

Data Sheet | Neutral Host-as-a-Service (NHaaS)

Solution Overview

InfiniG’s innovative Neutral Host as-a-Service (NHaaS) solution provides reliable and cost-effective in-building mobile coverage for buildings big and small. NHaaS extends the public cellular service inside buildings using small radio nodes that share CBRS airwaves, LAN infrastructure, and the building’s existing broadband service to connect each mobile user to their mobile network operator.

	Radio Nodes (RN)	<p>Description: Indoor, ceiling-mount cellular small cell (CBSD)</p> <p>Radio Frequency: 3550-3700 MHz TDD</p> <p>RF Architecture: 4T4R</p> <p>RF Bandwidth: 2 x 40MHz</p> <p>Max Throughput: 200 Mbps DL, 27 Mbps UL</p> <p>RF Power Out: 2 x 1 W (Cat A CBSD)</p> <p>Data/Power In: Category 5/6 (RJ45) with PoE++</p> <p>TDD Timing: IEEE 1588v2 PTP</p> <p>Physical Dimensions: 10" x 10" x 2"</p> <p>Power Consumption: 32 W DC Max</p> <p>Certifications: OnGo Alliance, 3GPP Rel 11, UL Listed</p> <p>Key Features: Plug and Play deployment, carrier aggregation, MIMO, SON, 1 -3 frequency reuse, remote management</p>
	Ethernet Switches (POE)	<p>Description: Indoor, rack-mount Ethernet Switch</p> <p>Ethernet Support: 10/100/1000 BASE -T</p> <p>Ports: 24</p> <p>PoE Power Budget: 740W</p> <p>Physical Dimensions: 19" rack, 1U</p> <p>Power Consumption: 920W AC Max</p> <p>Key Features: Plug and Play deployment, PoE++ support, PTP Aware, QoS, Layer 3, remote management</p>
	GPS Timing Units (PTP)	<p>Description: Outdoor, roof-mount PTP Timing Unit</p> <p>Sync Source: GNSS (GPS satellites)</p> <p>Timing Support: IEEE 1588 -2008 PTP Grandmaster</p> <p>Max PTP Endpoints: 64</p> <p>Data/Power In: Category 5/6 (RJ45) with PoE</p> <p>Physical Dimensions: 4.25" x 5.5" x 1.25"</p> <p>Power Consumption: 6 W DC Max</p> <p>Key Features: Plug and Play deployment, outdoor temp/humidity, integrated GNSS receiver and antenna, dual simultaneous GNSS frequency, Stratum 3E OCXO, PoE, remote management</p>

Architecture

NHaaS is very similar to traditional Wi-Fi and IT infrastructure, where RNs connect to POE switches with Category 5/6 cable, and switches connect to each other via fiber cable. The NHaaS solution shares the router/firewall and Internet connection from the building.

About InfiniG

InfiniG was started by OnGo Alliance founders and creators of the CBRS Neutral Host Network architecture, who later went on to build the very first such network for Meta. InfiniG is solely focused on solving the in-building cellular problem in a scalable, cost-effective way in collaboration with the MNOs. The InfiniG NHaaS solution includes all required equipment and services to extend MNO networks into a building, at a significantly lower cost than DAS and with more reliable coverage than repeaters. The solution is now commercially available from select partners.

