Link Pre-configuration in the lab

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Usually, before going into the field, it is recommended to pre-configure in the lab the Infinet Wireless units to verify the link establishment. Take the units out of the package and place them on the table.

> ⚠️ **NOTE**
>
> A minimum set of requirements must be met during devices pre-configuration in the lab:
>
> - Make sure the devices are positioned no closer than 12 meters from each other and are not directed at each other in order to prevent radio modules damage.
> - A minimum transmit output power must be set.

Step 1: Scheme connection assembling

The equipment list required for the lab configuration:

1. Outdoor units - 2 pcs.
2. Power supply - 2 pcs.
3. Power cord - 2 pcs.
4. Ethernet cables - 4 pcs.
5. Laptop with Ethernet port available.

We will perform the settings mentioned below for each unit and check if the wireless link was established correctly.

Use the following instruction to assemble a test scheme:

1. Connect Gigabit Ethernet port at the ODU to the power supply port labeled as "OUT".
2. Connect Ethernet port at the laptop to the power supply port labeled as "IN".
3. Connect the power cord to power supply and plug it to AC mains.
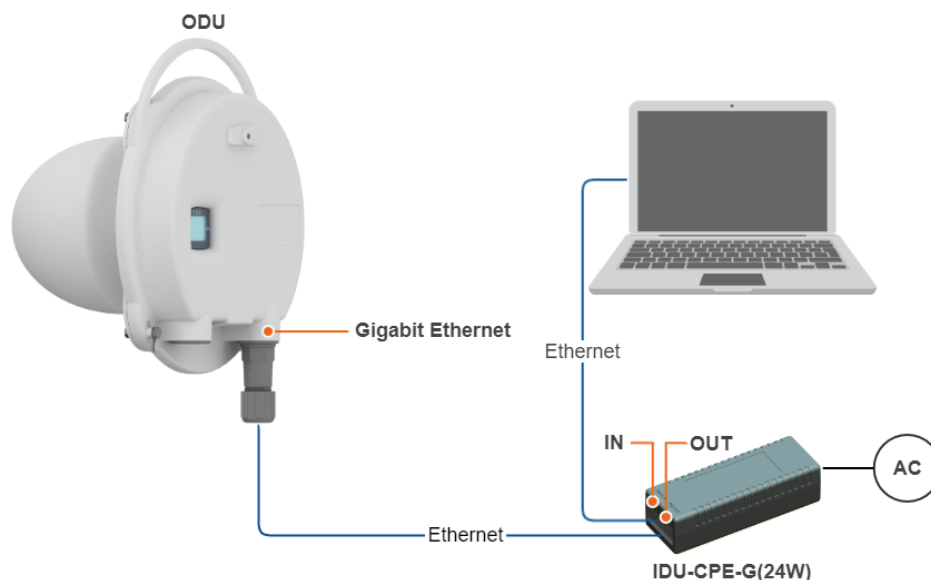
Step 2: Access to the device

Let's access each unit to the default IP address 10.10.10.1 with mask 255.255.255.0 via a web browser. Before, make sure the Ethernet port of the Laptop has an IP address assigned from the same subnetwork as the one for the unit (e.g., set 10.10.10.10 with mask 255.255.255.0).

⚠️

Title

> ⚠️ **NOTE**
>
> We assume that each unit used in this setup has not been configured before and runs with the factory settings.

Use any letters or numbers for the initial authentication on each unit, for example:

- Login: login.
- Password: password.

> ⚠️ **NOTE**
>
> We strongly recommend to change your login and password after the first login.

After the first login, let's configure a distinctive name for each unit and set a custom login and password. Go to the "Settings" → "General" section and configure:

- Device Name (e.g., Master/Slave).

Go to the "Settings" → "Security" section and configure login and password.

Unit

Device name:

Master

Changing admin account settings

Login:

root

Password:

Confirm password:

Reset   Save   Cancel

⚠️

> ⚠️ **NOTE**
>
> At the next login set up login and password to access the unit in the privileged mode.

Step 3: Firmware upgrade

Let's upgrade each unit to the latest stable firmware version. Go to the "Maintenance" section and click on the "Check latest release" button. In case a new firmware version is available initiate the firmware upgrade process.

Before, make sure the laptop which is connected to the unit which has an Internet connection, too. Otherwise, the manual firmware upgrade process should be performed:

- Download latest release from the FTP server https://ftp.Infinet.ru/pub/Firmware.
- In the "Maintenance" section click the "Select file" button and set the path to the downloaded file, or drug it to the specified area.
- File will be uploaded to the device. Changes will be applied after reboot.

Step 4: Radio parameters configuration

Let's configure the basic radio parameters needed to establish the link.

At the unit named Master at Step 2 above, go to the "Settings" → "General" section and set the "Link ID" parameter, it must be the same on both sides of the link. Then in the "Radio" section set the following configuration:

- Unit role: Master.
- Center frequency: 71125 MHz (use values selected at the Link Planning stage).
- Power limit: -15 dBm (set the minimum value in the range, as we are in the lab, and we don't need high output power).
- Frame length: 5 ms.
- Fixed Downlink/Uplink ratio.

The other parameters remain with the default values.

Radio settings

Radio frontend

Unit role: **Master**

Center frequency, MHz: **71125**

Power limit, dBm:

Transmitter output power

-15   10

Antenna gain, dBi: 37

Air frame

Frame length, ms: **5**

Downlink/Uplink ratio: **Fixed**

50 / 50

At the unit named Slave at Step 2 above, go to the "Settings" → "General" section and set the "Link ID" parameter, it must be the same on both sides of the link. Then in the "Radio" section set the following configuration:

- Unit role: Slave.
- Downlink center frequency: 71125 MHz (use value selected at the Link Planning stage).
- Power limit: -15 dBm (set the minimum value in the range, as currently, we are in the lab, and we don't need high output power).
- Frame length: 5 ms.

The other parameters remain with the default values.

Step 5: Check the wireless link status

Let's apply all settings described above for each unit and go to the "Dashboard" section and check if the device status has changed to "Connected".