

Outdoor Wi-Fi Supporting First Response for Disaster Recovery

“Reliable wireless connectivity – including deployment in hours, not days or weeks – is part of bringing people together to respond and ultimately make challenging situations better” – ATUL

BHATNAGAR, PRESIDENT AND CEO, CAMBIUM NETWORKS

Overview

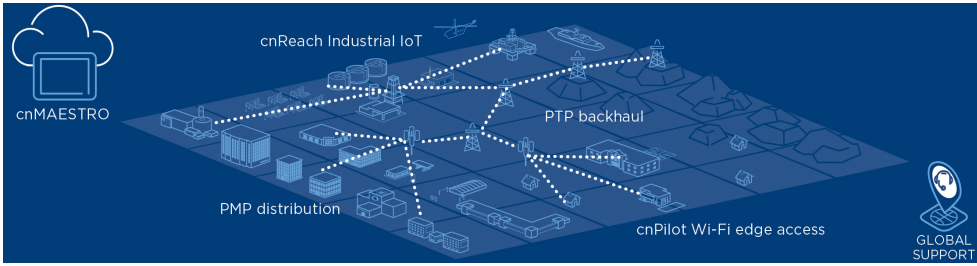
DISASTERS CAN HAPPEN ANYWHERE AT ANY TIME. Connectivity makes a vital difference in emergency and aid agencies’ abilities to coordinate response teams and reach people in need. Wireless broadband access solutions can be deployed rapidly to provide industry leading Wi-Fi connectivity for the devices aid agencies and personnel rely on – getting all teams online quickly and easily.

Wireless connectivity played a supporting role in the recent rescue of the boys soccer team lost in flooded caves in Thailand, connecting teams at the cave entrance in a remote area. Helping to coordinate the underground rescue effort were teams above ground with Wi-Fi supplied by KING IT and operated by 3BB, the local telephone company. Working together, they created a hotspot at the cave entrance with Wi-Fi connectivity provided by Cambium Networks’ cnPilot™ outdoor access points.



Answering the Call

IN AN EMERGENCY, THE CALL FOR ASSISTANCE ALWAYS REQUIRES RAPID RESPONSE, but often offers few details. Network operators and system integrators must draw on experience to choose the right equipment and configuration. At the site of the recovery efforts at the mouth of the flooded cave, KING IT was prepared with both – designing the emergency response network on the spot to ensure access for not only rescue personnel, but also the press and media team covering the events and ensuring family members had real-time information about their children.



3BB provided 200 Mbps of backhaul throughput via FTTX to the network, distributed as Wi-Fi by cnPilot™ e500 enterprise outdoor access points (AP) – each supplying up to 50 Mbps of capacity. These Wi-Fi hotspots provided communications for aid teams’ devices in what was rapidly expanding into an international effort to coordinate resources, equipment, medical facilities, and personnel in the remote Thai jungle.

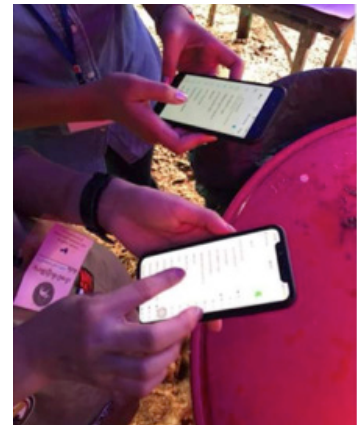
The cnPilot APs were configured and managed by KING IT from their headquarters using cnMaestro™ cloud-based network controller, enabling total visibility and streamlined operation of the network down to the innumerable devices used by individual rescue personnel. This enabled network performance to be monitored both on site, and in the 3BB network operations center more than 100 kilometers away.

Solutions that Support Disaster Recovery

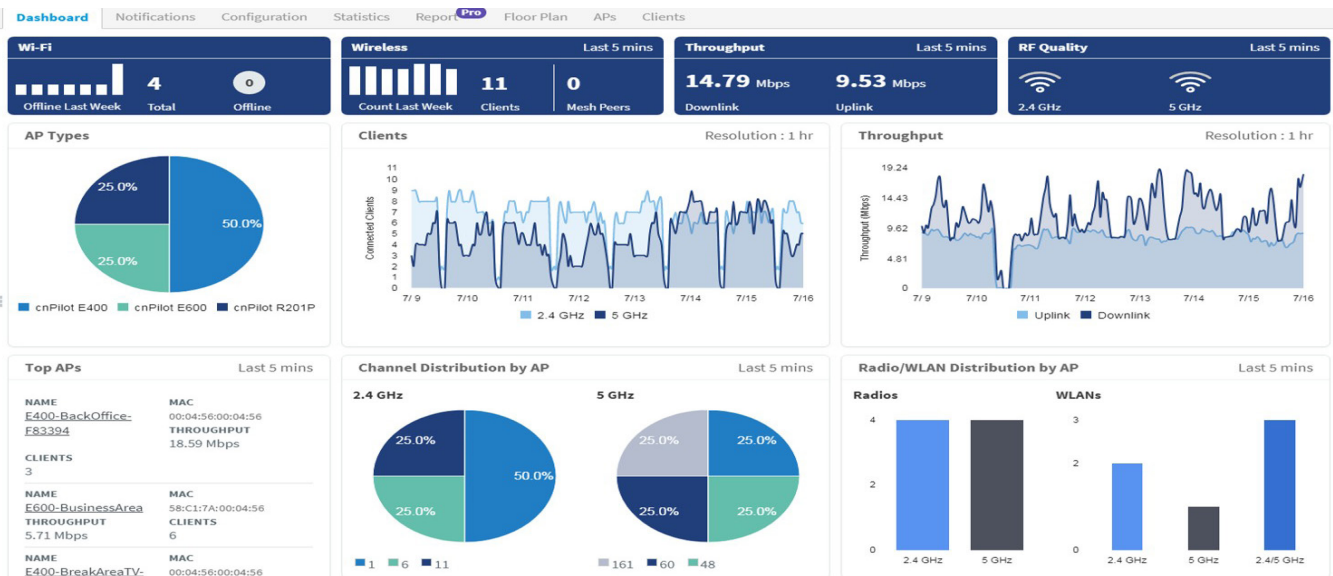
FOR CONNECTIVITY DESIGNED TO DEPLOY RAPIDLY and under rugged conditions, Cambium Networks’ cnPilot enterprise outdoor Wi-Fi includes the following core technologies to rapidly deploy Wi-Fi connectivity:

CNPILOT™

- Industry standard 802.11ac Wi-Fi – ability to provide high throughput capacity to interoperate with industry standard computers, tablets, phones and other devices.
- IP67 rated rugged outdoor enclosure – ability to provide reliable connectivity in extreme heat, cold, rain and other demanding environmental conditions.
- Flexible architecture – ability to deploy with a cloud-based controller, a local controller, or for small networks an AutoPilot mode where no controller is needed.
- Zero Touch configuration – minimizes installation time and ensures that network activation will go smoothly.
- LINKPlanner planning software - Free network planning software improves success rate of first installation with GoogleEarth overlay showing coverage areas.
- cnMaestro™ network management software – Bird’s eye view of the entire end-to-end network performance.



cnPilot™ Outdoor Access Points		
Delivering Wi-Fi coverage for		
<ul style="list-style-type: none"> • Enterprise • Hospitality • Industry • Public Wi-Fi 		
With mesh capability, 2 LAN Ethernet ports, and roaming capability		
Series	E500	E700
Antenna coverage options	30°, 90°, 120°, or Omnidirectional	Omnidirectional
Wi-Fi Standard	802.11ac	802.11ac Wave2
Frequency	2.4 and 5 GHz	2.4 and 5 GHz
Max Throughput	1.01 GBPS	1.01 GBPS
TxPower	29 dBm at 2.4 GHz 28 dBm at 5 GHz	33 dBm at 2.4 GHz 36 dBm at 5 GHz
Concurrent Users	256	512
SSID	16	16



CNMAESTRO™

cnMaestro is a cloud-based or on-premises software platform for secure, end-to-end network control. The cnMaestro wireless network manager simplifies device management by offering full network visibility and zero touch provisioning, as shown above by the image taken from a lab network.

This view of a different system provides the following information:

- cnPilot Access Point throughput
- number of current active clients
- history of current clients over time
- throughput delivered

Network operators can view and perform a full suite of wireless network management functions in real time, and optimize system availability, maximize throughput, and meet emerging needs of business and residential customers.

With this information, network operators have an immediate view of current and historical performance to quickly allocate resources to expand or modify coverage.

