The ION Meter as a ModemGate

Some PowerLogic™ ION™ meters can pass ION (or other supported protocol) data from other meters to various networks including third party systems. This technical note describes how to use your ION meter's internal modem as a gateway.

This document applies to the following devices:

- ION8800
- ION8600
- ION7550 / ION7650
- ION7330 / ION7350

In This Document

Additional Information

- Your meter's technical documentation
- Online *ION Enterprise Help*

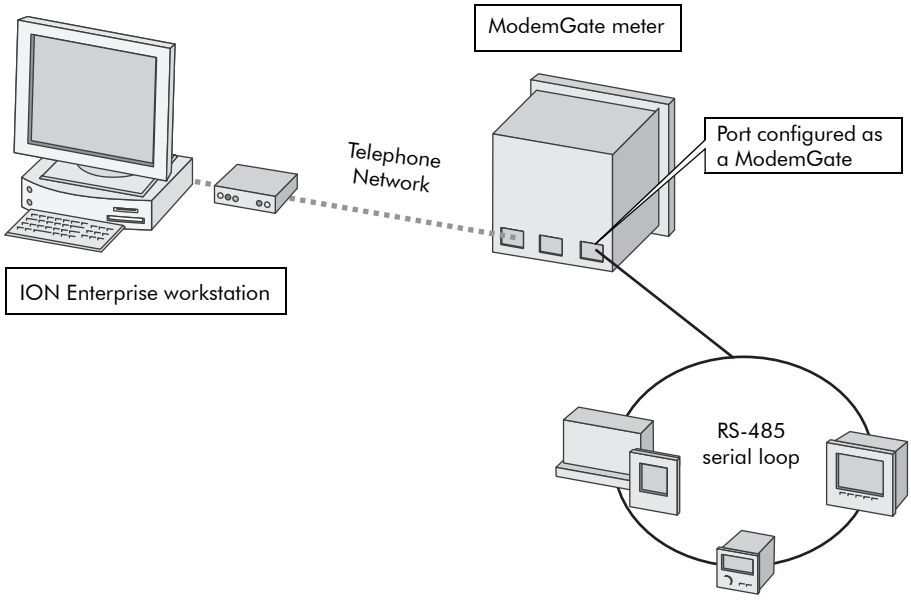
www.powerlogic.com

Schneider Electric

ModemGate

A gateway is a network point that acts as an entrance (or gate) to another network. Gateways enable communication between networks. This technical note describes how to use your ION meter's internal modem as a ModemGate to collect data from serial networks.

The ModemGate feature creates a communications connection between the telephone network and a serial network (RS-232 or RS-485) of devices. When you set up the meter as a ModemGate, all data received by the meter's internal modem is automatically transferred to and from the serial network.



Step 1: Network Installation and Basic Meter Setup

1. Install the ION gateway meter with the internal modem and connect the internal modem to the telephone network.
2. Follow the instructions in your ION meter's documentation to perform basic setup.
3. Wire the serial devices to the appropriate COM port on the meter and perform basic setup on each of these devices. After wiring and basic setup is complete, you must set up the software to reflect how you have wired the communications network.

Step 2: Add a Modem Site to an ION Enterprise Network

Once the hardware is installed, use ION Enterprise to configure communications among devices.

1. Start Management Console and click the Sites button on the System Setup Pane. Right-click in the display window and select **New > Modem Site.**
2. Enter the information by typing in the appropriate fields or using the drop-down menus. Include the meter's internal modem telephone number and ensure that the server computer's dialout modem is configured. Refer to the *ION Enterprise Help* for information on adding a dialout modem.

Step 3: Add Meters to the Modem Site

After you have added and configured the ION Enterprise modem site using Management Console, you can add each serial meter on the RS-485 loop to the modem site.

1. Start Management Console and click the **Devices** button. Right-click in the Display Window and select **New > Serial Device on Direct Site**.
2. Enter the information by typing in the appropriate fields or using the drop-down menus, remembering that:
   - **Unit ID:** The value in the **UNIT ID** field identifies the meter on the RS-485 loop.
   - **Site:** The remote modem site you added in step 2.

Step 4: Configure the Gateway Meter for ModemGate

You need to configure the communications settings on the ION meter that serves as a gateway.

1. Once the gateway meter is installed and the internal modem is connected, use the front panel of the meter to configure the internal modem and the serial communications port.
2. Set the internal modem baud rate, Unit ID and protocol (for most applications the default settings are appropriate). The baud rate must be the same for the port hosting the gateway and all connected devices.
3. For most meters, set the protocol for the port hosting the gateway to MODEMGATE. For example if you are using COM1 on the meter as a modem gateway to devices on a serial loop, set the protocol of COM1 to MODEMGATE.

   For a ION7330 or ION7350 meter with the internal modem option, the modem is hardwired to COM1 and COM1 is permanently set to ModemGate. Set the protocol of COM1 to the protocol of the devices on the serial loop connected to COM1. For example, if the protocol of the devices on the serial loop is Modbus, set the protocol of COM1 to MODBUS RTU.

NOTE

You can only use one communications port on a meter as a modem gateway — you cannot enable two ports as modem gateways simultaneously.

ModemGate Checklist

✓	All connected devices, including the modem of the PC, use the same baud rate
✓	Each device connected on the RS-485 network has a unique Unit ID
✓	Each device Unit ID and common baud rate are recorded for future reference
✓	Set the procotol used for the gateway on communications port of the gateway meter
✓	COM port hardware is set to RS-485 on the ModemGate meter (ION8600 and ION7550/ION7650 meters)

NOTE

Each device connected on the RS-485 network must have a unique Unit ID number and the same baud rate as the internal modem.