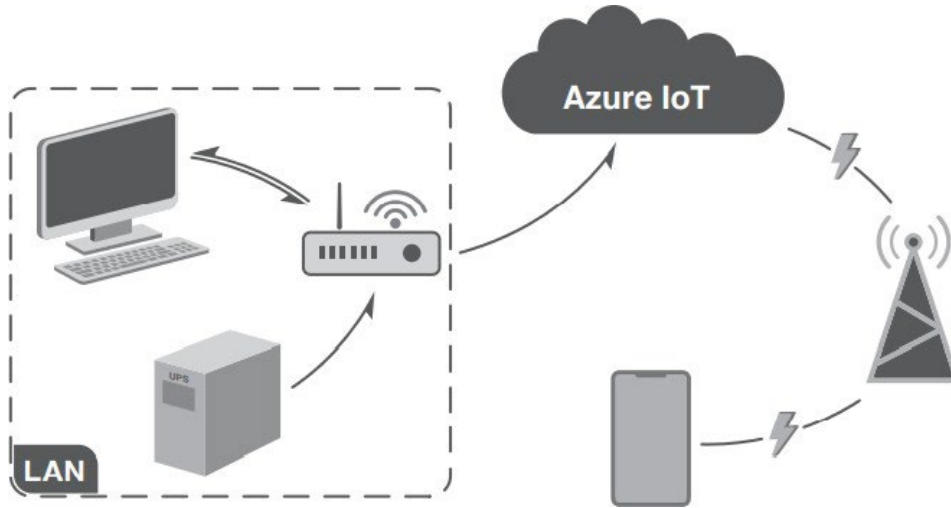


LYRA E-Connect UPS IoT Operation Guidance

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Overview



Built-in ethernet port and optional WLAN dongle enable market-leading and easy-to-use IoT solutions for:

- Winpower View mobile app which allows you to remote monitor UPS(s) and keep informed about critical UPS event always.
- Remote report UPS faults and status (contact with your service for detail) from APP or registered APP account (Email address)
- Automatic UPS and battery warranty alert from APP or registered APP account (Email address)

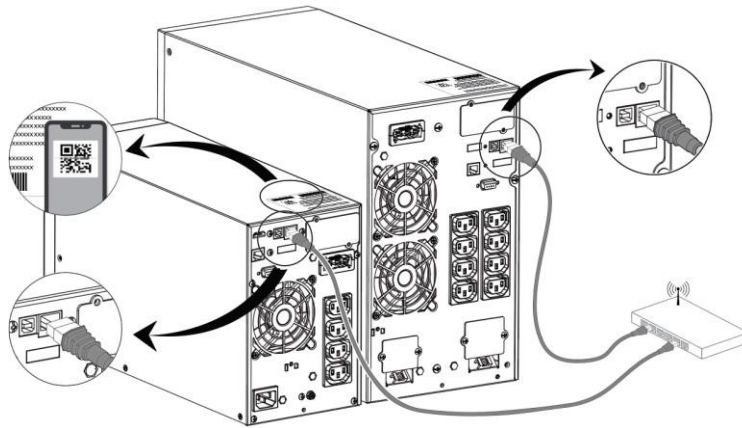
Quick Start

Before start

If your UPS is installed in an enterprise location, it may require additional configuration. See [Network Requirements](#) and [NTP Requirement](#).

Connect UPS to network

Connect IoT UPS to closest network switch with CAT6 FTP network cable.




Enable IoT feature

Make sure UPS is powered on. Enable IoT feature is enabled via the LCD display following [Enable IoT](#).

Download app and add device

Step 1- Search the “WinPower View” from Google Play store or Apple APP store, then download and install it.

Step 2 – Create and account then log in.

Step 3- Tap  in right top of app, then scan the SN barcode on UPS rear panel to add device.

Check connection establish

[Check IoT Status](#) after adding device for 2min. If you get “connected”, cloud service is ready for you. If you get “disconnected”, refer to [Troubleshooting the UPS Connection to the Cloud](#)

Start the journey

Start your remote management: Dashboard provides an overview of all UPS devices. Up to date detailed UPS information can be checked in device list. Schedule battery test feature allow you initiate remote battery self-test diagnostic. Multi user privilege setting makes remote management flexible.

NTP Requirement

NTP server sync is required to guarantee the correct cloud connection and data transferring. IoT UPS accessing NTP through port 123 and public NTP servers are enabled by default.

Default public NTP server 1: time.windows.com

Default public NTP server 2: 0.pool.ntp.org

Default public NTP server 3: 1.pool.ntp.org

If UPS is installed in enterprise location, consult with your Network Administrator to get local NTP server details, then configure it following [NTP setting](#).

If UPS is installed in home office or small office, normally, you can access to our default NTP servers. In case our default NTP servers are not available in your location, find an available one in your location and configure it following [NTP setting](#).

Network Requirements

An internet access from the local network is necessary to connect our Cloud. If your UPS is installed in an enterprise location, it may require additional network configuration to allow your UPS to connect to our cloud services.

IPv4 DHCP Server

IoT UPS requires an IPv4 DHCP server on its network, to assign an IPv4 address to the device so it can connect to the Internet.

Network MTU

The router and switch on the network must support a Maximum Transmission Unit (MTU) size of 1500 bytes, at a minimum.

Network Firewall and Proxy Server

To connect to our cloud services, the UPS needs to be able to connect through port 443, you must add a firewall rule that permits this connection. If the network of the UPS is behind a proxy server, bypasses any proxy service packet inspection or permit this connection and configure proxy following [Proxy setting](#). Consult with your Network Administrator to configure firewall and proxy rules.

Network Switch Port Speed

IoT UPS only support 10/100 Mbps port speed. If you are using a 1Gb network switch, make sure your network switch supports auto-negotiation.

Network Devices Connected to the UPS

If your UPS is providing power protection to network devices (e.g. network switch, router) that provide internet connectivity to the UPS, please check following recommendation or else you will lost events after outlet group shutdown:

- Connect network devices to master group is suggested;
- Do not configure outlet group shutdown for that outlet group in response to UPS events, via monitoring software or communication cards
- Do not enable outlet Auto shutdown delay.

Auto shutdown delay is a feature that turns off outlet groups when UPS is in battery mode automatically.

Device operation

Check IoT Status

You can check whether IoT connection is successful via LCD or setting portal.

To access IoT status with 5 button LCD (character display): navigate to UPS Status->IoT status

To access IoT status with touchable LCD: navigate to Meter->IoT status

To access IoT detailed status with setting portal, see [IoT detail information](#).

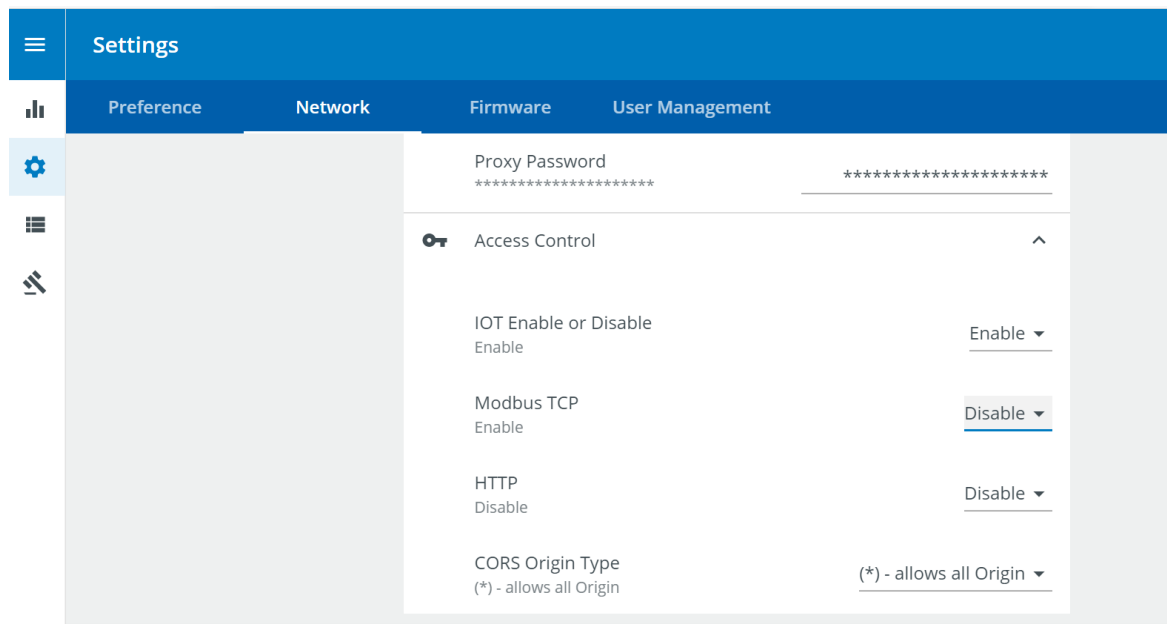
Enable IoT

IoT is disabled by default to protect your data and privacy. IoT can be enabled by LCD or setting portal.

To enable IoT with 5 button LCD (character display): navigate to Setting->IoT

To enable IoT with touchable LCD: navigate to Setting->Communication->IoT

To access IoT detailed status with setting portal, refer to [Accessing to setting portal](#) and find Access control->IOT Enable or Disable.




Restart IoT device

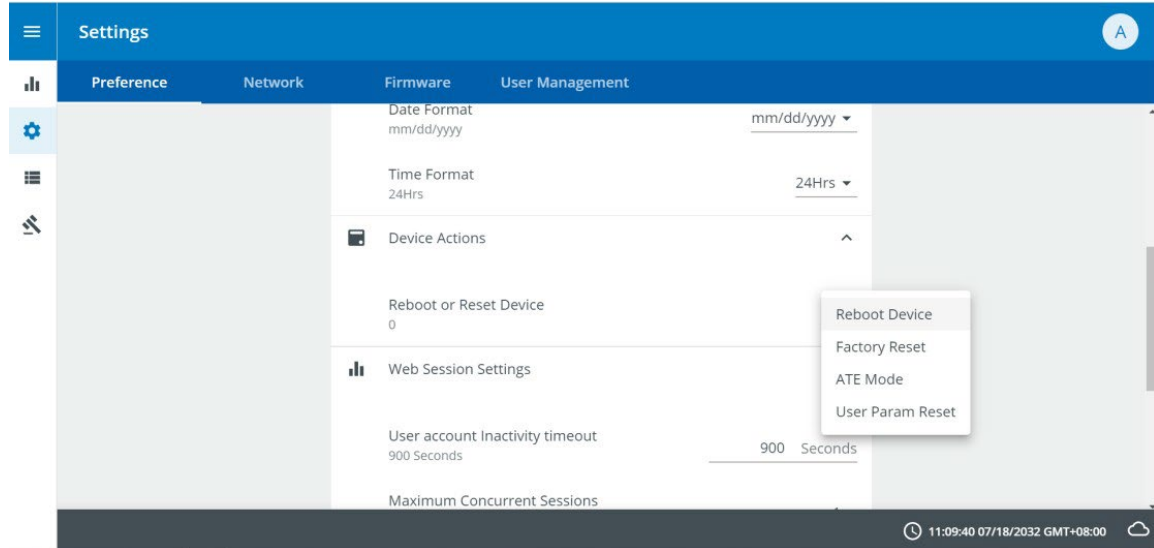
Try restart IoT device sometimes makes magic when you have trouble in making successful connection. Please feel safe to restart IoT device as UPS keeps maintaining business continuity.

To restart IoT device with 5 button LCD (character display): navigate to Control-> Reset com card (IoT)

To restart IoT device with touchable LCD: navigate to Control->Reset IoT function

To restart IoT device with setting portal, refer to [Accessing to setting portal](#) and find Device actions->Reboot Device.

 After device restart, IP address may change depending on your DHCP server setting.



Check IP address

IoT device IP address can be checked via LCD. Default IP address is 0.0.0.0, and it's updated accordingly after successfully obtain IP from DHCP server.

To check IP address with 5 button LCD (character display): navigate to Identification -> IP/MAC address

To check IP address with touchable LCD: navigate to Product Info->Ethernet IP

IoT setting portal

Setting portal is a local web interface allow you to check IoT status and perform network settings.

Accessing to setting portal

Step 1: To start device configuration webpage, check IP address via LCD display, see [Check IP address](#).

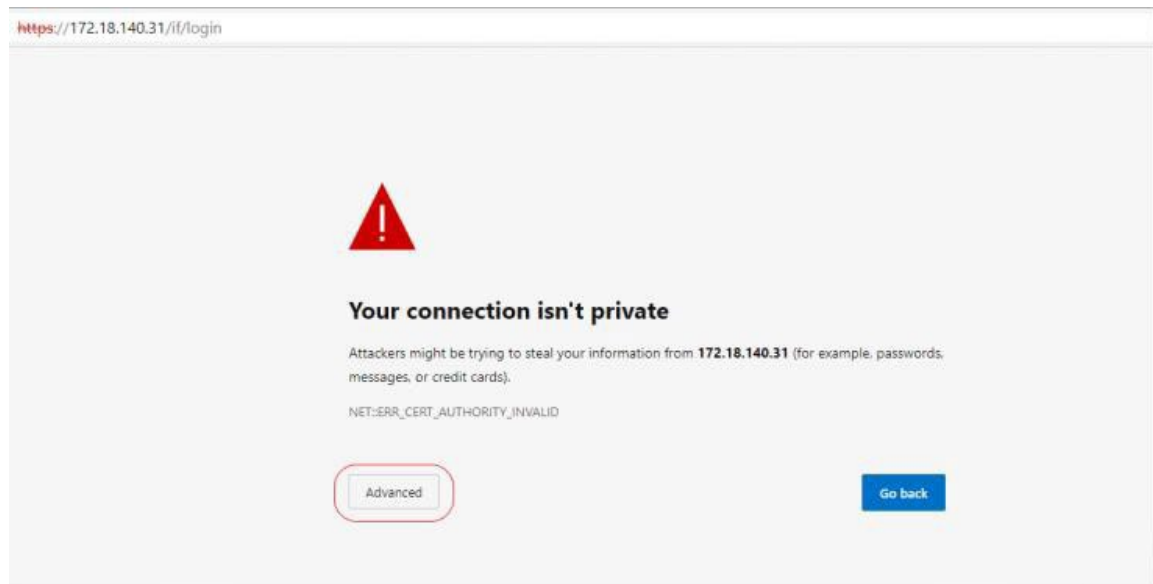
Step 2: Launch a supported web browser using a computer in same LAN with IoT UPS.

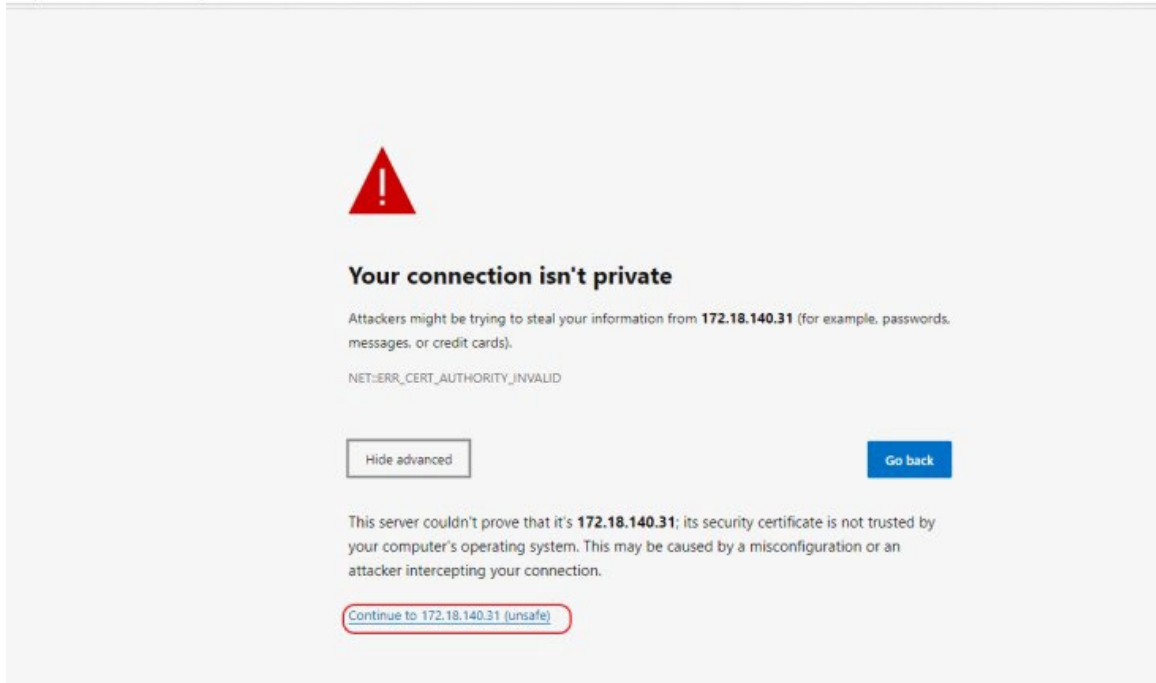
Recommended browsers:

- Google Chrome version 89+
- Mozilla Firefox version 63+
- Microsoft Edge version 89+

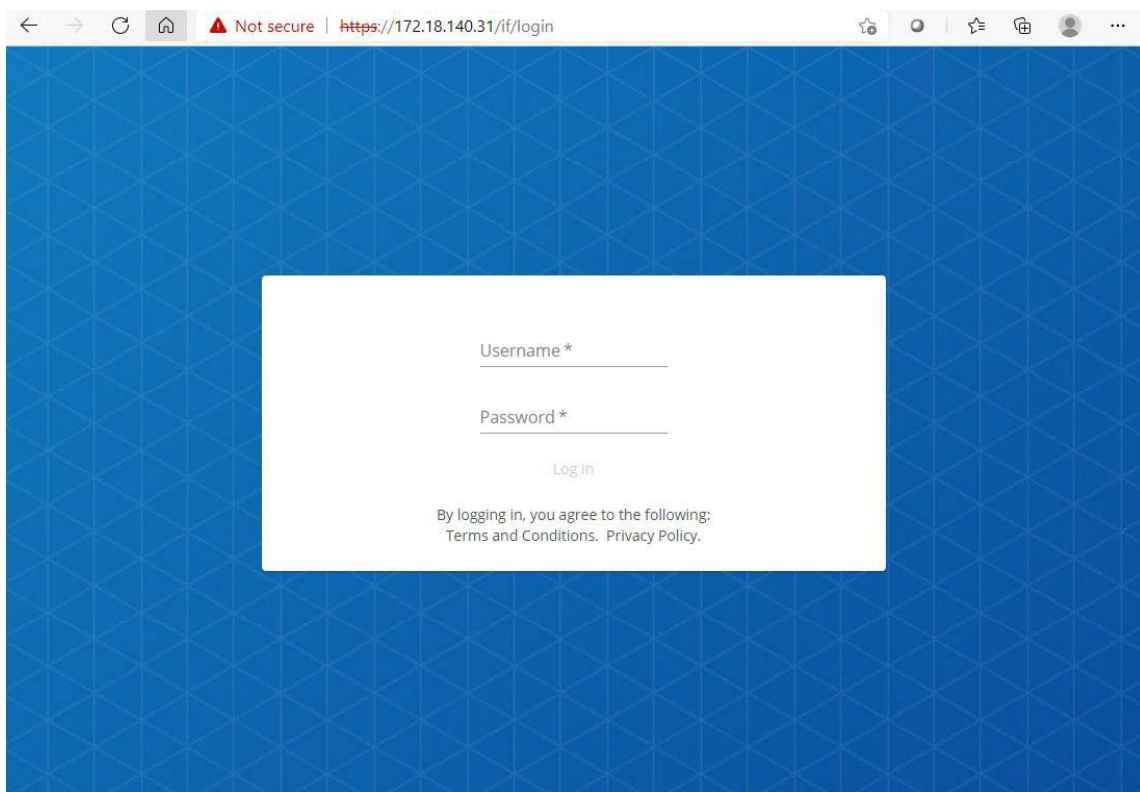
STEP 3: Enter https://[IP address] with IP address of IoT UPS.

STEP 4: Feel safe to proceed the operation by clicking “Advanced” and “Continue”.



<https://172.18.140.31/if/login>

STEP 5 - The login screen appears.



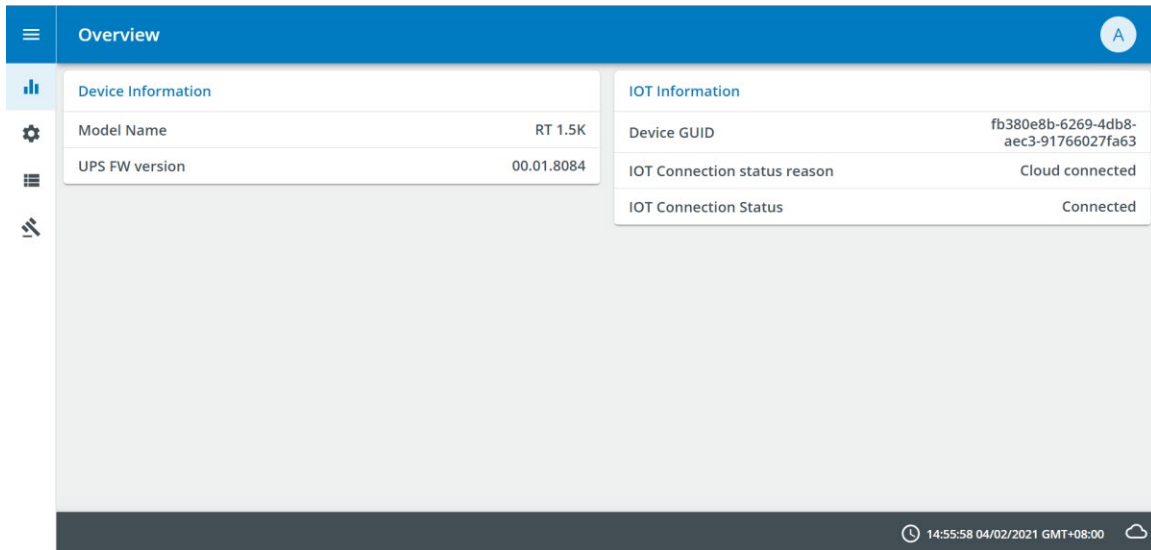
STEP 6 – Enter the username and password. Default username/password is admin/Admin*1 admin.

 Change default password is required at first login. Please keep your password properly.

STEP 8 – Click Login. The Network Module web interface appears.

IoT detail information

IoT device detailed information and connection status are displayed. See trouble shooting if your device do not successfully connect to cloud after 2min you add device in app.



The screenshot displays the 'Overview' page of the Network Module web interface. The page is divided into two main sections: 'Device Information' and 'IOT Information'. The 'Device Information' section shows the Model Name as 'RT 1.5K' and the UPS FW version as '00.01.8084'. The 'IOT Information' section shows the Device GUID as 'fb380e8b-6269-4db8-aec3-91766027fa63', the IOT Connection status reason as 'Cloud connected', and the IOT Connection Status as 'Connected'. The interface includes a navigation menu on the left and a status bar at the bottom showing the time '14:55:58 04/02/2021 GMT+08:00'.

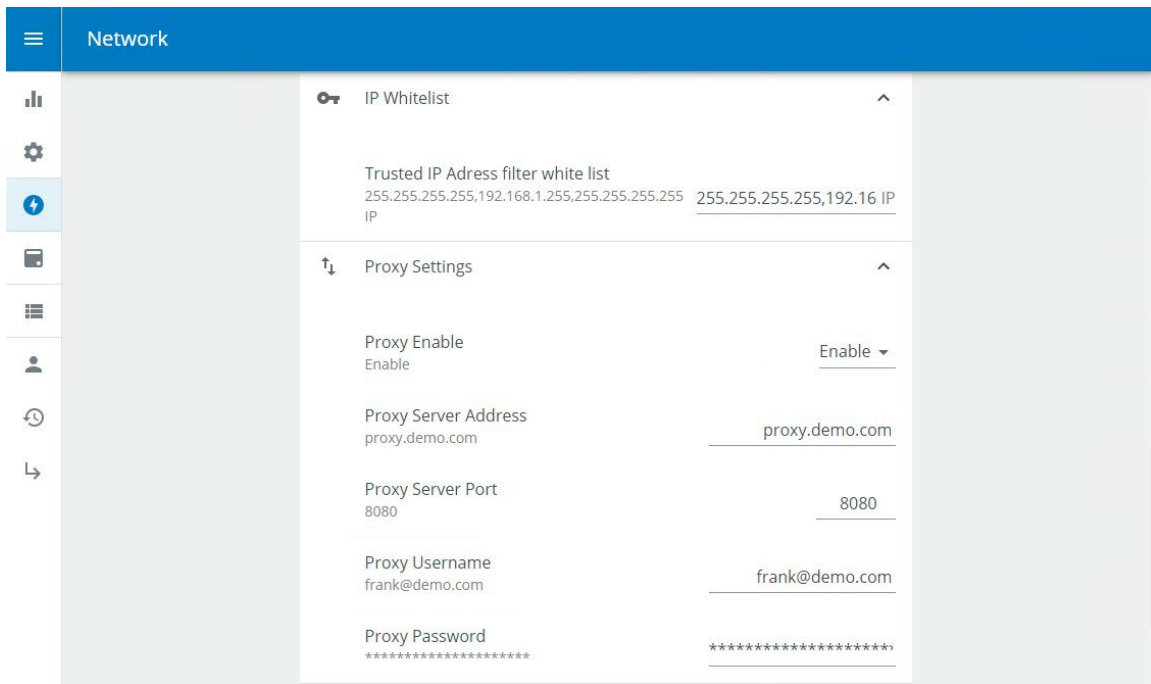
Device Information		IOT Information	
Model Name	RT 1.5K	Device GUID	fb380e8b-6269-4db8-aec3-91766027fa63
UPS FW version	00.01.8084	IOT Connection status reason	Cloud connected
		IOT Connection Status	Connected

Proxy setting

If the UPS is installed in enterprise location, proxy is normally required. Contact with your Network Administrator to get proxy information.

Proxy is disabled by default. Enable proxy and configure your proxy information.

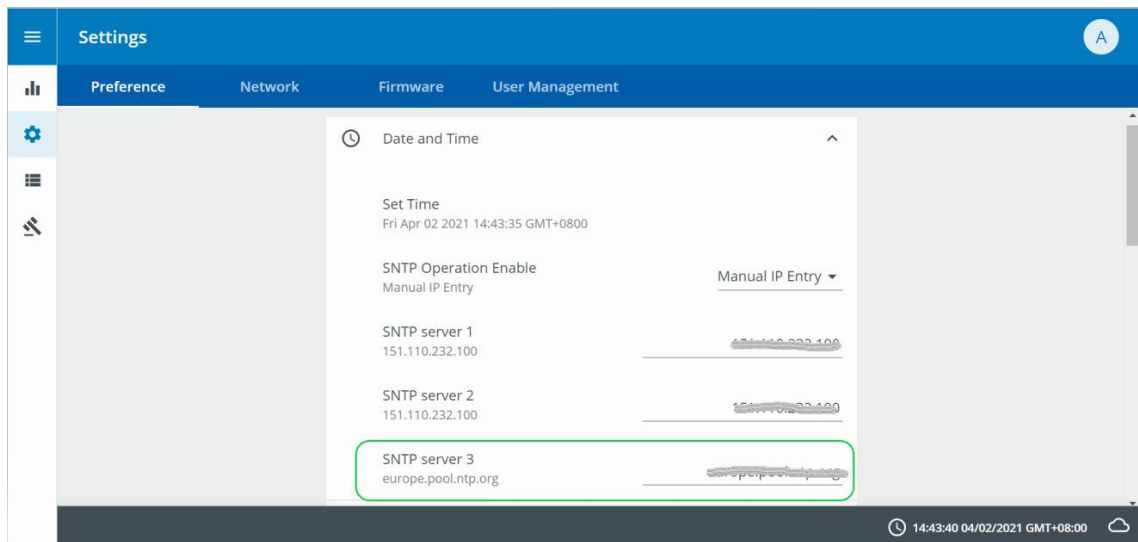
 Based on your firmware version, navigation of proxy setting is slight different.



NTP setting

NTP server sync is required. NTP service is enabled by default, you can configure NTP server available in your environment. A green frame and update to date timestamp indicate a successful sync.

i Based on your firmware version, navigation of NTP setting is slight different.



Trouble Shooting

Troubleshooting the UPS Connection to the Cloud

Please check NTP requirement and Network Requirements (for enterprise users).

If issue still exists, see [IoT detail information](#) to get IoT Status and find solution in following table.

IoT Status	Description	Action
Cloud connected	The device has established a connection to cloud and is operating normally.	/
IoT disabled	The IoT feature is disabled.	Check IoT is enabled. see Enable IoT .
IoT clock not correctly set	NTP server sync fail.	See NTP requirement
Reconnecting	Device is establishing connection with cloud.	If this is displayed for more than 2minutes, try Restart IoT device or contact with your service.
Device disabled on IoT hub	This device is not registered on the mobile APP.	Download APP and add device.
No network	No access to cloud.	Make sure that the network switch has an active internet connection. Check Network Requirements .
Ethernet/network interface link down	Network is down.	Check that the Ethernet cable is firmly inserted into the Ethernet port by disconnecting it and reconnecting it. Check Network Requirements. Try Restart IoT device .
Too many lost messages	Messages frequently get lost.	Check network stability. If the message persists, contact with your service.
Other IoT status messages	Establish connection to cloud failed.	Try Restart IoT device . If the message persists, contact with your service.

FAQ

1. How do I know if my UPS support IoT?

UPS with an embedded ethernet port and a WLAN port (to support wireless dongle) can support IoT feature.

2. What is NTP

NTP is Network Time Protocol, is used to synchronize the time of a computer client or server to another server or reference time source.

3. How to reset setting portal password

Setting portal password is a part of UPS setting. It will reset admin user to default password (admin) via UPS LCD. To reset password with 5 button LCD (character display) and touchable LCD: navigate to Control> Restore factory settings. Take

4. How to check NTP server availability

With computer holding windows OS, you can follow these steps to check NTP server availability.

Step 1 - With a computer in same LAN with IoT UPS, press Windows+R to open "Run" box.

Step 2 - Type "cmd" and then click "OK" to open a Command Prompt.

Step 3 - In Command Prompt, use command `w32tm /stripchart /computer:domainnameORipaddress /dataonly /samples:5` .

For example, command to check pool.ntp.org is:

```
w32tm /stripchart /computer:pool.ntp.org /dataonly /samples:5
```

Step 4 - If time is correctly captured, the NTP server is available in your environment. If not, find another available NTP server.