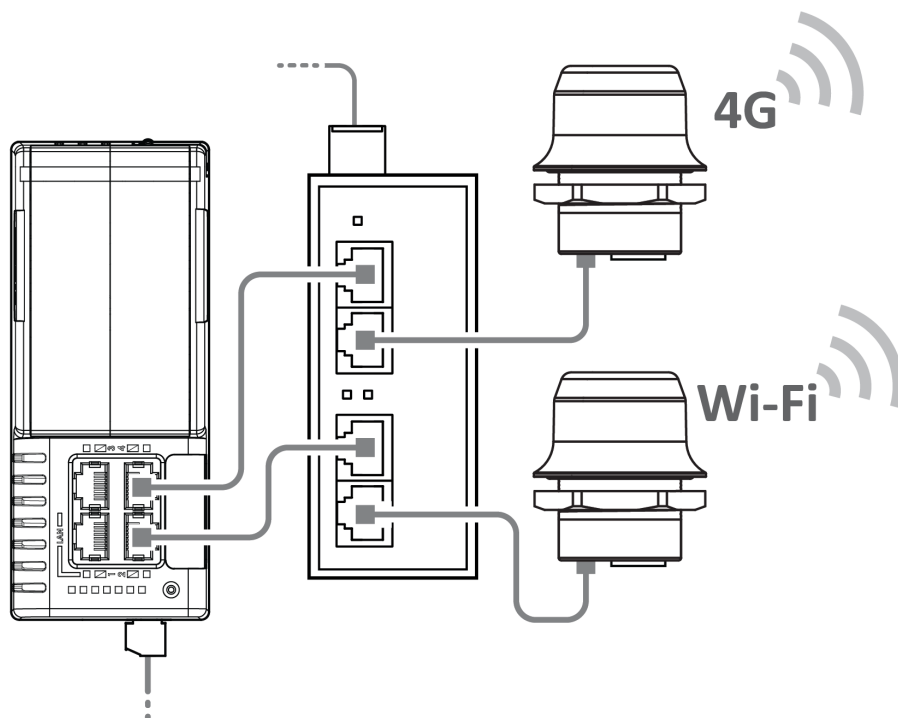


Connect Flexy 205 to Internet via Bolt LTE and Bolt Ethernet RJ45

APPLICATION NOTE

SCM-1202-180
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Important User Information

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1. Preface

1.1. Document Conventions

Lists

Numbered lists indicate tasks that should be carried out in sequence:

1. First do this
2. Then do this

Bulleted lists are used for:

- Tasks that can be carried out in any order
- Itemized information

User Interaction Elements

User interaction elements (buttons etc.) are indicated with bold text.

Program Code and Scripts

```
Program code and script examples
```

Cross-References and Links

Cross-reference within this document: [Document Conventions \(page 1\)](#)

External link (URL): www.anybus.com

Safety Symbols



DANGER

Instructions that must be followed to avoid an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

Instructions that must be followed to avoid a potential hazardous situation that, if not avoided, could result in death or serious injury.



CAUTION

Instruction that must be followed to avoid a potential hazardous situation that, if not avoided, could result in minor or moderate injury.



IMPORTANT

Instruction that must be followed to avoid a risk of reduced functionality and/or damage to the equipment, or to avoid a network security risk.

Information Symbols



NOTE

Additional information which may facilitate installation and/or operation.



TIP

Helpful advice and suggestions.

1.2. Trademarks

Anybus® is a registered trademark and Anybus® Wireless Bolt LTE™ is a trademark of HMS Networks.

All other trademarks are the property of their respective holders.

2. Preparation

2.1. Required Equipment

In this application note we use the following equipment:

Equipment	Order Code	Description
Ewon Flexy 205	Flexy20500_00MA	Gateway that allows communication with field equipment regardless of the protocol used.
Anybus® Wireless Bolt LTE™	AWB1500 or AWB1501	To connect to 4G cellular network.
SIM Card	N/A	To connect the Bolt LTE to 4G network.
Anybus Wireless Bolt Ethernet RJ45 PoE	AWB2030 or AWB2031	To set up a Wi-Fi Access Point
Anybus PoE Injector 12-57 VDC	AWB4006	Supply the units with power over Ethernet.
4 x CAT6 Ethernet cables	N/A	2 x 0.2 m and 2 x 0.5 m or any suitable length.
Power Supply E-014 24 V	N/A	Use with the Ewon Flexy and PoE Injector.

2.2. Support and Resources

For additional documentation and software downloads, FAQs, troubleshooting guides and technical support, please visit www.anybus.com/support.

**TIP**

Have the product article number available, to search for the product specific support web page. You find the product article number on the product cover.

3. About this Application Note

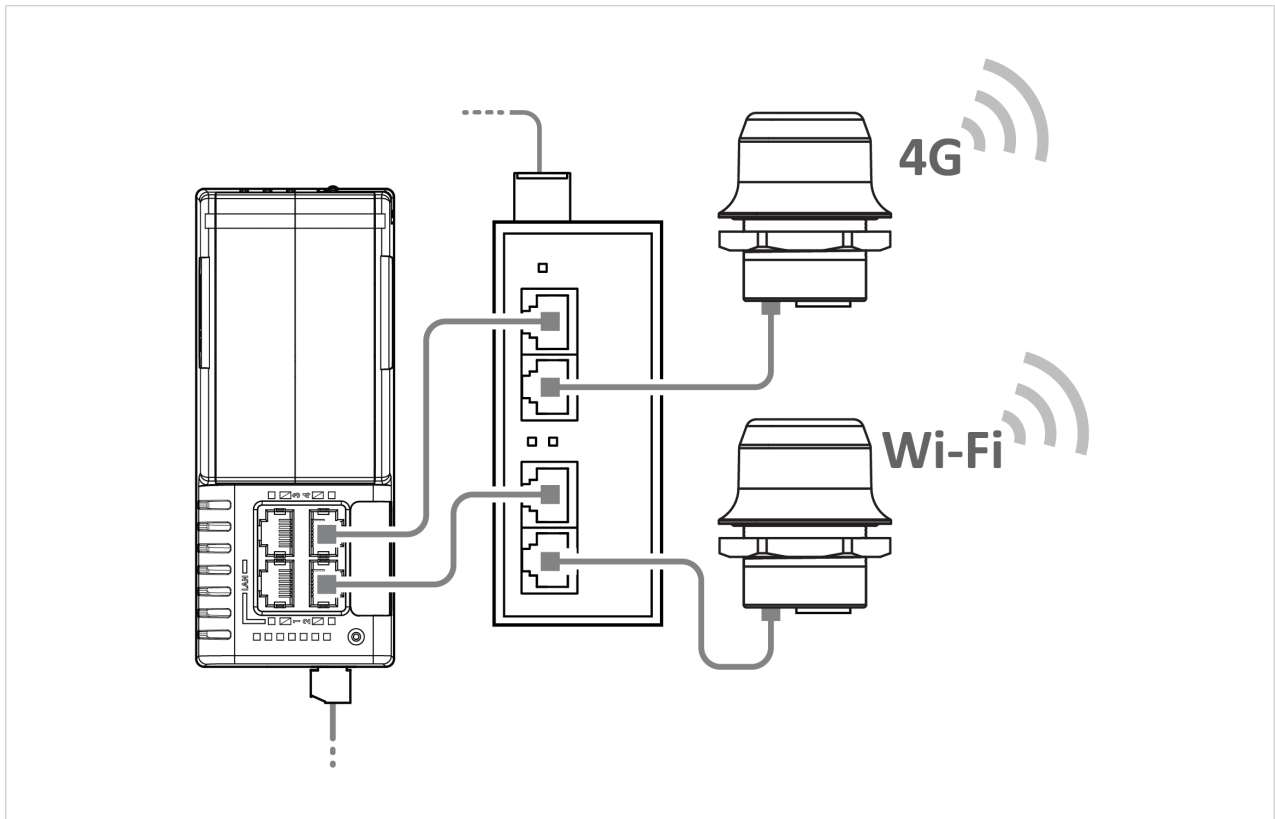


Figure 1. Flexy 205 connected to the Ethernet Power Injector, Bolt LTE and Bolt Ethernet RJ45

In this application note, we describe how to connect a Flexy 205 to:

- internet via a Bolt LTE connected to the 4G cellular network.
- Wi-Fi via a Bolt Ethernet RJ45 connected to an Ethernet network.

To supply Bolt LTE and Bolt Ethernet RJ45 with power, we have connected a Ethernet Power Injector between the Bolt's and the Flexy 205. This removes the need for an additional power cable.

The Ethernet Injector (PoE) has two separate injector channels.

- One of the injector channels is connected to the Flexy 205 WAN port and to the Bolt LTE, which provides internet access to the Flexy 205.
- The other injector channel is connected to one of the Flexy 205 LAN ports and to the Bolt Ethernet RJ45, which enables Wi-Fi connection for monitored equipment.



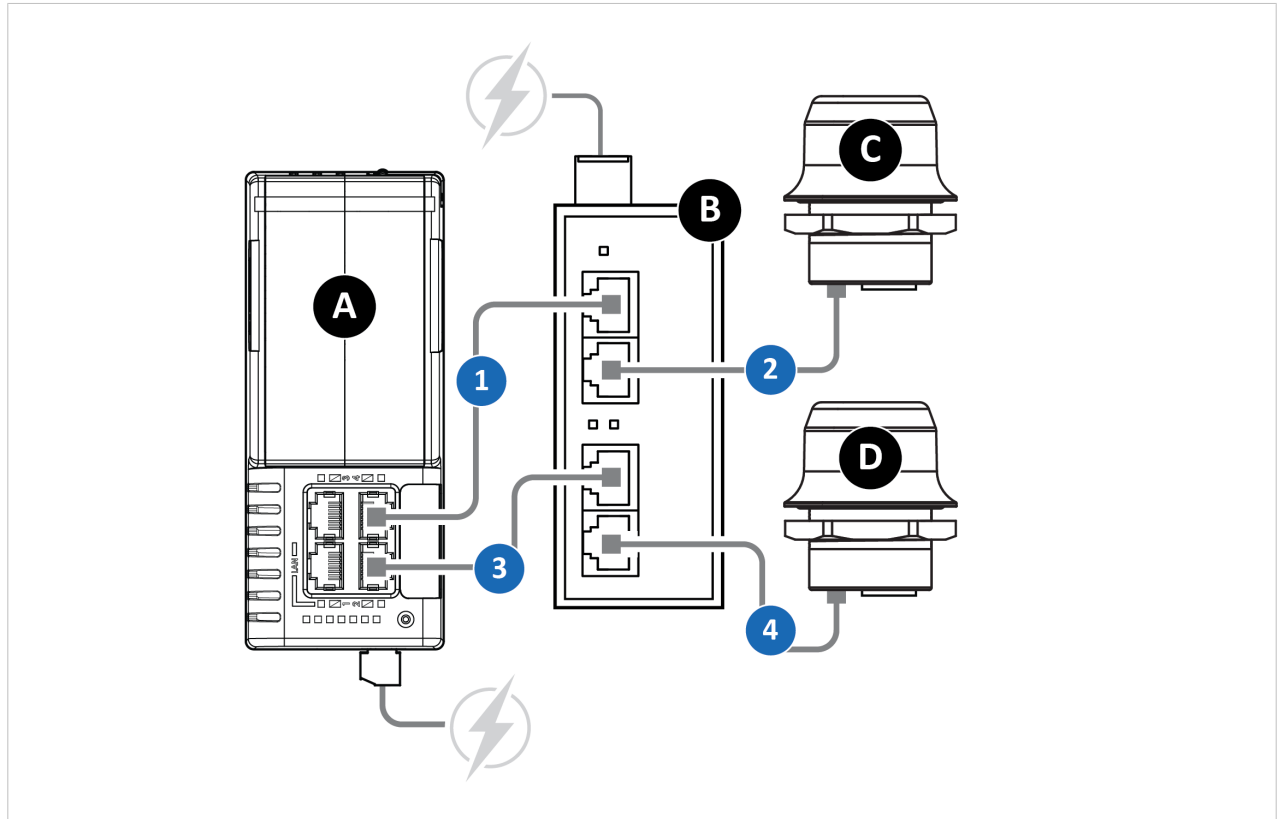
After you have completed the installation and configuration, you can:

- Wirelessly connect any device on the Flexy LAN.
- Access your Flexy or visualize custom pages.
- Use your preferred mobile application to access your HMI with your tablet or smartphone.

Figure 2. Wirelessly connect devices to the Flexy LAN

4. Installation

4.1. Connect the Devices



- A. Ewon Flexy 205
- B. Anybus PoE Injector 12-57VDC
- C. Anybus Bolt LTE
- D. Anybus Bolt RJ45 PoE

Figure 3. Connect cables

Connect cables

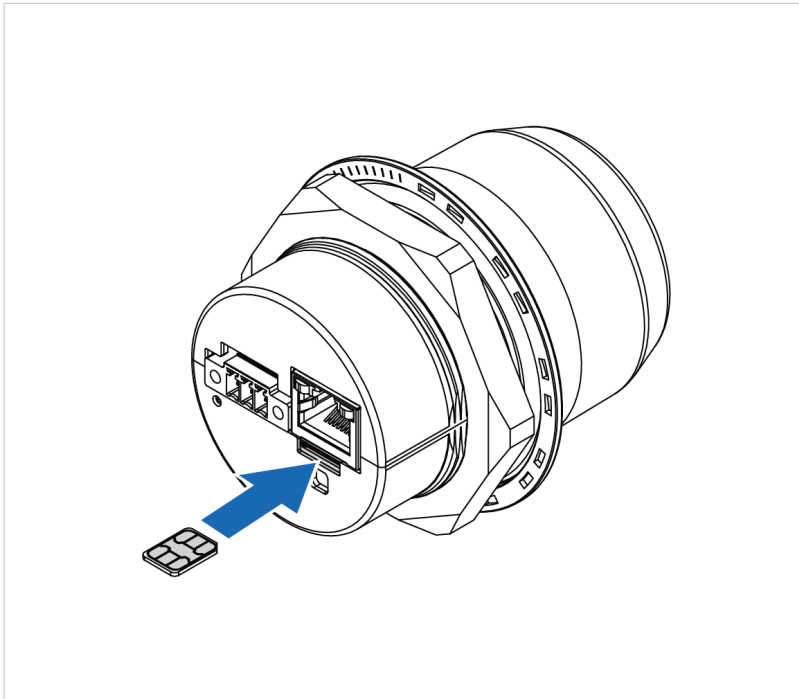
1. Connect an Ethernet cable between the Flexy 205 WAN port and the PoE Injector Data IN port.
2. Connect an Ethernet cable between the PoE Injector PoE port and the Bolt LTE Ethernet port.
3. Connect an Ethernet cable between the Flexy 205 LAN port and the PoE Injector Data IN port.
4. Connect an Ethernet cable between the PoE Injector PoE port and the Bolt RJ45 PoE Ethernet port.

5. Configuration

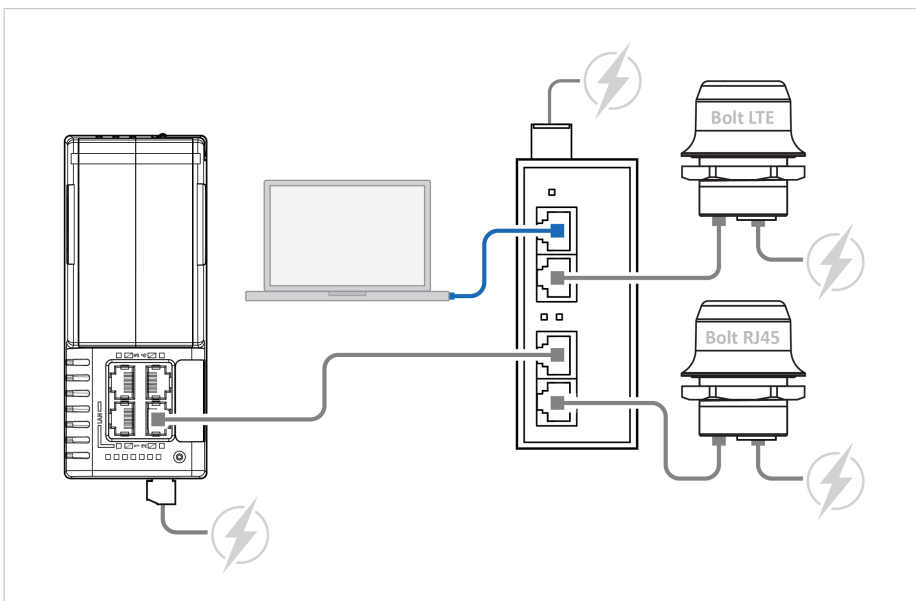
5.1. Connect Bolt LTE to Internet via 4G

This procedure describes how to connect Bolt LTE internet via the 4G network.

1. Insert a cellular SIM card in the Bolt LTE SIM card holder.
Ensure that the SIM card contact surface is facing towards the Ethernet port.



2. Disconnect the Ethernet cable from the Flexy 205 WAN port and connect it to your computer.



3. Bolt LTE IP settings:

To access the Bolt LTE built-in web interface, ensure that the Bolt LTE IP address and your computer IP address are within the same IP address range.

The default IP address is 192.168.0.98.

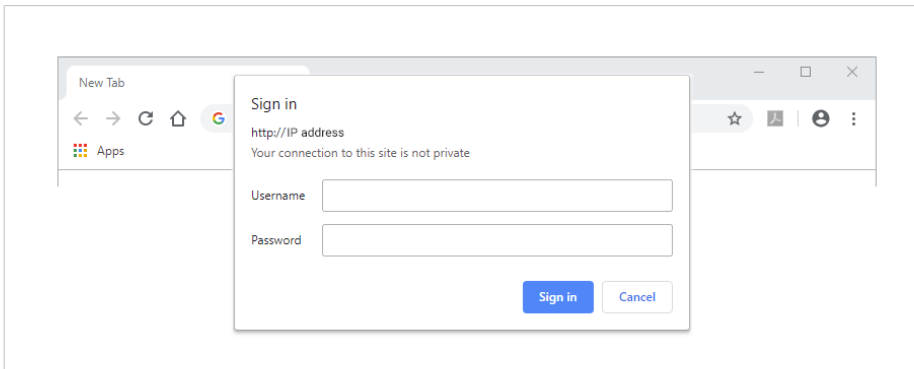


4. Access the Wireless Bolt IoT built-in web interface:

The Bolt LTE default username is admin, written in lowercase letters.

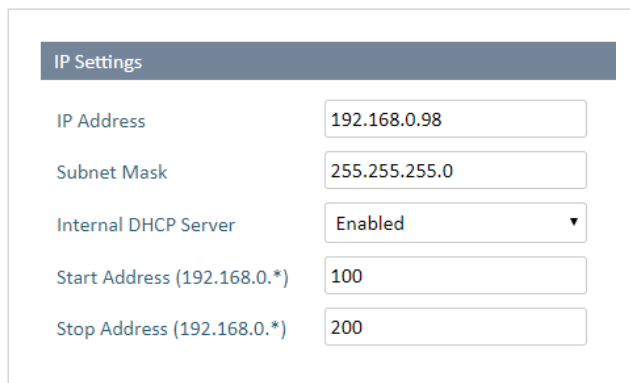
You find the default password on the Bolt LTE product housing.

- a. Enter the Bolt LTE IP address in your web browser and click Enter.
- b. Login to the Bolt LTE built-in web interface.



5. Ethernet Settings:
On the Ethernet Settings page, configure the IP Settings:

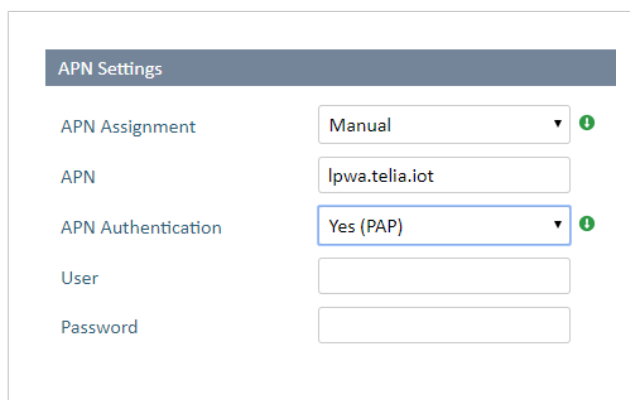
- IP Address
- Internal DHCP Server, select **Enabled**.



The screenshot shows the 'IP Settings' configuration page. It has a title bar 'IP Settings' in a dark blue header. Below it, there are five rows of configuration fields:

Field	Value
IP Address	192.168.0.98
Subnet Mask	255.255.255.0
Internal DHCP Server	Enabled
Start Address (192.168.0.*)	100
Stop Address (192.168.0.*)	200

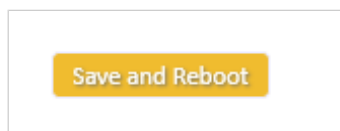
6. APN Settings:
On the Cellular Settings page, configure the APN Settings.



The screenshot shows the 'APN Settings' configuration page. It has a title bar 'APN Settings' in a dark blue header. Below it, there are five rows of configuration fields:

Field	Value
APN Assignment	Manual
APN	lpwa.telia.iot
APN Authentication	Yes (PAP)
User	
Password	

7. In the left sidebar menu, click **Save and Reboot**.

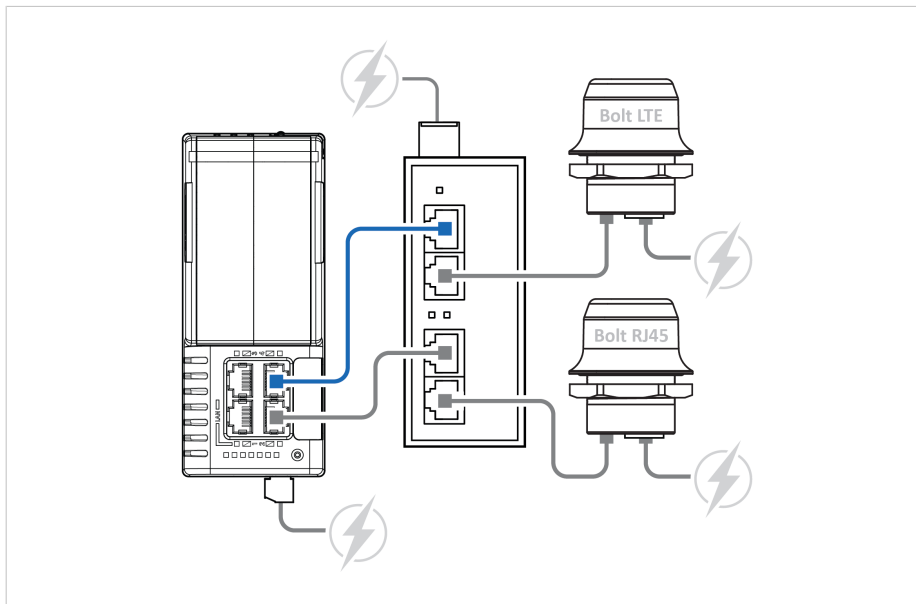


The screenshot shows a single button labeled 'Save and Reboot' in a yellow-orange color, located within a light gray rectangular container.

The Bolt LTE automatically reboots, for the settings to take effect.

8. On the System Overview page, verify that the:
- Internal DHCP Server is Enabled.
 - That cellular Data Connection has status Yes.
 - APN settings are correct.

9. Reconnect the Ethernet cable to the Flexy 205 WAN port.



5.2. Connect Flexy 205 to Internet via Bolt LTE

This example describes how to use Bolt LTE to connect Flexy 205 to the internet via the 4G network.

Procedure

1. Log in to the Flexy 205 built-in web interface.
2. To start the **Quick Launch Wizard**, click **Wizards > Internet**.

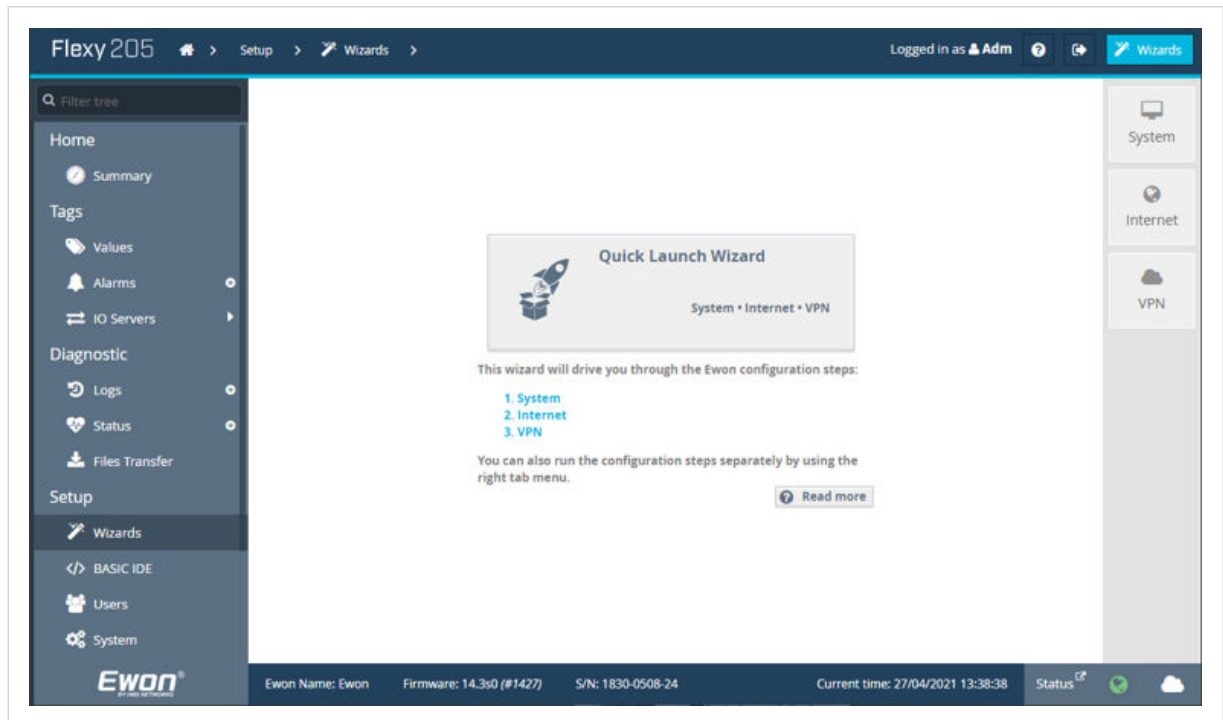


Figure 4. Start wizard

3. To connect the Flexy 205 to the Bolt LTE over Ethernet:
On the Internet connection page: In the Interface drop-down menu, select **Ethernet INTERNET connection**.

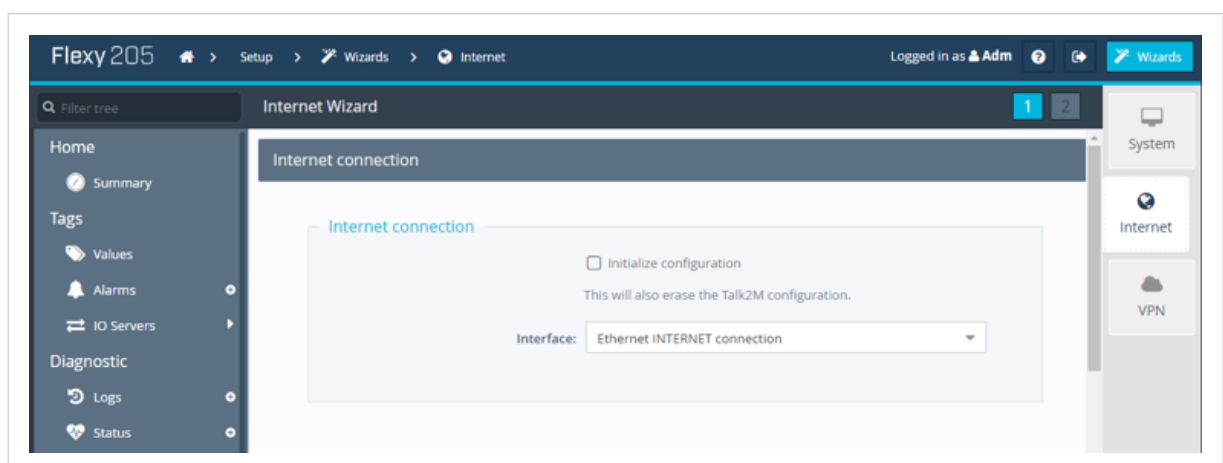


Figure 5. Internet connection interface

4. On the Ethernet WAN Connection page:

The screenshot shows the 'Flexy 205' web interface. The breadcrumb trail is 'Setup > Wizards > Internet'. The user is logged in as 'Adm'. The left sidebar contains navigation links: Home (Summary), Tags (Values, Alarms, IO Servers), Diagnostic (Logs, Status, Files Transfer), and Setup (Wizards, BASIC IDE, Users, System). The main content area is titled 'Internet Wizard' and 'Ethernet WAN Connection'. It has four numbered tabs (1, 2, 3, 4), with tab 2 being the active one. The 'Address Setup' section has a dropdown menu set to 'DHCP'. Below it are input fields for 'IP address' (192.168.0.195), 'Subnet mask' (255.255.255.0), and 'Default gateway' (192.168.0.98). The 'DNS Setup' section has a 'Via DHCP' checkbox checked. It includes input fields for 'Primary DNS IP address' (192.168.0.98) and 'Secondary DNS IP address' (0.0.0.0), with a note 'Leave blank (or 0.0.0.0) if no DNS'. At the bottom of the form are 'Cancel', '< Previous', and 'Next >' buttons. The footer bar displays 'Ewon' logo, 'Ewon Name: Ewon', 'Firmware: 14.3s0 (#1427)', 'S/N: 1830-0508-24', 'Current time: 27/04/2021 13:40:05', and a 'Status' icon.

Figure 6. IP address and DNS settings

To enable the Bolt LTE to assign IP settings to the Flexy 205:

- a. In the Address Setup drop-down menu, select **DHCP**.
- b. In the DNS Setup section, select the **Via DHCP** checkbox.

5. On the Validate your Internet connection page:
To test the internet connection, select the **Enable** checkbox.

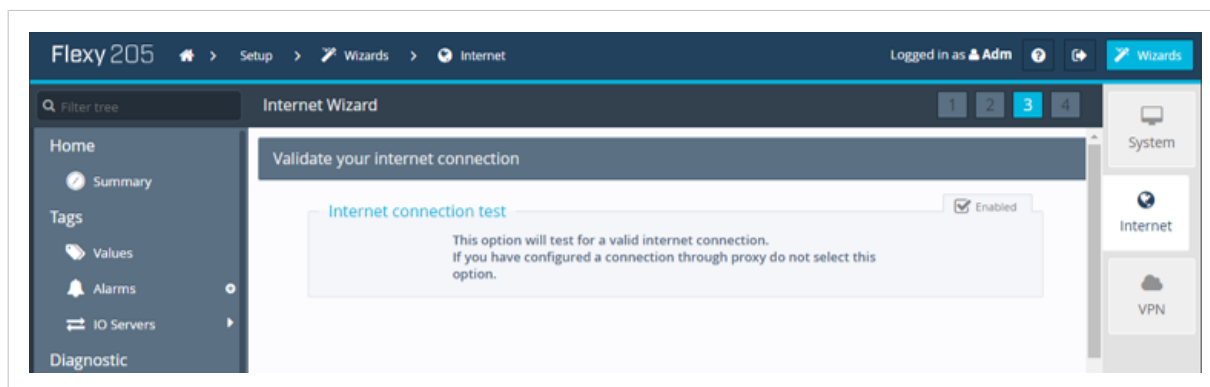


Figure 7. Validate internet connection

A test of the internet connection is performed and the status is displayed.

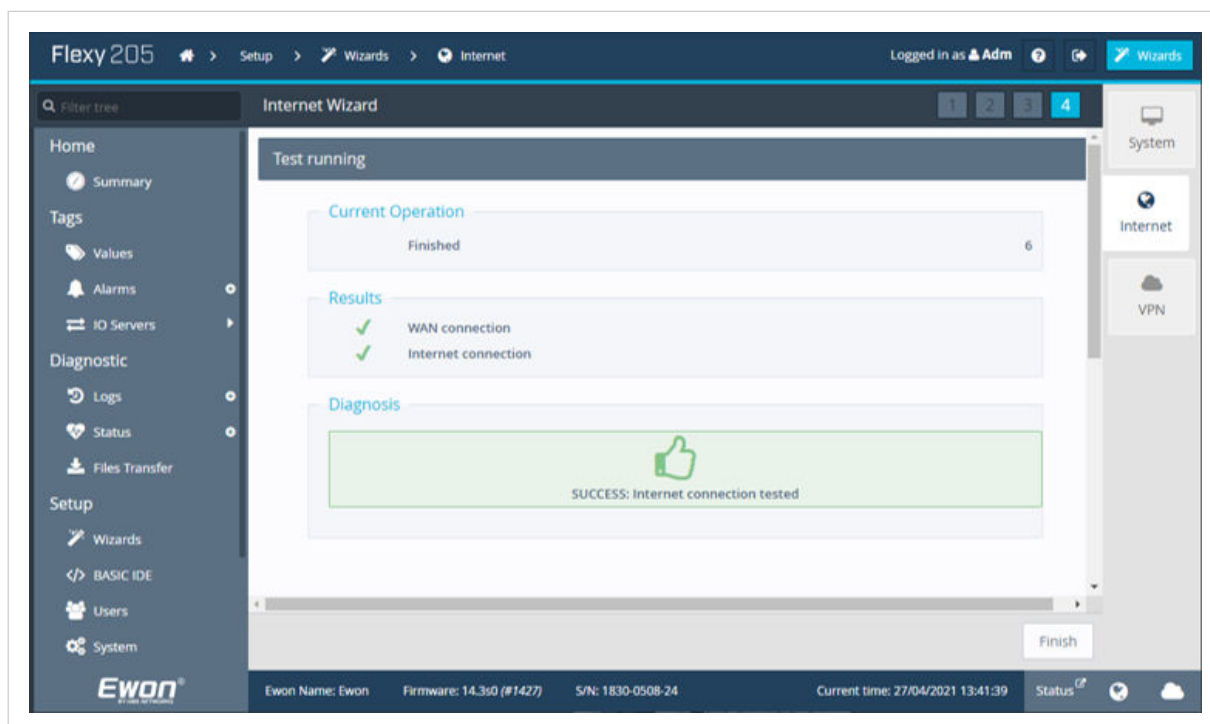


Figure 8. Success internet connection tested

6. To complete the wizard, click **Finish**.

To Do Next

On the Summary page, check the Internet Connection settings.

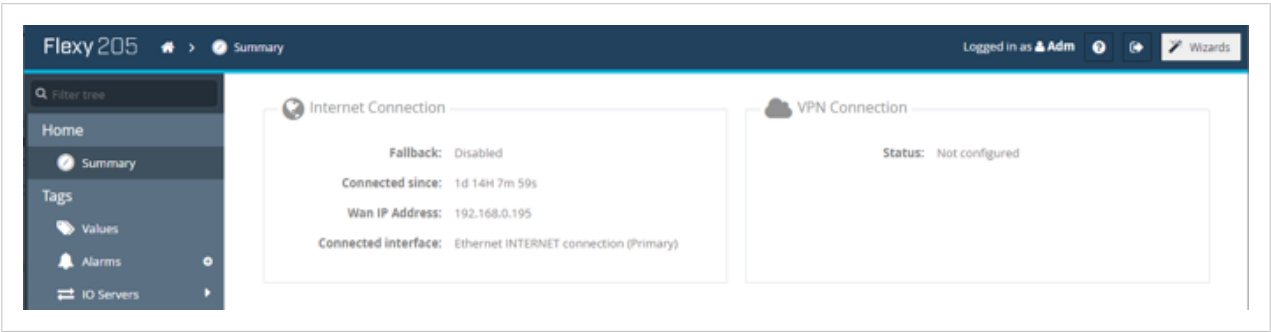


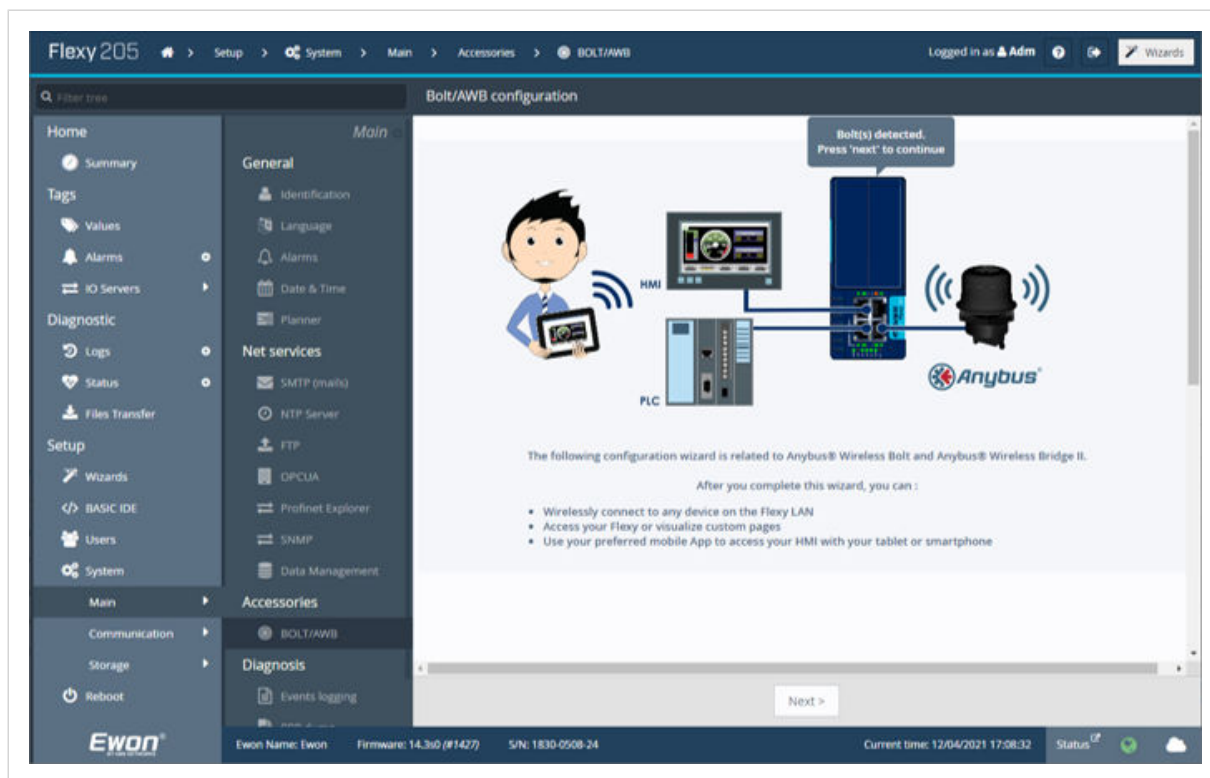
Figure 9. Summary page Internet Connection settings

5.3. Connect Devices on the Flexy LAN to Wi-Fi via Bolt Ethernet RJ45

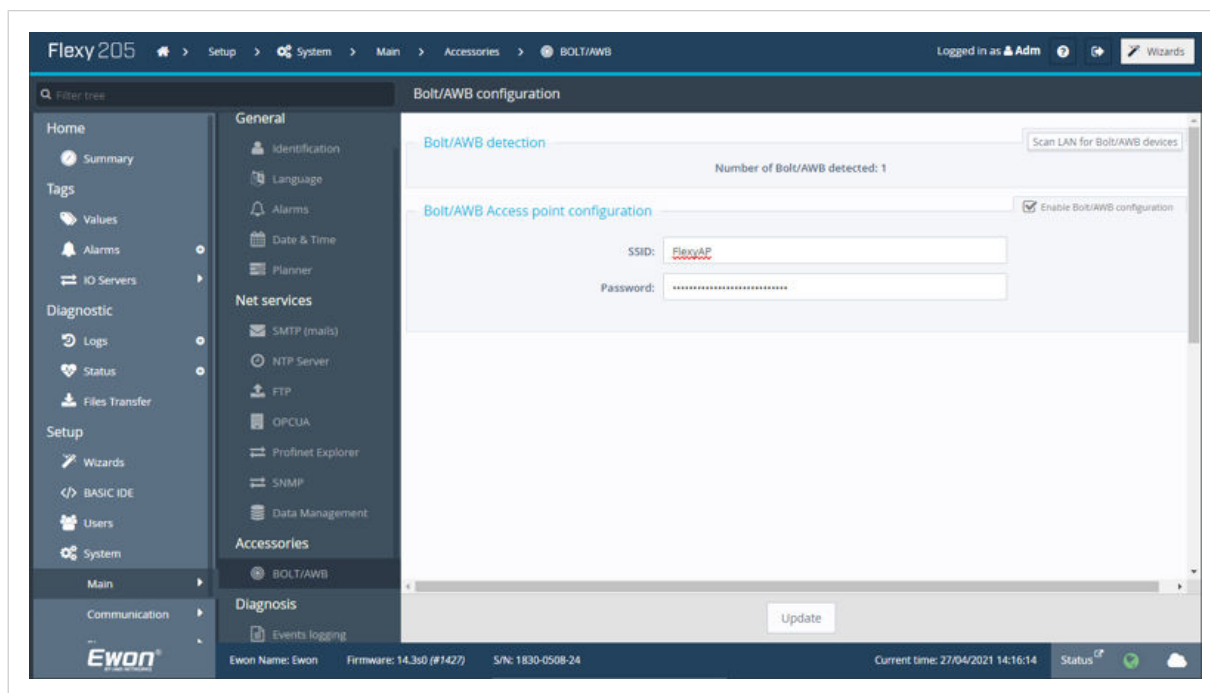
In this example, we have connected a Bolt Ethernet RJ45 to the Flexy 205 LAN port in order to get Wi-Fi access for the devices connected to the Flexy LAN.

Procedure

1. Log in to the Flexy 205 built-in web interface.
2. In the **Setup** menu, click **Main > BOLT/AWB** to start the Wizard.



3. On the **Bolt/AWB configuration** page, enter the **SSID** (Service Set Identifier) and **Password** that is to be used with the newly created Wi-Fi network.



Result

The Wi-Fi connection gives you access to the Flexy 205 and other devices connected to the LAN side of the Flexy 205.