# Configuring the ET WEM-MX & Enphase Envoy

#### Background

The purpose of this document is to provide guidance for commissioning the Enphase Envoy and Energy Tracking WEM-MX revenue grade meter, and to bring both devices online via a cellular router connection. This document can be used in conjunction with existing guides on Envoy commissioning as it relates to microinverter detection and communication.

A laptop computer will be required to communicate with the Envoy, Energy Tracking meter, and Cellular Router at the same time. In order to be able to communicate with both devices at the same time, an Ethernet Switch can be used. The Ethernet Switch may require a power source to operate.

Once the Envoy and Energy Tracking meter have been configured, the devices can be connected directly to LAN ports of the BR1 Mini cell router, and the Ethernet Switch can be removed. 4 short Etehrenet cables will be required to make the necessary connections for configuration. After the configuration has been completed, the Ethernet switch and 2 Ethernet cables can be removed for use in configuring the next site.

The image below provides an example of how the devices can be connected to allow for the configuration steps that follow in this document.



## Pepwave BR1 Mini configuration

By inserting an activated SIM Card into the back of the BR1 Mini cell router, the router should automatically connect to the internet provided that there is an adequate cell signal in the installation location. Using a laptop computer the router's internet connection can be verified.

- 1. Insert SIM card into the back of the BR1 Mini cell router
- 2. Open an internet browser window
- 3. Enter 192.168.50.1 into the browser URL bar and press enter
- a. This should direct you to the router administration page
- 4. Enter the Username & Password:
  - a. Username: default admin
  - b. Password: admin
- 5. Verify that the WAN Connection Status reads 'Device Detected'

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### **Envoy configuration**

In order for the WEM-MX to be able to report to the Envoy, the Envoy must first be instructed to accept reports from the meter. Ensure that the Envoy, WEM-MX and Laptop are connected to the same Ethernet Switch.

- 1. Open the Installer Toolkit App
- 2. Navigate to the Network tab on the bottom of the screen, then select Ethernet.
- 3. Select Use Static IP, and enter an **192.168.50.2** as the static IP address into the IP address field. Click Update

Ethernet	Configuration	
IP Setting Static IP		Use DHCP
IP Address	10.50.60.100	
Netmask	255.255.252.0	
Gateway IP	10.50.60.1	
Primary DNS Server	10.50.4.20	
Secondary DNS Server	10.50.4.21	
	Update	

- 4. Navigate to the **Meters** tab on the bottom of the screen
- 5. If the Energy Tracking Meter is reporting on the same network, it should show by IP address on this screen
- 6. If multiple meters are present, ensure the appropriate meter is selected, then click Add Selected Meters

Power meters detected on this network:				
𝖾 10.50.60.10				
Mac Address 00:40:9D:4D:14:BA				
Part Number 201-00002-r01				
Manufacturer EnergyTracking				
Firmware Version 040714_MX3_B				
Before adding a meter, be sure that the Envoy has an Ethernet connection with a static IP address. This sh be configured both on the router and on the Envoy.				
Add Selected Meters				

7. The meter will show as discovering until the Energy Tracking meter has been configured to forward metering reports to the Envoy's static IP address.

#### **WEM-MX** configuration

- 1. Open a new browser window and enter the IP address that is displayed on the WEM-MX meter LCD screen
- 2. When prompted for authentication, enter the following:
  - a. User Name: eM200
  - b. Password: PW
- 3. Click Setup on the left sidebar menu
- 4. Click Main Configuration in Setup Menu



- 5. Fill in the following Main Configuration fields:
  - a. Under FTP Server IP put in the IP address of the Envoy 192.168.50.2
  - b. Under FTP Account Name enter: energytracking
  - c. Under FTP password enter: enphasepmu
  - d. Make sure to keep the FTP directory blank.

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Most Visited - Internal -	Base - CBUS local MisCo Digi-Key - 49	5-387			
http://eng-lnxetwo	rk_display 🕲 📄 Energy Tracking	٢	+		Ξ
Home	Ā	Applicatio	n Setup		n
<u>Real Time Data 1</u> Real Time Data 2	C	Disable TP Client	Uncheck to Enable.		
Load Profile 24 Hrs. Load Profile Flash	C e C	Disable Mail Client	🗹 Uncheck to Enable.		
Current Month	c	Outgoing	Mail Setup: (Reqd. to Send email)		- 11
Last Month SOAP Service	c n I	Outgoing nail [SMTP]	mail.optonline.net		
Setup	s	SMTP Port	25		-11
		Domain Name	imetering.com		
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		<sup>=</sup> tp Server IP	10.1.3.66 En	ivoy Interal IP	
	F A	TP Account Name	energytracking Acco	unt Name: energytracking	<b>)</b> U
	F P	-TP Password	[] Pa	assword: enphasepmu	
	F	-TP Directory			

- 6. Configure the metering settings in accordance with provided documentation
- 7. Click Setup in the left sidebar menu, and select Test FTP

8. Click Yes on the Test FTP page. If configured properly the FTP Test should come back as successful

Home		
Real Time Data 1		
Real Time Data 2	En annu Tra alvin a	
Load Profile 24 Hrs.	Energy Tracking	
Load Profile Flash	WEM-MX	
Current Month	Test ETP(Client) File Successfu	
Last Month	lest FTF(Client) File Successio	
SOAP Service	Home	
Setup		

9. Once the FTP shows successful, verify that the meter is reporting on the meters tab of Installer Toolkit.

## **Next Steps**

The WEM-MX meter is now configured to forward metering reports to the Envoy. The Envoy has also been configured to receive these reports and will forward these reports to Enlighten at the regular reporting intervals. Once configuration is complete, the Ethernet Switch can be removed, and the WEM-MX and Envoy can be plugged directly into the LAN ports of the Pepwave Mini BR1 router. The Ethernet switch and leptop can be removed.