OVERVIEW

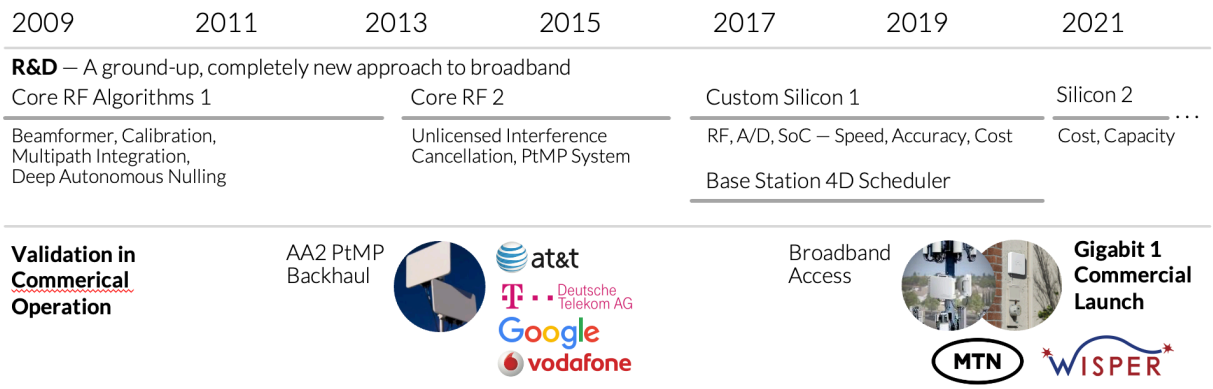
G1: CHANGING MARKET DYNAMICS

Overcoming the Limitations of Traditional Fixed Wireless Access

Tarana was founded by four Berkeley PhDs and one long-time veteran of advanced radio system development in 2009. The ultimate goal was to revolutionize broadband access — but the team needed to get there in a series of steps.

The first was building the distributed massive MIMO baseline architecture in an FPGA-powered backhaul solution, which enabled commercial engagement in a real-world application. Second was the truly novel invention of real-time unlicensed interference cancellation. Proof of our unrivaled performance in commercially deployed NLoS cellular backhaul (including carrying cellular traffic over unlicensed-band 5 GHz NLoS radios in metro London for Vodafone) helped Tarana raise the funds to design and build the custom silicon required to deliver the right residential economics in the Gigabit 1 (G1) solution.

With the chipset's successful completion in 2020, we've productized the complete G1 solution. G1 started production in mid-2021 and has been embraced by more than 200 operators in 23 countries and 45 states — enough to cover 20 million households and serve over 1 million.



People have asked, how is it possible that Tarana has outpaced the 3GPP/5G juggernaut in addressing the residential broadband problem? The answer is simple. We assembled a single, relatively small, but deeply expert, and vertically integrated team to build all the pieces of a proper wireless broadband system from scratch. No one else in the industry has done this, and our now well-proven performance advantages are a testament to the power of this approach. In addition to the 3GPP industry's primary focus on mobile applications, its balkanized, highly fragmented structure inherently precludes similar advances in performance in fixed wireless.

G1 Specifications

- Up to 1.6 Gbps Aggregate Capacity per Link*
- Up to 3.2 Gbps Capacity per Sector*
- Up to 12.8 Gbps Capacity per Cell (4 BNs)*
- Up to 250 Clients per Sector
- Up to 1000 Clients per Cell (4 BNs)
- 5 or 6 GHz (unlicensed) or 3 GHz (CBRS)
- Works in NLoS and nLoS
- Cancels Self and External Interference

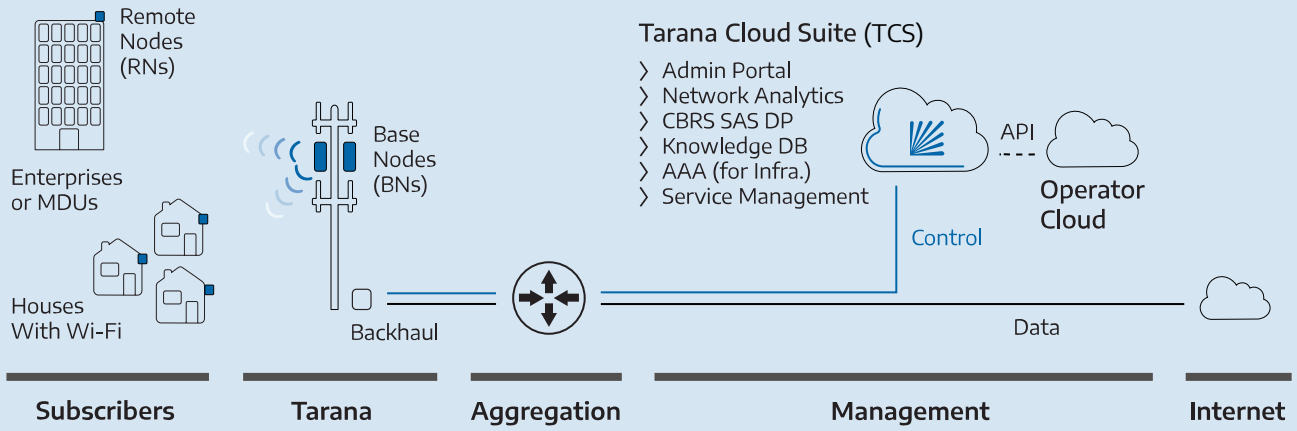
Remote Node (RN) Base Node (BN)

Full Data Sheet
taranawireless.com/g1-data-sheet

*In x2 (4-carrier) mode for the 6 GHz product model

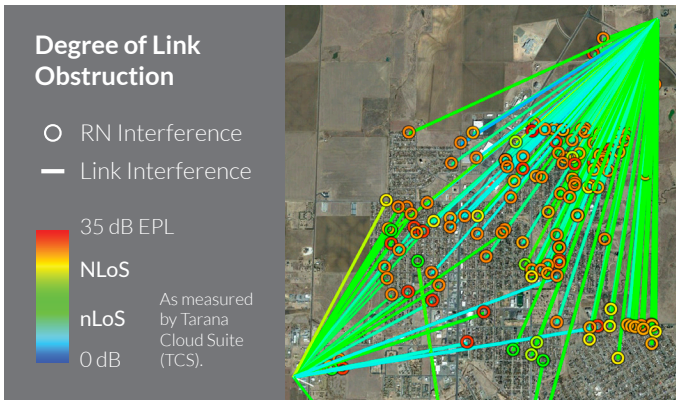
Network Architecture

Simple, IP-based network architecture, supported by the Tarana Cloud Suite (TCS), enables multiple subscriber access models for highly cost-efficient residential and enterprise service.



Real-World Results

- 5 GHz Unlicensed Band Operation
- 135 RNs on 1 BN
- k=1 Spectral Reuse



An Award-Winning Solution

ChannelVision Magazine 2024 Visionary Spotlight Awards

- Top Innovation
- Wi-Fi and Fixed Wireless
- Rural and Underserved Connectivity
- Wholesale Broadband and Capacity

LightReading 2023 Leading Lights Awards

- Company of the Year (Private)
- Digital Equity All-Stars