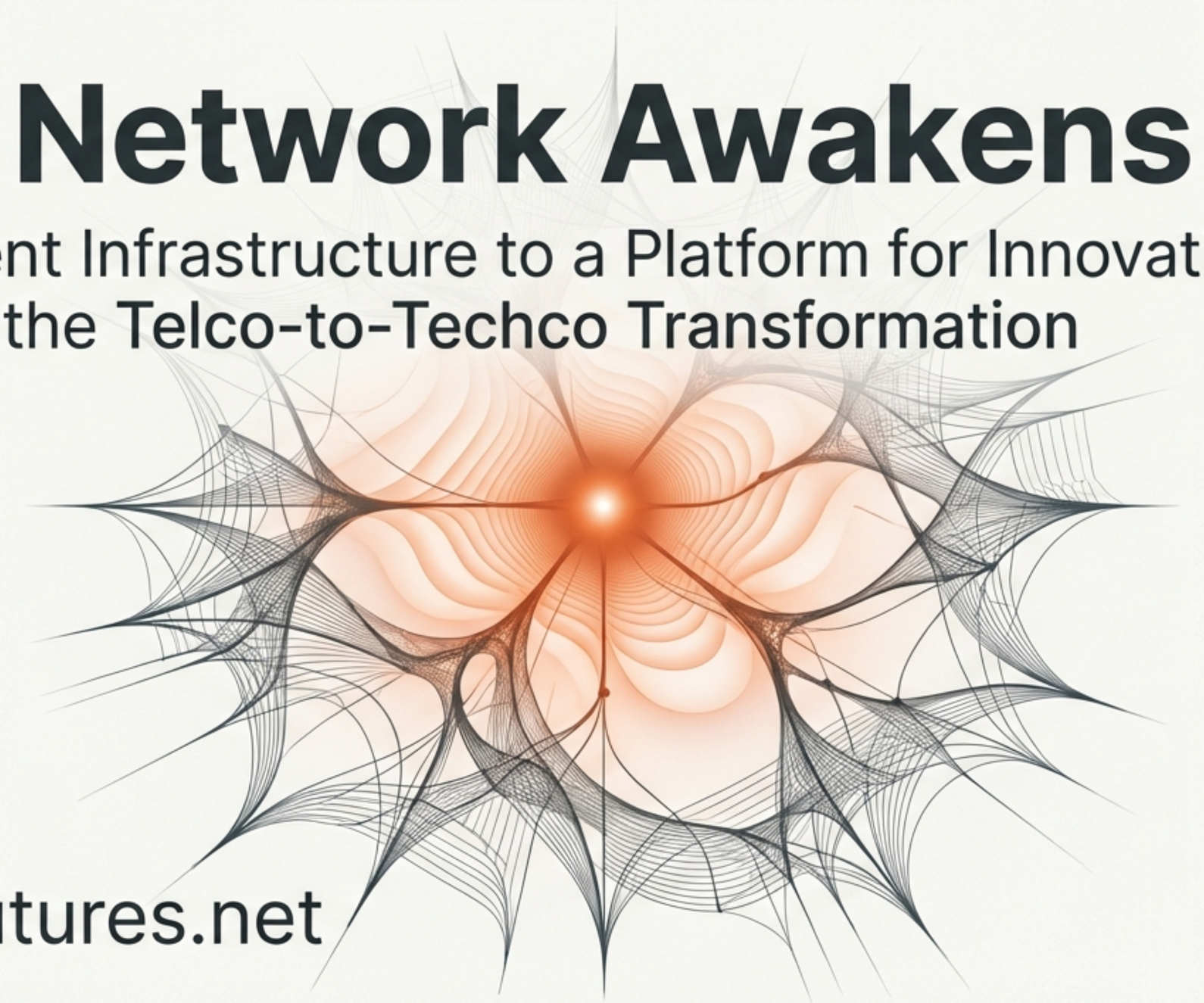
The Network Awakens

From Silent Infrastructure to a Platform for Innovation: Charting the Telco-to-Techco Transformation



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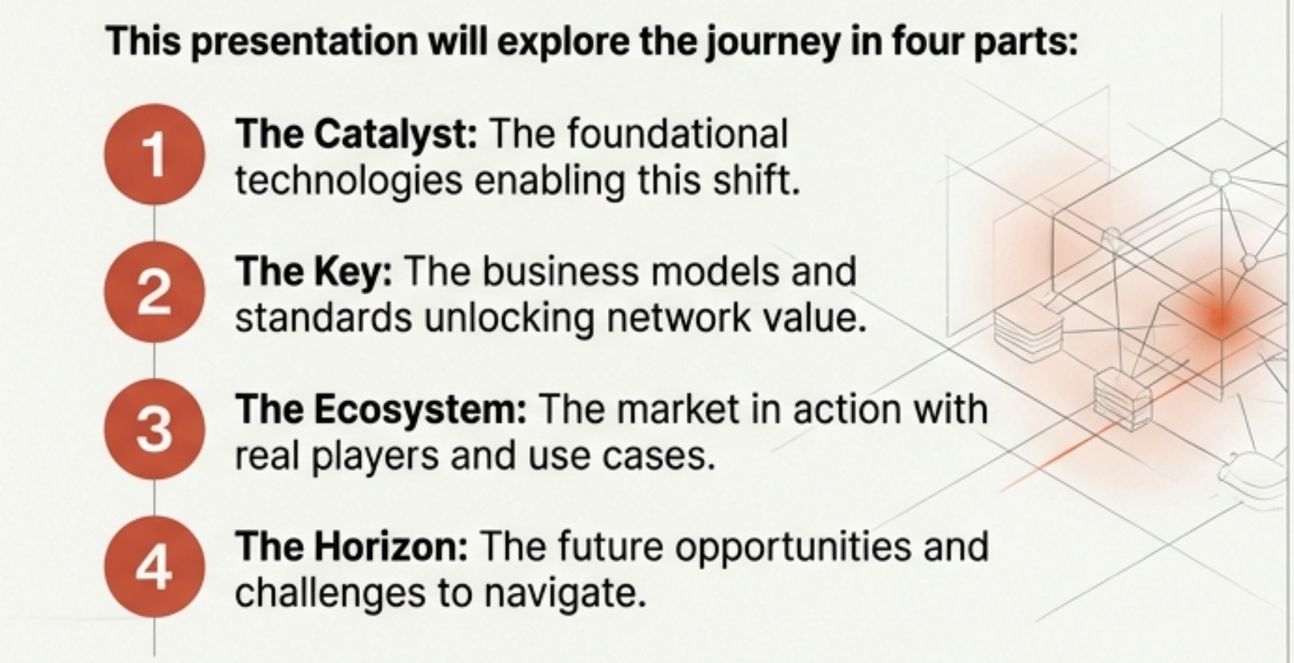
A Multi-Billion Dollar Market is Emerging from the Network Itself

The traditional telecom model of selling connectivity is being replaced. By transforming networks into programmable platforms via APIs, telcos are unlocking new value streams and evolving into technology companies ("Techcos"). This shift is not theoretical; it is an active market transformation.

This presentation will explore the journey in four parts:

1. **The Catalyst:** The foundational technologies enabling this shift.
2. **The Key:** The business models and standards unlocking network value.
3. **The Ecosystem:** The market in action with real players and use cases.
4. **The Horizon:** The future opportunities and challenges to navigate.



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$31.5 Billion

Potential network API revenue for telecom operators by 2030.

(Source: STL Partners)

$81.8 Billion

Projected global Network-as-a-Service (NaaS) market size by 2030, growing at a 32.9% CAGR.

(Source: Grand View Research)

$8.1 Billion

Alternate forecast for operator revenue from network APIs by 2030, up from just $283 million in 2025.

(Source: Juniper Research)

5G-A and AI: The Dual Engine Driving a New Era of Intelligent Connectivity

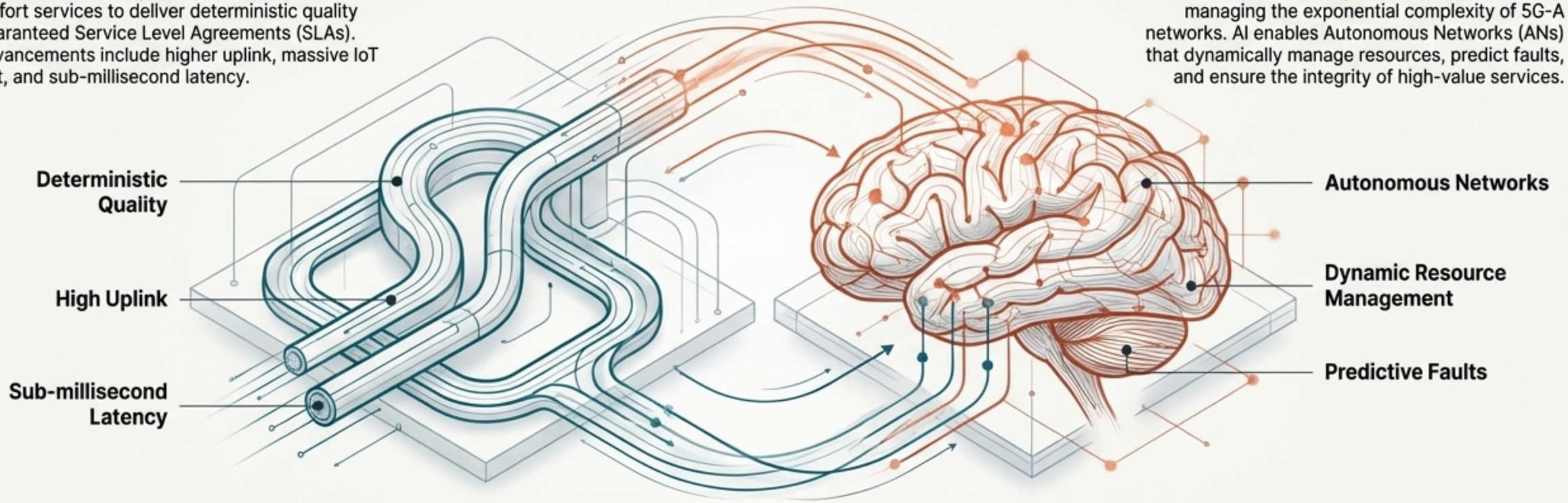
The transformation from Telco to Techco is powered by the fusion of two core technologies:

5G-Advanced (5G-A)

The ultimate connectivity pipe, moving beyond best-effort services to deliver deterministic quality and guaranteed Service Level Agreements (SLAs). Key advancements include higher uplink, massive IoT support, and sub-millisecond latency.

Artificial Intelligence (AI)

The ultimate intelligence engine, essential for managing the exponential complexity of 5G-A networks. AI enables Autonomous Networks (ANs) that dynamically manage resources, predict faults, and ensure the integrity of high-value services.



"This transformation is not simply a matter of organically upgrading two separate technologies; it is about fusing the ultimate connectivity pipe (5G-A) with the ultimate intelligence engine (AI) to herald achievement of the ultimate experience."

- Alex Xu, President of Carrier Business, Huawei Middle East and Central Asia

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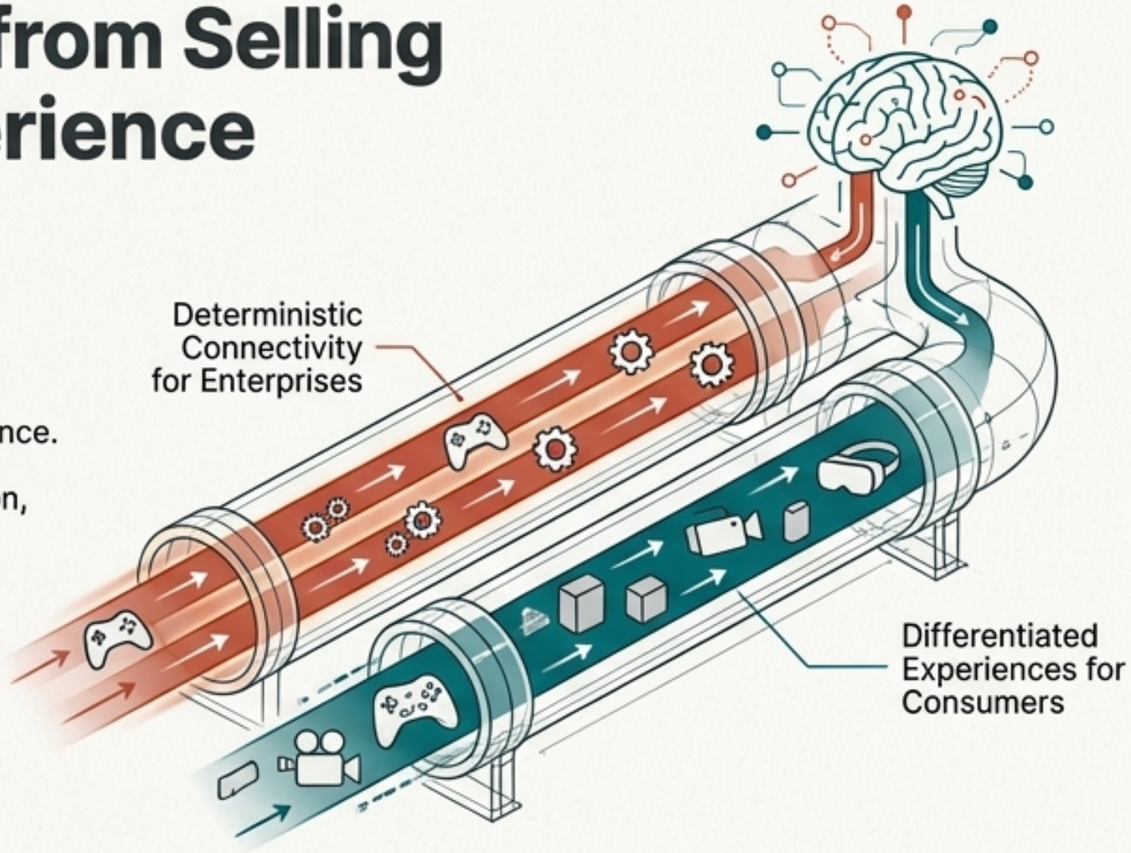
The Business Model is Shifting from Selling Bandwidth to Monetizing Experience

The Old Model (Dumb Pipe)

Selling generic bandwidth and capacity, leading to commoditization and declining revenues.

The New Model (AI Smart-Pipe)

Selling differentiated, scenario-based connectivity and experience. This is the core of the "Telco to Techco" transformation, moving from a simple supplier to a vital technology partner.



How it Works

- **For Consumers**: Offer differentiated, guaranteed guaranteed experiences for applications like cloud gaming, HD livestreaming, and AI-powered services using AI-assisted network slicing and guaranteed bit rate (GBR).
- **For Enterprises**: Create **deterministic connectivity—a guaranteed, non-negotiable service level** for applications like autonomous vehicle control, remote inspection, and real-time M2M communication.

Key Principle
APIs are not just technical components; they are "concrete business products" that act as "keys to the door behind which the execution agent lies." (Source: Torry Harris)

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Telstra's 'Connected Future 30' Strategy Treats the Network as a Product

To achieve its ambition of being the #1 choice for connectivity, Telstra is reinventing how it captures value from its network by treating it as a product with its own commercial value.

A New Three-Layer Business View

Customer Layer
Focus on Customer Engagement and leading in anticipating connectivity needs.

Network Layer
Focus on 'Network as a Product' (NaaP) to transform the connectivity platform.

Infrastructure Layer
Focus on being Australia's leading digital infrastructure provider.

"We need to treat our network as a product with its own commercial value. Our Connected Future 30 strategy will see us double down on connectivity and radically innovate in the core of our business."

– Vicki Brady, CEO, Telstra

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CAMARA is Creating the Universal Language for Network APIs

The Challenge: Without standardization, developers would face a fragmented landscape of proprietary APIs, stifling innovation and creating high barriers to entry.

The Solution: CAMARA, an open-source project hosted by The Linux Foundation, develops an open, global, and accessible API solution in collaboration with the GSMA's Open Gateway initiative.

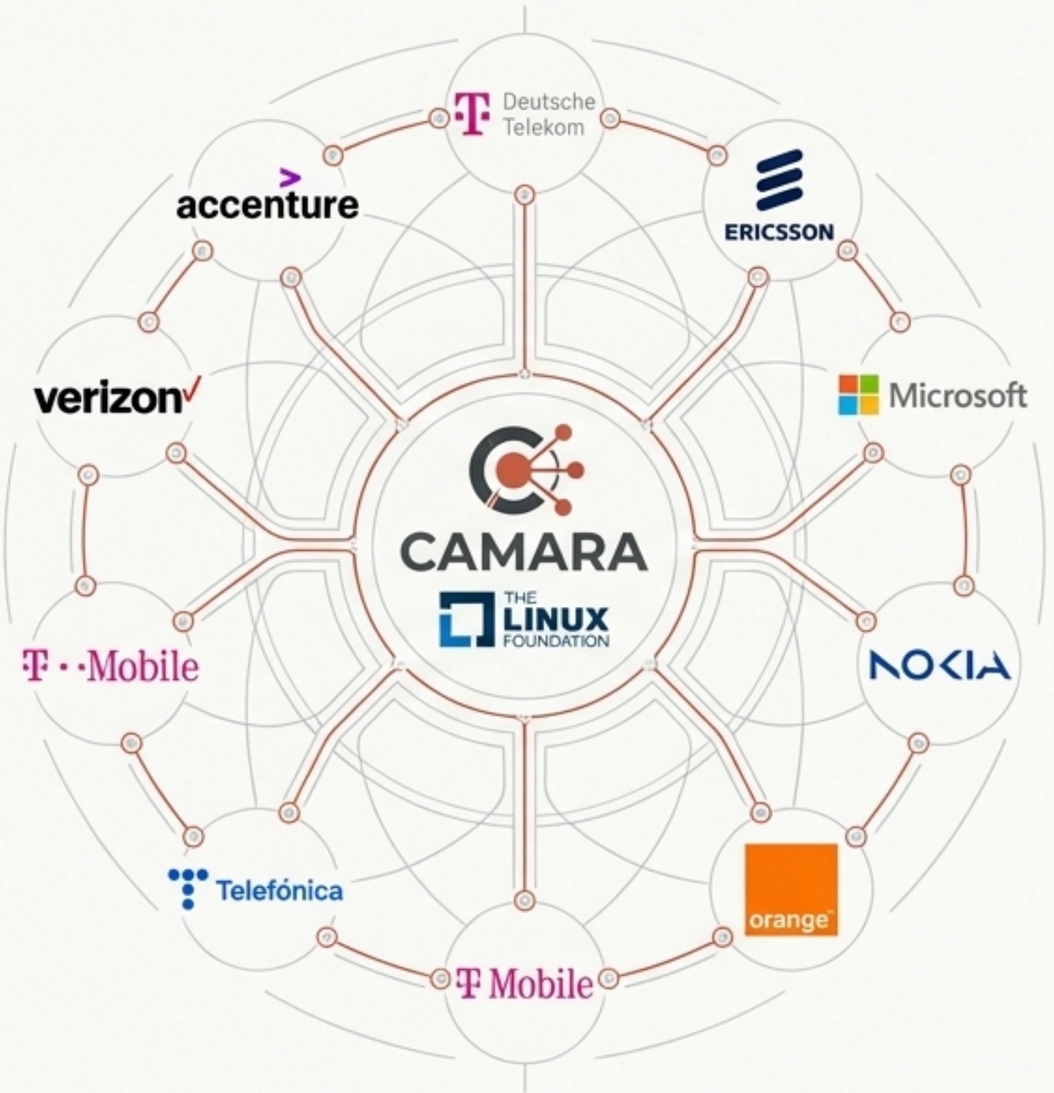
- **Mission:** Define interfaces providing consistent and user-friendly access to network capabilities, enabling developers to seamlessly deploy applications across all telco networks and countries.

250+ participating organizations and **750+ contributors** since 2021.

Graduated to a **fully funded model** with Premier sponsors.

"CAMARA is making it easy and simple for the global developer community to create new, connected solutions based on our advanced 5G network capabilities."

– Nathan Rader, VP, Deutsche Telekom



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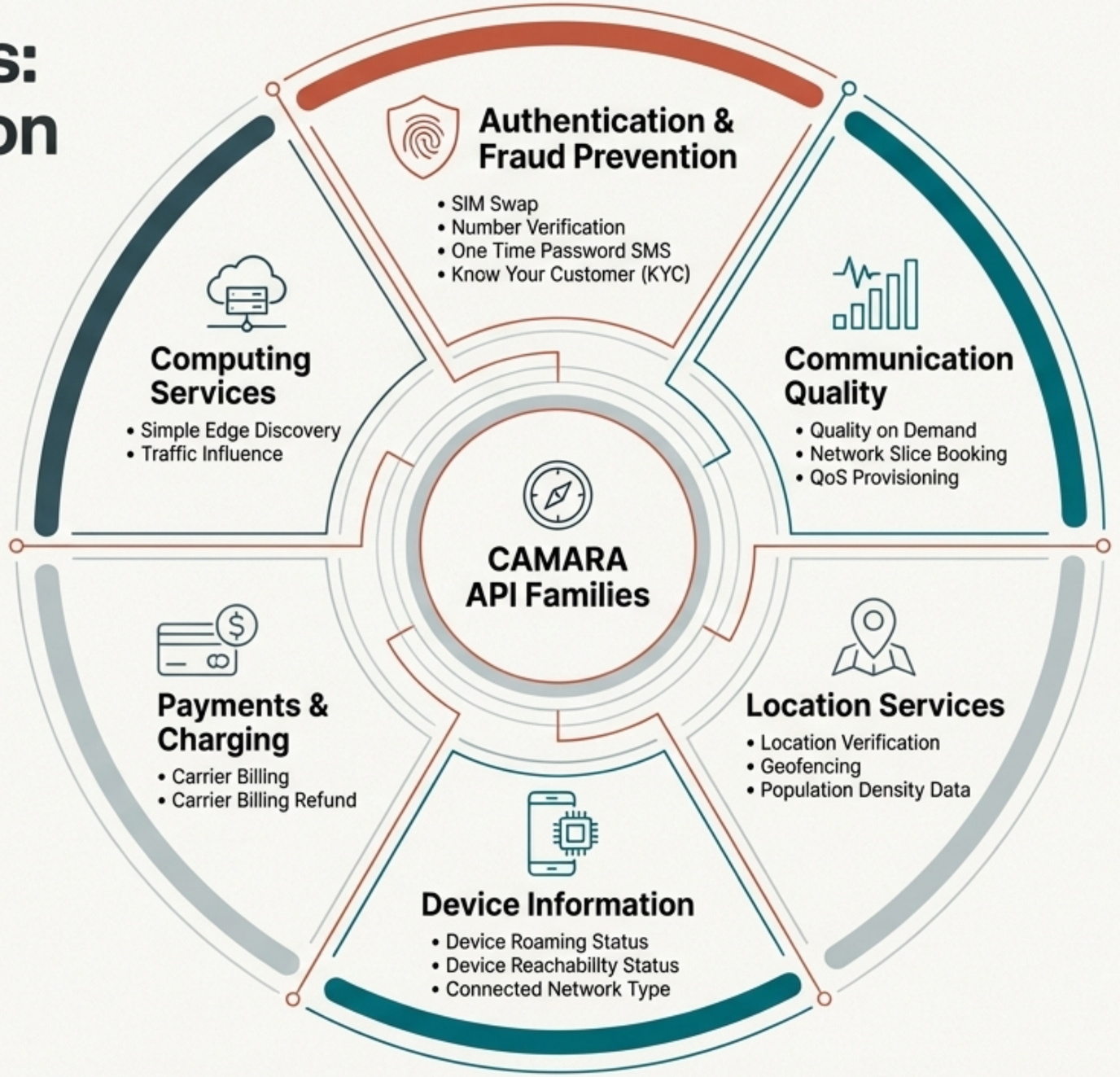
A Catalog of Capabilities: What the New Generation of Telco APIs Can Do

CAMARA provides a comprehensive suite of "mature" APIs that are stable and widely adopted, with many more in development.
These APIs expose deep network intelligence and functionality.



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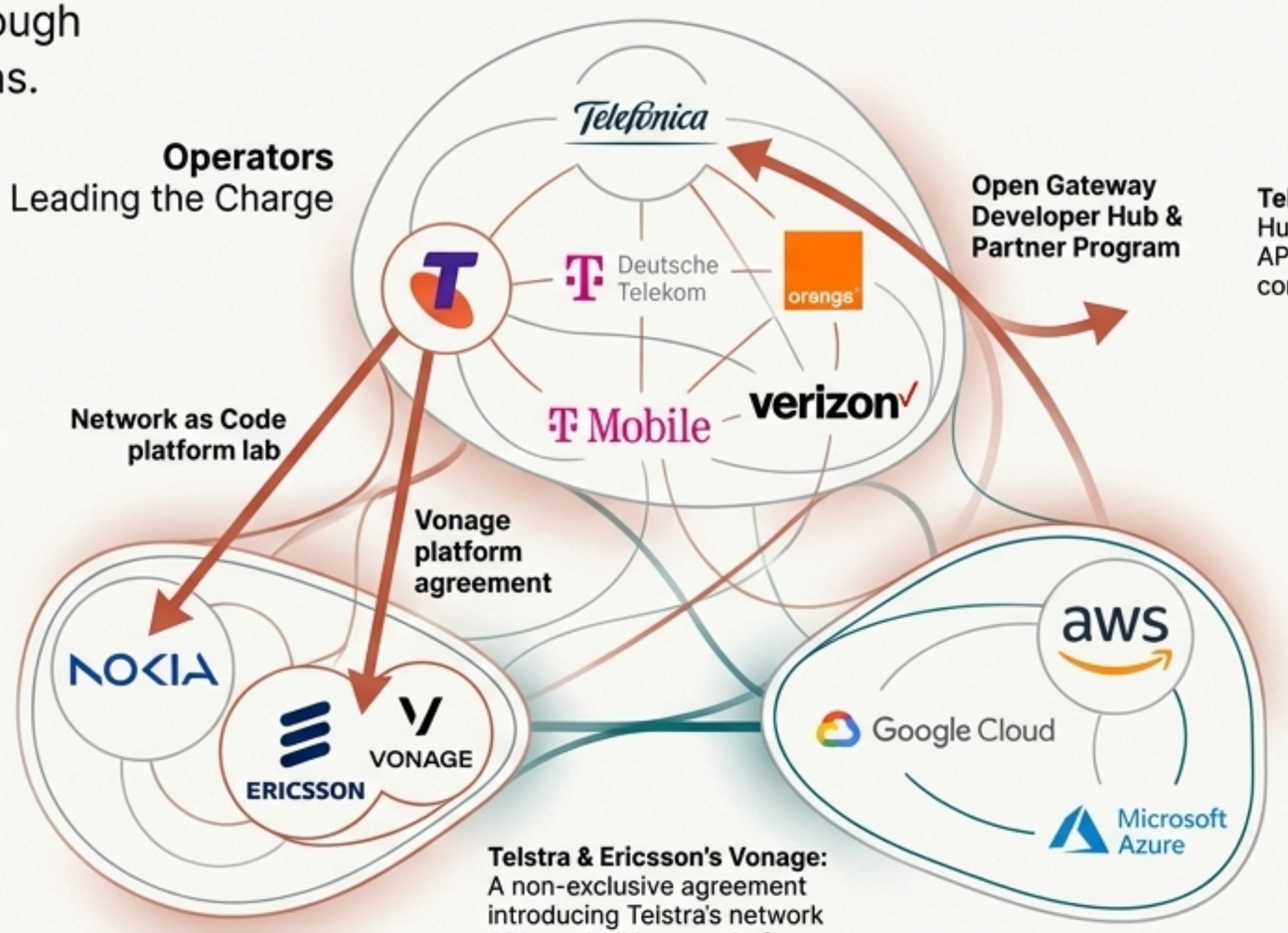
The Ecosystem is Assembling: Operators, Vendors, and Hyperscalers are Aligning

The vision is being realized through a web of strategic collaborations.



Operators
Leading the Charge

Open Gateway Developer Hub & Partner Program

Telefónica: Launched a Developer Hub for early access to Open Gateway APIs and a Partner Program to help companies enrich their services.

Telstra & Nokia: Partnering to make network APIs available in a lab environment on Nokia's Network as Code platform

Network as Code platform lab

Vonage platform agreement

Vendors Providing
Platforms

Hyperscalers
Enabling Access

Telstra & Ericsson's Vonage:
A non-exclusive agreement introducing Telstra's network APIs to the Vonage platform, with a focus on fraud protection and network analytics.

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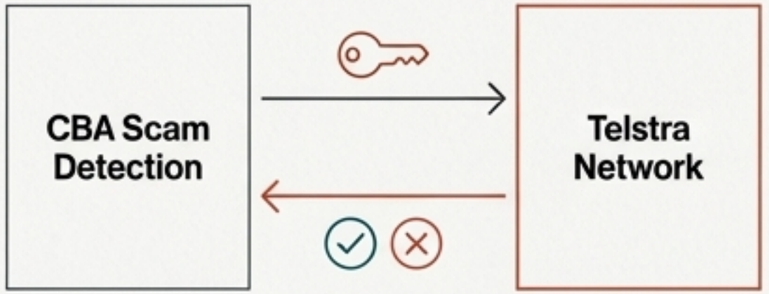
From Code to Customer: How Network APIs are Powering New Applications

Use Case 1:
Financial Services Anti-Fraud

Example: **Telstra and Commonwealth Bank (CBA) pilot of Scam Indicator.**

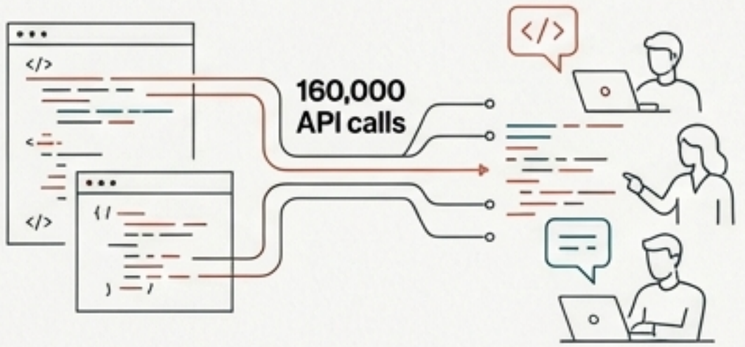


A Telstra API allows CBA's scam detection process to check if a customer is currently on a phone call—a prime indicator of a scam—enabling the bank to intervene.

Privacy-preserving. CBA only accesses a specific data point, not any underlying customer data.

Use Case 2:
Developer-led Innovation

Example: **The Telstra & Nokia Connected Future Hackathon.**

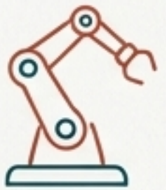


Result: Over 200 participants, 60 teams, and 160,000 API calls in a sandbox environment.

Winning solution: An application using network APIs to detect and manage phone number recycling, avoiding misrouted messages and security risks.

Future Use Case Verticals

Connected Automotive: Seamless cross-border handovers for connected car services like hazard warnings and HD Maps. (Source: Ericsson)



Smart Manufacturing: Ultra-reliable, low-latency wireless connectivity for industrial controllers and actuators. (Source: Ericsson)

eXtended Reality (XR): Lag-free remote control of machinery with AR overlays and immersive multiplayer gaming. (Source: Ericsson)

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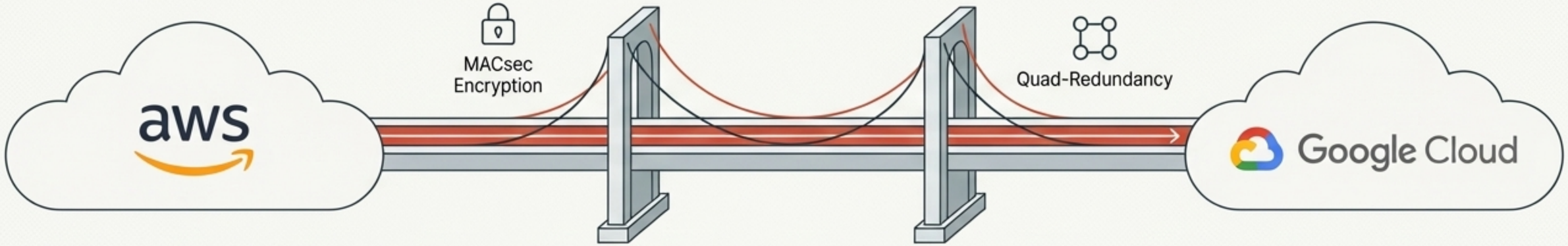
A Fundamental Shift: AWS and Google Cloud Collaborate to Simplify Multicloud Networking

The Problem: Previously, connecting workloads across multiple clouds required a complex, manual, "do-it-yourself" approach that could take weeks or months.



The Solution: A jointly engineered solution using **AWS Interconnect – multicloud** and **Google Cloud's Cross-Cloud Interconnect**. Customers can Customers can provision dedicated, private, high-speed bandwidth in minutes through a managed, cloud-native experience.

The Broader Vision: The API specifications are published as an open standard for other providers to adopt, promoting a more open cloud environment.

"This collaboration between AWS and Google Cloud represents a fundamental shift in multicloud connectivity."
– Robert Kennedy, VP of Network Services, AWS

"This native, streamlined experience... accelerates our customers' ability to ground their AI and analytics in trusted data, regardless of where it resides."
– Jim Ostrognai, SVP Software Engineering, Salesforce

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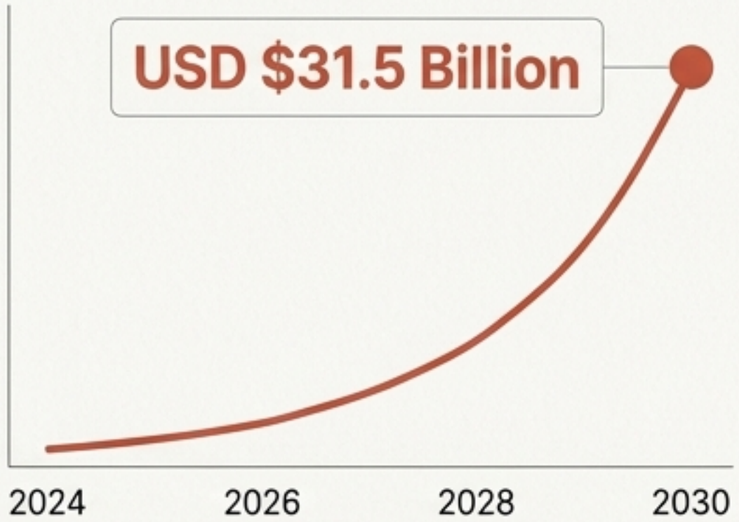
The API Monetization Opportunity is Substantial and Accelerating

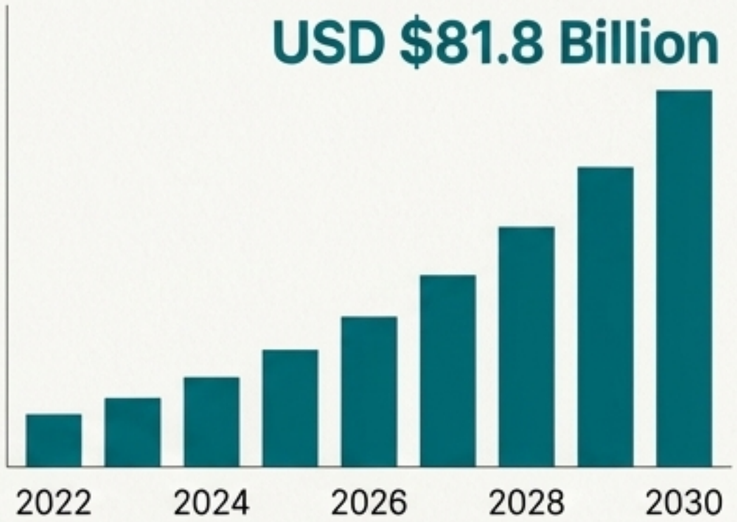
Network API Market
(STL Partners)



Near-term growth from identity/anti-fraud APIs; long-term from network performance APIs.

(Source: STL Partners, 2025 forecast update)

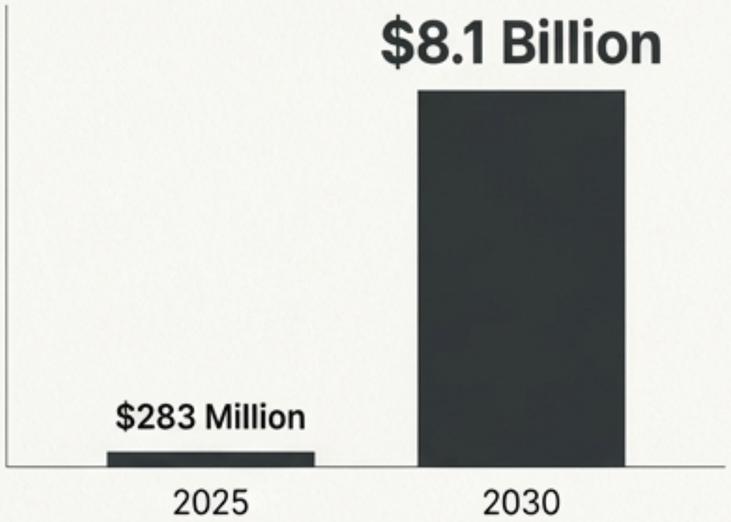
Network as a Service (NaaS) Market
(Grand View Research)



Represents a massive 32.9% CAGR from 2022-2030.

(Source: Grand View Research)

Operator Revenue Growth
(Juniper Research)



Authentication and fraud prevention APIs to account for $4.9B of the 2030 total.

(Source: Juniper Research)

Takeaway: While specific figures vary, all credible forecasts show a steep upward trajectory, confirming a significant new revenue stream for the telecommunications industry.

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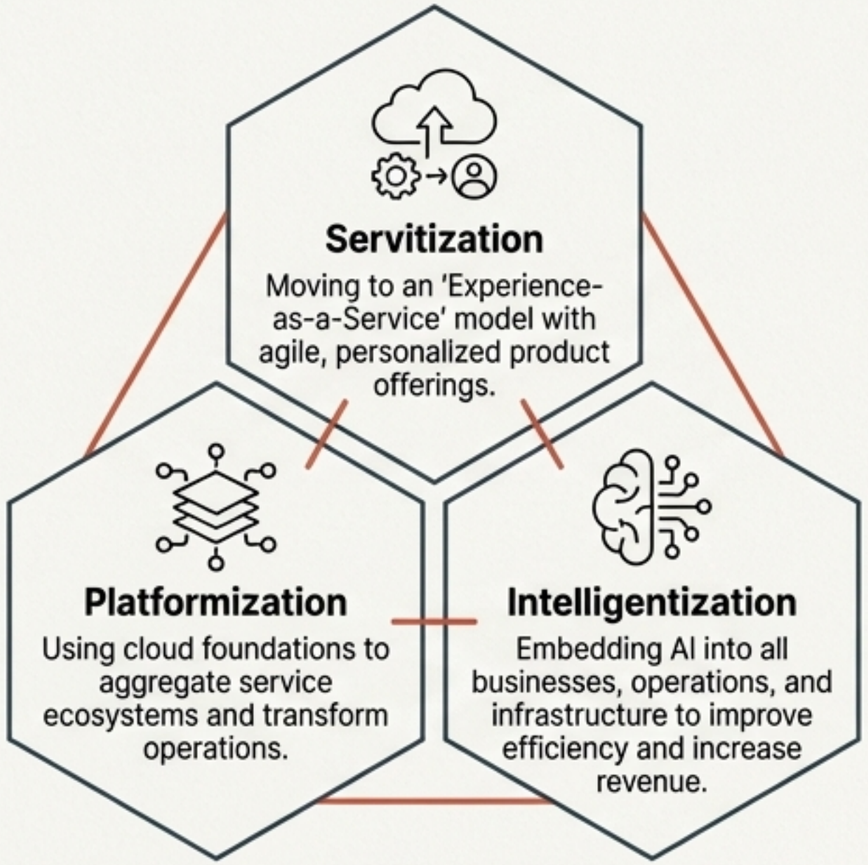
The Strategic Roadmap: Transforming into an Intelligent Value Platform

Three Pillars of Transformation (Source: Huawei)



A Practical 4-Step Implementation Approach (Source: Wipro)

1. Define API Business Strategy
Clarify goals—internal efficiency or external monetization.

↓

2. Define Functions to Expose
Identify high-value network capabilities (e.g., network availability, usage consumption, QoS).

↓

3. Identify & Map to TM Forum API Standards
Use industry-standard specifications like TM Forum Open APIs for easy partner onboarding.

↓

4. Map to Existing System APIs
Reuse and adapt existing legacy APIs where possible, rather than rewriting everything.

Navigating the Headwinds: Key Risks on the Path to Monetization

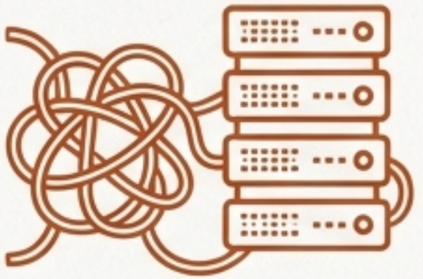
The Top 3 Risks Facing Telcos (2025) (Source: EY)

1. Security and Trust

Underestimating changing imperatives in privacy, security, and trust, especially with AI and escalating cyber threats.

2. Talent and Culture

Inadequate talent, skills, and culture management needed for a digital-first operating model.



3. Ineffective Transformation

Failure to effectively deploy new technologies and manage ongoing performance, often due to the burden of legacy IT.

Critical Operational Hurdles

The Legacy BSS Bottleneck

Traditional Business Support Systems were built for billing accuracy, not business agility. They are slow to adapt, integration-challenged, and can take 3-6 months to launch new digital services. (Source: Evergent)

The Consent Challenge

"Without clear, scalable and compliant consent mechanisms, particularly when it comes to location data, CSPs risk regulatory setbacks and may fall short of realising the full commercial promise." (Source: STL Partners)

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The Dual-Speed Imperative: Building an Agile Layer on a Stable Core

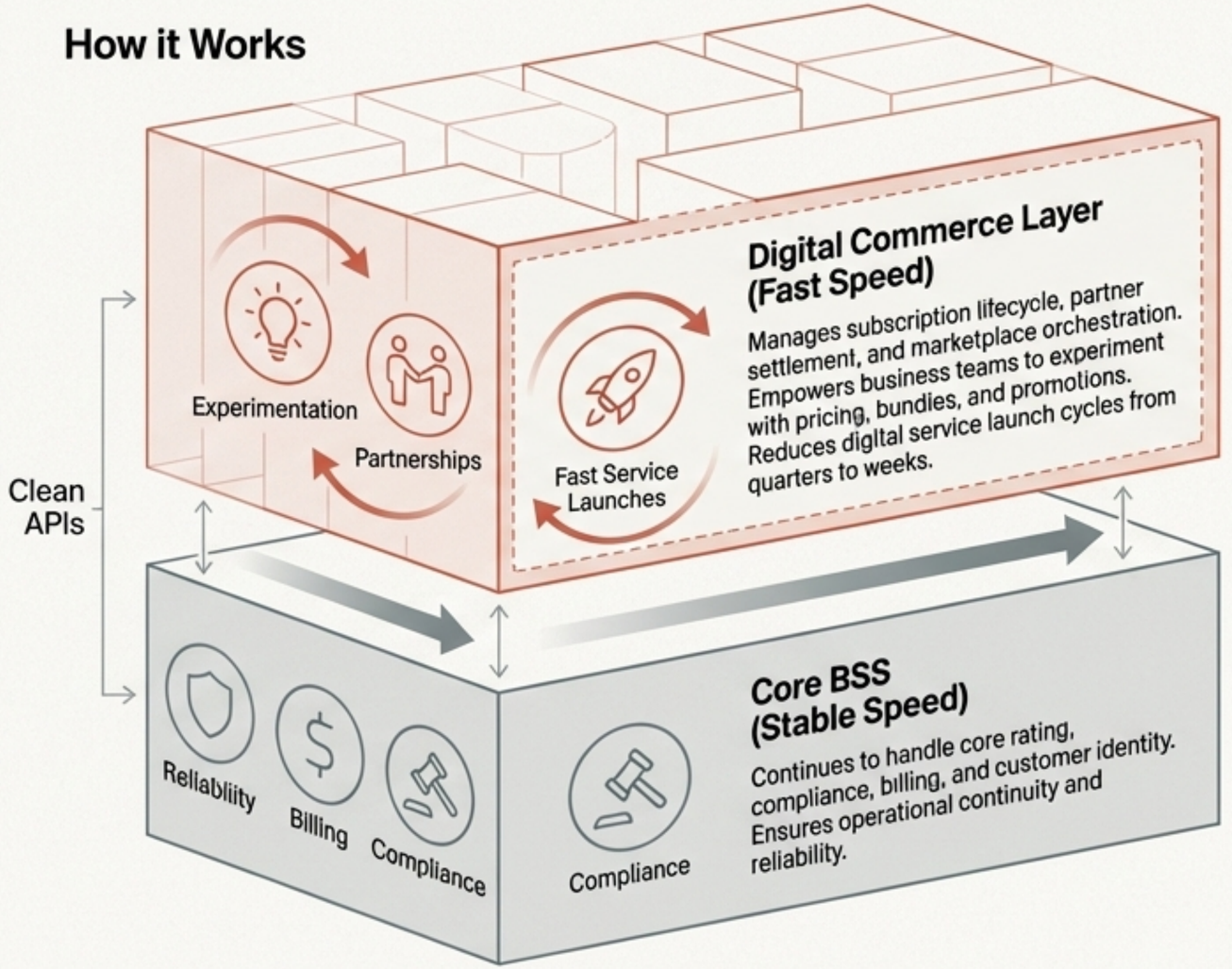
The Problem

Replacing core BSS systems isn't realistic or necessary for many operators. However, these legacy systems constrain innovation.

The Solution

Augment existing infrastructure with a modern, flexible monetization layer. This “dual-speed” or “dual-layer” approach separates fast-moving innovation from mission-critical operations.

How it Works



> “It’s not about replacing the past. It’s about building on it, faster.”

(Source: Evergent)

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The Telco of Tomorrow is a Platform for the Digital World

The Journey in Review

The telecommunications network has evolved from a passive utility into a programmable, intelligent platform. This is the foundation of the "Telco to Techco" transformation.

The Unlocking Mechanism

- Foundational Technology: The synergy of 5G-Advanced and AI.
- New Business Models: The strategic shift to "Network as a Product."
- Global Collaboration: Industry-wide alignment on open standards like CAMARA and Open Gateway.

The Result

A tangible, multi-billion dollar market is forming, enabling a new wave of innovation for developers, enterprises, and consumers. The ecosystem is live and the transformation is underway.

> "We're at an inflection point, as technology and connectivity are transforming again... There's no version of the future that doesn't rely on technology, and it all needs to be connected."
>
> - Vicki Brady, CEO, Telstra

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