Fiber To The Home - FTTH - Troubleshooting - Article no. 5527

Introduction

- **Fiber To The Home** or **FTTH** is a revolutionary service offering all of our services over **Fiber Optic Cables** routed into the home. **FTTH** service is delivered to customers through fiber by way of a device known as an **Optical Network Terminal (ONT)**

Special information for enTouch - troubleshooting FTTH in Merlin is currently unavailable. Exclude Merlin troubleshooting steps until further notice

- In some of these cases the fiber is routed into a locked case located in a closet in the unit itself. ***In others, our customer has physical access to the Fiber Optic Cable and ONT***

WE SHOULD NEVER ASK THE CUSTOMER TO PHYSICALLY MOVE THESE DEVICES

WE SHOULD NEVER ASK THE CUSTOMER TO UNPLUG THE FIBER, DOING SO FIXES NOTHING AND COULD CAUSE PHYSICAL HARM

FIBER OPTIC CABLES ARE EXTREMELY FRAGILE, A CUSTOMER SHOULD NEVER BE PROMPTED TO HANDLE THEM

EXCEPT IN CHICAGO WHERE THEY MUST BE RETURNED

- The **ONT device** itself **can** originate, from the Fiber, Cable Television, Telephone service, WiFi and Wired Internet Access

- **ONT devices do not originate MoCA**

Resolution Steps

Expand All | Collapse All

Searching Merlin for GPON

Alert**Important** - In some Calix equipment configurations, the **Diagnostics tool** in BOLT **queries** MAC address which leads to an **inaccurate** result. **Verify** Merlin used the CXNK **before** proceedin

1. Please Note: Some enTouch TX customers will not appear in Merlin, and in these cases skip to the next ste
2. Open **Merlin**through **link right of main page of SIMON**
3. Navigate to **equipment page**in **BOLT**
4. Copy **entire CNXK #**and paste it into **Merlin Search**

Unique Properties in Merlin

- **Merlin**itself has **special fields** associated with **FTTH Service,** you will see below the level displays are simplified in comparison to our other Internet Services. Just as before, if you **reset the router** and **red levels** persist a **trouble call** is **justified**

Please Note: Some enTouch TX customers will not appear in Merlin.

Intermittent Connection and Slow Speeds Troubleshooting

- It is impossible for a single device to get a Gigabit using any of our technology All ONT devices have more then one port in an effort to give our customers an opportunity to get all of the speed out of their ONT

This is done because each wired connection is limited to 850-870 meg at the very best by customers with the very best computers

This is due to **Ethernet overhead** and is a universal problem across all providers

1. Check for **outages**

2. **Power cycle the ONT**

3. Please Note: Some enTouch TX customers will not appear in Merlin, and in these cases skip to the next step.

4. **Access the ONT in Merlin**

   - For a **red** message, levels or packet loss, **reboot** the ONT
     - If the results **remain red** after a reboot, place a **Trouble Call** (see below)
   - For ping time **spikes** over **250ms**, place a Trouble Call (see below)
   - For **packet loss** of **3%** or **greater**, place a Trouble Call (see below)

5. If the levels are **normal**, review *History Tab* in Merlin

   - If there are a large number of **down statuses** in recent history, place a Trouble Call (see below)
   - If there are a few **down statuses** in recent history and the customer service looks fine now, place a Trouble Call (see below)

6. If everything in Merlin looks **good**, ask customer if they are experiencing the issue right now

   - If customer is **not** currently having a problem, have them call back the next time they have the issue

7. If the the problem **persists** or customer still wants a service call:

Click **Create Work Order or Technical Case** button on the **Work Orders Tab in BOLT**

Fill out the information as described below and click **Submit**

Trouble Call or Tech Case	Trouble Call
Service Category	Data

Problem Description EX - Speed Issue or Intermittent

Select All Affected Equipment

Schedule First available time that works for the customer

Unable to Browse

1. Check for **outages**
2. In Merlin, **troubleshoot errors in red**
3. **Power cycle ONT** and other applicable equipment
4. For **wired connections:**
    - Please Note: Some enTouch TX customers will not appear in Merlin, and in these cases skip to the next step.
    - Check the **Ethernet** status in **Merlin**
5. For **wireless connections:**
    - Ensure customer is **connected to** their **own router**
    - Have customer disconnect and use **Forget this Network,** then reconnect
        - All Wi-Fi equipment has some form of Forgetting a Network; most customers know how to do this on their device
    - If issue **continues** and customer is using their **own router,** advise customer to contact **router manufacturer**
6. If the problem persists, click **Create Work Order or Technical Case** button on the Work Orders Tab in BOLT

Trouble Call or Tech Case	Trouble Call
Service Category	Data
Problem Description	EA - Modem Out
Select	All Affected Equipment
Schedule	First available time that works for the customer

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