User-Centric Internet Truth Engine (U-ITE)

The problem it solves

- ISPs monitor *their* devices
- Companies monitor *their* routers
- Nobody monitors the experience end-to-end

Your solution

A lightweight agent + software platform that:

- Runs tests from inside customer networks
- Correlates:
    - latency
    - packet loss
    - jitter
    - DNS failures
    - routing changes (BGP shifts, path flaps)
- Then translates it into human truth:
- "This outage is 82% likely inside ISP backbone, not your LAN."

The Core Vision:

A system that proves, with evidence, where internet failure actually happens—from the user's chair to the ISP backbone.

How This Has Not Been Solved Properly**:**

Existing tools:

- Ping = too shallow
- SNMP = device-focused
- ISP dashboards = biased
- SD-WAN = expensive, opaque

What's missing:

- Perspective
- Correlation
- Translation to truth

Architecture

1. Truth Agent (Inside the customer network)

A small software agent that runs:

- ICMP, TCP, UDP probes
- DNS resolution tests
- HTTP/HTTPS synthetic requests
- Traceroute with path fingerprinting

Key detail:

The agent behaves like a **real user**, not a router.

2. Control Targets (Simulated Internet)

Instead of "ping 8.8.8.8", you use:

- Multiple targets
- Different regions
- Different protocols

This avoids ISP gaming.

3. Correlation Engine (Your secret sauce)

This is where you shine.

It correlates:

- Time-based failures
- Path changes
- Packet loss patterns
- Jitter spikes

- DNS vs transport failures

Then classifies:

- LAN issue
- CPE issue
- Access link
- ISP core
- Upstream transit

Even if accuracy is **70–80%**, that’s disruptive.

4. Truth Report (Human-readable)

Not graphs only.
Statements like:

“Between 14:02–14:17, packet loss occurred after hop 5 inside ISP AS 369XX. LAN and CPE were stable. Responsibility likely lies with upstream provider.”

This is what managers understand.