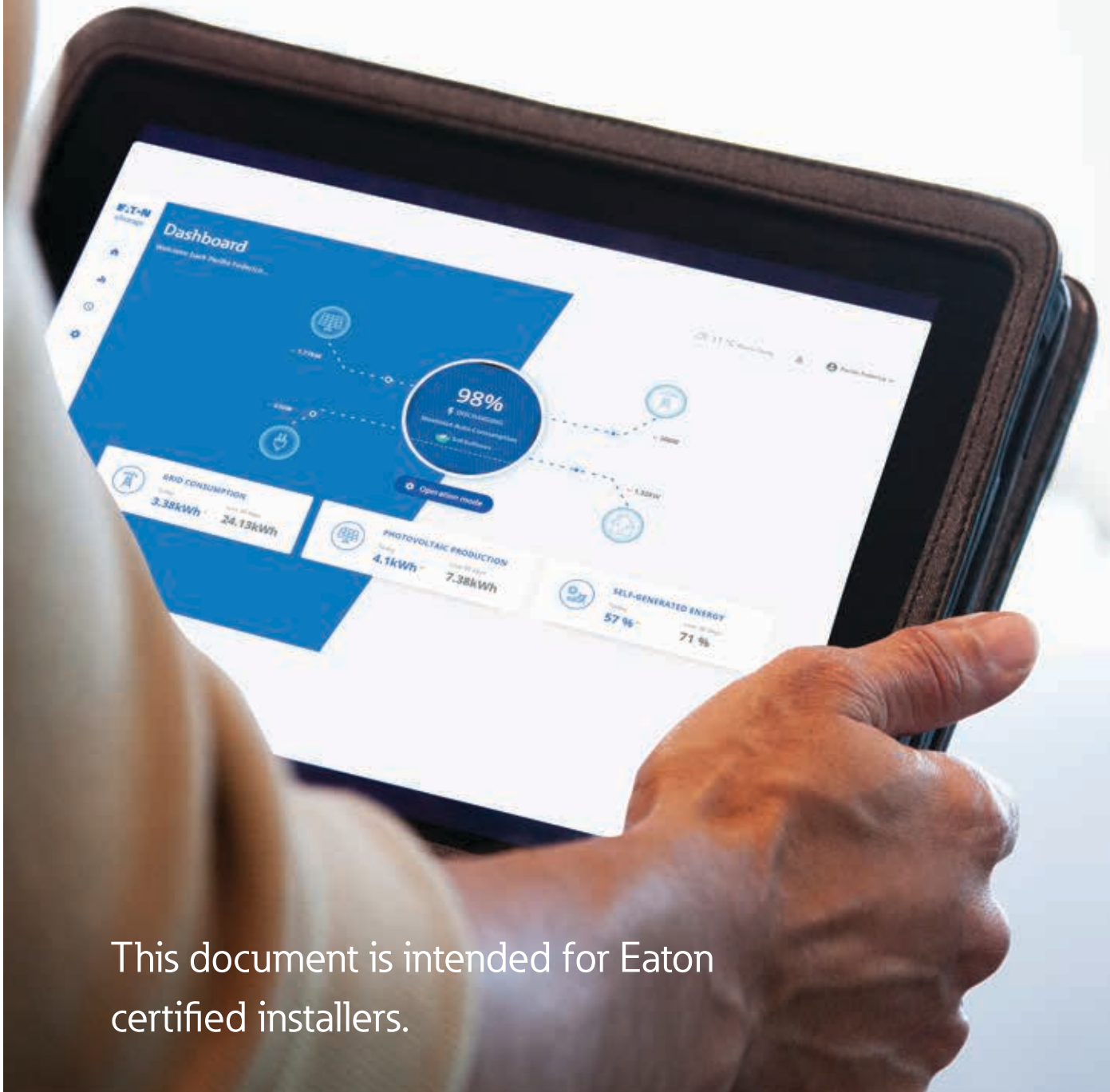


xStorage Home User Interface Manual

For 4.2 kWh, 6 kWh and 10 kWh systems capacity



This document is intended for Eaton certified installers.

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1. Introduction

Thank you for installing the xStorage Home system

This manual provides Eaton certified installers with instructions on how to do the commissioning and the onboarding of xStorage Home using the xStorage Home user interface. This manual is complementary to the xStorage Home installation and user manuals.

This manual also details the onboarding process and the update process of the xStorage Home unit. This update process can be done directly on the local web portal or through the Cloud web portal if the unit is connected to the Cloud (xstoragehome.com).

Before you start

This manual contains important instructions that must be followed during the installation, operation and maintenance of the xStorage Home system. All instructions must be read before installing and operating the equipment. This manual should be retained for future reference.

Please note that the xStorage Home system must only be installed by Eaton certified personnel, i.e. an Eaton technical support representative or an Eaton certified installer. There are no user serviceable parts inside the xStorage Home system. Failure to observe the above will void the guarantee provided and Eaton cannot be held legally accountable.

This product is intended for residential application only. The contents of this manual are the copyright of the publisher and may not be reproduced (even in extracts) without the prior written approval of Eaton Corporation. While every care has been taken to ensure the accuracy of the information contained in this manual, Eaton assumes no liability for any error or omission. Eaton reserves the right to modify the designs of its products. The unauthorized copying and lending of this manual is prohibited.

Technical disclaimer

In line with our goal to continuously improve the products and the customer service we provide, all specifications contained in this document are subject to change with due notice. All drawings, descriptions or illustrations contained in this document serve to provide a clear overview and/or technical explanation of the present product and its various components and accessories.

Legal entity

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2. Good to know

To download the latest technical documentation, such as the user manual, the safety documentation and other relevant updates, visit our website www.eaton.com/xstorage. Please note that in order to improve our customer experience we are constantly updating and enhancing the relevant technical and marketing materials.

3. Commissioning xStorage Home

3.1 Starting the commissioning of xStorage Home

- Access the local web user interface (UI) by entering https://<unit_IP> on your browser. The failover IP Address is 192.168.2.254.
- Check that the PC or your device is below the subnet of xStorage Home. See section 4.1 for further details.
- Once you've typed the IP address, the browser displays a warning message. Continuing the procedure will not cause any harms to your computer, tablet or smartphone.
- To be able to proceed, click on 'Advanced' to expand the Advanced section from the warning page and click on 'Continue' to be directed to the local xStorage Home portal.
- As an Eaton certified installer, click on "I'm a technician" to start the commissioning (see Figure 1).

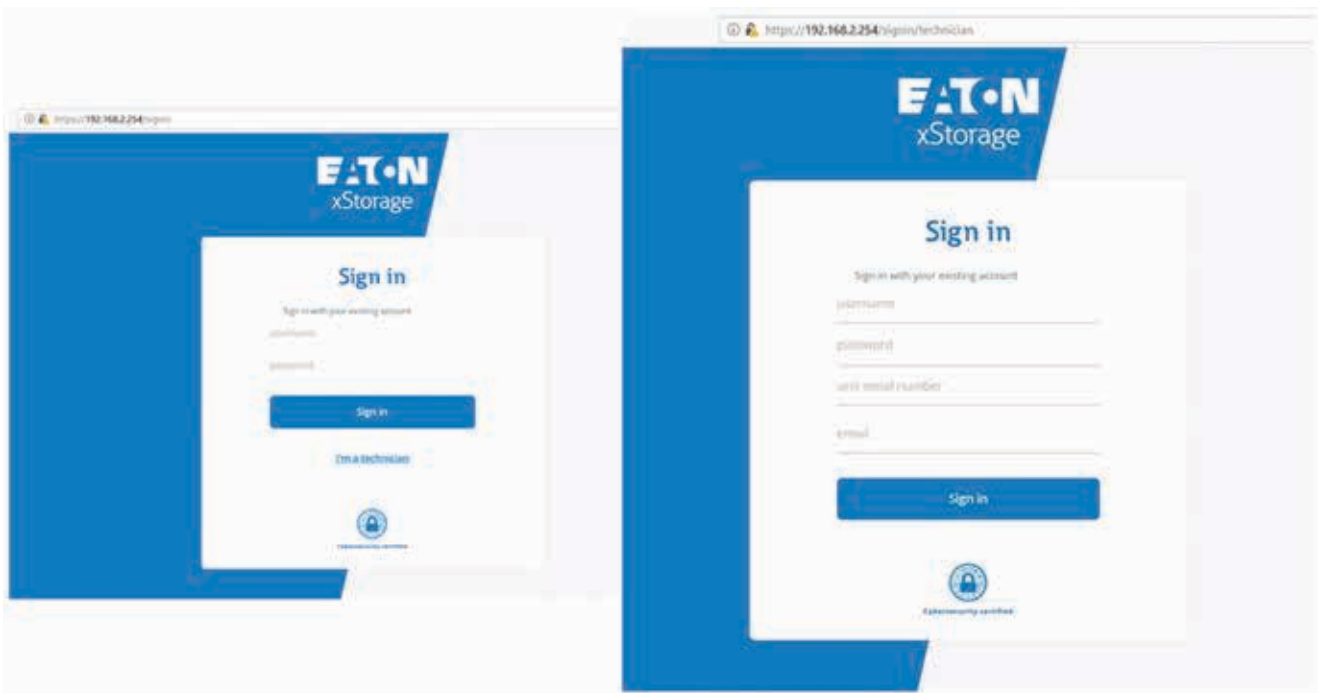
Only Eaton certified installers can install, configure and commission the xStorage Home system. Once the commissioning is fully completed, the xStorage Home system is ready to be used by the end-user and the end-user can decide if he/she wants to switch between Cloud and Local mode at any time.

As an Eaton certified installer, you must have an email address registered in the Eaton database.

Use this registered email address when you sign in as a technician.

It is possible to use multiple browsers except Internet Explorer which is not supported.

Figure 1: Welcome pages of the local web user interface



Default credentials for the end-user and Eaton certified installers are shown in Table 1.

Table 1: Default credentials for the end-users and Eaton certified installers

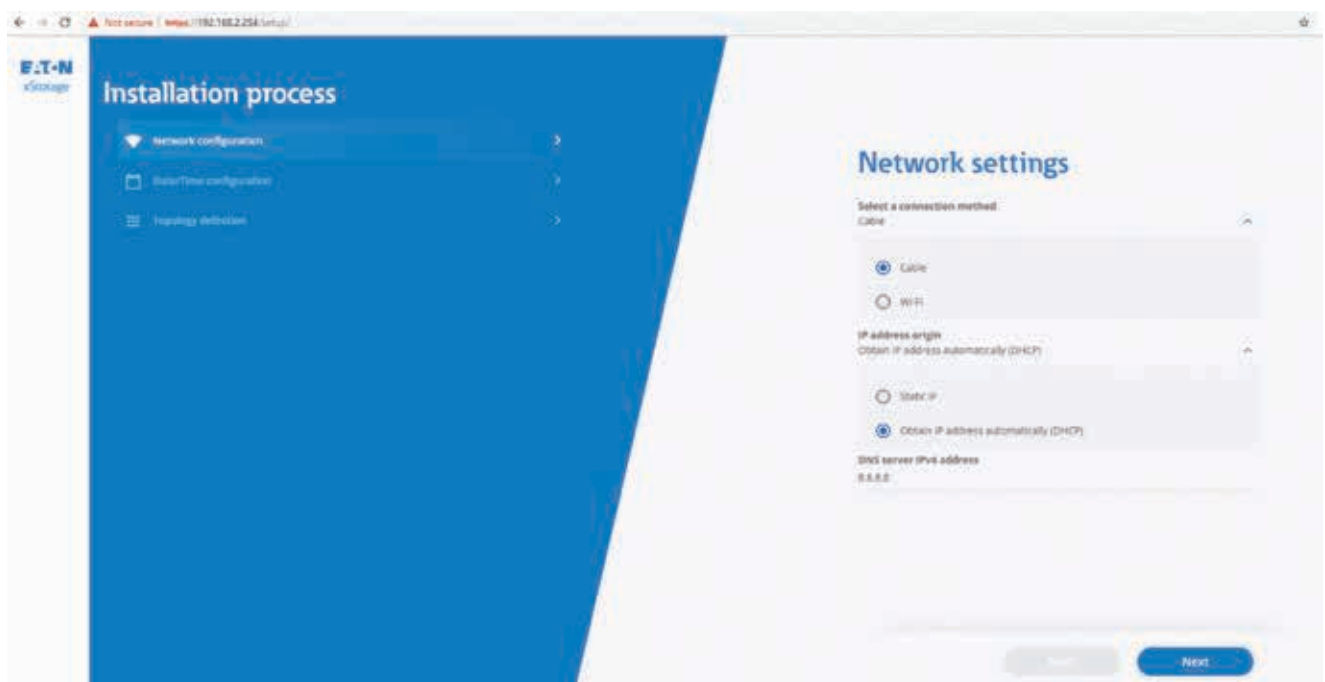
Username	Default Password	Inverter Serial Number	Installer email
user	user	N/A	N/A
admin	jlwgK41G	Example: RB76H38084	Example:<xstoragetechnician@eaton.com>

- You can start the commissioning connected to the home internet network or the local router, via WiFi or an ethernet cable.
- To connect via the ethernet cable, check that the xStorage Home system is listed below the right subnet as shown in Figure 9.
- To connect via the WiFi local access point, use the following default SSID, password and IP address:
 - SSID: xstorage
 - Password: P4svFJA9
 - IP address: 192.168.3.99

3.2 Step 1: Network settings

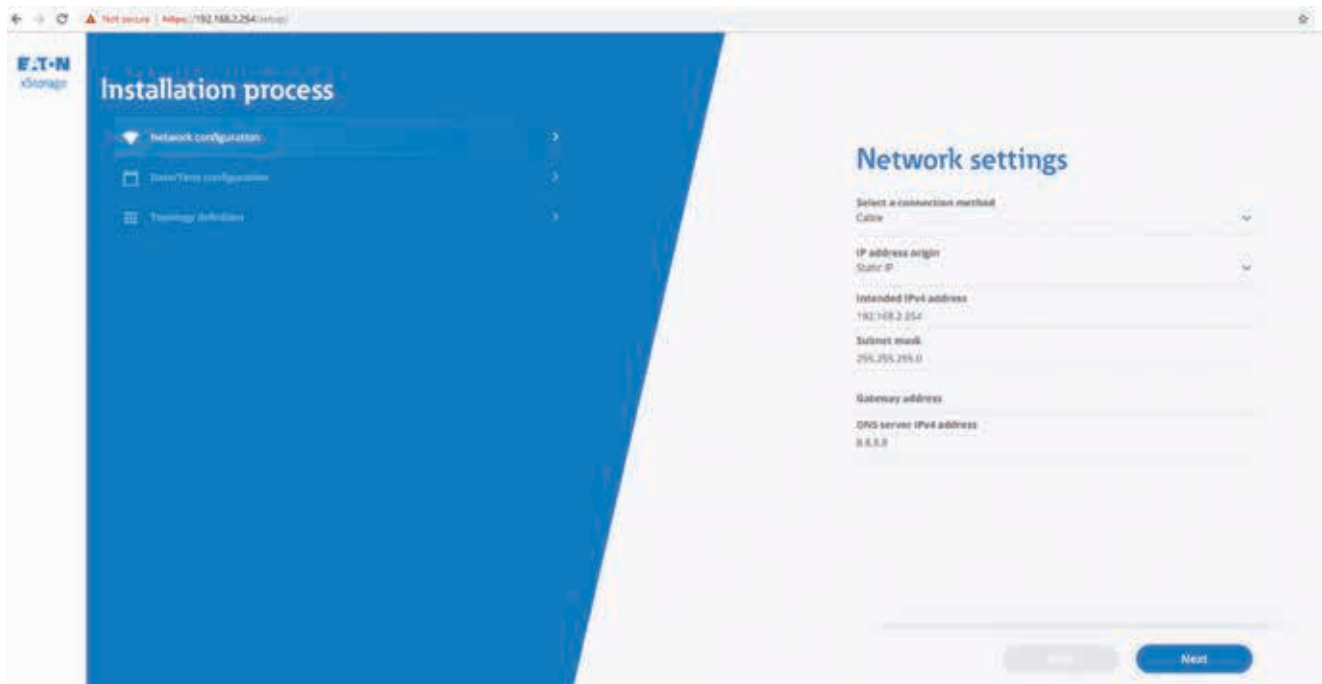
- Click on 'Network settings'.
- Fill in the form to proceed with the configuration of the communication card and the onboarding of the xStorage Home system.
- If you use an ethernet cable, it is recommended to use DHCP (see Figure 2).

Figure 2: Network settings connection via an ethernet cable with DHCP



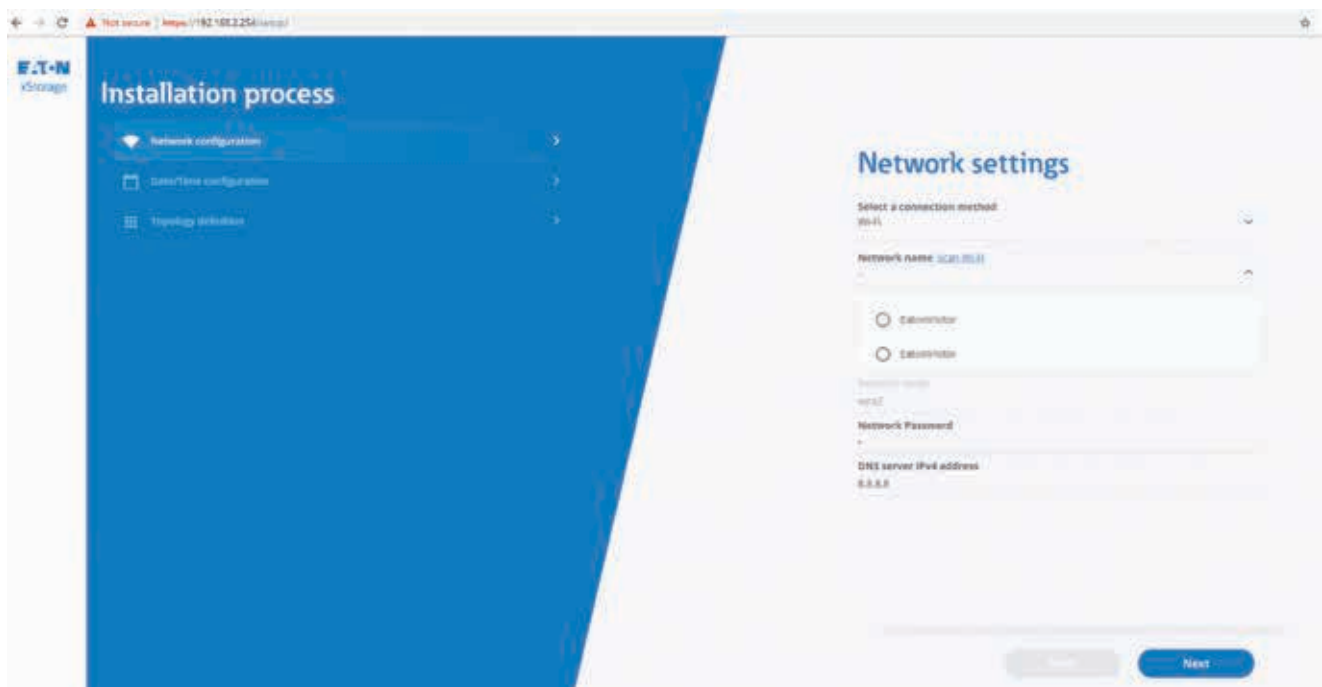
If you use a static address, you can edit the IP address as shown in Figure 3.

Figure 3: Network settings connection via an ethernet cable using a static address



You can also connect to the home internet network via WiFi as shown in Figure 4.

Figure 4: Network settings connection via WiFi



- If the WiFi or the ethernet cable is correctly configured, a message mentions that the assigned IP address is displayed.
- Otherwise, an error message details the issue that prevented the communication card to connect to the network.

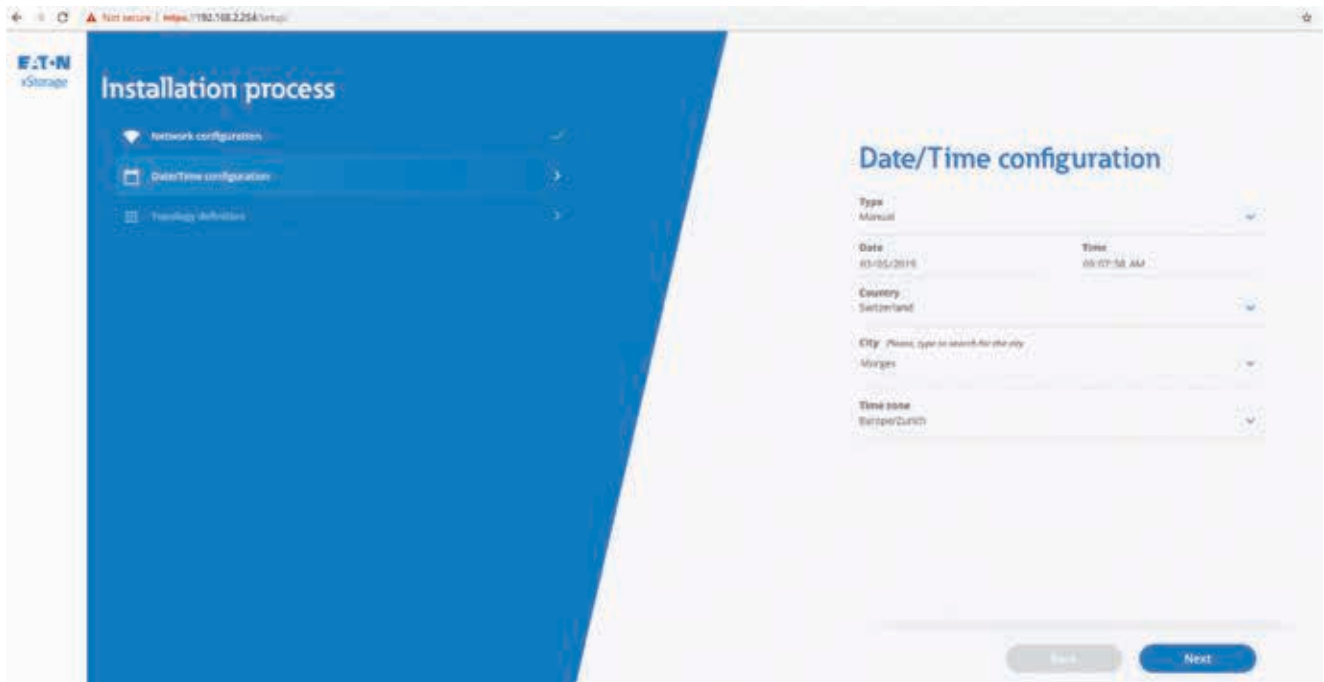
Once the network configurations are completed, press "Next", and move to the Date & Time Configuration page.

At this stage, the application tests the network connectivity. Therefore, it navigates to the Date & Time page only if the network is correctly configured.

3.3 Step 2: Date & Time Configuration

- It is mandatory to set up a date and time configuration. Both manual and automatic setups are available.
- If you use a NTP server, ensure that the internet connection is well established.
- Select the right date and time, then the country, city and time zone where the end-user is located as shown in Figure 5.
- Once the configuration is finalized, press "Next" to move to the Topology step.

Figure 5: Date & Time configuration page



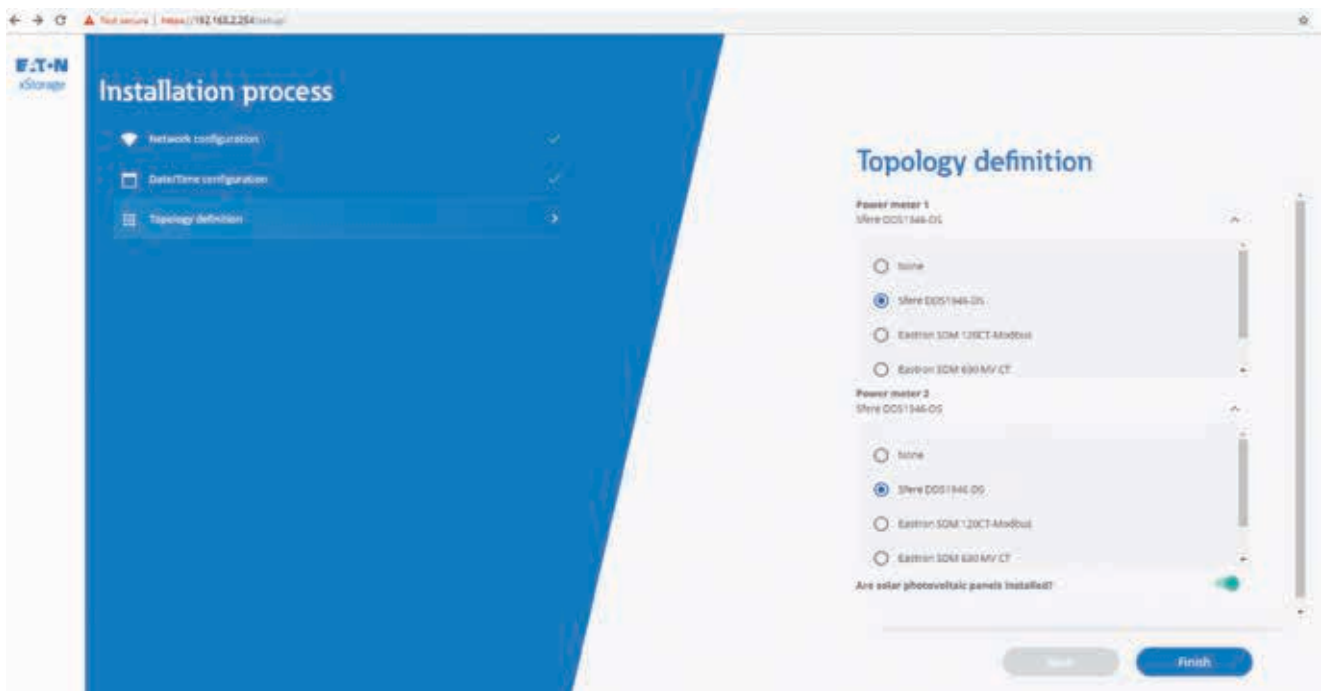
3.4 Step 3: Topology

As an Eaton certified installer, you need to configure the topology of the installation at the end user's home in order to finalize the commissioning process. You can find the details of this procedure in the xStorage Home installation manual and power meters manual available on eaton.com/xstorage. Depending on the installation at the end user's home, you may need to configure the following:

- Power meter 1. Please select the meter from the drop-down menu;
- Power meter 2. Please select the meter from the drop-down menu;
- Photovoltaic panels.

In the example shown in Figure 6, the power meter Sfere DDS1946-DS is set at both Power meter 1 and Power meter 2 and photovoltaic panels are installed and connected to xStorage Home.

Figure 6: Example of a topology configuration with xStorage Home

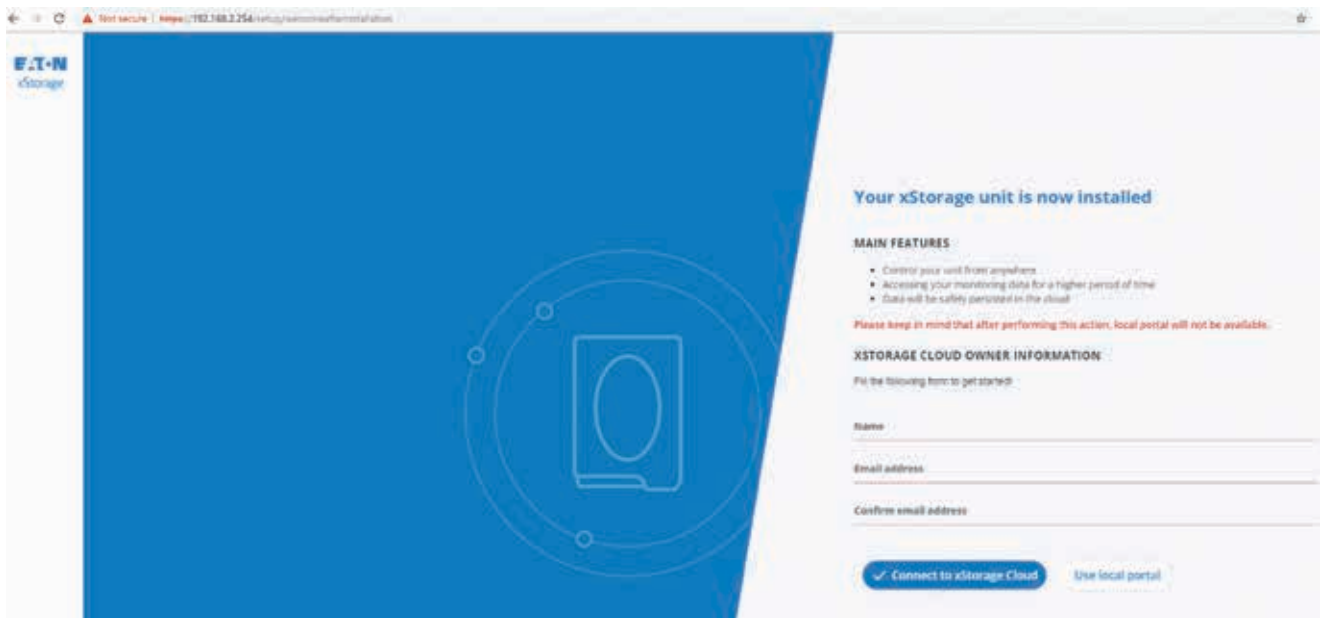


For the power meter Eastron SDM 120CT-Modbus, the procedure starts from Power meter 2 as indicated in the xStorage Home Power Meters manual that you can download on eaton.com/xstorage.

3.5 Step 4: Finish

1. Once you've completed the final stage of the setup process detailed in the xStorage Home installation manual, choose between connecting the unit to the Cloud or continue to use it in local mode.
2. As the Eaton certified installer, go to the Home page of the xStorage Home portal and insert the end-user name and email address so that the end-user takes ownership of the unit as shown in Figure 7. The end-user is now ready to claim the ownership of the unit.
3. Below is the procedure for the end user to claim the ownership of the unit.
 - The end-user needs to go to the log-in page on <https://xstoragehome.com/> and sign-up with the end-user email address already registered by the installer
 - Once the sign-up is completed, an email is sent to the end user mailbox to finalize the account creation and claim ownership of the xStorage Home system. Ensure that the end-user registers the address noreply@xstoragehome.com in his/her contacts as the email may end up in the end-user spam box otherwise.
 - The email contains a link that enables the end-user to finalize the claim process.
 - At this stage, the xStorage Home system is onboarded, and the end-user can access it via <https://xstoragehome.com/>.

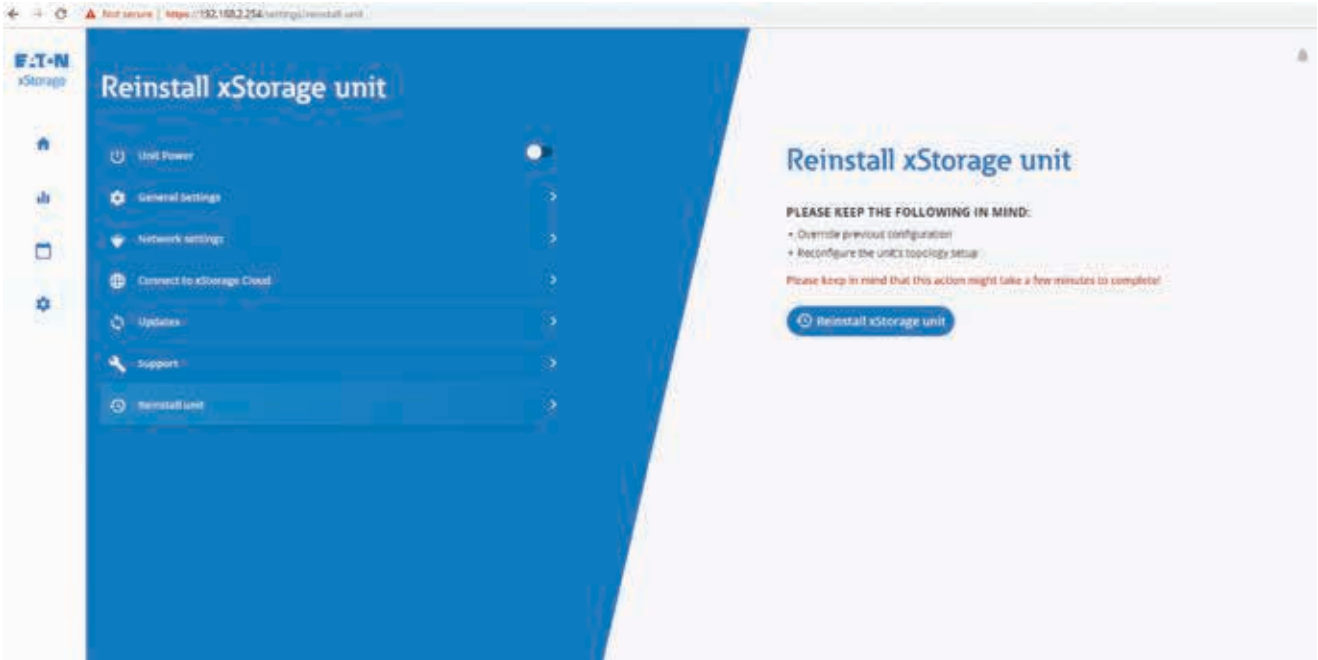
Figure 7: Final page



3.6 Recommissioning the xStorage Home unit

An Eaton certified installer can always reinstall the xStorage Home system. From the local UI click on “Reinstall unit” in the menu, then click on the ‘Reinstall xStorage unit’ button as shown in Figure 8. In this case the commissioning process will start from the beginning and the Eaton certified installer will be redirected to the Network settings page. This option is only available for Eaton customer support representatives and Eaton certified installers.

Figure 8: Reinstall the xStorage Home system



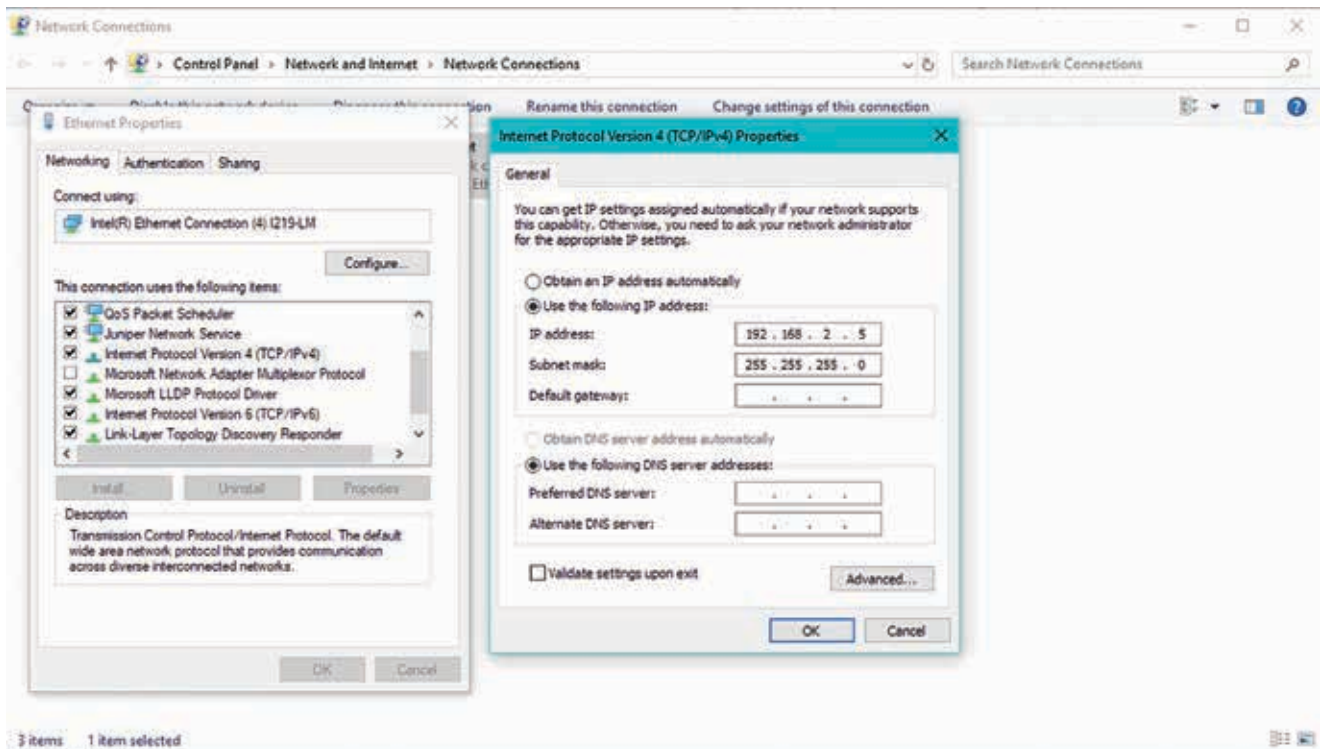
4. Local and Cloud user interface

End-users can use either the local or Cloud user interface (UI). The local and Cloud user interface (UI) work independently from each other. The local UI runs directly from the xStorage Home hybrid inverter while the Cloud UI is hosted on the cloud servers and available at <https://xstoragehome.com/>.

4.1 How to use the local UI

You can use the user interface directly from the xStorage Home inverter. In case of a connection to the xStorage Home system via an ethernet cable, use the default IP. The default IP address of the local UI is <https://192.168.2.254/>, The username is "user" and the password is "user". Check that the PC or your device is below the subnet of xStorage Home as shown in Figure 9. Once the IP address is typed, the browser displays a warning message. To proceed, click on 'Advanced' and the Advanced section will expand from the warning page. Click on 'Continue' to be directed to the local portal. This procedure will not cause harms to your computer, tablet or smartphone.

Figure 9: Configuration of the PC ethernet card in order to connect to the local UI



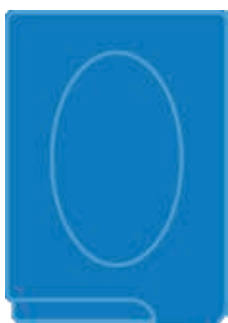
In case of a connection via a local WiFi access point, the default SSID, password and IP address are:

- SSID: xstorage
- Password: P4svFJA9
- IP address: 192.168.3.99

xStorage Home can be connected to multiple interfaces. Figure 10 shows the multiple ways for you and the end-user to connect to xStorage Home:

1. via an ethernet cable;
2. via a local WiFi access point;
3. via the router located at the end-user's home.

Figure 10: Interfaces of xStorage Home



ETH –IP: 192.168.2.254



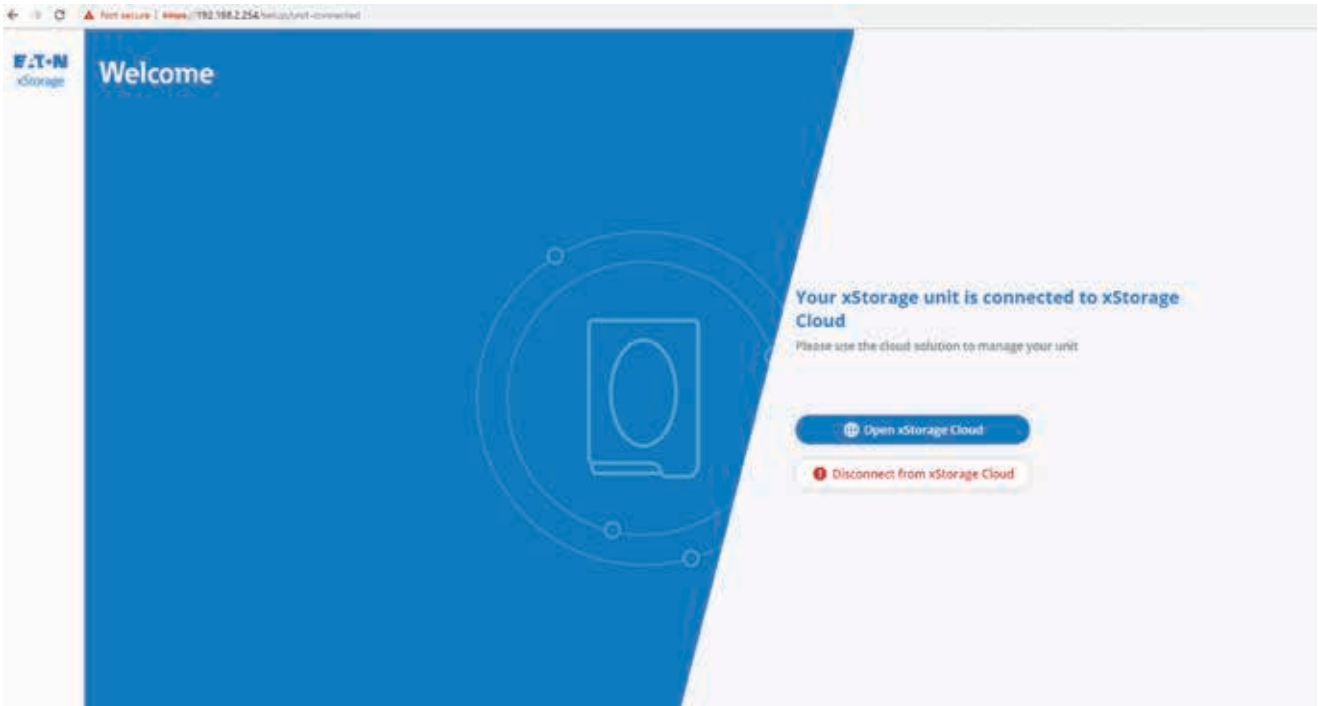
WLAN0 –Access Point SSID: xstorage IP: 192.168.3.99



WLAN1 –SSID: end-user_router IP: 192.168.x.x

If the xStorage Home system is connected to the cloud and the end-user tries and connects to the xStorage Home inverter, a message will appear. Click on “Disconnect from xStorage Cloud” to switch to the local mode as shown in Figure 11.

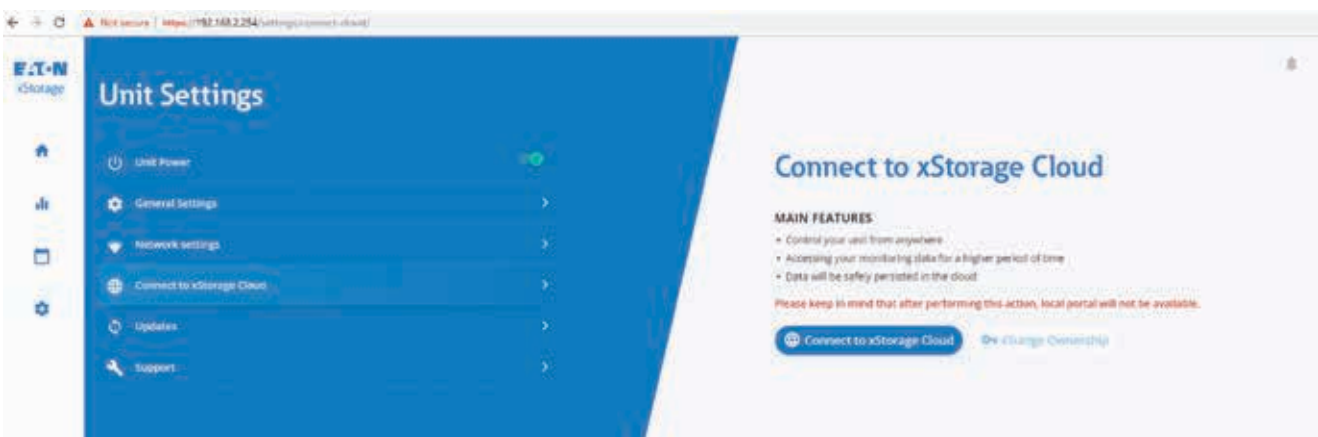
Figure 11: How to disconnect the xStorage Home unit from the cloud in order to use the local UI



4.2 How to connect to xStorage Cloud

If the end user uses the local mode, he/she can move to the cloud mode at any time as long as there is an internet connection available. The default IP address of the local UI is <https://192.168.2.254/>, the username is “user” and the password is “user”. Ensure that the PC or the device is below the subnet of xStorage Home as shown in Figure 9. Once the IP address is typed, the browser displays a warning message. To proceed, click on ‘Advanced’ so that the Advanced section expands from the warning page. Click ‘Continue’ to be directed to the local log-in portal. Once logged-in from the user settings, click on “Connect to xStorage Cloud” as shown in Figure 12. The xStorage Home unit is now available on the cloud portal at <https://xstoragehome.com/>.

Figure 12: How to connect the xStorage Home to the cloud from the local UI



If there is an internet disconnection, the xStorage Home unit will try and reconnect to the same internet access. The unit will attempt to reconnect at least once a day. At any time, the end-user can use the local portal to disconnect the unit from the cloud. If the end-user disconnects the unit from the cloud, then xStorage Home will stop the attempt to reconnect to the cloud.

5. User role-based access authorization

Multiple roles are available for the end-users from the Cloud portal. The end-users can be one or more users with different access roles:

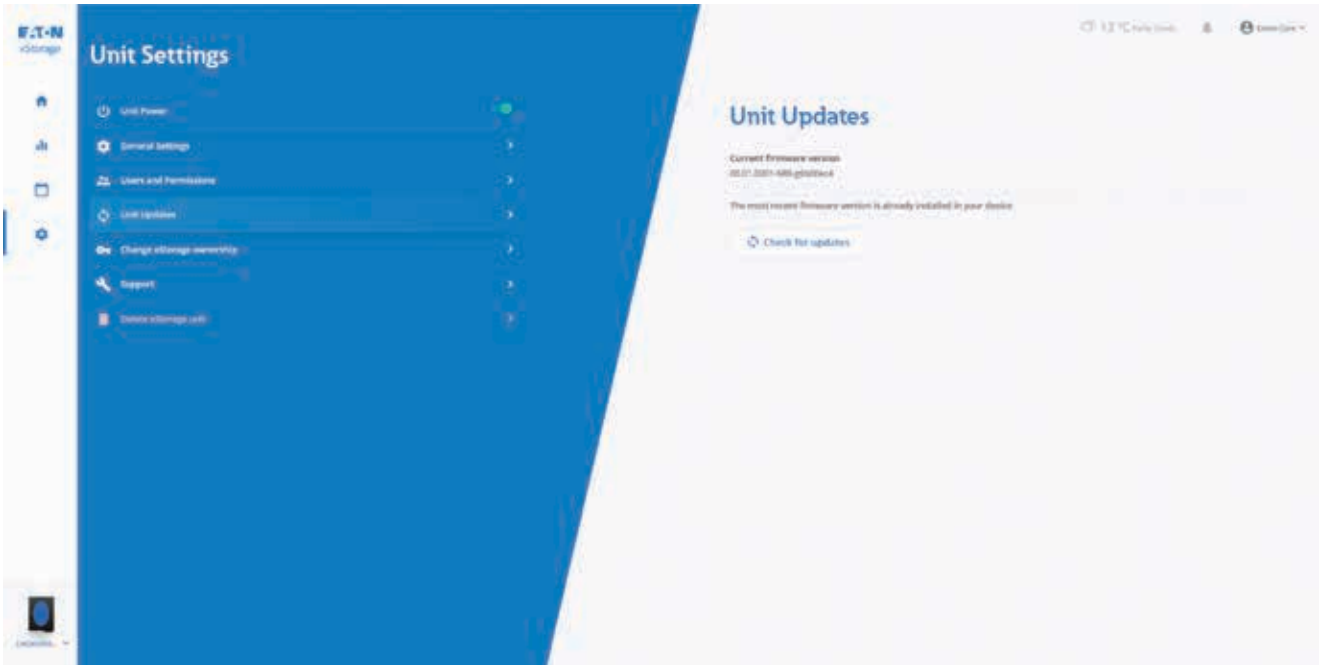
1. Owner. The owner has full ownership of the xStorage Home unit. Usually the Eaton certified installer sets the owner of xStorage Home at the end of the commissioning process.
2. Technician. The technician is an Eaton certified installer in charge of remote maintenance. The technician has full access to the unit including diagnostic data. The technician profile should be removed by the end-user once the remote maintenance activity ends.
3. Access management. The access management has similar rights of the owner with some limitations. Hence,
 - Access manager cannot perform unit updates.
 - Access manager cannot change the unit ownership.
 - From the unit general settings page, the access manager can only modify the default operation mode.
4. Configure. The end-user with the Configure profile has same rights as the end-user with Access management but with limitations. Specifically, the person with the Configure profile cannot modify Users and Permissions.
5. Viewer. The end-user with the Viewer profile has the same rights as the end-user with the Configure profile but with limitations. Hence,
 - The viewer cannot send command to the unit e.g. change operation modes from the dashboard.
 - The viewer cannot edit the unit settings page.
 - The viewer cannot modify scheduled events.
 - The viewer cannot put the hybrid inverter in Standby mode.

You can configure up to 10 users maximum.

6. How to update xStorage Home hosted on the Cloud web portal

To update the system from the Cloud web portal, the end-user must have Owner role. Hence, only the owner has visibility on unit updates available from the Cloud web portal. The update option is available in the Unit Settings page. In that section, the end-user will be informed if a new update is available for that specific xStorage Home unit. By clicking on “check for updates” the end-user can also directly check if new updates are available as shown in Figure 13.

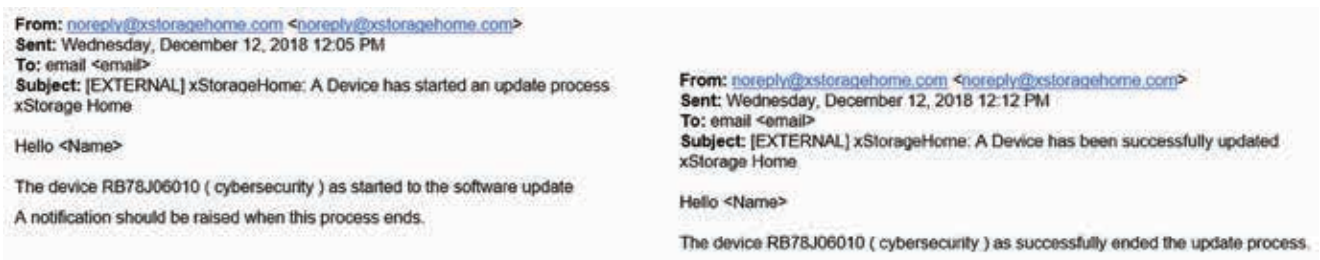
Figure 13: Update page on the Cloud web portal



Once the update is accepted, all features from the Cloud web portal are disabled until the update process is completed.

During the update process, the end-users associated with that unit will be notified by email, when the update starts and when the update is completed as shown in Figure 14.

Figure 14: Example of emails sent during the xStorage Home update process

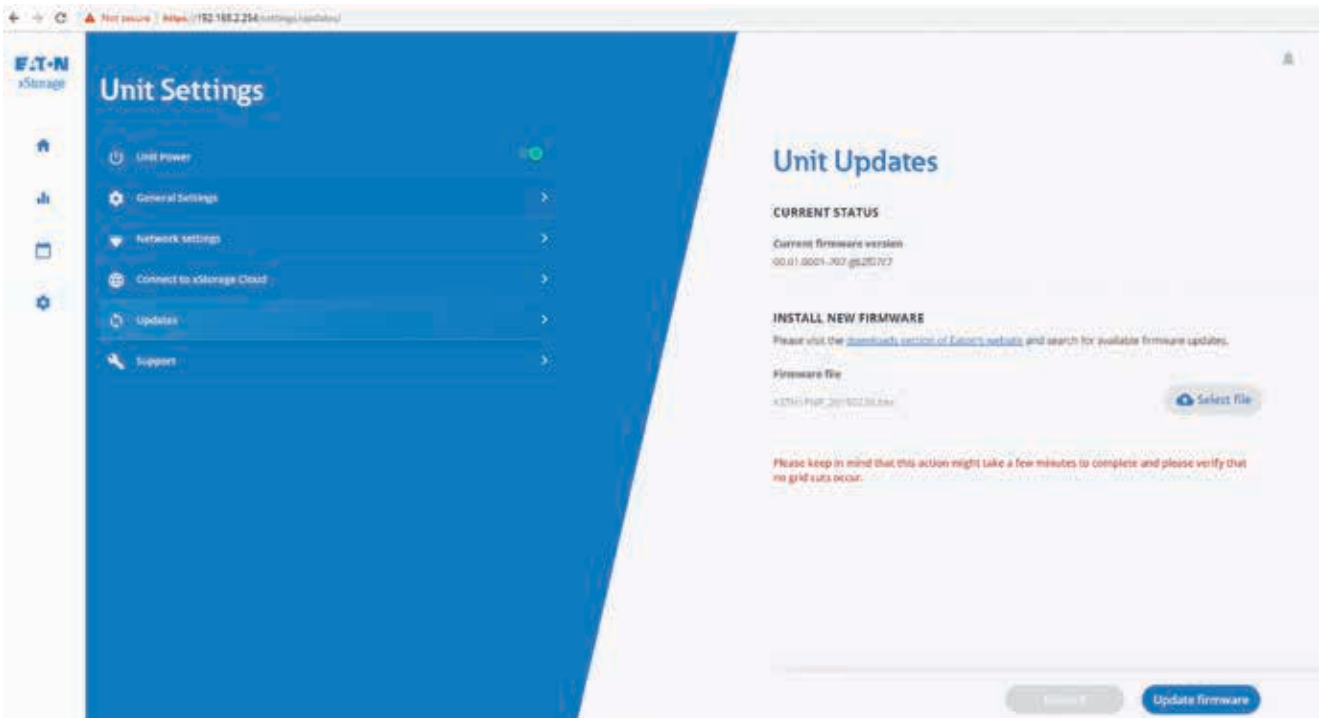


As soon as the update is completed, the unit reconnects automatically to xStorage Cloud and all features are enabled again.

7. How to update xStorage Home from the local user interface

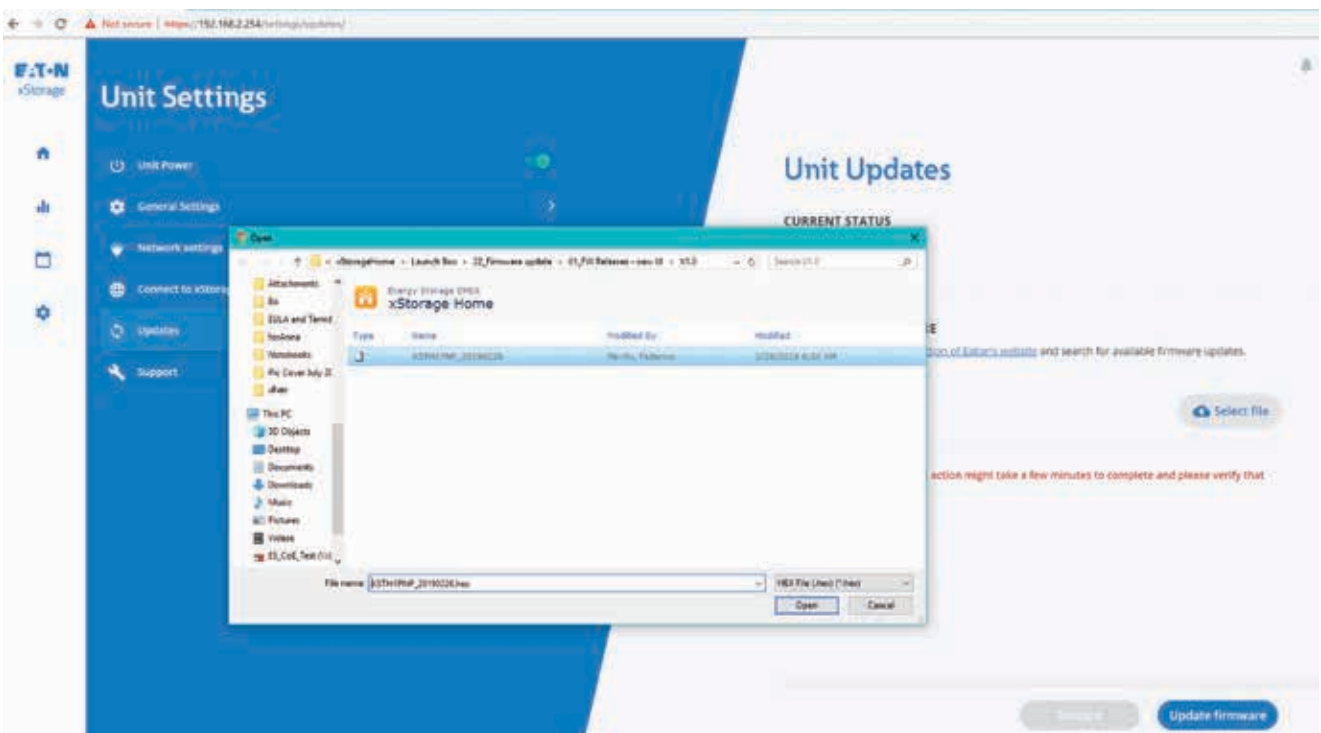
In case the user interface is running on the local mode, it is possible to update the xStorage Home firmware from the local UI. The default IP address of the local UI is <https://192.168.2.254/>, the username is “user” and the password is “user”. Please make sure that the ethernet card of your PC has the right IP and subnet as shown in Figure 9. Once the login is completed, from the unit settings click on “updates” as shown in Figure 15. Download the latest Firmware version from www.eaton.com.

Figure 15: Firmware updates page from the local UI



Select the file by clicking on “Select file” as shown in Figure 16. This file includes the necessary firmware bundle to update the xStorage Home unit.

Figure 16: Select the file for the firmware update from the local UI

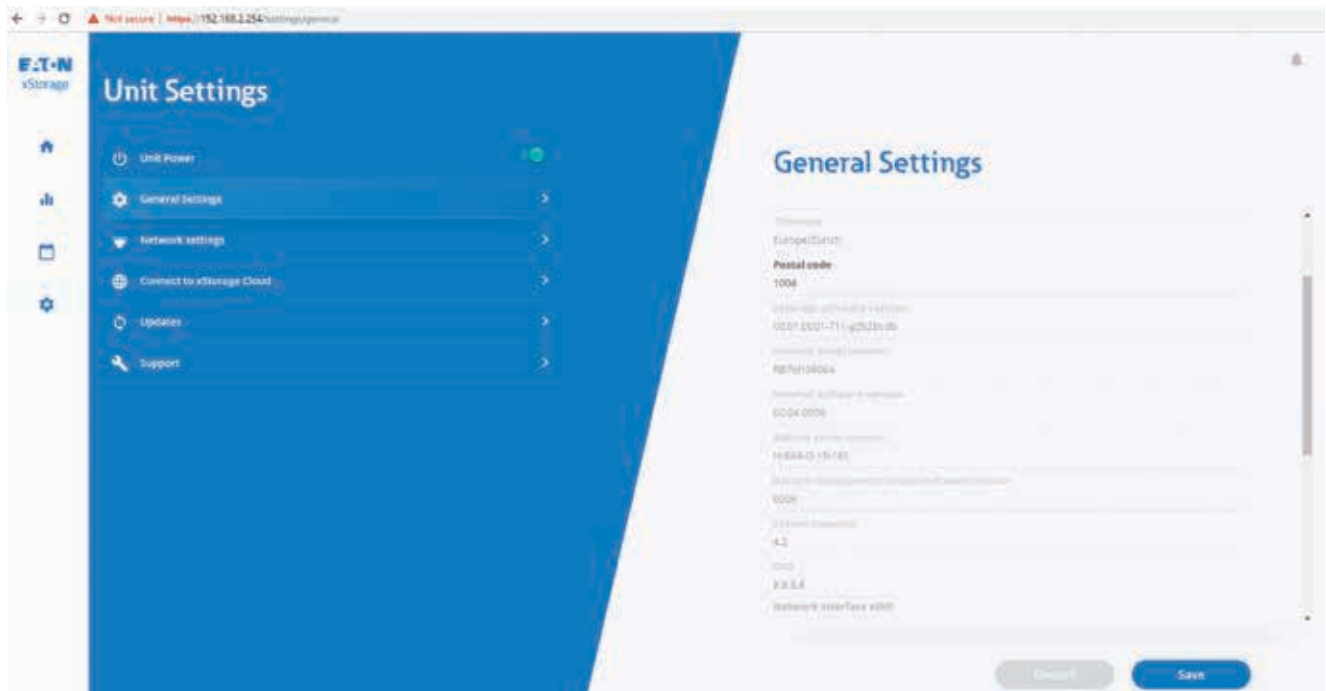


Once the file is selected press “Update firmware” to finalize the procedure as shown in Figure 17. When the update starts, a dialog box with a progress indicator is displayed and remains visible until the communication card reboots, or the update fails. **The page must not be refreshed during this stage as it can interrupt the file upload to the communication card and cancel the update.**

When the file upload and the *.hex archive extraction to the communication card file system is completed, the progress indicator disappears. The communication card will reboot a few times and it can take 5 to 10 minutes until the update is completed and the communication card runs again.

At this point, you can refresh the page, accessing https://<unit_IP> to check if the update has been completed.

Figure 17: General settings view

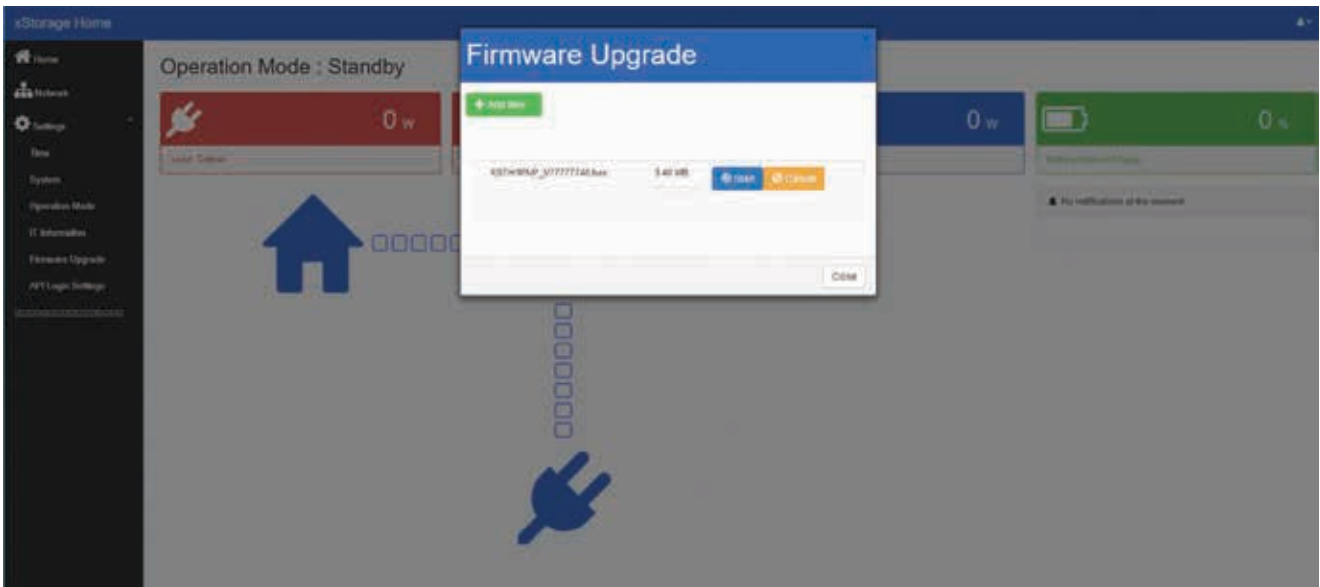


8. How to update the user interface on units running with the previous user interface

End-users using previous versions of the user interface can also easily upgrade to the new version using the following steps:

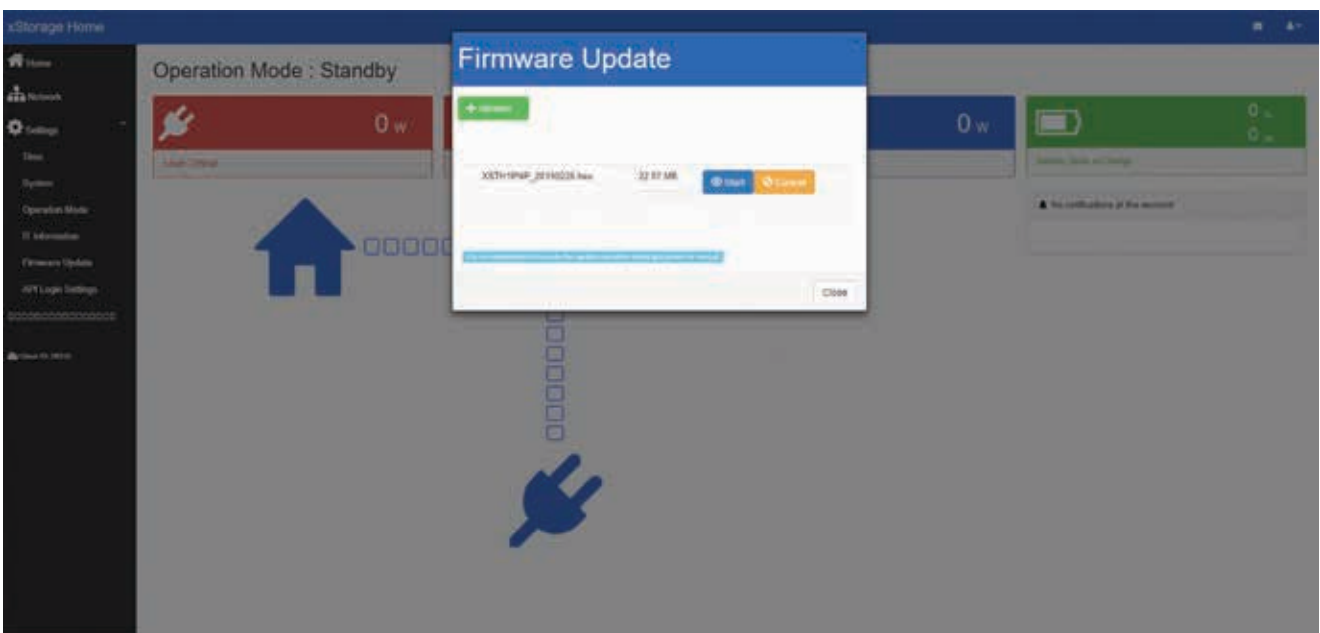
- Navigate to the local UI of the communication card https://<unit_IP> on your browser. The Failover IP Address is 192.168.2.254.
- Login with your credentials.
- On the left menu select "Firmware updates"
- Update it using the file XSTH1PNP_V66677748.hex. This task will take about 5 minutes as shown in Figure 18.

Figure 18: *.hex file moves to the new user interface



- Navigate and log-in again into the local UI of the communication card.
- On the left menu select again "Firmware updates"
- This time use the latest inverter bootloader XSTH1P_BL_v002.ROM file or superior version.
- Navigate and log-in again into the local UI of the communication card.
- On the left menu select again "Firmware updates"
- This time use the latest *.hex file XSTH1PNP_YYYYMMDD.hex as shown in Figure 19.
- Onboard the unit following the steps already described in the previous sections of this xStorage Home User Interface manual.

Figure 19: Firmware update to use the new UI



For any questions or issues please contact our customer care hotline or email eatoncarestorage@eaton.com.

