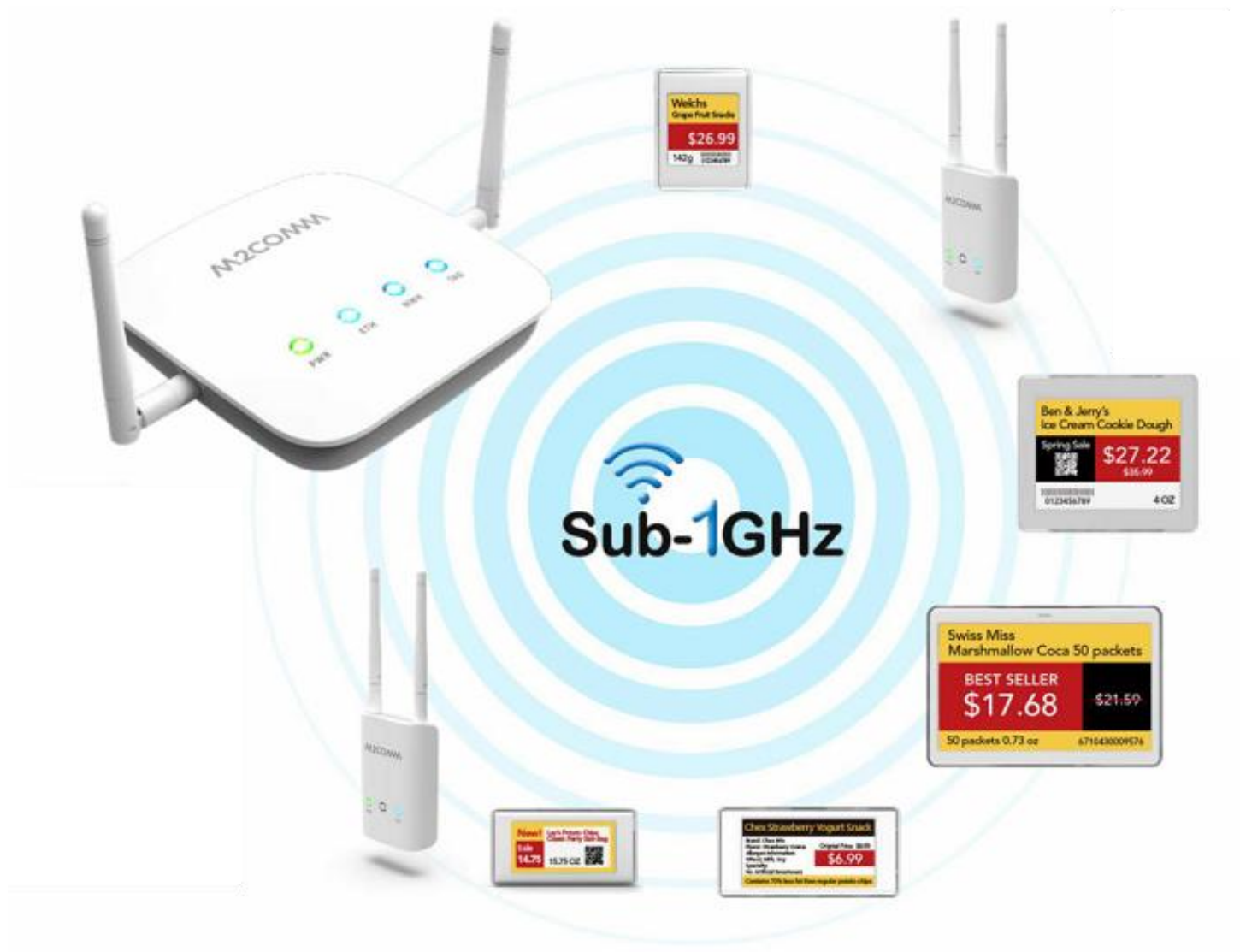




DUO / EXTENDER

User Manual

Technical Specification



MODEL NAME: DUO

INFRASTRUCTURE

SIZE (W x H x T) mm

130 x 130 x 30

WEIGHT, gm

181.6

ANTENNA

EXTERNAL SMA TYPE (0.52 dBi ANTENNA)

LED

POWER INDICATOR (GREEN)
ETHERNET INDICATOR (BLUE)
ESL NETWORK INDICATOR (BLUE)
TAG CONNECTIVITY INDICATOR (BLUE)

NETWORK

INTERFACE

10/100 base-T auto MDIX + Sub-G

FREQUENCY

SUB-GHz ISM

OPERATION MODE

SELF-NETWORKING
(AUTOMATIC CONNECTION BUILT-UP AND RECOVERY)

TRANSMISSION RANGE

200 METERS (LINE OF SIGHT)

OPERATING CONDITIONS

OPERATING TEMP/HUMIDITY

0 ~ 30°C / 35 ~ 55% (non-condensed)

STORAGE TEMP/HUMIDITY

-20 ~ 60°C / 35 ~ 80% (non-condensed)

POWER

POE (802.3af compliant) / 5V1A DC Jack



MODEL NAME: EXTENDER

INFRASTRUCTURE

SIZE (W x H x T) mm	99 x 68 x 25
WEIGHT, gm	120
ANTENNA	EXTERNAL SMA TYPE (0.52dBi ANTENNA)
LED	POWER INDICATOR (GREEN) TAG CONNECTIVITY INDICATOR (BLUE)

NETWORK

INTERFACE	Sub-G
FREQUENCY	SUB-GHz ISM
OPERATION MODE	SELF-NETWORKING (AUTOMATIC CONNECTION BUILT-UP AND RECOVERY)
TRANSMISSION RANGE	200 METERS (LINE OF SIGHT)

OPERATING CONDITIONS

OPERATING TEMP/HUMIDITY	0 ~ 30°C / 35 ~ 55% (non-condensed)
STORAGE TEMP/HUMIDITY	-20 ~ 60°C / 35 ~ 80% (non-condensed)
POWER	POE (802.3af compliant) / 5V1A DC Jack

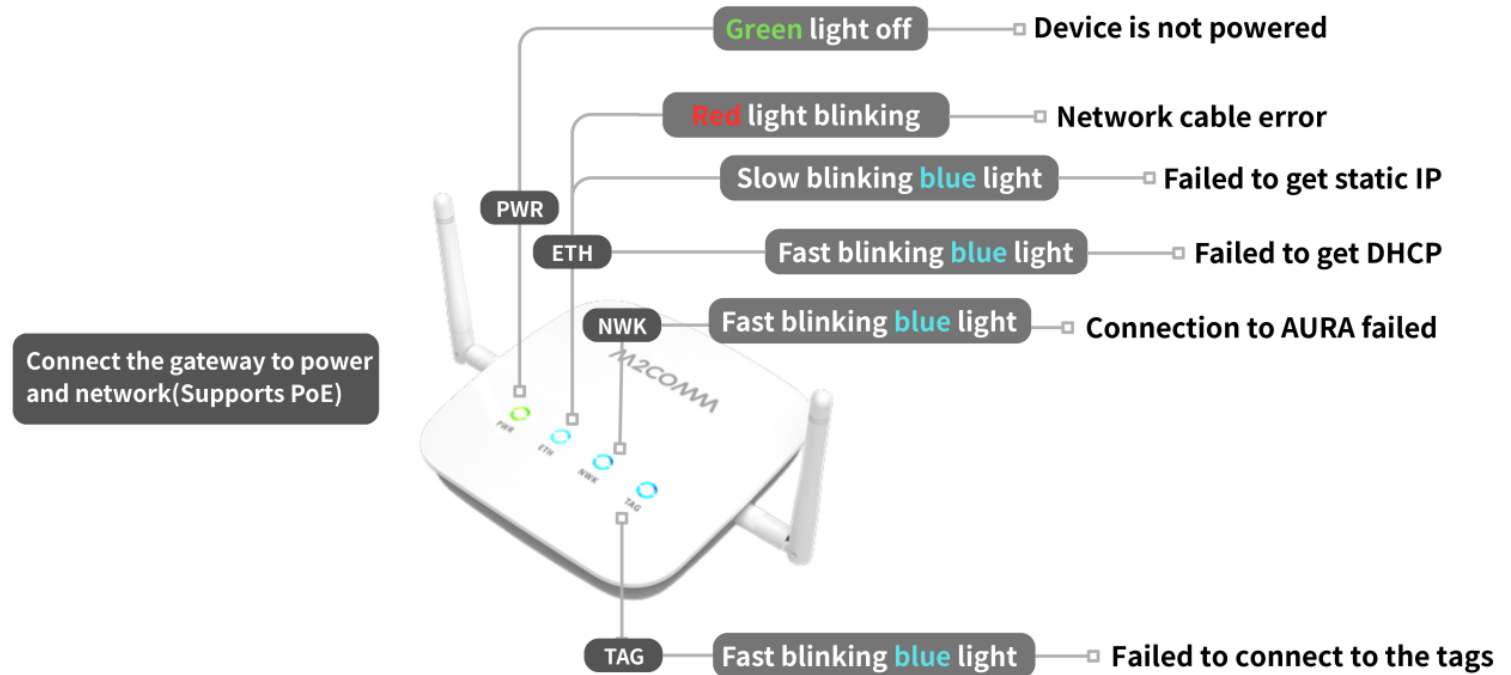
Device Setup:

DUO Setting

The DUO has an Ethernet connection to the network and communicates wirelessly with the EXTENDER(s) and TAG(s) via the M2COMM proprietary protocol.

Please refer to the procedure below to setup your DUO before initialing the software installation and device registration.

Status Indicators and Assembly:



LED status functions: (from LEFT to RIGHT)

PWR: Power indicator

ETH: Ethernet indicator

NWK: ESL network indicator

TAG: Tag connectivity indicator

Attach included SMA antenna and plug one end of the supplied Cat 5E cable from PoE Injector, or DC power supply (DC Jack), into the DUO





EXTENDER Setting

The EXTENDER utilizes the Sub-G frequency and M2COMM's proprietary protocol to communicate wirelessly with the DUO(s) and TAG(s).

Following the setup of DUO, please refer to the procedure below to setup your EXTENDER before initialing the software installation and device registration.

Attach included SMA antenna and plug one end of the supplied Cat 5E cable from PoE Injector, or DC power supply (DC Jack), into the EXTENDER



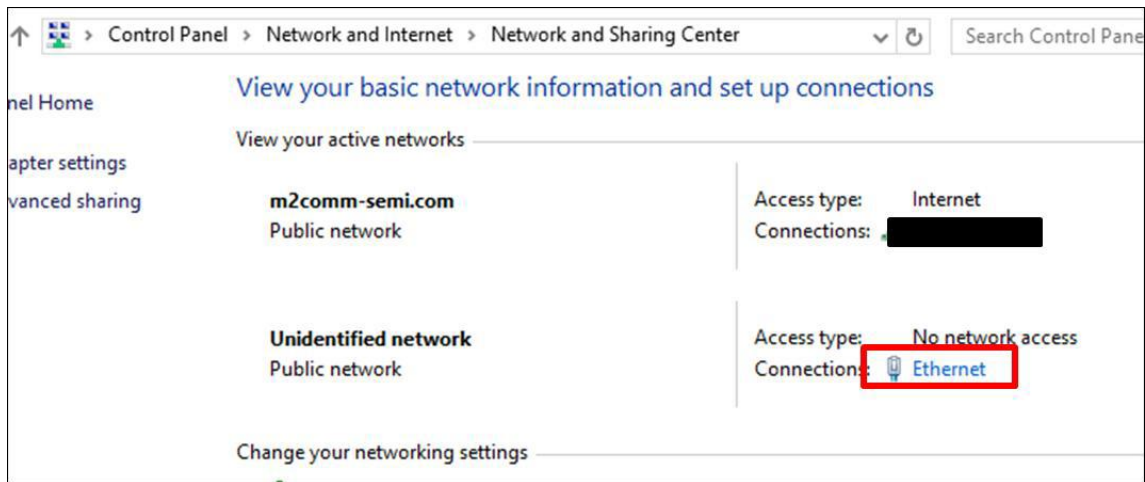
ELSA Demo System IP setting:

The ELSA demo system is designed to use either a static IP address for a single Access Point or a dynamic IP address when multiple Access Points are installed.

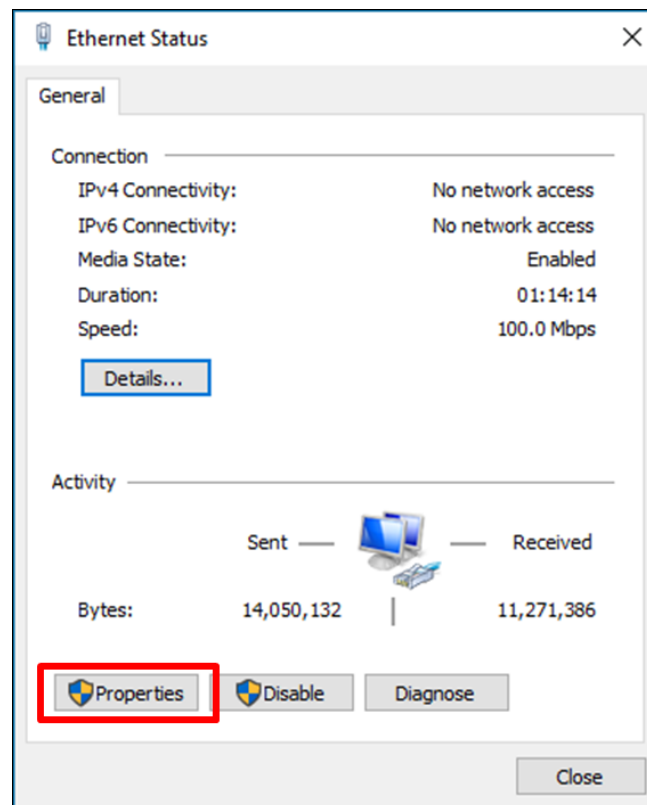
IP Address Configuration (Static IP):

Ensure that your Access Point is connected to your computer.

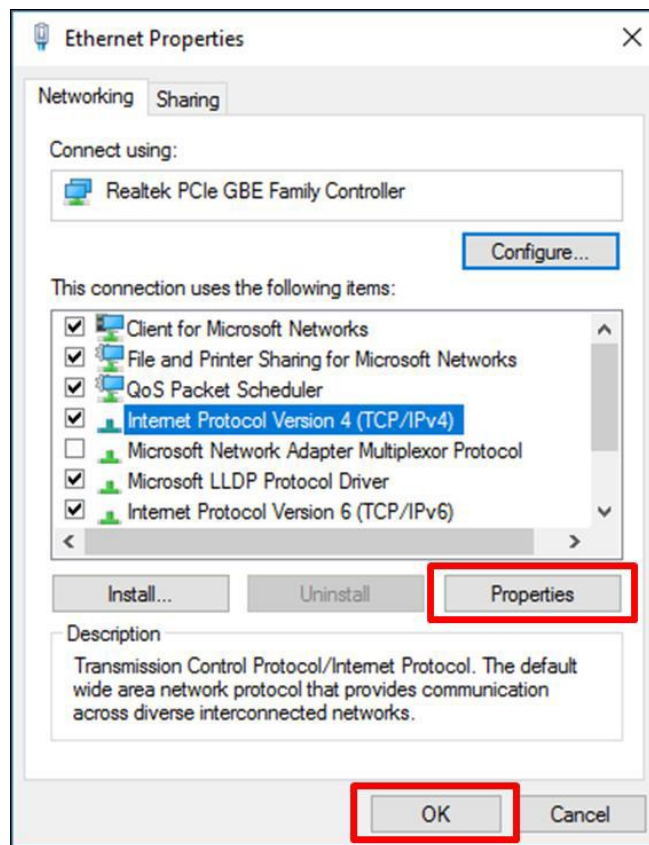
The Access Point comes pre-configured with a default IP Address (192.168.2.1). It's necessary to modify the IP Address of the Ethernet port on your computer that is cabled to the M2COMM Access Point so that they can communicate with one another.



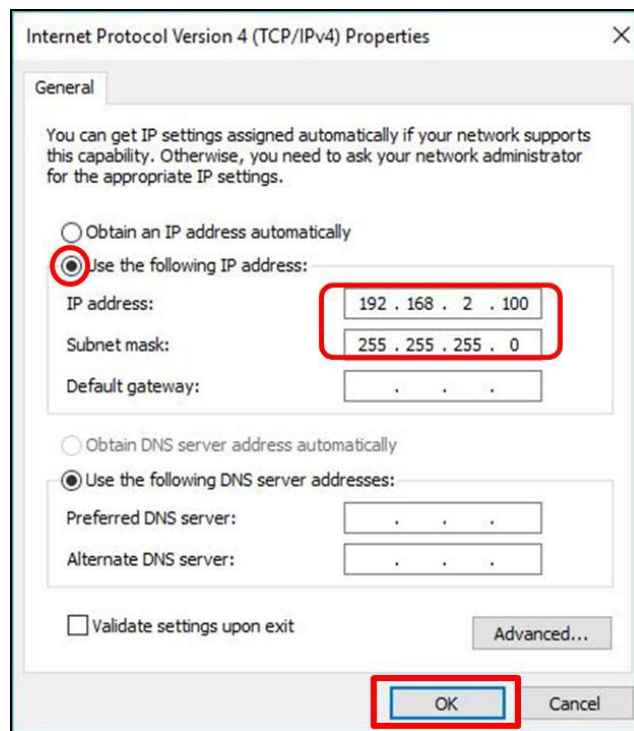
Using your computer mouse, click on Ethernet



Select Properties



Select Internet Protocol Version 4 (TCP/IPv4), and select Properties



Check Use the following IP address and enter information shown above. Select OK to apply new settings

IP Address Configuration (Dynamic IP):

For installations that contain multiple Access Points an external TCP/IP Ethernet hub is required. And please contact M2COMM for further details.

M2COMM ELSA Demo Installation:

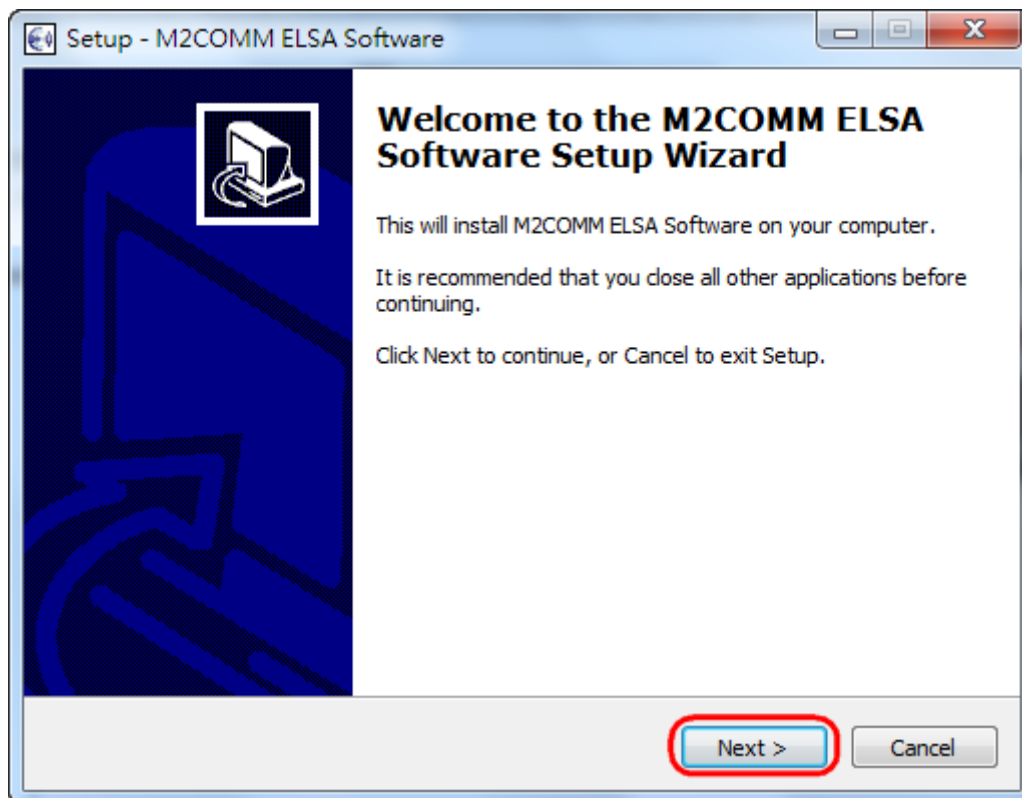
Software Installation:

Put the executable file below into the same folder on your computer. And double-click the “**ELSA1.0_2.8.2.1957.exe**” file to begin the installation.

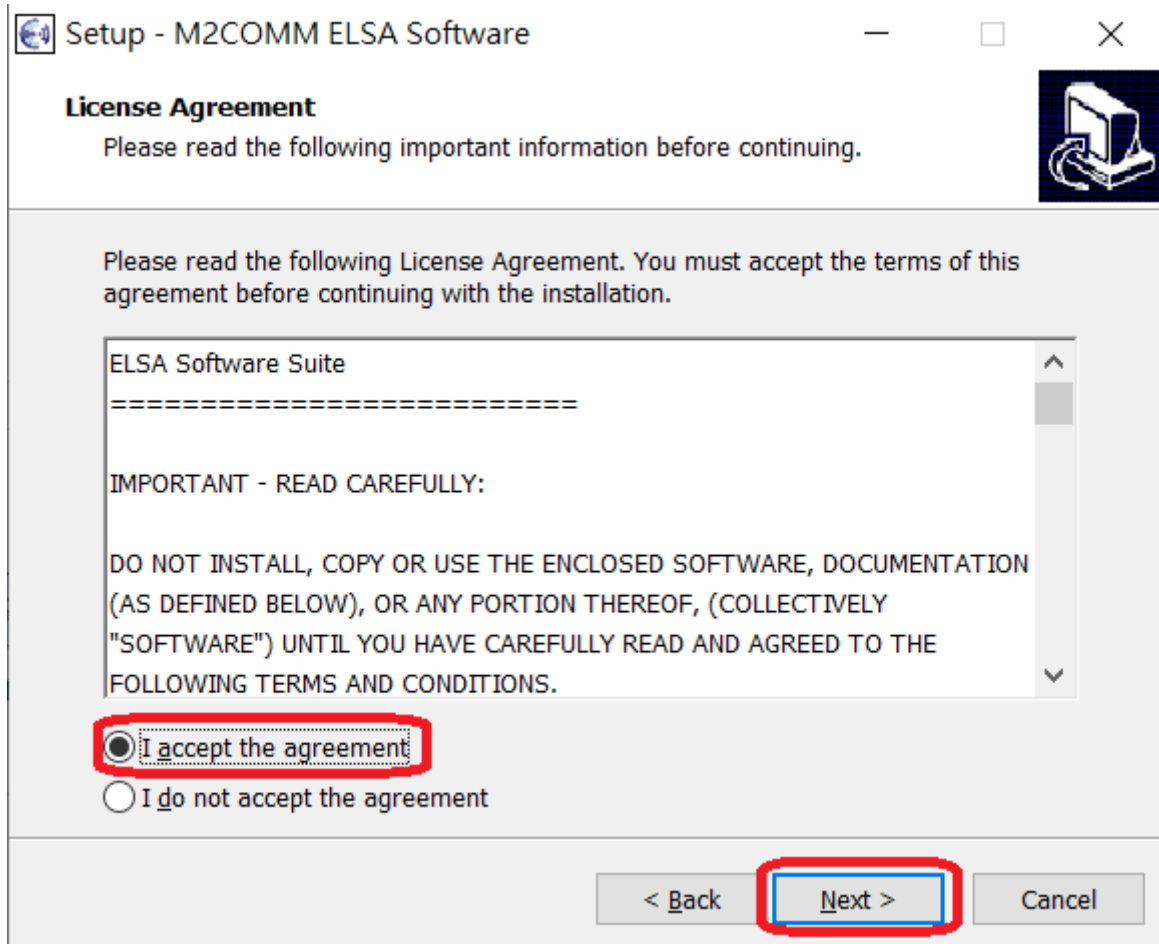
 **ELSA1.0_2.8.2.1957.exe**

You may be asked for permission to allow the program to make changes to your computer; you must agree to this to enable installation to start.

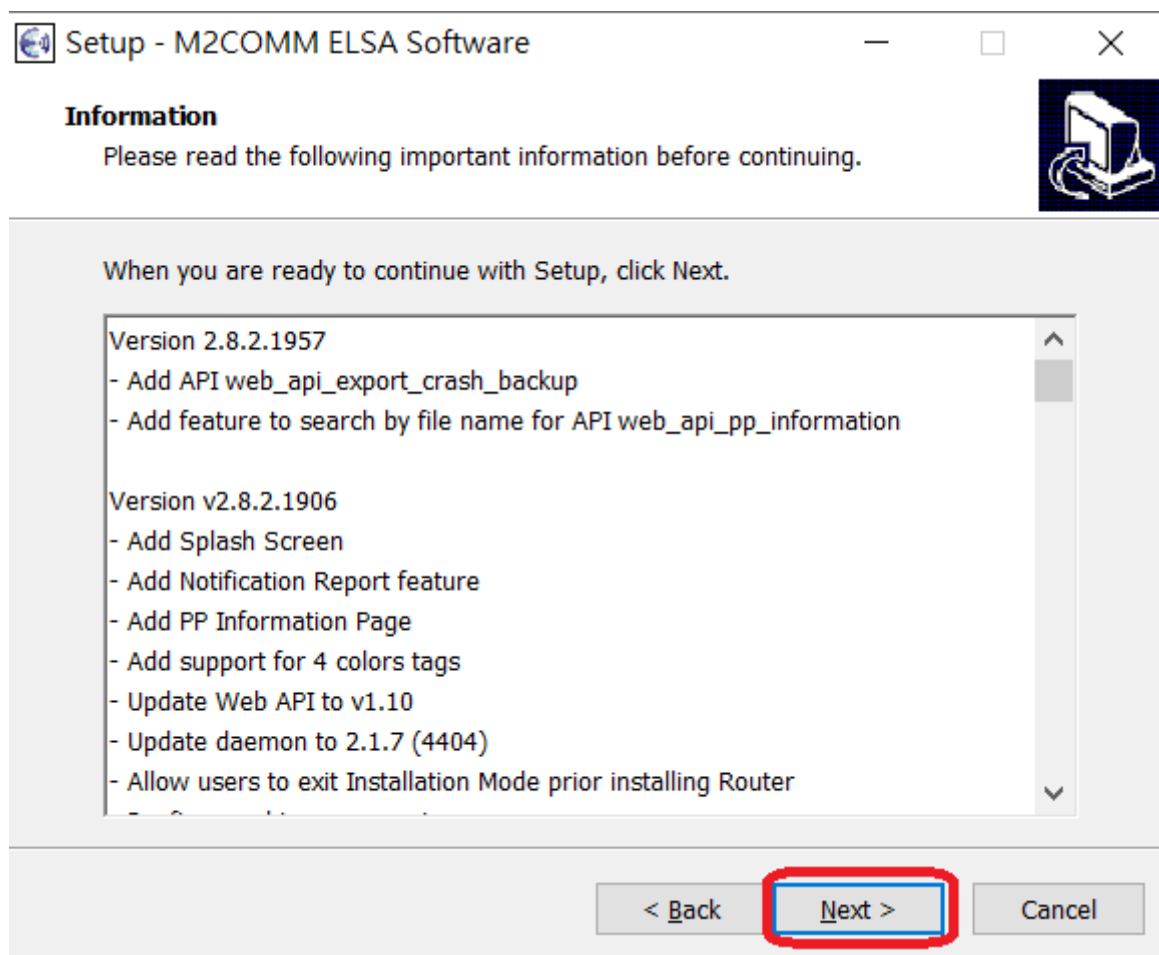
Follow the on-screen instructions to finish the installation process.



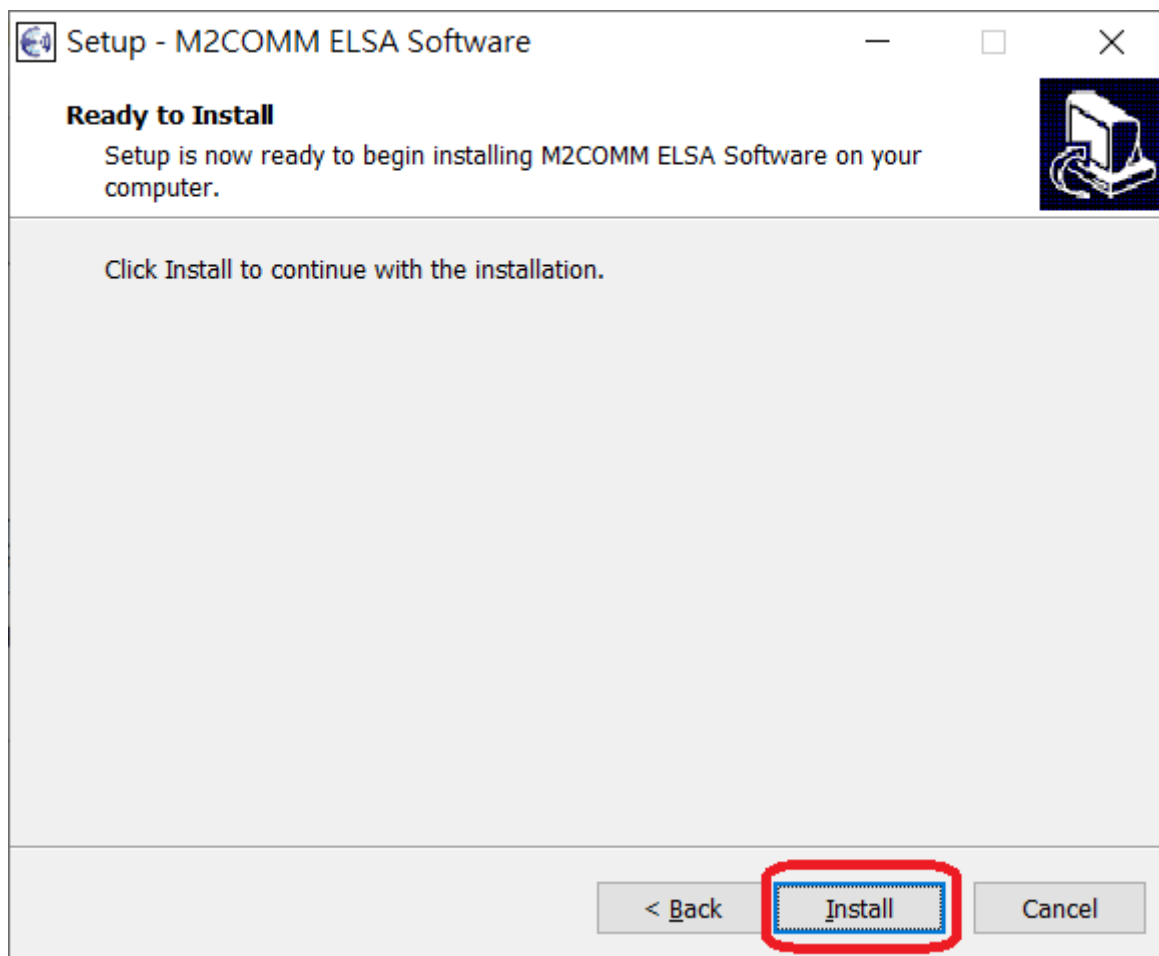
Click **Next>** to continue



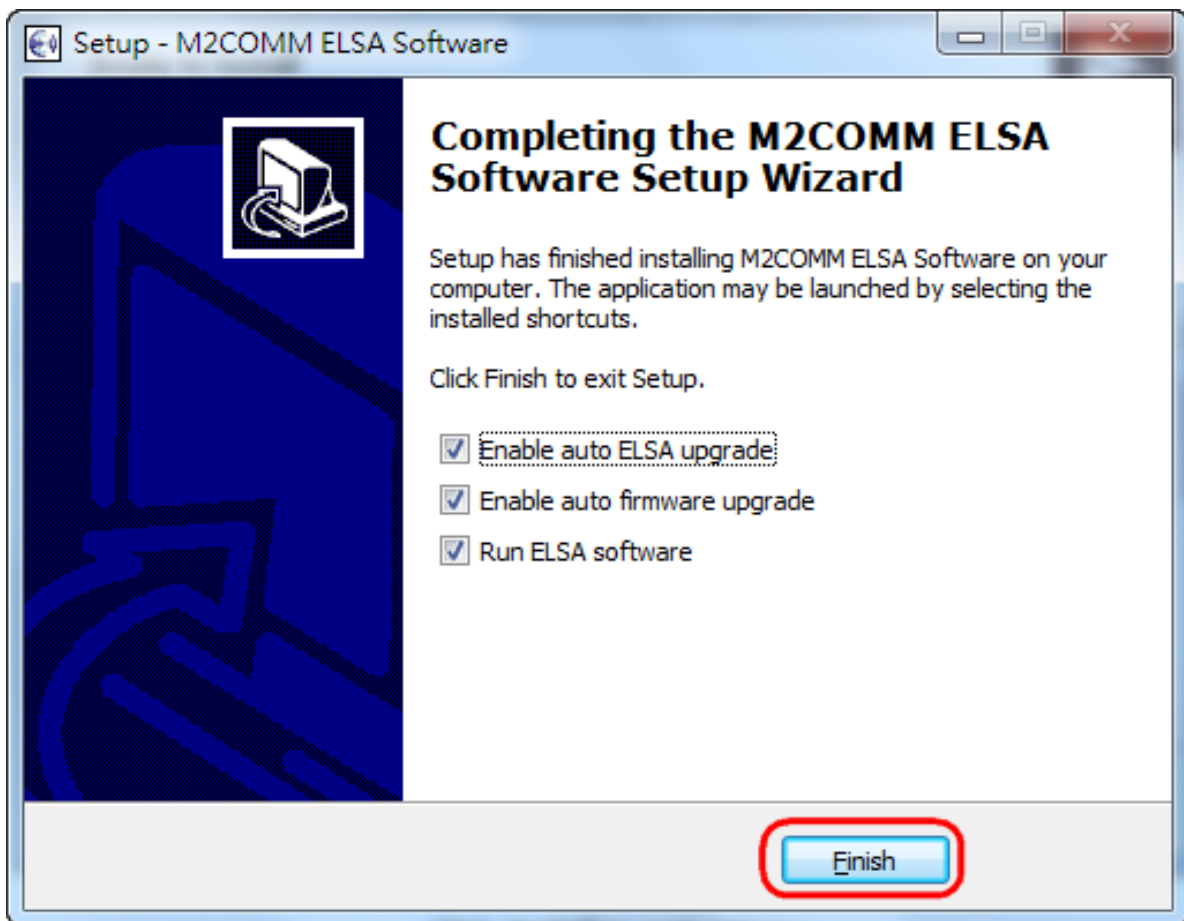
Select **Accept**, and Click **Next>** to continue



Click **Next** to continue

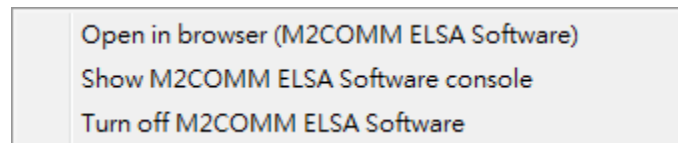


Click **Install** to start

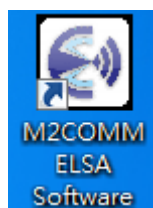


Click **Finish** to complete the installation

The ELSA Demo system has now been installed and executed on your computer. The icon will be hidden inside the toolbar, and you should now be able to locate this icon on your computer screen, by right click.



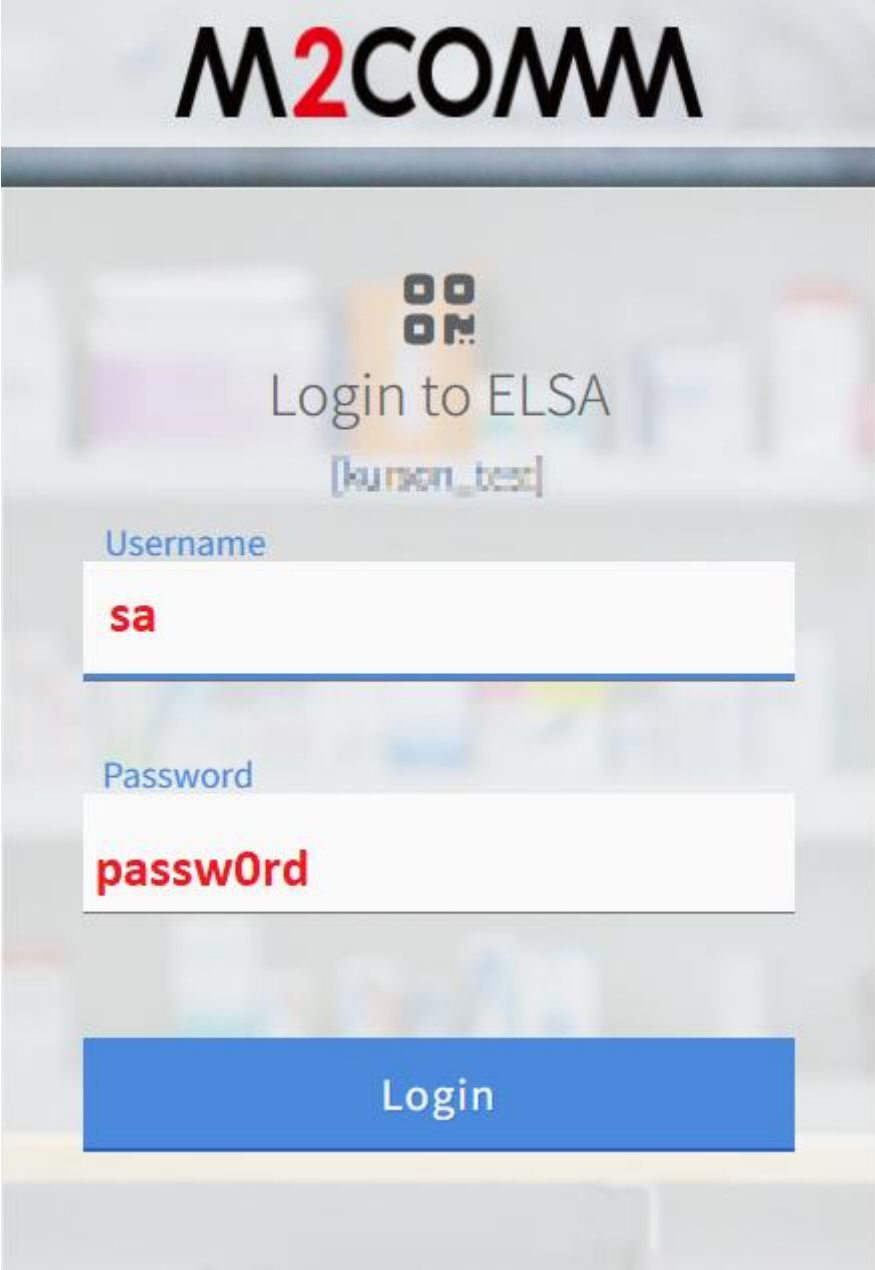
And you can also launch the ELSA software by double click the icon on desktop.



Setting Up the DUO in ELSA

Ensure that the DUO is connected to your computer that the EXTENDER(s) and 7.5" ESL are installed throughout your premises and are powered on.

- **Install the AP**

The image shows a login screen for ELSA. At the top, the logo "M2COMM" is displayed in black and red. Below it is a small icon consisting of four squares. The text "Login to ELSA" is centered, followed by "[kurxon_test]" in a smaller font. There are two input fields: "Username" with the text "sa" and "Password" with the text "passw0rd". Both fields have a blue underline. Below the input fields is a large blue button labeled "Login".

M2COMM

**00
00**

Login to ELSA
[kurxon_test]

Username
sa

Password
passw0rd

Login

Input "**sa**" for username and "**passw0rd**" for password, to access the ELSA web.

M2COMM | ELSA - E (1.0) English (US) ▾
Welcome, sa []. [Logout](#)

ELSA Installation Wizard

Welcome to M2COMM ELSA device installation wizard.
From here, you can install new devices into your ELSA system.
Click start below when you are ready.

*** If you want to import environment from another computer click [here](#)

Press **“Start”** to initial the ELSA system installation process.

Input your store name

Store name:

Input the store name, and press **Submit**

Confirmation

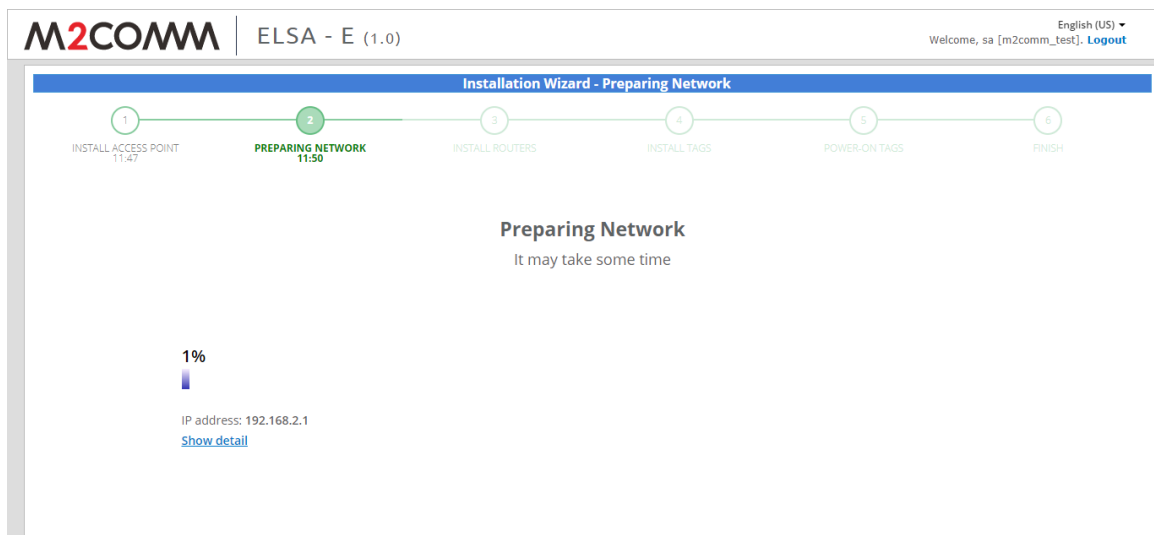
System found 1 access point with following information.

IP address. **192.168.2.1**
MAC address. **04:14:11:00:02:4C**

Do you want to use this access point?

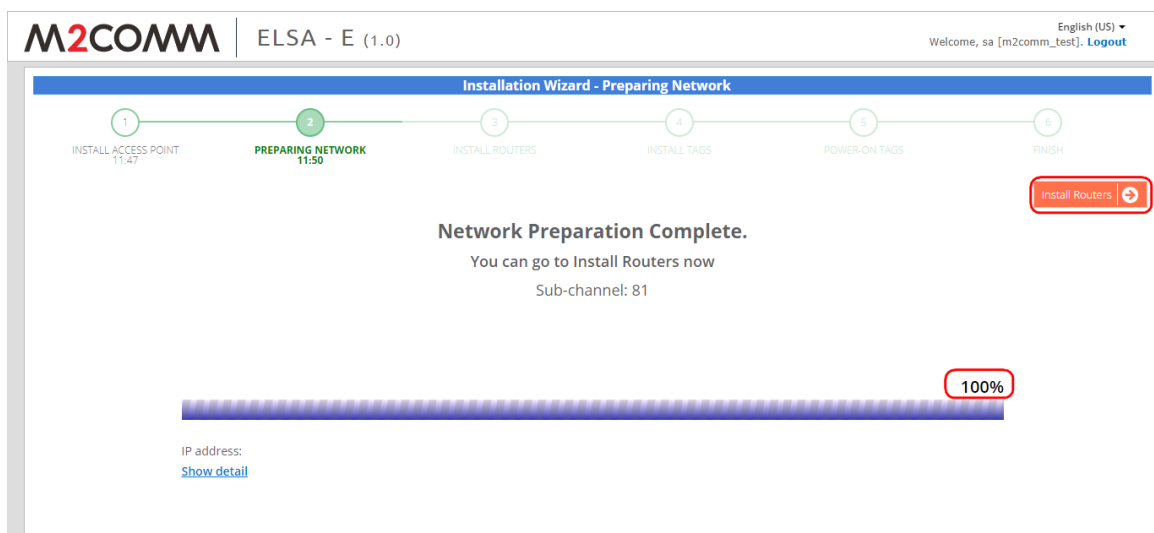
ELSA system will find the connected AP, and press **“Yes”** to confirm

- **Preparing the Network**



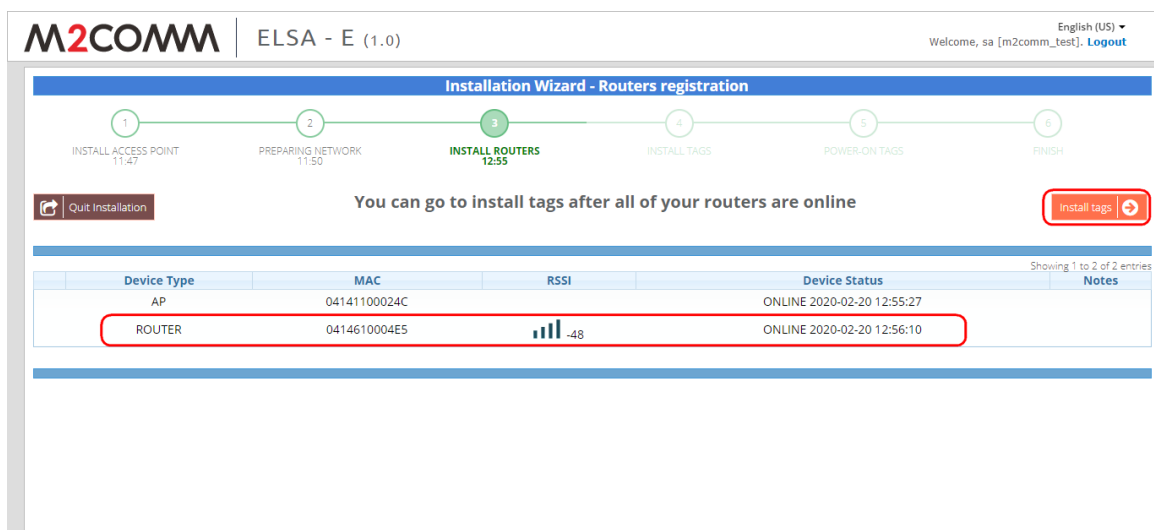
ELSA system will start to find the available wireless channel to use, and the whole process will take 1 hour.

Press “Show detail” for more information.

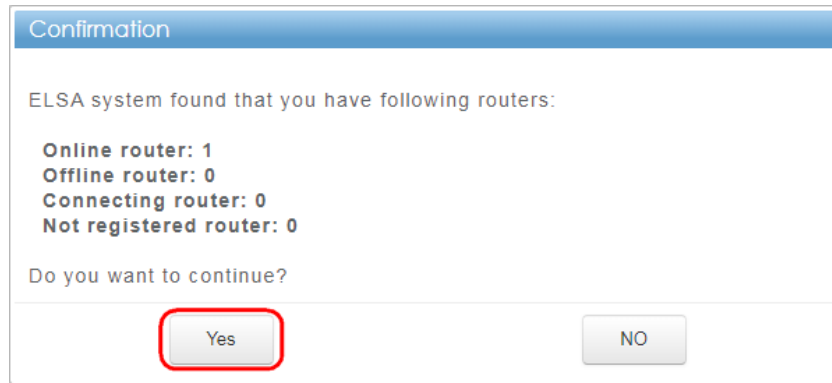


Press “**Install Routers**” for next step, when the progress bar reaches to 100%

- **Install Router**



After the ELSA system install the Router automatically, press ***“Install tags”***



Confirmation

ELSA system found that you have following routers:

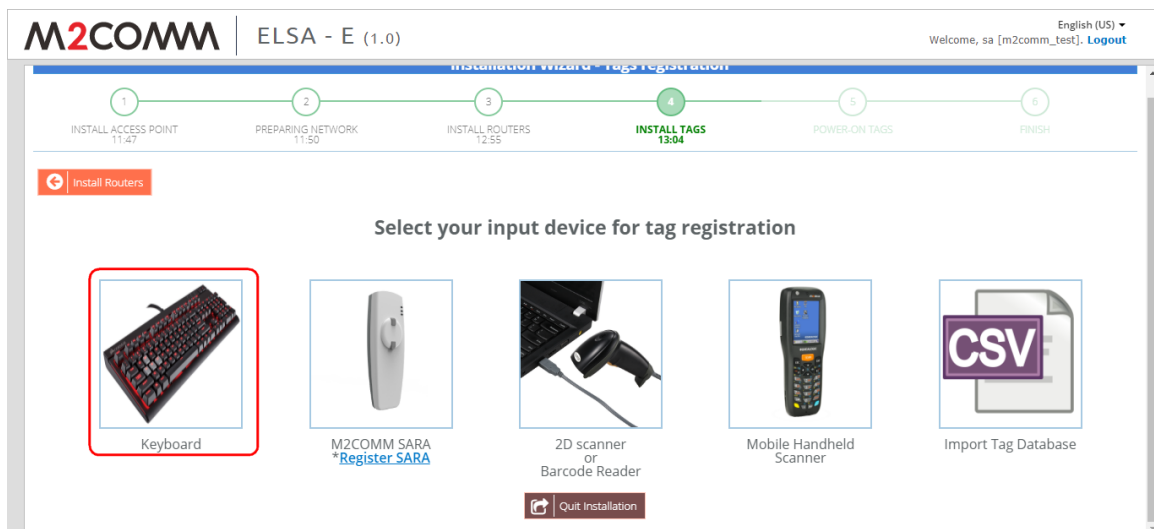
Online router: 1
Offline router: 0
Connecting router: 0
Not registered router: 0

Do you want to continue?

Yes NO

Press ***“Yes”*** to confirm the device status and enter to next step

- **Install Tags**



M2COMM ELSA - E (1.0) English (US) Welcome, sa [m2comm_test]. Logout

Installation Wizard - Tags registration

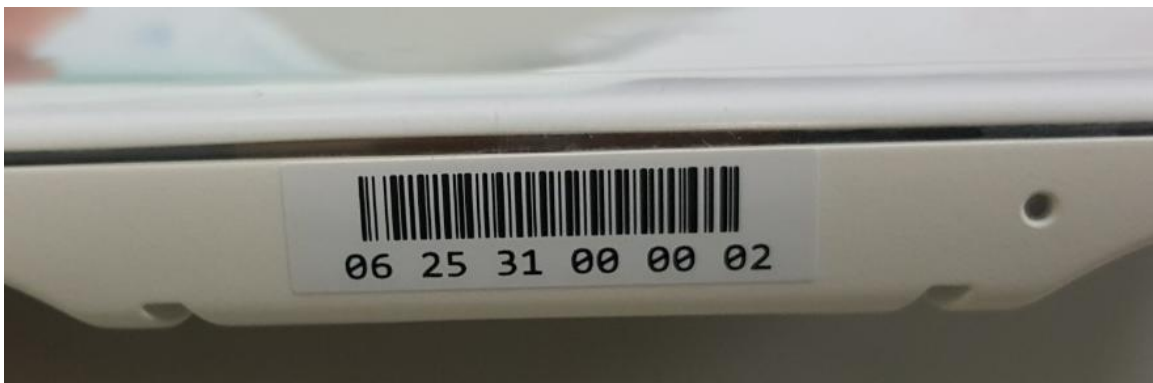
1 INSTALL ACCESS POINT 11:47 2 PREPARING NETWORK 11:50 3 INSTALL ROUTERS 12:55 4 **INSTALL TAGS 13:04** 5 POWER ON TAGS 6 FINISH

Install Routers

Select your input device for tag registration

Keyboard M2COMM SARA *Register SARA 2D scanner or Barcode Reader Mobile Handheld Scanner Import Tag Database CSV

Quit Installation



Select ***“Keyboard”*** to input the MAC address posted on the bottom side of the ESL

M2COMM | ELSA - E (1.0) English (US) | Welcome, sa [m2comm_test]. [Logout](#)

Installation Wizard - Tags registration

1 INSTALL ACCESS POINT
2 PREPARING NETWORK
3 INSTALL ROUTERS
4 **INSTALL TAGS**
13:25
5 POWER-ON TAGS
6 FINISH

Back

Register Without product [?]

Tag's MAC address

Submit

Notes

Log:
Register tag: 062531000002

Delete Search:

	MAC	Product
☐	062531000002	None

Showing 1 to 1 of 1 entries

Power-on

Check **“Without product”** and Press **“Power-on”**

- Power ON Tags**

Confirmation

How do you want to power-on the tags?

Auto power-on

Manual power-on

Cancel

Select **“Auto power-on”**



Wait for ESL to show the **“wakeup”** page

- Finish**



After several minutes, the ESL will change display to “**registered**” page

Confirmation

Registered routers - finish	0
Registered routers - unfinished	0
Total registered routers	0
Registered tags - finish	0
Registered tags - unfinished	3
Total registered tags	3
Registered SARA - finish	0
Registered SARA - unfinished	0
Total registered SARA	0

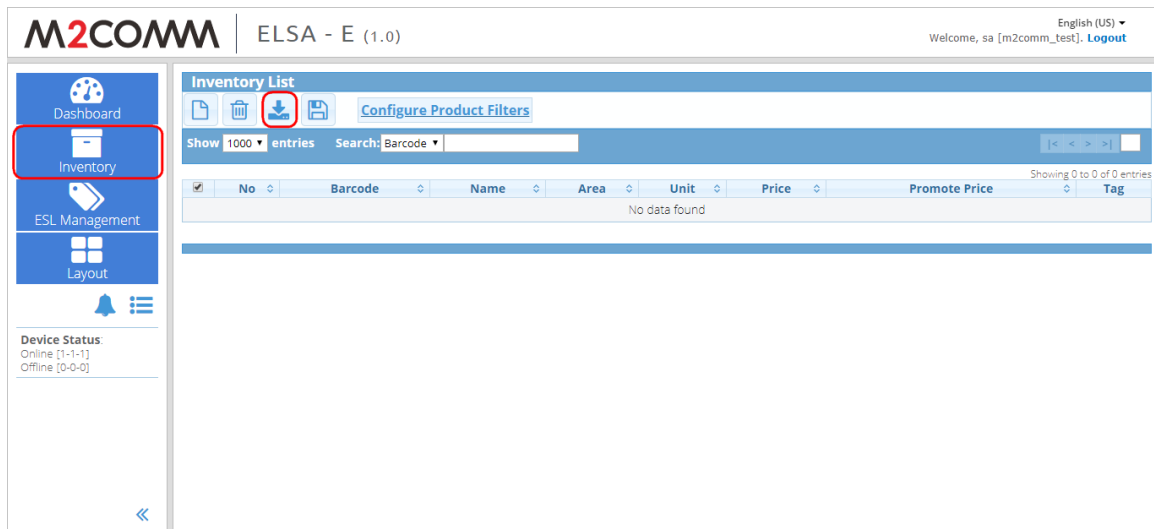
Some devices are still not join the network.
If you finish now, those tags will be exported into a list that you
can import it later time.

Finish installation?

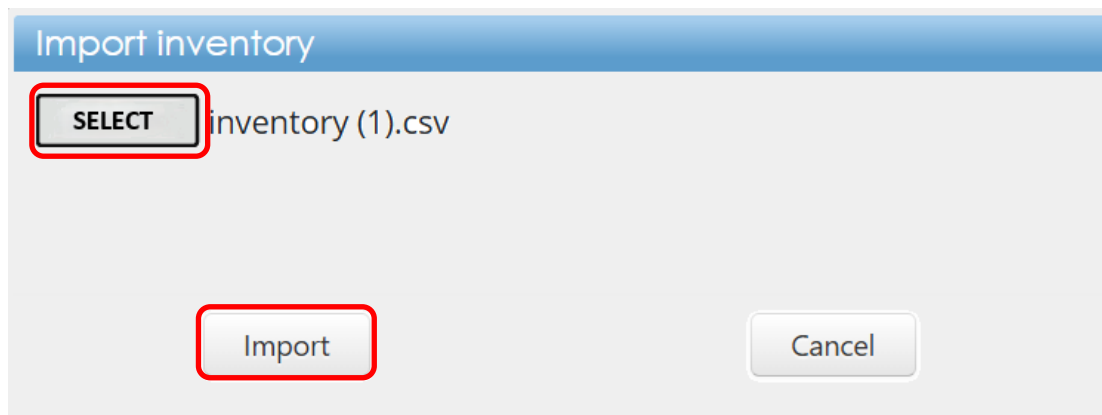
Press “**Yes**” to leave the installation wizard and back to ELSA dashboard

Show the image on ELSA-E 7.5" ESL

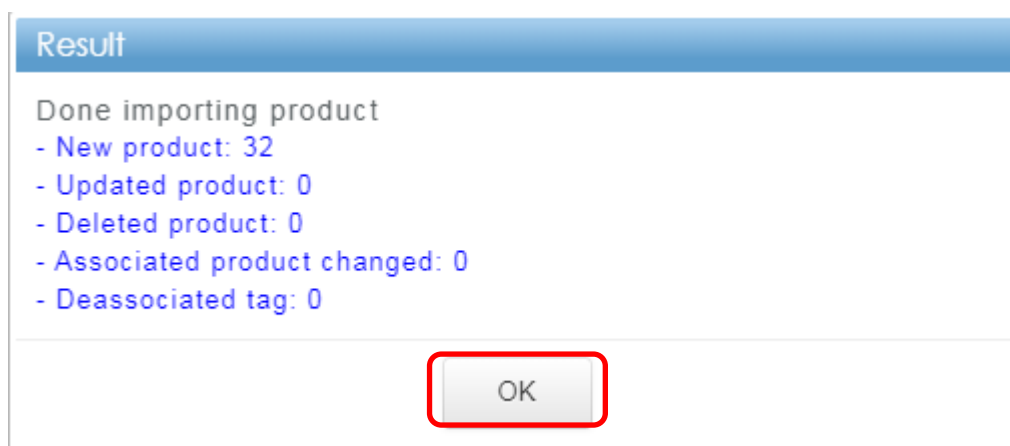
Load the CSV file to import the inventory list first.



Switch to **"Inventory"** page, and press **"Import"**



Select the CSV file, **"inventory99.csv"** and press **"Import"**



Press **"OK"** to finish the inventory importing

M2COMM

ELSA - E (1.0)

English (US)
 Welcome, sa [m2comm_test]. [Logout](#)

Dashboard

Inventory

ESL Management

Layout

Device Status
Online [1-1-1]
Offline [0-0-0]

ESL Management

Show 1000 entries Search: MAC

ONLINE, OFFLINE Showing 1 to 3 of 3 entries

MAC	Parent MAC	Device Type	Product	Profile	Layout	Battery Level	Job Status	Device Status	Wake-up Mode	Network Mode	RSS
04141100024C	000000000000	AP					SUCCESS 2020-02-21 09:42:38	ONLINE 2020-02-21 09:39:00	STOP	LOCK	
0414610004E5	04141100024C	ROUTER					None	ONLINE 2020-02-21 10:37:16			-48
062531000002	0414610004E5	TAG	3264680009754 [NUXE HUILE PRODIGIEUSE 100ML]	Large 7.5" Red	7p5_BWR_Template1	None	SUCCESS 2020-02-21 10:31:30	ONLINE 2020-02-21 10:15:18			-22

Device History

Switch to “**ESL Management**” page, and double click the 7.5”ESL

Edit ESL

Single product

Profile Large 7.5" Red

Product 3264680009754 [NUXE HUILE PRODIGIEUSE 100ML]

Layout 7p5_BWR_Template1

Ph*Iy

ORIGIN: Taiwan

unit

888

0987654321

3999 \$

Save

Cancel

Select any one of the products, and press “**Save**”

M2COMM

ELSA - E (1.0)

English (US)
 Welcome, sa [m2comm_test]. [Logout](#)

Dashboard

Inventory

ESL Management

Layout

Device Status
Online [1-1-1]
Offline [0-0-0]

ESL Management

Show 1000 entries Search: MAC

ONLINE, OFFLINE Showing 1 to 3 of 3 entries

MAC	Parent MAC	Device Type	Product	Profile	Layout	Battery Level	Job Status	Device Status	Wake-up Mode	Network Mode	RSS
04141100024C	000000000000	AP					SUCCESS 2020-02-21 11:52:44	ONLINE 2020-02-21 11:00:40	STOP	LOCK	
0414610004E5	04141100024C	ROUTER					None	ONLINE 2020-02-21 13:52:44			-48
062531000002	0414610004E5	TAG	3264680009754 NUXE HUILE PRODIGIEUSE 100ML	Large 7.5" Red	7p5_BWR_Template1	2.911	SUCCESS 2020-02-21 14:00:17	ONLINE 2020-02-21 12:13:43			-27

062531000002

Waiting for the job status become from **“Processing”** to **“SUCCESS”**



7.5"ESL shown with image

FCC Statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and a human body.

This device is intended for PROFESSIONAL INSTALLATION ONLY.

The device must be installed by trained professional installers, and is not intended for use by the general public.

1. Selecting and installing the antenna type(s) specified by the manufacturer.
2. Ensuring that the antenna gain does not exceed the maximum value specified.
3. Configuring the device output power so that the maximum allowed EIRP is not exceeded under any operating condition.
4. Ensuring proper installation location and RF exposure compliance.