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# 6330-MX / 6335-MX



Connected is Everything<sup>™</sup>



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# Automated Failover with Static WAN IP

MX- and SR-series routers will not failover to their cellular interface automatically when a static IP is set on the primary WAN.

Available Workaround: Enable Active Recovery. <u>Click here for step-by-step guidance</u>.

Firmware Fix: TBD

# Package Contents

6330-MX Unit





### Cellular Antennas (2x)



### **Ethernet Cable**





### Power Supply Unit



### Power-over-Ethernet (PoE) Injector





### Temporary Battery Pack



### Mounting Bracket





### **Mounting Accessories**





# **Exchanging Power Tips**

The 6330-MX router may include four interchangeable plug tips that allows the Power Supply Unit (PSU) to operate in most countries. The PSU comes with the United States style plug installed.

To change the plug tip:

- While holding down the "PUSH" button, slide the current plug tip forward.
- Pull off the attached plug tip.
- Slide the new tip down into place until it clicks.





# Hardware Features

### Bottom of 6330-MX



- 1. Power Socket
- 2. PoE Ethernet Port
- 3. LAN Ethernet Port
- 4. WAN Ethernet Port



### Front of the 6330-MX



5. USB Port



### Back of the 6330-MX



- 6. Lock Slot
- 7. Manual SIM Select Button
- 8. Erase Button

The **SIM button** is used to manually toggle between the two SIM slots included in the CM module. (For more information about the plug-in module, click here.)

The ERASE button will reset any changes made to the devices configuration (while preserving any firmware updates) if pressed *once*. Pressing the button twice in succession or holding it down for longer than a single press will clear the device's settings to factory defaults, including firmware.



# **Plug-In LTE Modem**

There is a label on the bottom of the MX-series router that indicates the plug-in modem's IMEI number.

(The modem is referred to as the 1002-CM.)

Verify this IMEI number is an exact match to that on the plug-in modem itself, as well as the label on the router's packaging.

- 1. Identify the SIM 1 and SIM 2 slots. If using only one SIM card, insert it into SIM 1. A second SIM may be inserted into slot SIM 2 for an alternate wireless carrier.
- 2. With the antennas' SMA connectors pointing outward, slide the 1002-CM modem into the SR-series router. A clicking sound will indicate it is properly inserted.



- 3. Slide the white plastic plate over the antenna connectors to cover the plug-in modem as shown; it will clip into place.
- 4. Affix the cellular antennas to the two connectors protruding from the device.





Be sure to use the plate with the cut outs for the antenna connectors.

To remove the plug-in LTE modem, pinch the two vertical sides of the white clip (as shown below) and slide out the modem.





# **Device Status LEDs**

Once power has been established, your device will initialize and attempt to connect to the network. Device initialization may take 30-60 seconds. By default your Accelerated 6330-MX will attempt to use DHCP to establish an Internet connection either through its cellular modem or Ethernet port 3.

- 1. Indicator lights on the Wireless Strength Indicator show you the cellular network signal strength.
- 2. The power LED confirms the unit is receiving electricity.
- 3. Cellular connectivity status is indicated by the color-coded LTE light.
- 4. Ethernet connections are confirmed via the light corresponding to the MX's port number.





### **LTE Status Indicators**

#### **Network Status LED**



Solid Yellow Initializing or starting up.

initializing of starting



#### Flashing Yellow

In the process of connecting to the cellular network and to any device on its LAN port(s).



#### **Flashing White**

Established LAN connection(s) and is in the process of connecting to the cellular network.



#### Flashing Green

Connected to 2G or 3G and is in the process of connecting to any device on its LAN port(s), or nothing is connected to the port.



#### Solid Green

Connected to 2G or 3G and also has a device linked to a LAN port.



#### Flashing Blue Connected to 4G LTE and in the process of

connecting to a device on its LAN port(s).



#### Solid Blue

Connected to 4G LTE and also has a LAN connection.



Alternating Red/ Yellow Upgrading firmware. WARNING: DO NOT POWER OFF DURING FIRMWARE UPGRADE.

### Signal Strength Indicators

Signal Bars	Weighted dBm	Signal Strength %	Quality
	-113 to -99	0 - 23%	Bad
	-98 to -87	24 - 42%	Marginal
	-86 to -76	43 - 61%	ОК
	-75 to -64	62 - 80%	Good
	-63 to -51	81 - 100%	Excellent



The *weighted dBm* measurements are negative numbers, meaning the smaller negative values denote a larger number. So, for example, a -85 is a better signal than -90.

NOTE: For more information regarding how signal strength is calculated and subsequently displayed via the LED indicators, <u>refer to this explanation</u>.



# Site Survey

A cellular site survey is not necessary if your anticipated installation location is known to have strong cellular signal strength. If you are unsure of available cellular signal strength or are choosing between several installation locations, follow the below instructions to perform a site survey to determine your best possible installation location. After the optimal location has been determined, setup the 6330-MX with either the power supply unit or the PoE injector cable.

- Follow the steps in the "Initial Setup" section above. During a site survey it is useful to use the included battery pack instead of the power supply unit to power the Accelerated 6330-MX. The battery pack will power your device for approximately two hours while you perform your site survey. The battery pack is not rechargeable and should be properly disposed of after use.
- 2. Move the Accelerated 6330-MX to different locations within your site to determine the best compromise between signal strength and installation constraints. Since cellular signal strength may fluctuate, it is important to wait at each location for 1 minute while observing the signal strength indicator on the front of the device. Minimum cellular signal strength for proper operation is 2 bars.
- 3. After the optimal location has been determined, remove the battery pack and connect either the main power supply unit or PoE injector cable (see section labeled Using Remote Power for more information).
  - After the optimal location has been determined, setup the 6330-MX with either the power supply unit or the PoE injector cable.

### Site Survey Troubleshooting

If you are unable to verify a location with a strong cellular signal:

- Verify your SIM has been activated with your cellular operator.
- If cellular signal isn't indicated on the Accelerated 6330-MX indoors, then take the device outdoors to verify that your cellular network operator has coverage in your location.
- If the outdoor cellular signal strength is less than 2 bars, it may be necessary to connect using a different cellular network operator. This requires an activated SIM from the alternate cellular network operator.
- Try the device/antennas in different orientations and away from other nearby electronic equipment at each test location. Note: LTE requires the use of both antennas & antennas will usually give better performance when vertical.
- Refer to the Device Status section to use Accelerated 6330-MX indicator lights to aid in diagnosis.



# **Physical Installation**

### Connecting to the Site Network with Local Power



- 1. Plug the power supply unit into an AC power outlet
- 2. Connect the PSU to the MX.

### Connecting to the Site Network with Remote Power

If your device needs to be positioned some distance from either the nearest AC power outlet or site network equipment, using the included passive Power-over-Ethernet (PoE) injector will simplify the installation cabling and allow for improved cellular signal strength. The POE injector cable allows the DC power and Ethernet connection to be run to the Accelerated 6330-MX via the Ethernet connection only.



- 1. Plug the power supply unit into an AC power outlet and connect to the PoE injector.
- 2. Connect an Ethernet cable from the RJ45 socket/jack on the PoE injector, (marked 'POE'), to the Ethernet port of the device.
- 3. Run another Ethernet cable from the PoE injector's LAN port to the client device that will be associated with the MX's first Ethernet port (marked '1/POE').



### **Remote Power Trouble Shooting**

The LED marked IN will illuminate when the PoE injector is receiving power from the PSU. The LED marked OUT lights up green when an Ethernet connection is recognized by the MX.

If the IN LED is not illuminated check the following:

- Ensure that the PSU is plugged into an AC power outlet and is receiving power.
- Ensure that the PSU's power plug is correctly connected to the POE injector cable power input socket.

If the OUT LED is not illuminated after connecting to the 6330-MX, verify the integrity of the Ethernet cable.

① The PoE injector must be connected to LAN port 1 on the MX for the device to properly receive power.





# **Network Integration**



1 The 6330-MX is WiFi-Enabled while the 6335-MX lacks WiFi Capabilities.

A second internet connection must be available for cellular failover.

**NOTE:** When integrating a second Internet connection for cellular failover, connect the alternative ISP to port 3. This interface (port 3) is configured for WAN access by default though ports can be reconfigured as necessary.



# **Default Settings**

### Ethernet ports

- Ports 1 and 2 are configured as LAN ports, and will issue an IP address via DHCP to client devices.
- Port 3 is configured as a WAN port and will accept an IP address from the existing local newtwork router.

### **Interface Priorities**

• WAN set at a metric of 1

• This metric sets the WAN port as the MX's primary network connection.

• Modem (cellular) at a metric of 3

### Modem Configuration

- SIM Failover after 5 attempts
- Carrier Smart Select™ enabled

### Network Settings

- LAN subnet of 192.168.2.1/24
- DHCP enabled
- Source NAT enabled (outbound traffic)

### WiFi Defaults

- SSID = Accelerated 6330-MX
- Password = Accelerated!
- Channel = Automatic

### WAN Failover Conditions

- · Connectivity monitoring enabled for WAN
- HTTP and Ping test: 4 attempts set at a 30s interval



### **Security Policies**

- Packet Filtering set to block all inbound traffic
- SSH, Web Admin, and Local GUI access enabled



# **Configuring Device**

### Network Managed Configuration

Your Accelerated 6330-MX has the capability to automatically sync and receive all settings from a centralized cloud management tool, Accelerated View™.

The Accelerated View management portal provides the following capabilities for your Accelerated 6330-MX.

- Monitoring details including signal strength, network connectivity details (RSRP, CNTI, RSRQ, Ec/lo, etc.), SIM card details (IMEI, IMSI, ESN, etc.), data transmitted/received, and more.
- Email notifications based on connectivity, device firmware, and signal strength.
- Remote control.
- Out of band SMS recovery.

Devices using Accelerated View typically require no additional configuration or set-up.

### Local Configuration

If your Accelerated 6330-MX is not provisioned in Accelerated View, it will use a default local configuration profile which will enable basic cellular connectivity (primary or backup) to your router.

To change any default settings for an Accelerated 6330-MX not provisioned in Accelerated View refer to Managing Device Locally section.