

NeuralMesh™ Feeds AI at Network Speed, Powers Telecom's GPU Revenue Platform

WEKA's NeuralMesh™ delivers sub-millisecond performance from edge to core to feed real-time network AI, turn shared infrastructure into a GPU revenue platform, and operate AI with carrier-grade control for telecommunications organizations. NeuralMesh simultaneously supports AI moving inside the network to improve operational profitability and carriers turning fiber and spectrum into AI infrastructure they can sell.

Key Benefits of NeuralMesh in Telecommunications

Feed Telecommunication AI at Network Speed

- Sustain millions of IOPS
- React to signals instantly
- Resolve decisions in 10ms
- Adjust network signals fast

Unify Telemetry Data From Edge to Core to Cloud

- Read S3 and POSIX as one
- Avoid full-dataset copies
- Hydrate data only if needed
- Transfer zero-copy to GPU

Run More AI Without a New Build

- Cut capacity by up to 6x
- Auto-tier flash for lower cost
- Add compute, not concrete
- Lower cost per TB by 40%

Provision Tenants in Under 30 Minutes

- Dedicate hardware per tenant
- Scale to 50,000+ tenants
- Bill with per-tenant QoS
- Overlap IP address spaces

Secure Independent Tenants

- Use unique encryption keys
- Authenticate individual slices
- Guarantee QoS per slice

Deploy in Hours, Not Weeks

- Automate cluster lifecycle
- Retire manual tuning
- Watch every deployment live

Keep Data Sovereign

- Encrypt every byte at rest
- Eliminate performance tax
- Meet residency mandates

Serve 10x Concurrent Users

- Cache KV pairs in memory
- Extend GPU memory 1000x
- Speed time to first token 20x

>95%

GPU utilization vs.
30% on legacy protocols

10x

Faster metadata
throughput speeds

86%

Reduction in overall
infrastructure costs

3x

Performance density per
rack and watt

<1ms

Of latency sustained from
the edge to core

Telecommunications Use Cases and Customers

AI Native Network Ops

NeuralMesh feeds RAN optimization and near real-time RIC decisions inside their own millisecond control loop, so edge inference never waits on storage

AI Infrastructure & GPU Monetization

NeuralMesh turns fiber and spectrum into GPU-as-a-service and sovereign AI infrastructure for every tenant

AI-Powered Customer & Network Ops

NeuralMesh feeds agentic care, self-healing NOC automation, and fraud detection with real-time network data

Agentic Customer Care

NeuralMesh lets agents read tickets, check diagnostics, confirm billing history, and resolve or escalate, without storage lag slowing every step

“Enterprises require infrastructure that is secure, compliant and built to perform at scale. Modern AI is no longer limited by compute power alone. The real bottleneck is how quickly data can reach GPUs, making high-speed data architecture just as critical as the GPUs themselves.”

— Bill Chang, CEO, Singtel Digital InfraCo

