

SFE3160S CBSD SmallCell Demonstration Quick Installation Guide

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Confidential and Proprietary for Mediacom

1. What's Inside



2 X SFE3160S CBSD
SmallCell



2 X SFE3160S
POWER ADAPTOR



2 X ETHERNET
CABLE



2 X ONE PLUS 7T
CELL PHONE



1 X ONE PLUS 7T
POWER ADAPTOR



1 X ASUS LTE ROUTER



1 X ASUS LTE
ROUTER
POWER ADAPTOR

NOTICE: ASUS LTE ROUTER IS **OPTIONAL** FOR THE CBSD SMALLCELL DEMO SETUP. IT IS STRONGLY RECOMMENDED TO HAVE CONNECTION TO INTERNET VIA ETHERNET **WHERE IPSEC PASSTHROUGH IS ENABLED**, I.E. PORT 500, PORT 4500 ARE ***NOT*** BLOCKED BETWEEN SFE3160S CBSD SAMMCELL WAN PORT AND THE INTERNET.



2 X GPS ANTENNA



1 X GPS ANTENNA
WITH LONG CABEL

NOTICE: GPS ANTENNA IS OPTIONAL IN THIS DEMONSTRATION WHERE GPS LOCATION HAS BEEN PRESET ON THE SMALLCELL FOR TESTING PURPOSE.

2. Getting to Know SFE3160S CBSD



NOTICE: IT IS RECOMMENDED TO START TEST WITH SFE3160S UNIT "A" AS SHOWN IN THE ABOVE PICTURE.

Grey LAN Port

(Connect to other devices if needed)

Reset

1. Press and hold for 3 seconds for reboot
2. Press and hold for 20 seconds for factory setting reset and software update

Yellow WAN Port

(Connect to Wi-Fi router or Wi-Fi cable modem router)

Power

(Power on when AC Adaptor is plugged in)

GPS Port

(Connect to GPS Antenna & Cable)

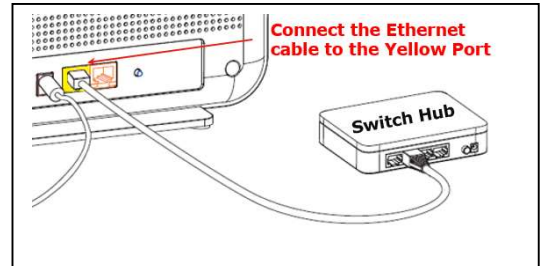
3. Quick Setup

1) Connect your SFE3160S CBSD SmallCell to the Internet

Connect the yellow Ethernet cable from the “WAN” yellow port on your SFE3160S to an available Ethernet port on your switch or cable modem.

NOTICE: FOR THE CBSD SMALLCELL DEMO SETUP. IT IS REQUIRED TO HAVE CONNECTION TO INTERNET VIA ETHERNET WHERE IPSEC PASSTHROUGH IS ENABLED, I.E. PORT 500, PORT 4500 ARE *NOT* BLOCKED BETWEEN SFE3160S CBSD SMALLCELL WAN PORT AND THE INTERNET.

NOTICE: GPS ANTENNA IS OPTIONAL IN THIS DEMONSTRATION WHERE GPS LOCATION HAS BEEN PRESET ON THE SMALLCELL FOR TESTING PURPOSE.



2) Power on your SFE3160S CBSD SmallCell

Connect the power cable to the SFE3160S power port, then plug in your AC power adaptor into the power outlet.

3) Let your SFE3160S CBSD SmallCell setup

After you power on your SFE3160S, the SFE3160S will go through the setup process till LTE service is ready with the following LED state:

- POWER (Solid Blue): Power on. Device self-testing and update complete.
- STATUS (Solid Blue): LTE service ready
- SERVICE (Solid Green): LTE service ready



4. Common Troubleshooting Procedures

Case	State to Indicate	Power LED	Status LED	Service LED	Customer Care Description
1	Power On	RED	OFF	OFF	<p>1. If the device doesn't into this state after PLUN IN:</p> <p>a. Please check the wall outlet is working fine.</p> <p>b. Please check whether the power cord of charger is connected or not.</p> <p>c. If the machine still can't into this state after the power cord and wall outlet are working properly. Hardware issue, please change the product.</p> <p>2. If the device stays in this state more than 1 minute:</p> <p>a. Hardware issue, please change the product.</p>
2	Network is initializing	GREEN	OFF	OFF	<p>If the device stays in this state more than 1 minute, please check:</p> <p>1. Please check the network cable is connected to the Ethernet port on your device, and the other end is connected to the network.</p> <p>2. Please try to switch a different Ethernet cable.</p> <p>3. Please check DHCP server is working normally.</p>
3	IPsec Tunnel is initializing	BLUE	RED FLASHING	OFF	<p>If the device stays in this state more than 5 minutes, please check:</p> <p>1. Please check the IP address for this device can access the internet.</p> <p>2. Please check the UDP port 500 and UDP port 4500 is opening at the firewall.</p>
4	LTE Service is initializing	BLUE	BLUE FLASHLING	OFF	<p>If the device stays in this state more than 5 minutes, please check:</p> <p>1. The location of device is allowed to cell up by SAS</p> <p>2. The device can get the GPS signal (Take the GPS antenna to window / Stick to window if required)</p>
5	Lost Connecting with MME	BLUE	RED	OFF	Please connect with administrator of HeMS to check whether the MME IP is correct or not.
6	Setting Error at HeMS	BLUE	OFF	RED	Please connect with administrator of HeMS to check whether the Cell ID, TAC, and PCI are correct or not.
7	LTE Service Ready	BLUE	BLUE	GREEN	
8	LTE Service in Progress	BLUE	BLUE	GRREEN FLASHING	

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9	LTE Service in Maximum Capacity	BLUE	BLUE FLASHLING	GREEN FLASHING	LTE service is in Maximum Capacity. Now we support 128 UEs.
10	Over Temperature	RED FLASHING	NO CHANGE	NO CHANGE	Your device is over-heating. Please move device to other area and try again.
11	RF Issue	RED FLASHING	RED FLASHING	RED FLASHING	Hardware issue. Please restart the device. If the LED still in this state, please change the product.
12	Software Update	BLUE FLASHLING	BLUE FLASHLING	BLUE FLASHLING	Software upgrade in progress, device will reboot automatically.

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance **20cm** between the radiator & your body.