steps:

1. Open the Compact Edge webpage.
2. Click the Compact Edge configuration icon in the top right corner:



3. Sign into the Compact Edge configuration page using Compact Edge's local username and password
4. In the 'Network' tab, select 'Virtually separated networks' and configure an available static IP address and Subnet mask in the video devices network segment:



5. Click 'Apply' to accept the changes. Compact Edge will reboot with the new settings

3.5. Connecting Compact Edge to Video Sources in a Physically Separated Network Segment

In some networks, Compact Edge will connect to the innoVi Core via one network, while the video sources are connected to a physically separated network.

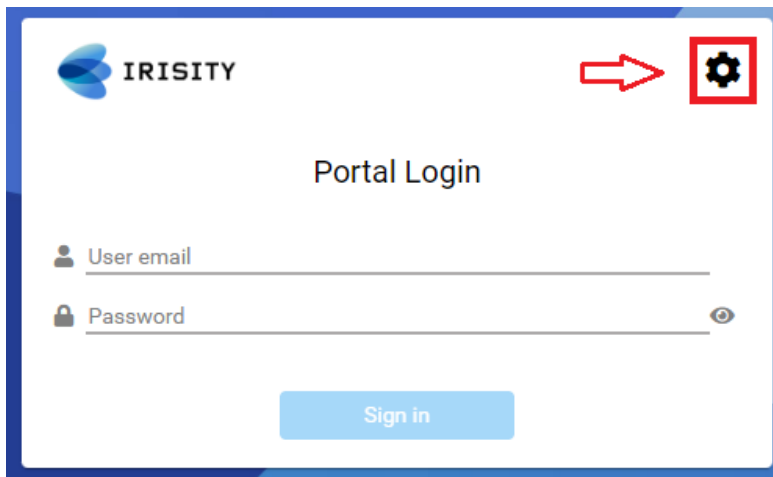
The connection to the video sources network is performed using a USB-based Network Interface Controller (not provided with Compact Edge, must be purchased separately).

Note:

- The USB-based Ethernet card is not provided by Agent Vi and should be purchased by the customer.
- Based on Agent Vi's internal testing, any 3rd party NIC that supports USB 3.0 and 1GB Ethernet should be compatible. However, due to the variety of 3rd party components, Agent Vi assumes no responsibility or liability associated with the use of 3rd party components, including but not limited to, aspects of compatibility, proper operation or cyber protection implications.
- Agent Vi tested Tripp lite USB 3.0, 1GB Ethernet USB network card.

To configure Compact Edge to access video sources in a physically separated network, follow these steps:

1. Connect the USB-based Ethernet card to Compact Edge
2. Open the Compact Edge webpage
3. Click the Compact Edge configuration icon in the top right corner:



4. Sign into the Compact Edge configuration page using Compact Edge's local username and password
5. In the 'Network' tab, select 'Physically separated networks' and configure an available static IP address and Subnet mask in the video devices network segment
6. Click 'Apply' to accept the changes. Compact Edge will reboot with the new settings

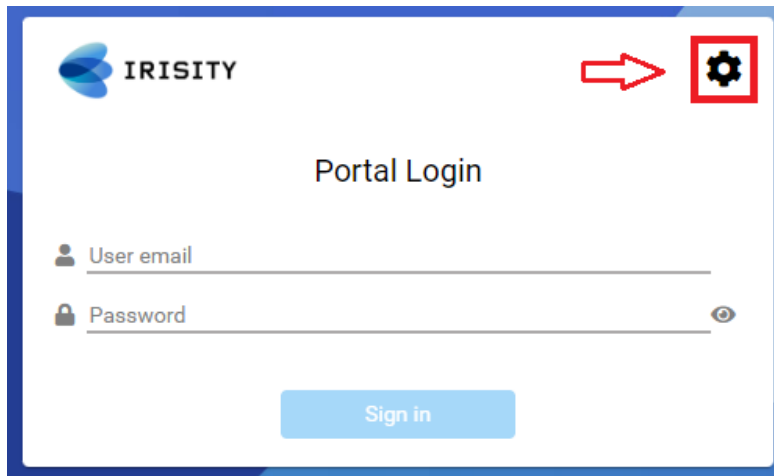
4. Changing endpoints for innovi

Compact Edge default endpoints are suitable for IRIS+. Perform the following to change the endpoints for innovi.

Compact Edge is configured with a default username and password as follows:

- For innovi Irisity Edge 10
The default local username is 'admin' while the default local password is 'Passw0rd!'
- For innovi Edge 320 and innovi Edge 325
The default local username is 'agentvi' while the default local password is 'PASSWORD'

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



Sign into the Compact Edge configuration page using Compact Edge's local username and password

Once login is successful, select the Endpoints tab:

IRISITY Endpoints Change Password NTP

SaaS Customer Hosted Custom

API URL:

Portal URL:

Use default registry

Apply Reset

Click the **Custom** radio button:

IRISITY Endpoints Change Password NTP

SaaS Customer Hosted Custom

API URL:

Portal URL:

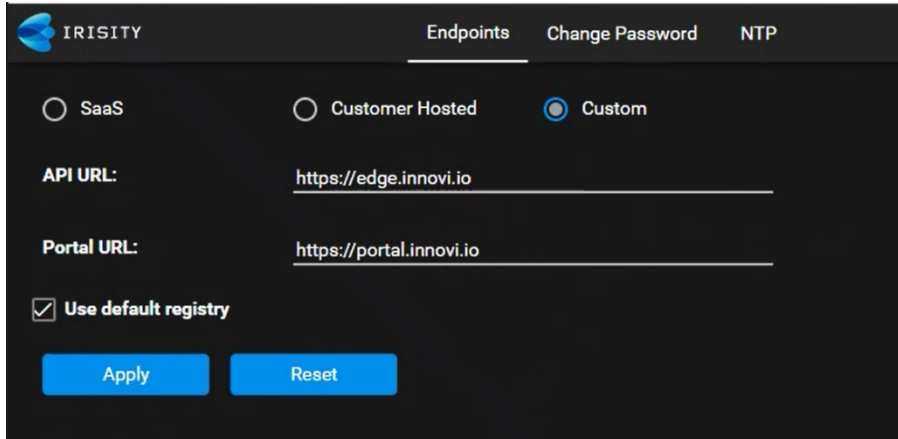
Use default registry

Apply Reset

Change the two URL addresses to:

API URL: <https://edge.innovi.io>

Portal URL: <https://portal.innovi.io>



The screenshot shows the IRISITY configuration interface. At the top, there are tabs for 'Endpoints', 'Change Password', and 'NTP'. Under the 'Endpoints' tab, there are three radio button options: 'SaaS', 'Customer Hosted', and 'Custom'. The 'Custom' option is selected. Below these options, there are two text input fields: 'API URL:' with the value 'https://edge.innovi.io' and 'Portal URL:' with the value 'https://portal.innovi.io'. There is a checked checkbox labeled 'Use default registry'. At the bottom, there are two blue buttons: 'Apply' and 'Reset'.

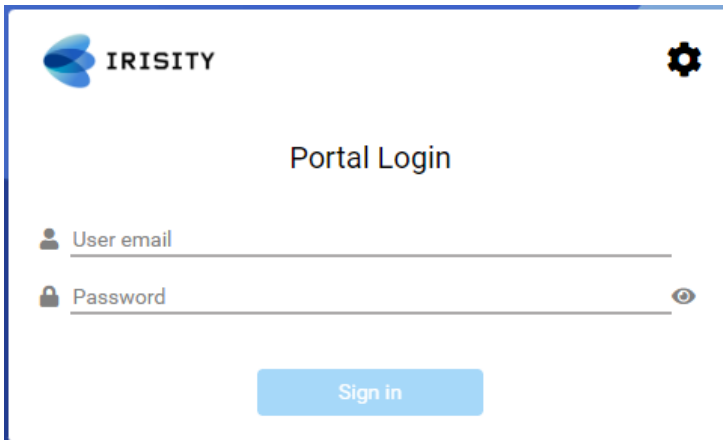
Click **Apply** to save the change.

5. Adding the Compact Edge to the innovi account

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

Note: the Compact 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 Compact Edge will be added to.

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



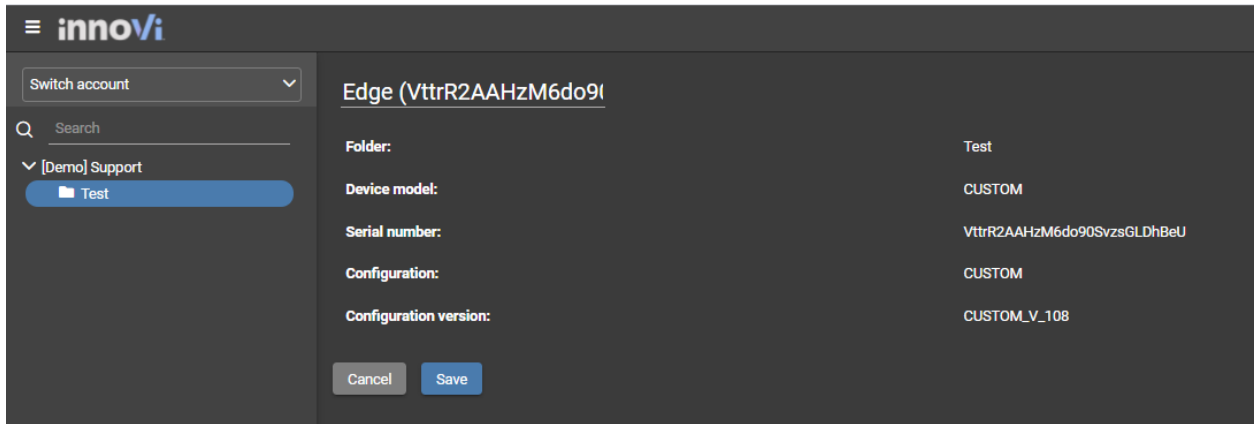
The screenshot shows the Compact Edge Device Portal Login page. At the top left is the IRISITY logo. At the top right is a gear icon. The main heading is 'Portal Login'. Below the heading are two input fields: 'User email' and 'Password'. The 'Password' field has an eye icon to its right. At the bottom center is a blue 'Sign in' button.

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

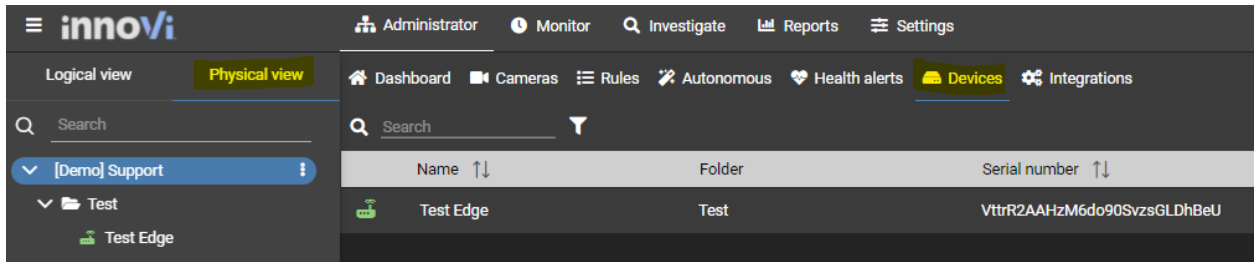
Note:

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

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

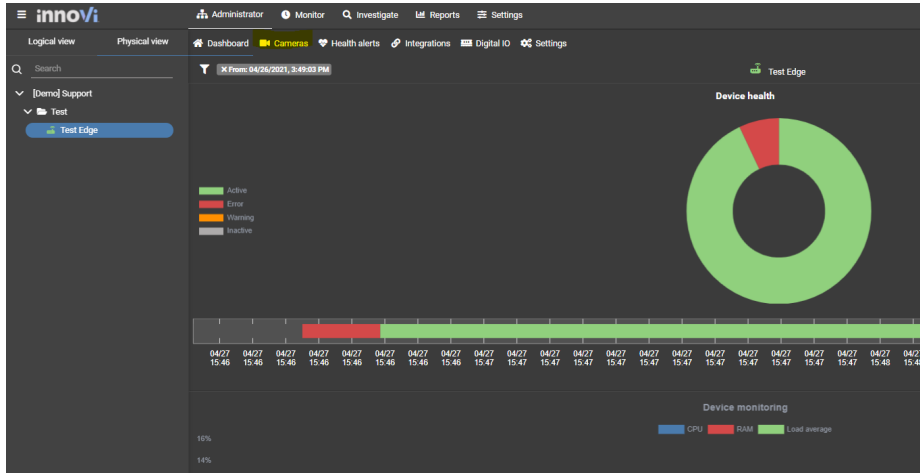


4. Once the folder is selected, the Compact Edge will be added to the list of devices
5. Select **Physical Devices** → **Devices** tab to view the list



6. Once the Compact Edge is fully installed, the Compact Edge icon is turned green. The Compact Edge is now ready to add cameras

6. Adding ONVIF / RTSP video streams



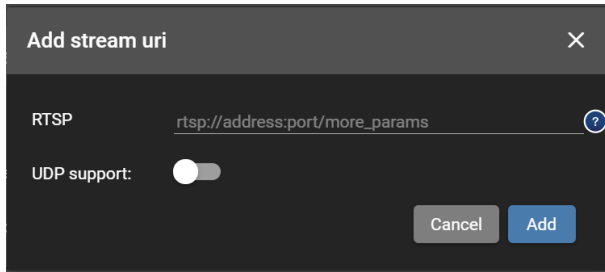
1. Click the Compact Edge
2. Click **Cameras**
3. Click the **Add** button to add a camera

The screenshot shows the 'Add camera' configuration form. It has a dark theme and is organized into sections:

- General:** Includes a toggle for 'Active', an 'External ID' field with a help icon, a 'Live video resolution' dropdown set to 'Medium', a 'Minimum time between events' field set to '30' seconds, and toggles for 'Recording' and 'Send metadata'.
- Video source:** Includes 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'.
- Analytics:** Includes a 'Type' dropdown menu set to 'CCD'.

 At the bottom, 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**

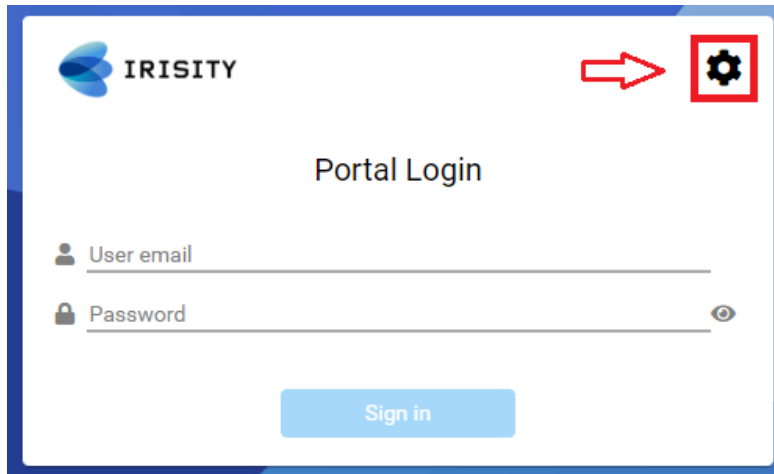
The camera is added, and live video should be available

7. Compact Edge Settings

Compact Edge is configured with some default parameters. The following chapters explain how to change them.

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

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



Sign into the Compact Edge configuration page using Compact Edge's local username and password

Once login is successful, select the relevant tab.

7.1. Endpoints

Compact Edge is configured with default Endpoints settings as follows:

- **SaaS:** to access the IRIS+ cloud hosted service
- **Customer Hosted:** to access the innoVi Core in a customer hosted deployment
- **Custom:** manually set for custom deployment

The screenshot shows the IRISITY configuration interface. At the top left is the IRISITY logo. To its right are three tabs: 'Endpoints' (highlighted with a red box and a red arrow), 'Change Password', and 'NTP'. Below the tabs are three radio button options: 'SaaS' (selected), 'Customer Hosted', and 'Custom'. Underneath are two text input fields: 'API URL:' with the value 'https://edge.irisity.io' and 'Portal URL:' with the value 'https://portal.irisity.io'. Below these is a checked checkbox labeled 'Use default registry'. At the bottom are two blue buttons: 'Apply' and 'Reset'.

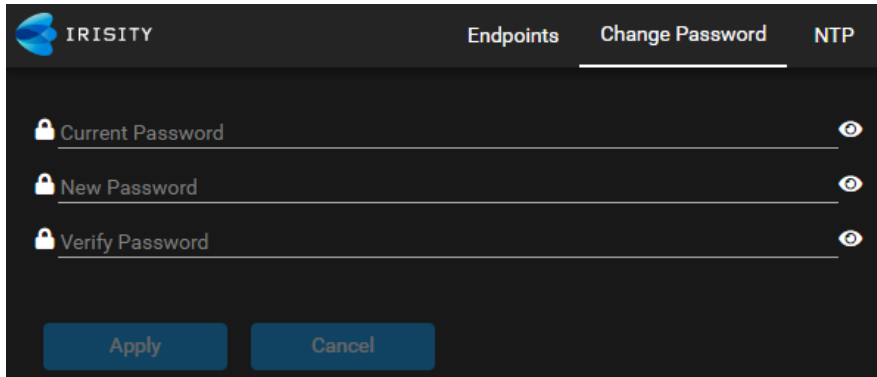
7.2. Password

Compact Edge is configured with a default username and password as follows:

- For innoVi Irisity Edge 10
The default local username is 'admin' while the default local password is 'PasswOrd!'
- For innoVi Edge 320 and innoVi Edge 325
The default local username is 'agentvi' while the default local password is 'PASSWORD'

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

1. Select the **Change Password** tab



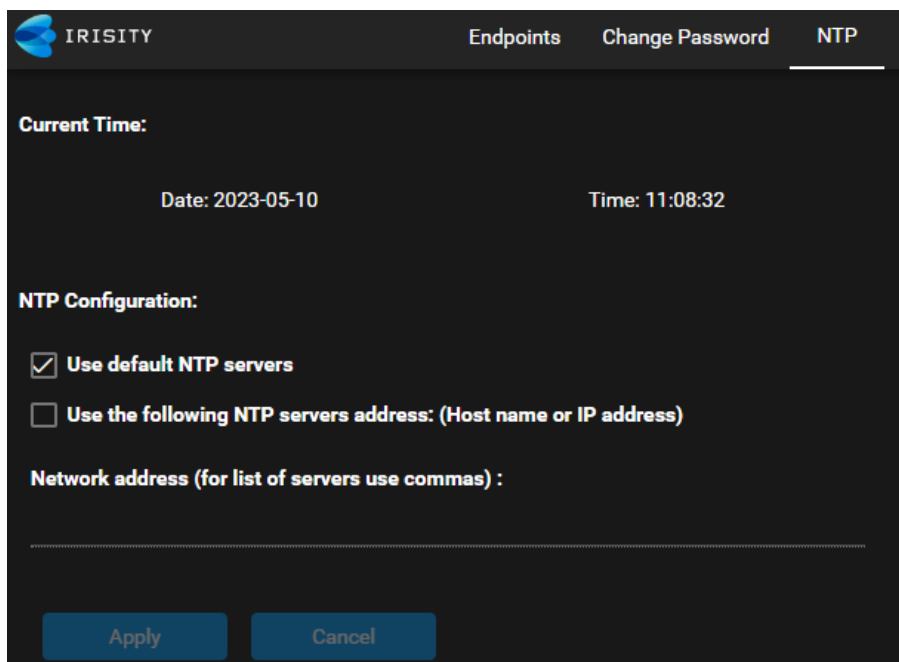
2. Set a new password and retype it
3. Click 'Apply'

Note:

In case you forget Compact Edge's revised local password, you can log into innoVi account, open the Compact 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 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 innoVi Customer Support

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