MAVENIR®

DRIVING THE EVOLUTION TO AUTONOMOUS NETWORKS.

TELCO-FIRST. CLOUD-NATIVE. AI-BY-DESIGN.

Beyond Coverage: The Next Frontier of IoT & Mobile Communication

April 2026

Overview of Mavenir

Mavenir's AI Leadership Edge

Founded in 2005 | ~4,000 employees | Headquartered: Texas

Only US-headquartered end-to-end 5G Core, Open RAN & AI solutions provider	Serves **300+ customers** in **120 countries, serving over 50% of the world's subscribers**	Cloud-Native AI platforms purpose-built for service providers
Operates in a massive **market estimated at greater than $39B**[1]	Mission critical, sticky solutions with **~99% Tier 1 logo retention**	Proven innovation track record with **400+ patents** and multiple world-first launches

1. Per Dell'Oro as of Q2'25. Excluding China

TechCo (Technology + Communications Company)

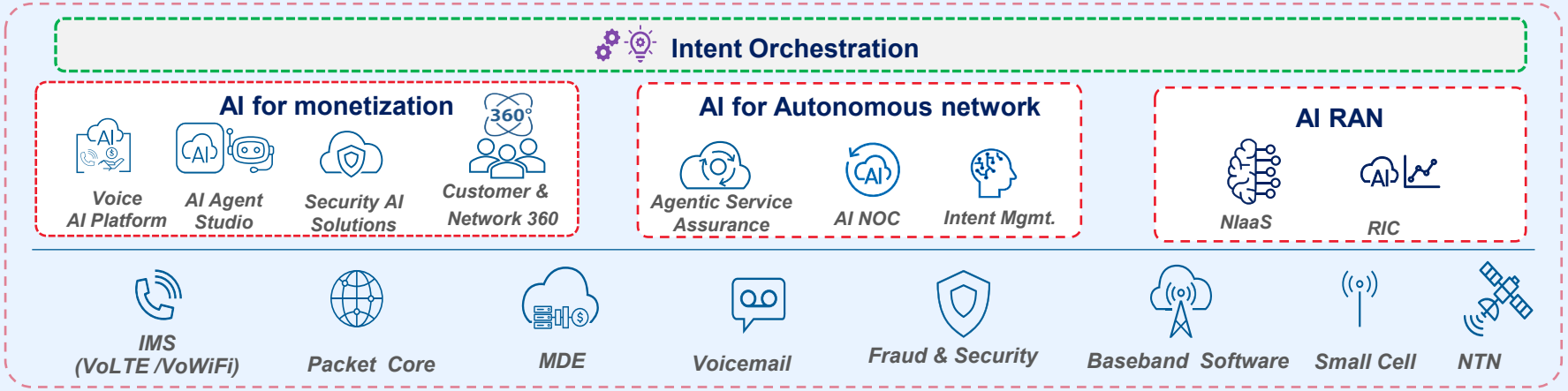
Mavenir AI Differentiators

Telco-centric. Cloud-native. AI-by-design.

AI-enabled monetization	✓ *AI platforms for voice, messaging, customer engagement, and security that generate new revenue streams*
Autonomous networks:	✓ Closed-loop assurance and *AI-driven optimization for operational autonomy*
Cloud-native and open	✓ Disaggregated, standards-based architecture for scalability *and interoperability*

Industry's Only End-to-End, Cloud Native Software Provider

AI-enhanced portfolio powering **monetization, autonomy & TechCo transition**



February 2026

Mavenir Powers Terrestar's Canada-Wide Hybrid Satellite IoT Network

Canada's First 3GPP Standards-Based Hybrid Satellite IoT Network

Delivers carrier-grade reliability, elastic scale, and resilient connectivity across Canada's urban, rural, remote, and northern regions.

Cloud-Native, Operator-Grade Architecture Powered by Mavenir

Built on Mavenir's virtualized RAN and Converged Packet Core, fully aligned with 3GPP NTN standards for seamless integration with existing and future mobile networks.

Advancing Connectivity

Validates NTN as a seamless extension of mobile networks, establishing the foundation for future capabilities and direct-to-device services.

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The Multi Orbit Market Imperative

The Unconnected

3 billion people globally remain unconnected or under-connected

Multi-Orbit Expansion

LEO constellations delivering <40ms latency, scaling alongside GEO/MEO capacity

Standardization

3GPP/Rel-17/18 formalizes NTN support for NR and NB-IoT

Monetizable Services

Transitioning beyond basic coverage to D2D messaging, IoT, maritime broadband, and disaster recovery

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Mavenir Advancing the NTN

Strategic Partnership

We built strategic partnerships with Tier 1 MNO and SNOs for commercial grade **NB-IoT, Voice over NB-IoT** and **NR NTN** deployments—a first in the industry.

Industry First VoNB

We achieved the **Industry's First** O-RAN **Voice Over NB-IoT call.** Our path toward commercialization is early 2026.

Industry First NR NTN

Mavenir delivered world's first **NR NTN** product and on a way toward commercialization

Cloud-Native Architecture

Our **cloud-native, virtualized, and O-RAN-compliant architecture** supports diverse split options, eliminating vendor lock-in for NB-IoT and 5G.

Advancing Features

Mavenir is already developing features within **Rel 18 and further**

AI-Native Advancement

AI for NTN with ultra low latency and edge intelligence advancement will be a key to offer best user experiences(through **dApp**). Multiple AI use cases native for NTN is under development with a target POC **Q1/Q2 2026** and commercialization by **Q4 2026**

Mavenir Non-Terrestrial Network (NTN) Full Stack

Architectural Ecosystem

Services & Applications

AI-Driven NTN Intelligence
- AI Fabric for NTN
- dAPP AI Use Cases
  Optimize network performance and application delivery

IMS & Billing Services SUPPORTED

Full support for IP Multimedia Subsystem (IMS) and MOC Billing applications

Network Core

Packet Core over NTN SUPPORTED

Facilitates data management and connectivity across the non-terrestrial ecosystem

Satellite Access (GEO & LEO)

GEO Orbit Section
Geostationary Stability

SUPPORTED
NB-IoT Over GEO Satellite
Includes support for various interface types: Analog, Proprietary, and CPRI/e-CPRI

SUPPORTED
NR NTN Over GEO Satellite
New Radio (5G) capabilities are fully supported

LEO Orbit Section
Low Earth Orbit Versatility

LEO Access Technologies Development Status

Technology Feature	Device Type	Status
NB-IoT Over LEO Satellite	Non-NTN Device	SUPPORTED
NB-IoT Over LEO Satellite	NTN Device	SUPPORTED
NR NTN Over LEO Satellite	N/A	IN DEVELOPMENT

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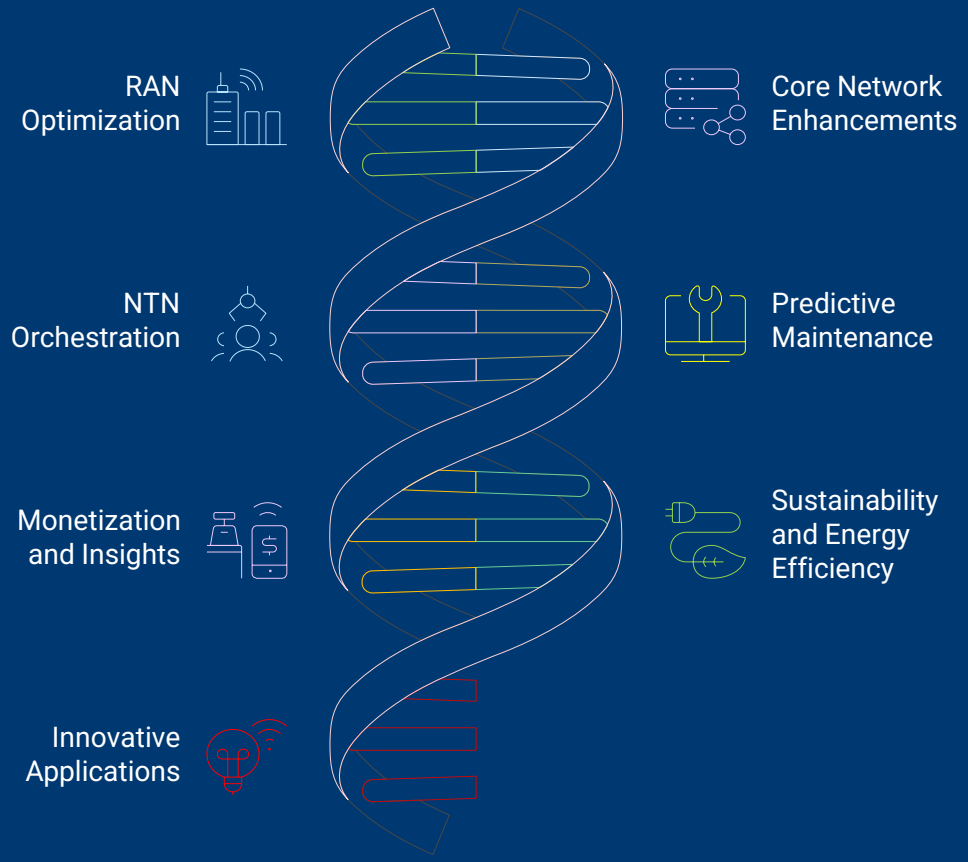
AI-by-design NTN

AI-Native Vision for NTN



NTN RAN Optimization

AI optimization uses machine learning and real-time data to improve network performance. In NTNs, this involves dynamically allocating satellite resources, adjusting beamforming to ensure stable connections, and optimizing traffic routes to reduce latency.

Core Network Enhancements

The core network serves as the central point of a telecommunications system. AI enhancements make it more adaptable and responsive. For NTNs, this includes applying AI for network data analytics, service-based architecture, and managing integration between terrestrial and non-terrestrial networks.

NTN Orchestration (End-to-End Automation)

AI-driven orchestration enables comprehensive management across the entire network. This is essential for NTNs, where a complex combination of satellite constellations, ground stations, and terrestrial networks must operate in harmony.

Predictive Maintenance of Satellite Payloads

Since physical maintenance of satellites in orbit is impossible, predictive maintenance is vital. AI analyzes telemetry data from satellite payloads to identify anomalies and forecast possible failures.

Monetization and Insights

AI equips NTN operators with tools to develop new revenue opportunities and extract meaningful business insights.

Sustainability and Energy Efficiency

AI contributes significantly to making NTNs more sustainable and energy-efficient through smart resource scheduling and power management.

The AI Native Paradigm Shift

AI Fabric (Cloud)

The cognitive brain orchestrating large-scale data ingestion, clustering, and policy-driven global optimisation.

dApps (Edge)

Distributed applications delivering sub-millisecond inference and control loops co-located with DU/CU nodes.

Intelligence Fabric (Cross-Domain)

Agentic orchestration ensuring SLA-driven assurance and network-wide monetisation.

Smarter Satellite Links: AI Network Optimization with dApps

The Challenge: Unreliable Satellite Links

Extreme Latency Disrupts Feedback

GEO satellites create large round-trip delays (~540 ms), making real-time adjustments impractical

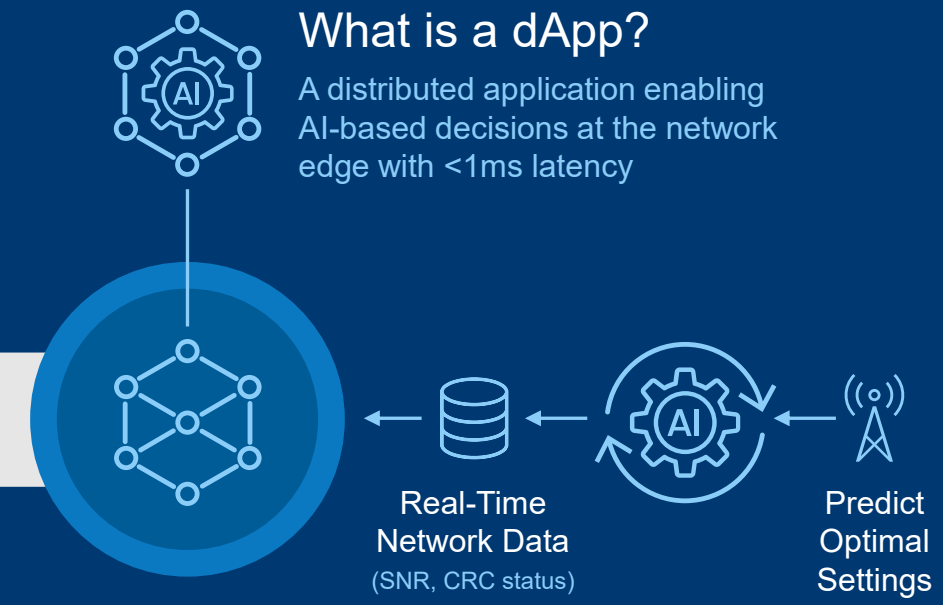
Traditional Optimization Fails

Standard error-correction feedback (HARQ) is disabled, leaving the network blind to channel conditions

The Solution: AI Powered dApps

What is a dApp?

A distributed application enabling AI-based decisions at the network edge with <1ms latency



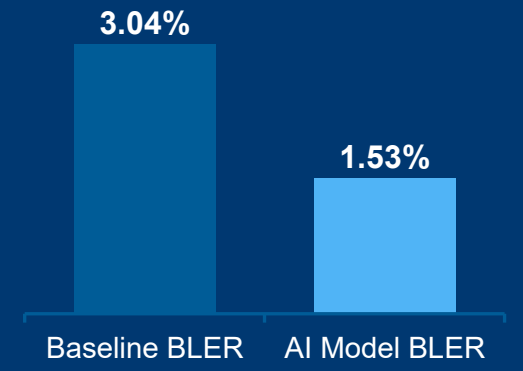
AI is a Necessity, Not an Option

AI is required to accurately predict the best network parameters without direct feedback.

How It Works: The AI Model

An AI agent uses real-time network data (SNR, CRC status) to predict optimal settings

Result: 50% Reduction in Errors



Performance Metrics

- Pure Inference Time ~0.04 ms (40µs)
- End-to-End Processing ~70-90µs
- Sample Throughput ~14,000 samples/sec

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Smarter Skies: How AI Optimizes LEO Satellite Networks

Intelligent Network Management

AI Dynamically Steers Satellite Beams

Optimizes coverage and reduces interference by focusing beams based on user location and traffic.

AI Mitigates Intereference & Balances Traffic

Overcomes large signal delays by accurately predicting optimal resource allocation and link parameters.

AI Enables Predictive Traffic Management

Forecasts network congestion and user demand to proactively manage resources and improve quality of service.

Enhanced Performance & Reliability

AI Optimizes Satellite Handovers

Reduces service disruptions by intelligently selecting the next best satellite for connection.

AI Orchestrates Quality of Service (QoS)

Predicts service quality and system capacity to maintain a consistent user experience.

AI Improves Energy Efficiency

Optimizes system parameters and recommends beam power adjustments to reduce energy consumption.

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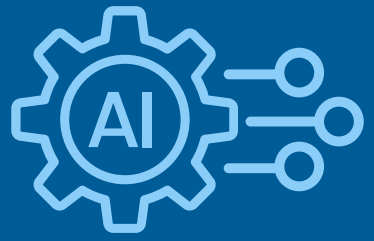
Deployment Strategy – Crawl, Walk, Run!



Crawl (Open-Loop)

AI generates recommendations for manual approval.

Operators build trust observing KPI improvements with zero automated risk.

Walk (Limited Control)

Selected low-risk domains move to automated execution.

Safety Net: Digital Twin simulation validates “what if” scenarios with >75% KPI prediction accuracy prior to live deployment.

Run (Full Autonomy)

AI Fabric orchestrates multi-domain optimization and dApps deliver sub-ms execution edge decisions autonomously.

Whitepaper: AI-by-design NTN RAN

Building Autonomous Space-Air-Ground Networks

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Thank You