

NumoData IPMon: Autonomously deliver exceptional digital experiences from core to customer.

The pressure is mounting on operators.

Communication Service Providers (CSPs) now support a far broader mix of digital offerings than traditional connectivity alone. Today, they span mission-critical enterprise services and everyday consumer broadband experiences such as next-gen gaming, voice, video, and billions of web and mobile experiences. Customer expectations only keep growing. As networks expand across access, transport, core, cloud and customer environments, operators need better visibility, faster fault detection and isolation, and advanced intelligent automation to protect customer experience and margins.

That complexity collides with flat revenue and rising operational expenses.

75%

Global data consumption is projected to rise from 3.6 zettabytes in 2024 to 6.3 zettabytes by 2030, a 75% increase. Supporting that growth will require approximately \$1.3 trillion in operator CapEx.”

[PwC](#)

\$20.15

Fixed broadband ARPU remains stagnant at approximately \$20.15, leaving operators to fund greater capacity, complexity, and service expectations without a corresponding increase in revenue per customer

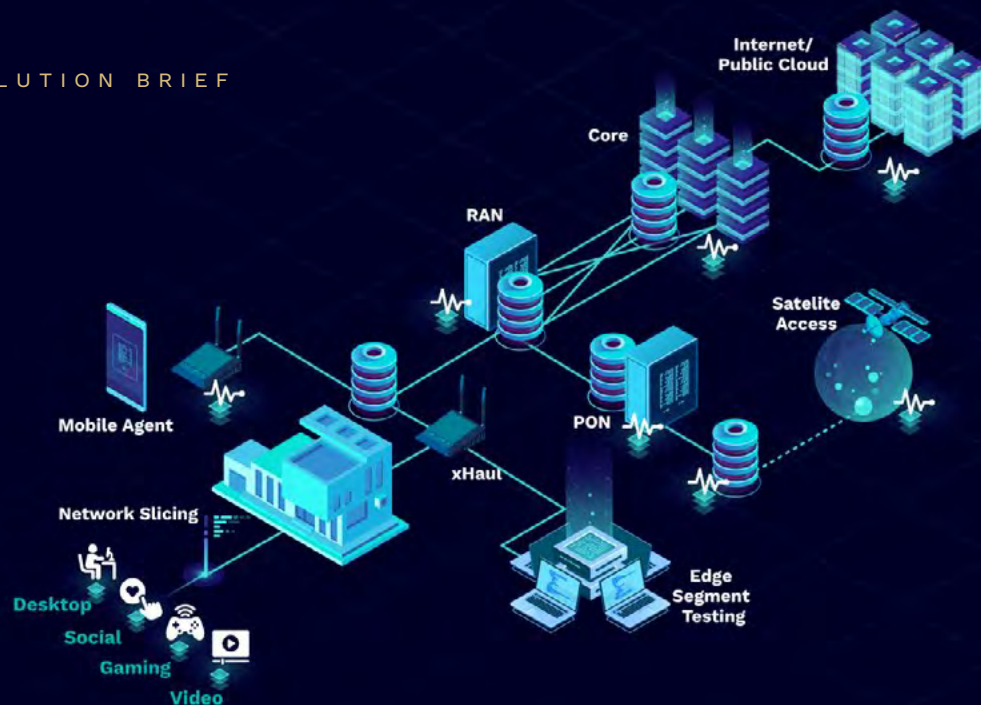
[PwC's Global Telecom Outlook 2025–2029, Omdia](#)

Conclusion:

Operators must spend less to serve and deliver more to retain and grow.

Key facts

- Telco revenue growth has stagnated at around 2% worldwide, invested capital has increased by about \$300B since 2018, and ROIC has declined by 10-15%. [McKinsey](#)
- Autonomous network drivers were reducing costs, identifying correct faults, providing the right resolutions and simplifying O&M. [TM Forum](#)
- Most network outages are a direct consequence of human error, and advance automations can resolve up to 95% of trouble tickets. [TM Forum](#)
- Network costs now consume 50% of telco OpEx, every truck roll costs between \$150-300 per visit. [aexinc](#)



Unlock autonomous experience assurance from core to customer with IPMon

What is IPMon?

IPMon is a cloud-native active test assurance platform that helps operators validate services from day one, continuously monitor real customer experience, and pinpoint issues before they become customer calls, truck rolls, SLA breaches or churn. It uses distributed test agents, intelligent anomaly detection, advanced analytics and AI-driven automations, to give operations and engineering teams end-to-end visibility of their networks, and the ability to close the loop from the cloud to the customer's edge.

How does IPMon go beyond traditional “monitoring”?

1. End-to-end active assurance

IPMon actively tests and observes broadband, fixed wireless access (FWA), and 5G paths end-to-end, correlating results with topology-aware context so operations teams see how cloud, transport, access, core, and Customer Premises Equipment (CPE) perform in terms of actual experience, not just device and link metrics.

2. Rich library of tests that move beyond network KPIs

Active test agents inject synthetic traffic to mimic real customer behavior in any part of the network. Whether running continuously for proactive monitoring or on demand for targeted diagnostics, IPMon can run a wide variety of tests from ping, traceroute, TWAMP and segmented speed tests through to DNS, HTTP/HTTPS, OTT/video, VoIP, WebRTC, PPPoE, DHCP and 5G slice tests, and more. This helps operators validate connectivity, apps, voice, and SLAs across every segment, from cloud to CPE.

3. Predictive AI that fixes issues before customers feel them

IPMon uses AI and advanced algorithms to learn what normal looks like for your network. It detects and analyzes patterns, recognizes anomalies, and forecasts degradations, turning fragmented test results and telemetry into early-warning signals that are most likely to hurt experience, impact revenue, and breach SLAs.

4. Turn data into operational decisions

IPMon doesn't just raise alarms; it aggregates active tests, topology context and historical patterns into a single, unified view so operations, engineering and product teams can see which segments, regions, devices or partners are driving the most complaints, outages, truck rolls and business risk.

5. Democratize network intelligence

IPMon integrates with LLM agents to close the gap between human intent and network action, letting teams ask questions in plain language about complex, multi-vendor networks and get instant, correlated answers to their most pressing issues. This collapses time-to-knowledge and boosts operational agility.

6. Built for augmenting your systems, not creating another silo

IPMon connects to north and southbound interfaces to configure and orchestrate controllers and network elements, so you can embed an active, AI ready experience assurance into existing processes instead of creating another silo.

Unlock revenue. Reduce costs. Deliver efficiently.



Automated broadband assurance

Assure right first-time broadband deployments with end-to-end visibility that cuts truck rolls, and prevents churn.



5G and edge-segmented monitoring

Assure every 5G segment, including satellite, remote and edge locations, end-to-end with clarity.



Service and slice turn up

Validate new services and network slices at activation and track SLAs so you protect premium experiences and prevent bottlenecks.



Voice and IMS service assurance

Assure quality of service and experience for voice with end-to-end insight, enabling deeper root cause analysis and consistently better call quality.



Transport and core optimization

Detect congestion and latency across core, backhaul, and cross-haul paths to guide planning, and optimize performance.



E2E automated operations

Combine active testing, AI, and automation with human oversight to close the loop from detection to action.

See how IPMon helped global operators drive efficiency and improve their customers' experiences.

VoLTE implementation is not easy because IP-based calls are at a greater risk of dropping when customers move between antennas. With IPMon's help, we were able to provide an excellent service launch and a continuous, amazing HD voice quality experience to our subscribers.

Thomas Vonlanthen,

Head of Wireless Access
Technologies, Swisscom

Leading Private Network Provider in the US

Improved on demand 5G private network visibility to 100%, enabled 24/7 service status and troubleshooting, increased root cause accuracy by 75%, and cut Mean Time to Resolve (MTTR) by 80% with end-to-end IPMon assurance.

A renowned Broadband Service Provider in the US

The operator cut their Mean Time to Detect (MTTD) by 50% and saved \$50M USD in OpEx by cutting unnecessary truck rolls.

IPMon

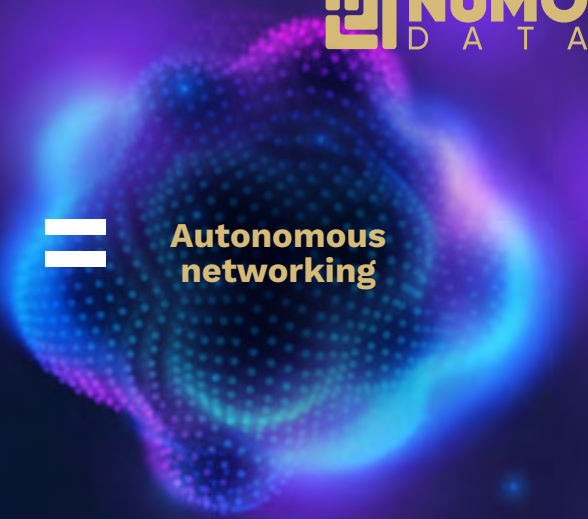
End-to-end visibility, active testing, anomaly detection, advanced analytics. Measure real customer experience.

**Ontology**

Knowledge graph, Semantic digital twin, network understanding, operational intelligence.



**Autonomous
networking**



Full visibility. Faster resolutions. Effortless experiences

**Verifiers everywhere**

Continuous active tests across core, cloud, access, and home environments.

**Real user experience testing**

Synthetic and real flow tests that reflect what customers feel.

**Full service-layer visibility**

Correlate IP, application, and service KPIs across every segment.

**AI-driven root cause analysis**

Uses topology and telemetry to isolate faults and guide actions.

Turn network intelligence into powerful customer experiences

Shape the next era of measurable growth with IPMon.

Schedule a meeting »

About NumoData

NumoData is a global software company delivering AI-powered network intelligence, AIOps, and analytics for CSPs and enterprises. We are a proven and trusted partner that helps your organization augment existing systems with generative AI, predictive analytics, advanced autonomy, and end-to-end monitoring across mobile, broadband, and private 5G, enabling seamless operations and superior customer experiences.