Brief : cnPilot AP 3G/4G Uplink

- Enterprise Network needs failover connection to reduce the downtime costs.

- Enterprise traditionally use Analog lines and ISDN connections for failover.

- With emergence of LTE, 3G/4G have surpassed older technologies.

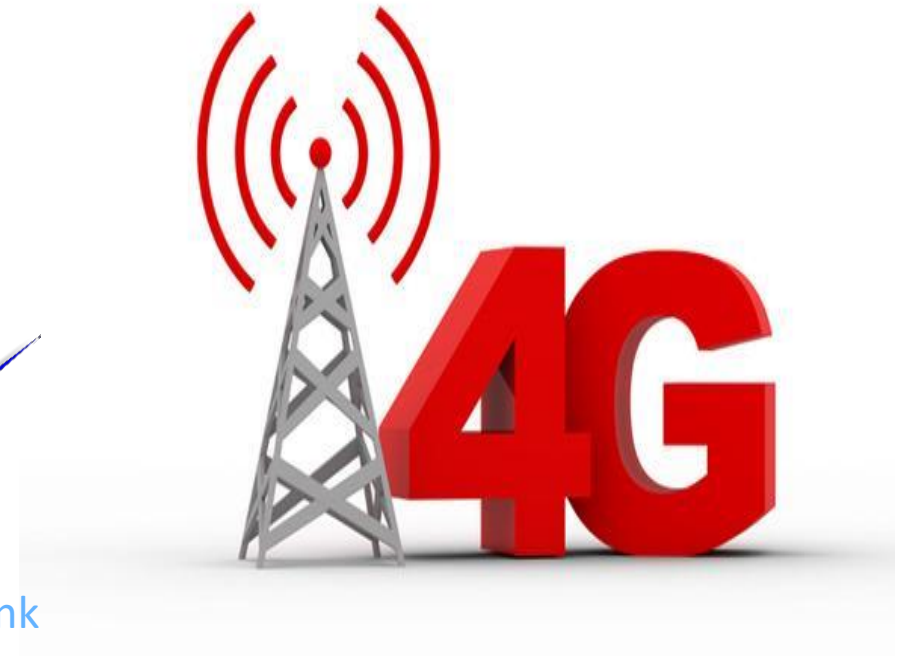- Cambium Networks e600 AP comes with LTE support to provide primary internet and the backhaul.

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Network Setup

Clients gets IP address from the DHCP server running on the cnPilotAP

3G/4G Uplink

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Supported model and How feature works

- The support for cellular uplink is added in cnPilot version - 3.11-r1 (CLI support is already added in 3.10 version)

- As of now, we support two models of dongles:
  - Huawei E8372
  - Huawei E3372

- 3G/4G Uplink can be configured two modes, Failover only checked and unchecked.
  - If Failover only is unchecked, then 3G/4G (WWAN) will be the only working connection.
  - If Failover only is checked, then Ethernet will be the primary connection and WWAN will be backup.

- This is how 3G/4G failover works :
  - Running a check in the background that constantly monitors a user configured IP address (Eg: 8.8.8.8) for reachability through ping.
  - If the IP is reachable and 3G/4G interface is down, do nothing (since we have wired connectivity, which is preferred).
  - If the IP is not reachable and LTE interface is down, then bring up the LTE interface. If it is already up let it remain up.
  - If the IP is reachable and LTE interface is UP, periodically Ethernet connections is checked
  - If LTE signal is lost before the periodic interval, a keep-alive method is triggered in the background to switch to wired

- Note : Cellular link can be configured as backup only to Ethernet connection

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Management

- WEBUI Configuration
  - Click the **Configure** link on the cnPilot main window.
  - In the **Configure** window, click the **Network** settings
  - Click the **WWAN** tab and configure the following parameter as shown in figure

- CLI Configuration

```
E430-368BB9-Anandisusing(config)# wwan

  apn               : Configure network provider APN address
  auth              : Configure authentication parameters
  failover-only     : Enable to use WWAN as a failover internet backhaul
  monitor-host      : Configure as server to monitor with ping to decide for internet failover
```

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Show/Debug commands

- service show debug-logs infrad, will show you the WWAN bring up status

- show ip interface brief

- show events

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