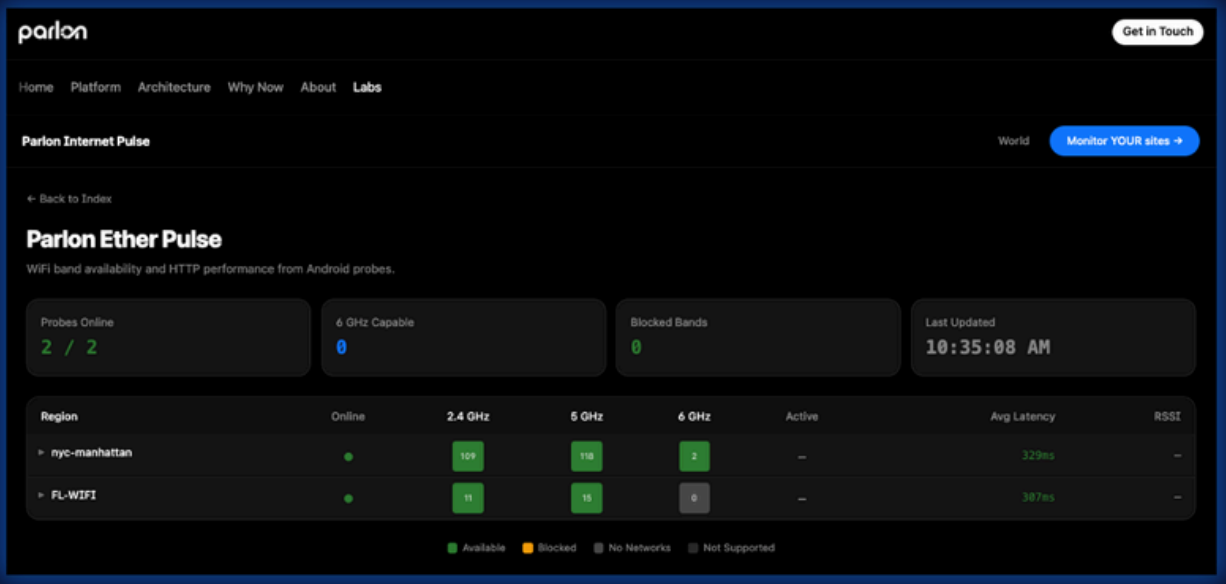
parlon

Parlon Ether Pulse™

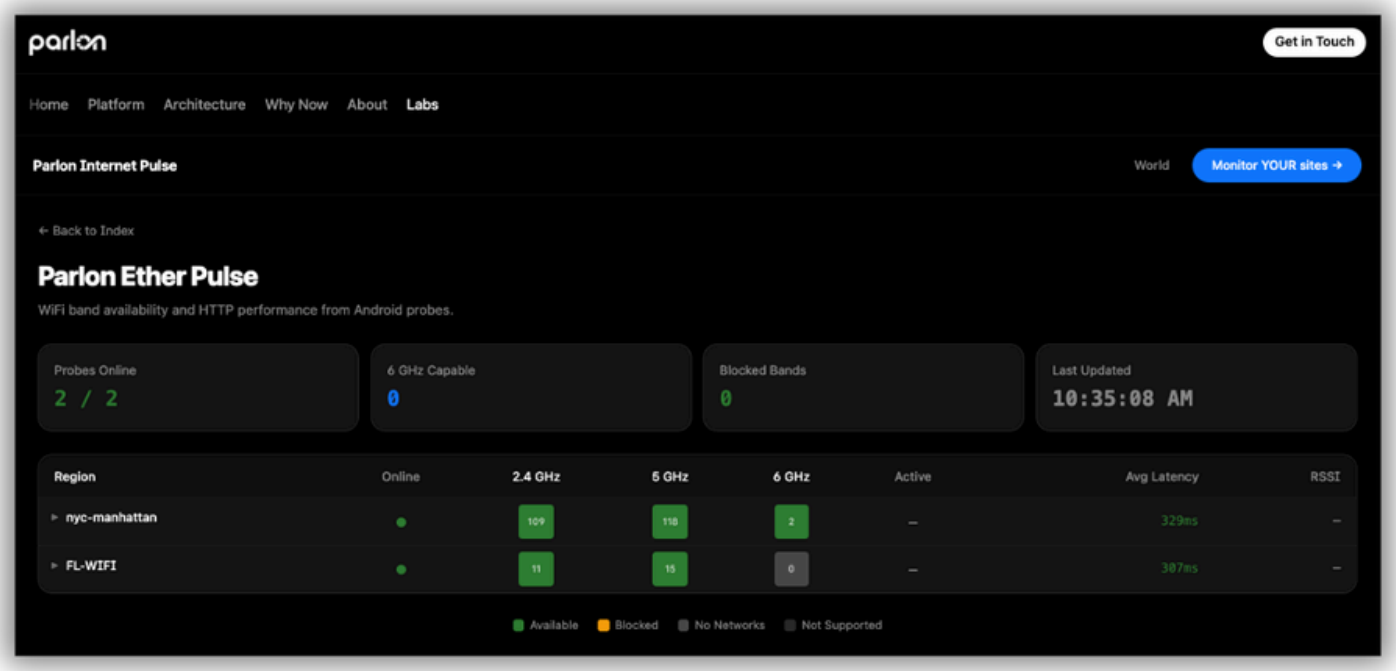
Real-time WiFi band monitoring and network intelligence from distributed Android probes



labs.parlon.io/wifi

WiFi is the last mile you can't see

Enterprise monitoring stacks trace requests through CDNs, load balancers, and service meshes. But the moment traffic leaves the access point and hits the client device, you go dark. WiFi is where most user sessions begin — and the layer most likely to degrade without triggering a single alert.



Ether Pulse dashboard showing live band availability, network counts, and HTTP latency from distributed probes

3	5 min	10	0	24/7
WiFi Bands Scanned		HTTP Targets	Hardware Required	

The Problem

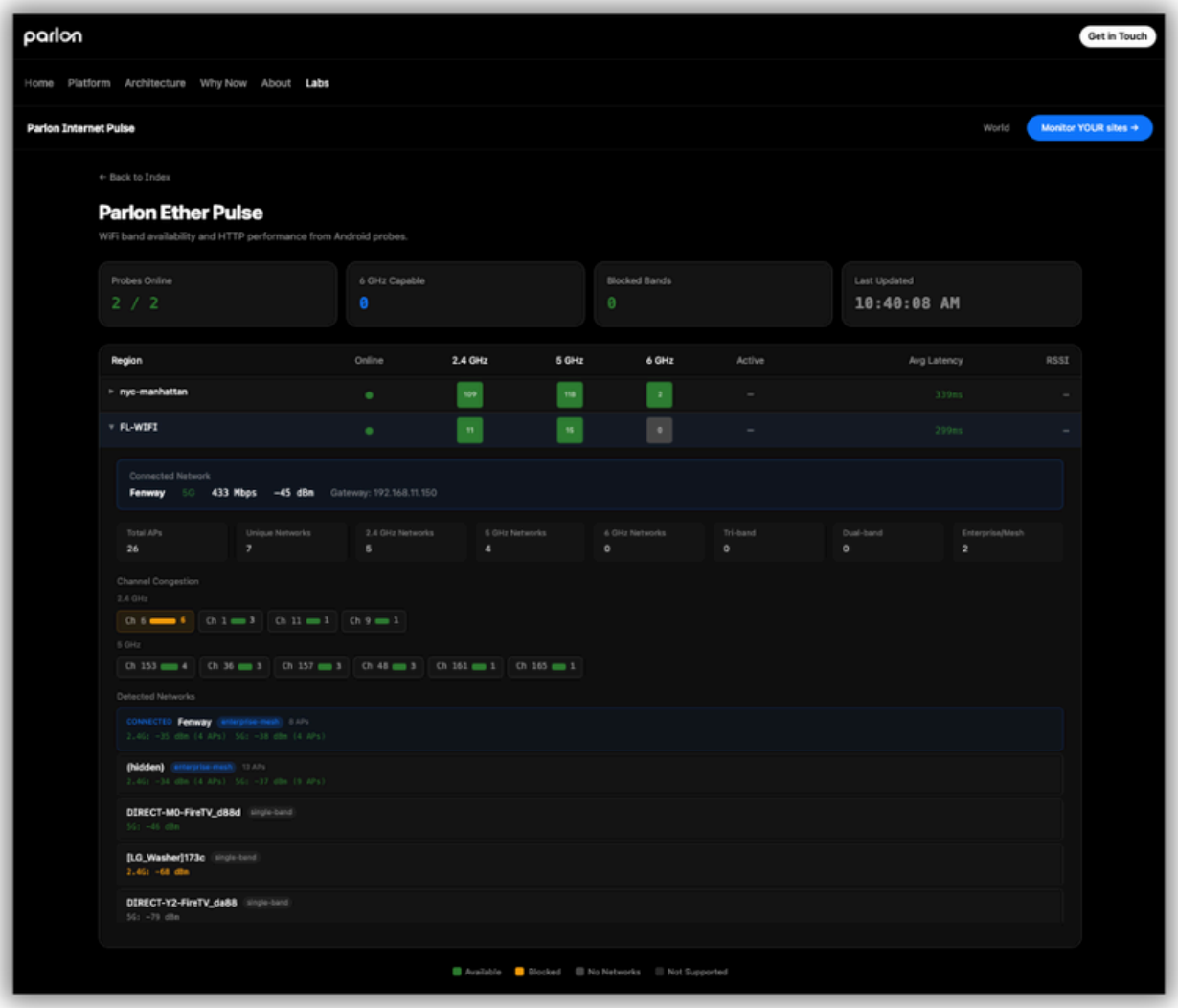
- **No WiFi visibility.** 70%+ of endpoints connect over WiFi. When users say "the internet is slow," teams can't prove whether it's WiFi, ISP, or application.
- **Invisible channel congestion.** Dense environments can have 15+ competing networks on the same channel, causing retransmissions and latency spikes no APM tool shows.
- **No per-band performance data.** 5 GHz may deliver 164ms while 2.4 GHz delivers 750ms P95 — a 4.5x variance from RF conditions alone.

The Solution

- **Phones as probes.** Any Android 10+ phone becomes a WiFi probe. Install the APK, set a name, tap Start. No hardware, no root access, no MDM.
- **Tri-band scanning every 5 minutes.** Scans 2.4 GHz, 5 GHz, and 6 GHz. Records every network — SSID, BSSID, frequency, channel, signal strength.
- **Real HTTP latency + band cycling.** Actual response times to 10 major websites. Auto-rotates through bands for per-band comparison.

What the data actually tells you

Here's what a single probe reveals. Every row below comes from live data — not a spec sheet.



Expanded probe detail: connected network, area intelligence, channel congestion, and detected networks

Insight	Data Point	What It Means
RF density	Dozens of networks across 2.4 GHz and 5 GHz	Dense locations are saturated on both bands. Any new AP deployment must account for co-channel interference.
6 GHz emerging	Few networks on 6 GHz vs. many on 5 GHz	WiFi 6E is early. First-mover advantage: 6 GHz channels are virtually empty.
Channel hotspots	Congestion varies dramatically by channel	Some channels have 15+ networks while adjacent ones have 3. Directly actionable for channel planning.
Network classification	Single-band, dual-band, tri-band, enterprise-mesh	Auto-classification reveals infrastructure quality of the RF neighborhood.
Link speed data	Connected speed, RSSI, gateway IP	Real connection telemetry — not theoretical maximums from the AP controller.

> Key insight: The RF environment changes measurably hour by hour. A one-time site survey captures one moment. Parlon Ether Pulse captures the full picture — continuously, 24/7.

Real-world use cases

Wifi Scope turns WiFi complaints into data-driven conversations. Here are the scenarios where it delivers the most value.

"Conference Room WiFi Is Bad"

ENTERPRISE IT

"Executives keep complaining about WiFi in the 4th floor boardroom. We replaced the AP twice. Nothing helps."

Deploy probe	Data flows in	Root cause found	Move to Ch 11	Verify improvement
Phone on 4th floor shelf	Channel 6: 19 networks	Co-channel interference, not AP	Only 3 competing networks	Before/after latency data

Result: Solved a 6-month complaint in one afternoon. No more AP replacements — the problem was the channel, not the hardware.

ISP "Slow Internet" Truck Roll Avoidance

ISP / FIXED WIRELESS

"Customer says internet is slow. We check the line — 200 Mbps, clean signal. It's their WiFi, but we can't prove it."

Ship probe phone	Scan reveals	Band data shows	Share dashboard	Advise upgrade
Customer self-installs	15 networks on 2.4 GHz Ch 6	2.4 GHz: 450ms / 5 GHz: 120ms	"Your WiFi, not our service"	Recommend dual-band router

Result: Avoided a $150 truck roll. Turned a complaint into a router upsell opportunity with objective evidence.

Managed WiFi SLA Compliance

PROPERTY / MDU MANAGER

"Our managed WiFi vendor says they're meeting the 99.5% uptime SLA. Tenants say otherwise. Who's right?"

Deploy probes	Collect 30 days	Evidence shows	Present to vendor	SLA credit
1 per building common area	Hourly availability & latency	97.2% availability, not 99.5%	Timestamped proof of outages	or vendor improvement plan

Result: Independent SLA verification without trusting the vendor's self-reported metrics. $12K SLA credit recovered.

Multi-Site Guest WiFi Monitoring

RETAIL / HOSPITALITY

"We have 50 locations. Guest WiFi is part of the brand. We only hear about problems from 1-star reviews."

1 phone per store	Fleet dashboard	Spot outliers	Diagnose remotely	Fix proactively
Behind counter, USB power	All 50 locations at a glance	Store #23: 800ms avg latency	Channel congestion in mall	Before the next bad review

Result: WiFi quality KPI across all locations. Proactive fixes reduced WiFi-related complaints by 60%.

WiFi 6E Upgrade Justification

NETWORK ENGINEERING

"We want to deploy WiFi 6E but leadership wants ROI data. 'It's faster' isn't a business case."

Deploy 6E probe	Enable band cycling	Data shows	Plus: 2 neighbors	ROI approved
Phone with WiFi 6E support	Compare all 3 bands	6 GHz: 80ms / 5 GHz: 250ms / 2.4: 500ms	on 6 GHz vs. 29 on 5 GHz	3x latency improvement, clear channels

Result: Data-backed business case for 6E. Measured 3x latency improvement and near-zero channel competition.

Why this beats the alternatives

vs. WiFi Site Surveys ($2,000-$10,000 per site)
A survey gives you a snapshot stale within weeks. Ether Pulse gives you continuous data from a $100 phone. The RF environment changes hour by hour — a survey can't capture this.

vs. Controller-Based Monitoring (Meraki, UniFi, Aruba)
AP controllers show infrastructure-side metrics. They don't show client-side HTTP latency, or how your signal compares to competing networks. They also can't see networks they don't own.

vs. Synthetic Monitoring (ThousandEyes, Catchpoint)
Synthetic agents treat WiFi as a black box. Ether Pulse measures both RF conditions and HTTP performance — so you can correlate "latency spiked" with "channel congestion increased."

vs. Spectrum Analyzers (MetaGeek, Ekahau)
$3,000+ hardware, RF expertise, physical presence. Ether Pulse covers 80% of WiFi complaints continuously, unattended, with a phone.

Insights you derive over time

- **Congestion trending.** Track channel density over weeks. See new AP deployments before users feel them.
- **Band adoption benchmarking.** Percentage of neighbors on each band. Quantify the 6 GHz advantage.
- **Per-band latency comparison.** Apples-to-apples HTTP latency per band via band cycling.
- **Enterprise-mesh detection.** Identify networks with 4+ APs — the dominant interference sources.
- **SLA evidence.** Historical availability %, latency, and RSSI. Automatic SLA documentation.
- **Infrastructure validation.** Before/after data for AP changes. Measured improvement, not guesswork.

Who gets value from this

Buyer	Pain Point	What Ether Pulse Delivers
ISPs / Fixed Wireless	"Internet is slow" but the uplink is fine	Per-premises WiFi health without truck rolls. Prove it's the RF environment.
Enterprise IT	"Conference room WiFi is bad" — no data	Continuous per-band data from every floor. Channel congestion maps.
Property / MDU	Tenants complain, can't reproduce	SLA compliance data. Tenant-by-tenant interference analysis.
MSPs / Integrators	On-site visits to diagnose WiFi	Remote probe at each client site. Triage without driving there.
Retail / Hospitality	Guest WiFi unmonitored across sites	Per-location quality from guest perspective. Multi-site comparison.
Smart Buildings	IoT devices drop off WiFi	2.4 GHz band reliability where sensors and cameras depend on WiFi.

Deploy in 5 minutes

1. **Install APK** — Any Android 10+ phone
2. **Configure** — Region name and API key
3. **Tap Start** — Scans every 5 min, survives reboots
4. **Monitor** — Live dashboard within minutes

No specialized hardware. No root access. No MDM. No TAPs. The phone sits on a shelf, plugged in, and reports continuously.