



IQSN Mobile

MOBILE APPLICATION FOR IQ SENSORNET

Quick Start Steps

1. Inspect Hardware
2. Setup Facility Account and Register Gateway (xGW)
3. Update IQ SensorNet (IQSN) Controller Software
4. Connect Cellular Antenna to xGW
5. Connect IQSN Controller to xGW
6. Connect Power to xGW
7. Update IQSN Controller IP Address
8. Install IQSN Mobile on a Mobile Device
9. Add Additional Users to Account

Please contact YSI if you have any questions during setup.

YSI Technical Support

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The **IQSN Mobile Quick Start Guide** is intended to provide you with the basic steps needed to set up your Xylem Gateway (xGW) and IQSN Mobile application. This guide will walk you through the steps of registering your xGW, user account configuration, hardware setup, and mobile application installation.

Notes



Before performing any work, ensure that all equipment

with the potential to be an electrical hazard is isolated from the power supply and cannot be energized.

- The Xylem Gateway (xGW) itself is not weatherproof. To protect the xGW in damp conditions, place the xGW indoors or in a weatherproof cabinet or enclosure. Any openings (door, glands, conduit fittings, etc.) should also be weatherproof. See *Appendix A: Additional Equipment* for a weatherproof enclosure option from YSI.
- Please only use the xGW with IQ SensorNet Mobile (IQSN Mobile). The xGW is not designed to be used as a stand-alone modem.
- To ensure your xGW is operating at peak efficiency, Xylem will remotely update your xGW when new firmware becomes available. Please ensure your xGW is always powered on and connected to the Internet to receive updates.

IQSN Controller Requirements

To connect to the xGW, the IQ SensorNet system requires an Ethernet interface included with one of the following components:



DIQ/S 28X-E(F) IQ SensorNet Controller
Scan or click the QR code for more information.



MIQ/MC3(-XX) IQ SensorNet Microcontroller Module
Scan or click the QR code for more information.



Step 1: Inspect Hardware

Remove the IQSN Mobile hardware from its packaging. Inspect the shipment for any damage or missing parts. Contact YSI Technical Support immediately to report any damage or discrepancies with the shipment. **For assistance, contact YSI Technical Support at +1 (877) 726-0975 or +1 (937) 688-4255.**

The Xylem Gateway (xGW) is available in three different configurations, each with its own item number. The following equipment should be present for each of the following item numbers:

473499 - Xylem Gateway Only

- Xylem Gateway with pre-activated SIM card installed
Note: At a minimum, a power cord (473501) and a cellular antenna (473502) are required to continue setting up IQSN Mobile. These items can be purchased from an authorized YSI IQ SensorNet representative.

473500-01 - YSI IQSN Mobile Enclosure Kit 1

- IQSN Mobile outdoor enclosure (mounting hardware sold separately)
- Xylem Gateway with a pre-activated SIM card installed
- Wide-range DC power supply
- Cellular antenna
- Cable glands and plugs, 5 each

473500-2 - YSI IQSN Mobile Enclosure Kit 2

- IQSN Mobile outdoor enclosure (mounting hardware sold separately)
- Xylem Gateway with pre-activated SIM card installed
- Wide-range DC power supply
- Cellular antenna
- Cable glands and plugs, 5 each
- Ethernet switch

Step 2: Setup facility account and register xGW

For cybersecurity protection, an IQSN Mobile account will not be created until you contact YSI Technical Support. Please have the following information ready when you call:

- The xGW serial number can be found on the box or the back side of the xGW, as shown in Figure 1.
- Call YSI Technical Support at +1 (877) 726-0975 or +1 (937) 688-4255 to register your account and enable the xGW.

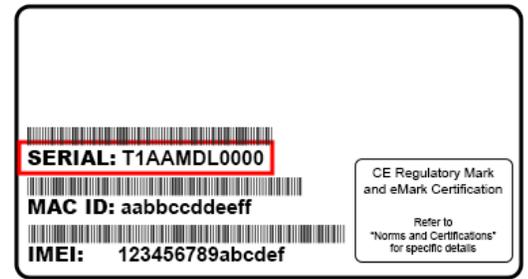


Figure 1: Xylem Gateway information label with serial number, on the back of the Xylem Gateway

Step 3: Update IQ SensorNet Controller Software

The IQSN controller must be updated to the latest IQ SensorNet Software 'Update Pack', available at [YSI Software Downloads](#).

1. Press the **S** button on the controller.
2. Use **↶** and **OK** to select *Service*.
3. Use **↶** and **OK** to select *List of all components*.
4. Ensure the software version matches the latest version listed on [YSI.com](#).

MC3-22101230	28 Nov 2023	16 44	🔒	⚠️	ℹ️
List of all components					
No.	Model	Ser. no.	Softw. vers.		
SYS	MIQ/MC3	22101230	3.90		
SYS	TERM TC2020 3G	22111170	3.99		
S01	TetraCon700IQ	07430657	2.40		
S03	VisoTurb700IQ	12051299	2.59		
ADA	FDO700IQ	10370307	2.21		
S02	SC FDO 700	10370307	2.21		
SYS	MIQ/MC3-TERM	22101230	3.90		
Select ↶ , view component status ℹ️					

Figure 2: YSI IQ SensorNet controller display - List of all components screen

Step 4: Connect Cellular Antenna to xGW

Connect the cellular antenna to the 'Cell Main' connector of the xGW. If the antenna needs relocation for better reception, follow the antenna cable manufacturer's recommendations for maximum cable length to prevent excessive signal loss. For IQSN Mobile enclosures, install the antenna to the antenna mount, located on the top of the right side panel of the enclosure. Ensure that the cable from the antenna mount is connected to the 'Cell Main' connector of the xGW.



Figure 3: Cellular antenna, Ethernet and power connections for the Xylem Gateway

Is Your IQ SensorNet Software Up-to-Date?

Keep your IQ SensorNet system up-to-date with the latest software versions. Scan or click the QR code to the right or visit [YSI Software Downloads](#).



Step 5: Connect IQ SensorNet Controller to xGW

Note: Ethernet cables are not provided with the xGW.

Single IQ SensorNet Controller - If connecting a single IQ SensorNet controller, use an Ethernet cable to connect ETH1 on the xGW to the IQ SensorNet controller's Ethernet port.

Multiple IQ SensorNet Controllers - Up to four IQ SensorNet controllers can be connected to one xGW. An Ethernet switch must be used if more than one controller will be connected to an xGW. See *Appendix A: Additional Equipment* for an Ethernet switch option from YSI.

If you are also using an Ethernet-based fieldbus communication between the IQ SensorNet controller and your facility's SCADA system, you will need to connect to your facility network. Connect an Ethernet cable from ETH1 on the xGW to your facility's network. If no network Ethernet ports are available, an Ethernet switch can be used to provide extra ports. Figure 5 is an example. Please consult with your network experts on the best way to connect the xGW.

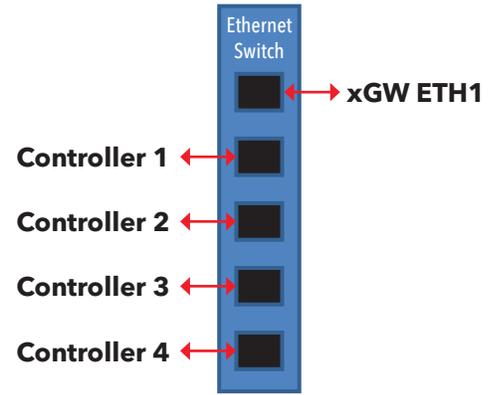


Figure 4: Diagram of Ethernet switch connections for up to four controllers.

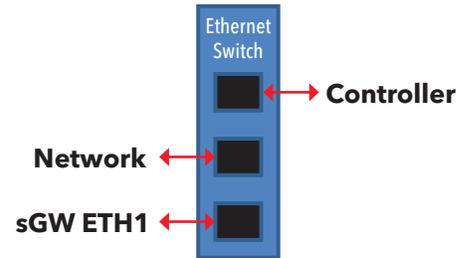


Figure 5: Diagram of Ethernet connections for fieldbus communication to SCADA system

Step 6: Connect Power to xGW

An AC power cord with multiple plug adapters is an option that can be used with the xGW for plugging into a standard outlet, when used indoors outside of the IQSN Mobile gateway enclosure. When using an IQSN Mobile enclosure, route a power cable through the bottom of the IQSN Mobile enclosure to the wide-range DC power supply mounted inside the enclosure. Use the leftmost cable gland for the power cable. Next, wire the power cable according to Figure 6.

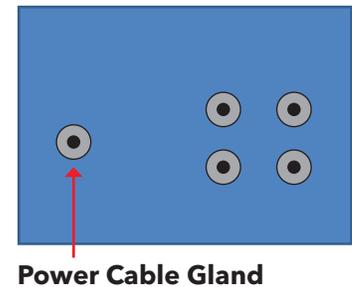


Figure 6: Diagram of IQSN Mobile hardware enclosure cable glands

Wide-Range DC Power Supply Specifications	
Power Supply	Nominal: 12 or 24 VDC; Range: 9 to 30 VDC
Power Consumption	2 W idle; 15 W maximum
Amps (max)	2A

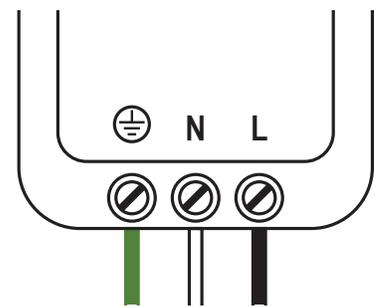


Figure 7: Diagram of the DC power supply inside the IQSN Mobile hardware enclosure

Note: After applying power, the xGW LEDs will illuminate in the following order within approximately 5 minutes. If the LEDs do not respond correctly, cycle power to the gateway. If this does not correct the issue, please contact YSI Tech Support.

LED Name	LED Color	Behavior	Explanation
Power	Blue	Solid	Power supplied to the gateway.
Cellular	Green	Solid	Power supplied to cellular modem.
User 3	Amber	Flashing (2 flashes/sec)	xGW is trying to connect to the Internet.
Cellular	Green	Flashing (1 flash/2 secs)	Modem connected to cellular network.
User 3	Amber	Solid	xGW has connected to the Internet.

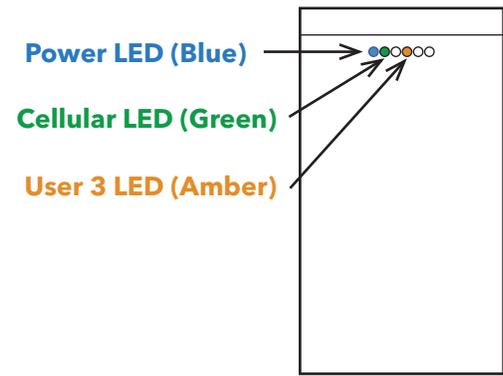


Figure 8: Xylem Gateway power, cellular, and Internet connection indicators

Step 7: Update IQ SensorNet Controller IP Address

Note: Before changing any IP addresses, please consult your local network experts.

The IP address for the IQ SensorNet Controller, the xGW, and any other input (e.g. SCADA) must be set so that the addresses do not conflict. The IP addresses must be in the same subnet, but the full IP addresses must be different.

The factory default IP address for the IQ SensorNet controller is 192.168.1.200. Because of this, the default IP address of the ETH1 port on the xGW is 192.168.1.21.

If the IQ SensorNet controller or xGW IP addresses need to be changed, this can be done using the steps below.

Set the IP address of the IQ SensorNet Controller

1. Press the **S** button on the controller.
2. Use **↶** and **OK** to select *Systems settings* → *TCP/IP settings*.
3. Use **↶** and **OK** to select and enter the new IP address (e.g. 192.168.1.200).

Set the IP address of the xGW - The IP address of the ETH1 port of the xGW can be changed remotely by YSI Tech Support. Please see the contact information above to contact our IQ SensorNet experts.

Communication with a PLC and IQSN Mobile - If you are also communicating with a PLC using an Ethernet-based fieldbus protocol, the IP address of the xGW may need to be adjusted. The IP address of the xGW must match the IP address of the IQ SensorNet controller in order to communicate to IQSN Mobile and the PLC simultaneously. In the case where the xGW gateway's IP address needs to be changed, contact YSI Tech Support for assistance.

192.168.1.XXX
Subnet

Figure 9: IP address subnet must be the same for the IQ SensorNet controller, xGW and any other input.

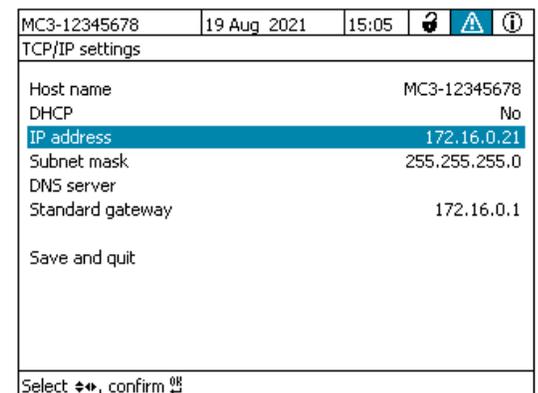


Figure 10: YSI IQ SensorNet controller display - TCP/IP Settings screen

Step 8: Install IQSN Mobile on a Mobile Device



The **IQSN Mobile app** can be downloaded from the Play Store (Android Users) or the App Store (iOS users).

When you first log in using your email address, you will be asked to create a password.

Password requirements are:

- Minimum of twelve characters
- At least one upper-case letter and one lower-case letter
- At least one number
- At least one special character (e.g. !@#\$\$%^&*)
- More than 2 identical characters in a row are not allowed (e.g. 111)

Step 9: Add Additional Users to Account

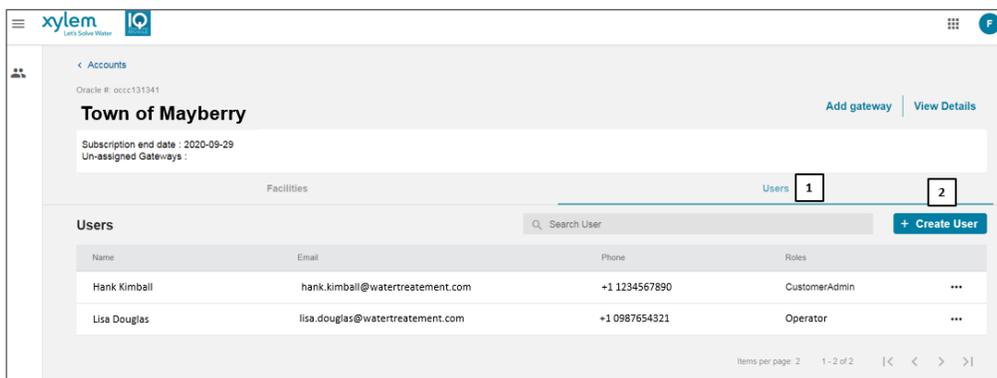
Users with the role of Facility Administrator can add more users to the facility and assign additional xGWs to an account.

There are two user roles:

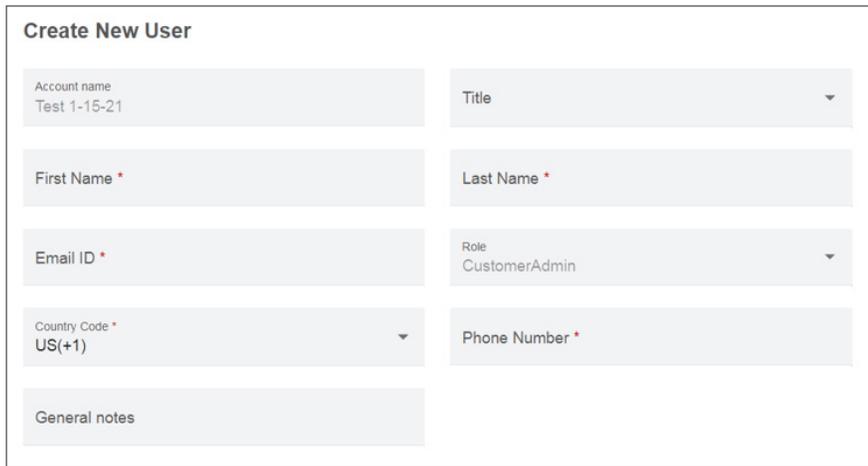
- **Facility Administrator**
Full mobile application access; Desktop application access for adding or removing users and xGWs on the facility account.
- **General User**
Full mobile application access; No desktop application access.

Facility Managers can add new users by doing the following:

1. Log into the IQSN Mobile desktop application at <https://cloud.xylem.com/iqmobile> using the email address and password you created in Step 8.
2. Select *Users* → *Create User*.



3. Complete the *Create New User* fields and select *Save & Continue* (fields marked * are required).



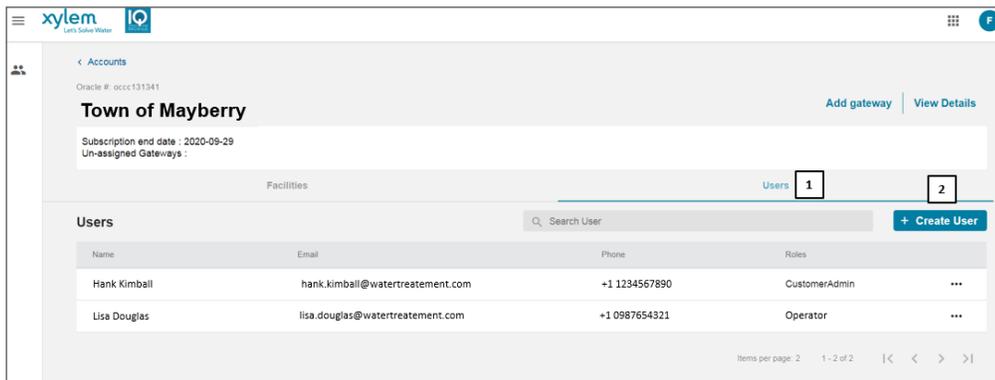
The 'Create New User' form contains the following fields:

- Account name: Test 1-15-21
- Title: (dropdown menu)
- First Name * (required)
- Last Name * (required)
- Email ID * (required)
- Role: CustomerAdmin
- Country Code * (dropdown menu, currently US(+1))
- Phone Number * (required)
- General notes: (text area)

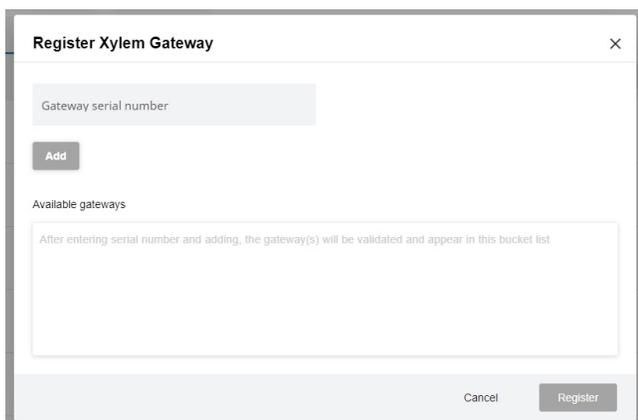
4. Add more users if needed.
5. New users can now log in to the mobile app. They will need to set their password at the first login.

Facility Managers can add new xGWs by doing the following:

1. Log into the IQSN Mobile desktop application at <https://cloud.xylem.com/iqmobile> using the email address and password you created in Step 8.
2. Select *Add Gateway*.



3. Add the xGW serial number and select *Register*. The xGW serial number can be found on the back of the xGW, starting with a 'Y'.



The 'Register Xylem Gateway' dialog box includes:

- A text input field for 'Gateway serial number'.
- An 'Add' button.
- A section titled 'Available gateways' with a message: 'After entering serial number and adding, the gateway(s) will be validated and appear in this bucket list'.
- 'Cancel' and 'Register' buttons at the bottom.

Appendix A: Additional Equipment for IQSN Mobile

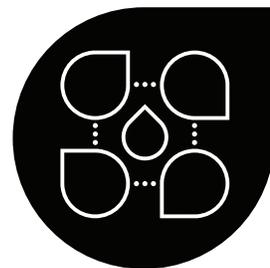
Additional Equipment	
473502	Cellular Antenna with Mounting Hardware, IQSN Mobile
473503	Ethernet Switch, IQSN Mobile
473504	Wide Range Power Supply, DIN Rail Mounting, IQSN Mobile
473505	Outdoor Enclosure, IQSN Mobile
473506	Horizontal Pole Mounting Kit for xGW Enclosure, IQSN Mobile
473507	Vertical Pole Mounting Kit for xGW Enclosure, IQSN Mobile
473508	Surface Mounting Kit for xGW Enclosure, IQSN Mobile
473509	Cable Gland Kit for Outdoor Enclosure, IQSN Mobile

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com



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