OPTICS RE Connectivity Troubleshooting

Introduction

This document serves as a reference for end users and installers experiencing issues connecting the MATE3 or MATE3s system display to the OPTICS RE monitoring system. This document is intended for an audience with knowledge of MATE3-class device navigation and a basic understanding of computer networking. If the user does not understand the terms in this document, a network technician must be consulted.

Solution

The message *OPTICS RE CONNECTED* is displayed when the system is working normally. If this message is not present, there may be connectivity issues.

By validating the method of connection, programming, and network settings, the user can determine whether the issue lies with the system display or within the network.

Procedure

Verify the system display has a valid MAC address:

- All valid MATE3 and MATE3s MAC addresses start with 00:90:EA:E0.

- If the MAC address listed is 00:12:34:56:78:9A, then the system display will need to be replaced.

Verify the system display is connecting with an approved connection method:
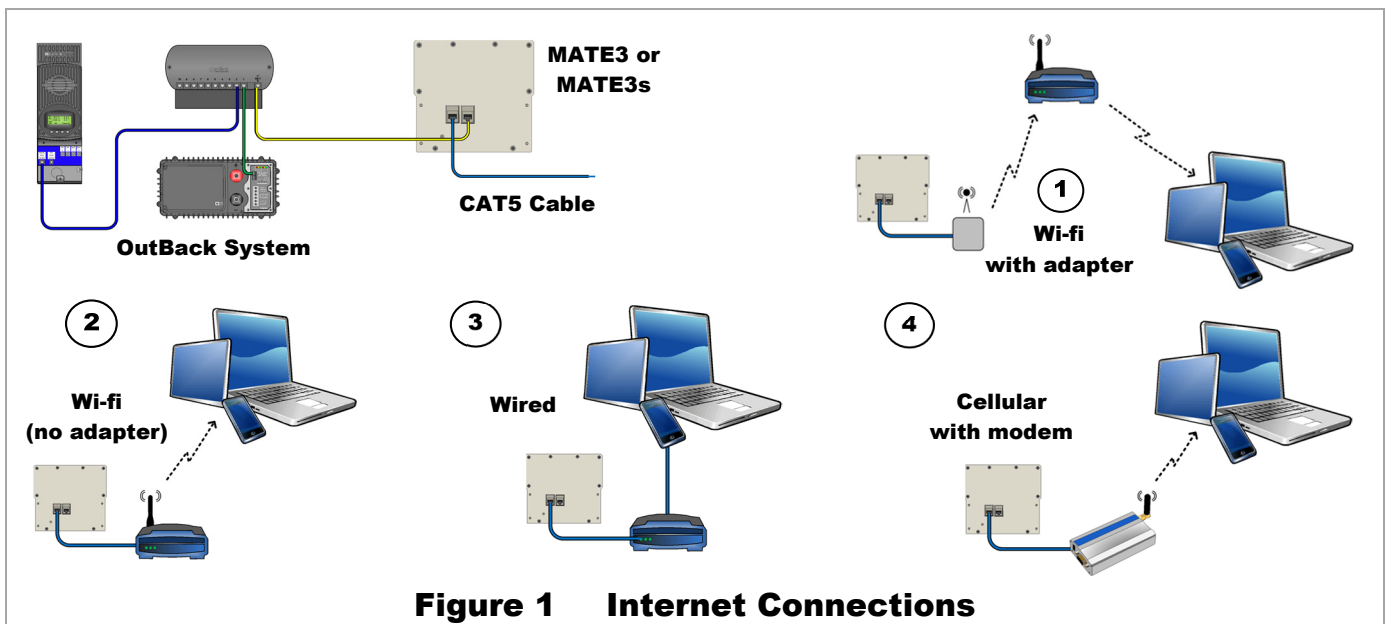

Figure 1   Internet Connections

NOTE: **Using a satellite connection or a power-line communication (PLC) adapter is not a recommended method of connection**.

- Make sure that the cable in use is **not** the OutBack-supplied cable intended for the **HUB/Device** connection on the inverter. This is not a twisted-pair cable and is therefore much more susceptible to interference. Use a CAT5E cable rated for Ethernet communications.

- Using a CAT5 cable longer than 50 feet has the potential to cause data loss resulting in an intermittent connection, or complete lack of connection.

- If using a wireless adapter, verify that the distance between the access point and router is within the acceptable range for the product.

Verify the MATE3 or MATE3s firmware version is up to date and that the Ethernet version matches the system display:

- If not, refer to the MATE3 or MATE3s literature (as appropriate) for instructions regarding the firmware update process.

- After updating the system display to the latest version, confirm that the system display firmware matches the Ethernet firmware. Enter the *Main Menu* using the LOCK navigation key and password. Proceed through the following screens.

    o *Main Menu → Settings → System → Firmware Versions*

    o System display and Ethernet firmware versions should have the same value listed.

- If not, please reset the system display to factory defaults and attempt to re-flash the firmware.

Verify that the system display is programmed to connect to DHCP and OPTICS RE automatically:

- *Main Menu → Settings → System → OPTICS RE → OPTICS RE*: *Enabled*

- *Main Menu → Settings → System → Ethernet Addresses → DHCP*: *Enabled*

Verify DHCP settings are being received:

- Pressing the PORT navigation key will show the IP address of the MATE3 or MATE3s once it has successfully connected to the network.

- If the system display displays the settings below when pressing the PORT key, it is unable to communicate with the DHCP server within the network.

IP Address	192.168.0.64
Netmask	255.255.255.0
Default Gateway	192.168.0.1
DNS - 1	192.168.0.2
DNS - 2	192.168.0.3

- The system display has DHCP enabled by default. If the router/access point does not have DHCP capabilities, the network configuration must be statically defined.

Exceptions or Precautions

Outback Power cannot assist with any network related questions. This includes the discovery of any network configurations, or explanation of the terms listed above. Please contact a qualified network technician if further assistance is needed.

About OutBack Power Technologies

OutBack Power Technologies is a leader in advanced energy conversion technology. OutBack products include true sine wave inverter/chargers, maximum power point tracking charge controllers, and system communication components, as well as circuit breakers, batteries, accessories, and assembled systems.

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Other

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