From network to revenue

How telecoms monetize data, network APIs, and intelligence
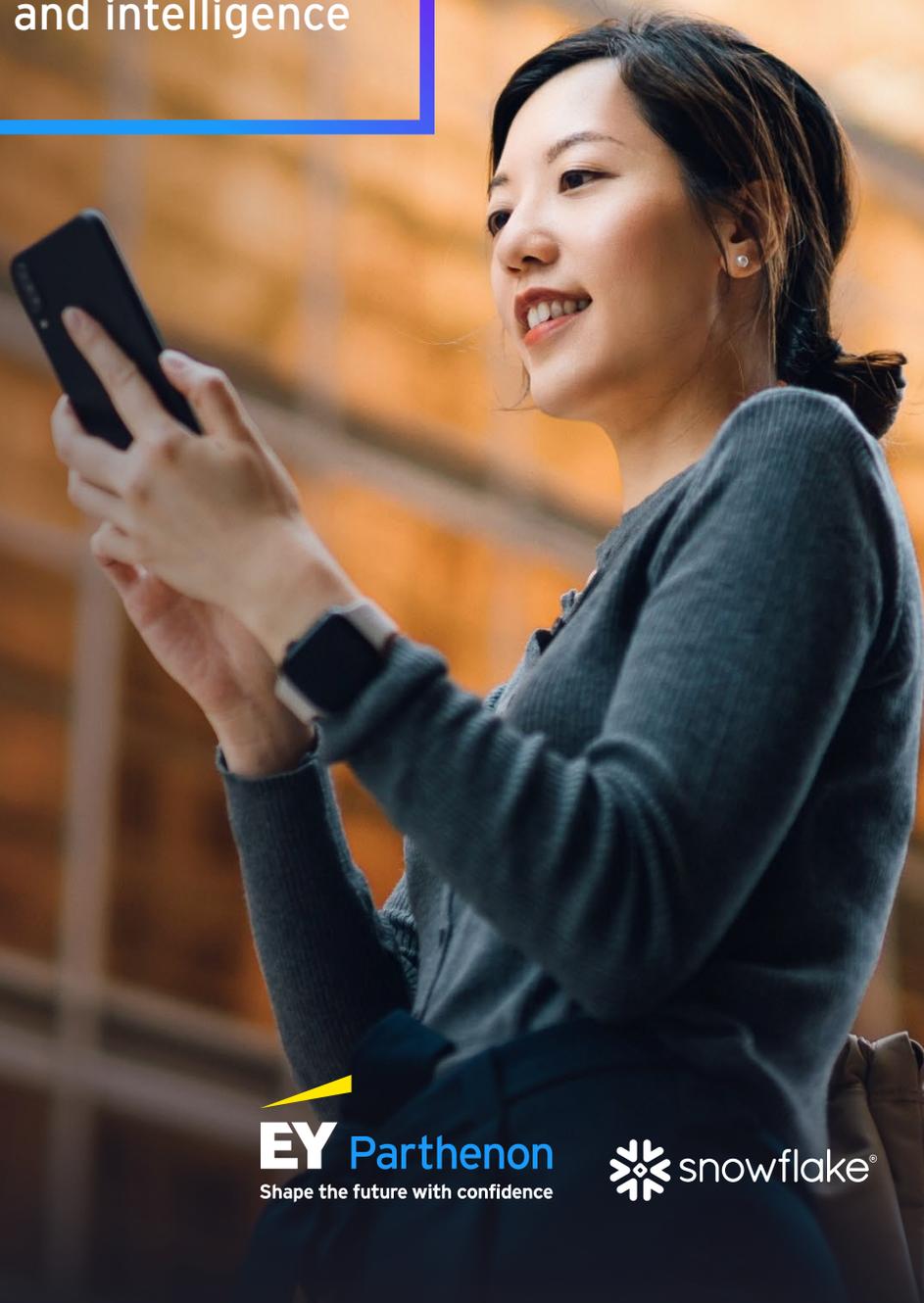
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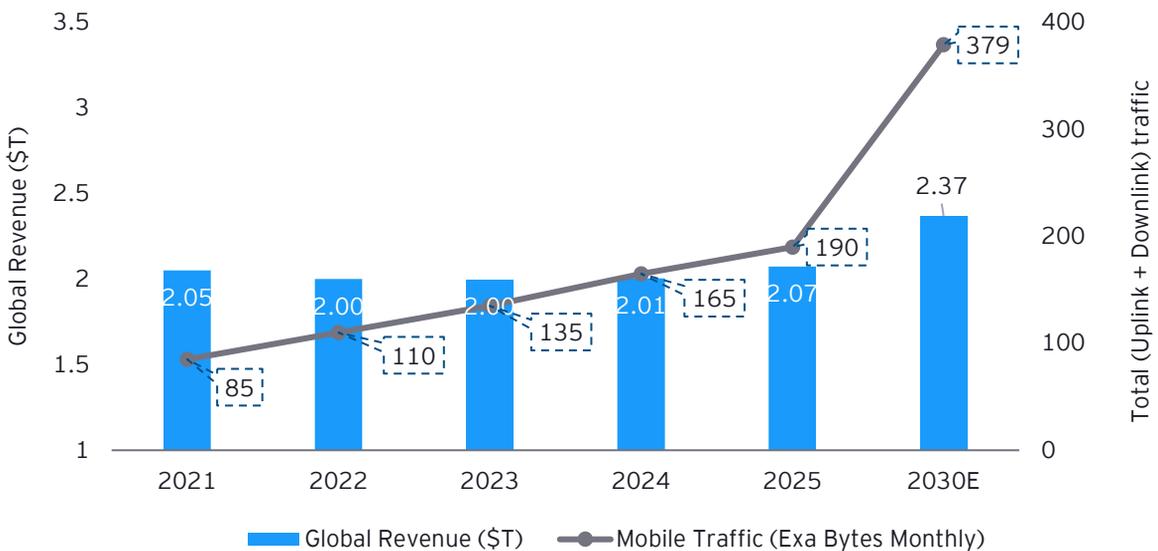
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Executive snapshot

Telecom operators stand at a pivotal crossroads: their long-standing connectivity services, from voice to data plans and network access, have become widely commoditized. With growing data consumption, revenue growth remains largely stagnant. Global data traffic has been rising continuously and is sharply driven by smartphones, IoT devices, and increased digital Behavior, yet operator revenue numbers haven't reflected the growth at similar pace, making it urgent to look beyond traditional revenue streams and models.

Growth comparison: global mobile network data traffic vs. Telecom communication providers revenue

Chart data — Global Revenue ($T): 2021: 2.05, 2022: 2.00, 2023: 2.00, 2024: 2.01, 2025: 2.07, 2030E: 2.37. Mobile Traffic (Exa Bytes Monthly): 2021: 85, 2022: 110, 2023: 135, 2024: 165, 2025: 190, 2030E: 379.

Legend: Global Revenue ($T) ■ — Mobile Traffic (Exa Bytes Monthly) ●—

Source: Global revenue for telecom communication providers (omdia communications provider revenue and capex forecast 2025-30), global mobile data traffic (Ericsson mobility report 2025).
Note: 1. Telecom communications providers revenue includes revenue from telecom connectivity and services. Revenue from hyperscalers is not included. 2. Mobile network data traffic refers to the total volume of data transmitted across mobile networks, generated by all active device and services using cellular connectivity. Mobile network data traffic also includes traffic generated by fixed wireless access services.

A new opportunity is rapidly emerging for telecom operators; the ability to monetize the rich data generated within the network, and to transform that data into actionable intelligence. Telecom networks are no longer just conduits for connectivity; they continuously generate real time signals, such as precise location data, device behavior patterns, Quality of Service (QoS) indicators, identity verification attributes, and risk markers. When packaged and delivered through secure, governed channels, these signals hold significant value across industries   and society overall. For example:

- **Banking & fintech** leverage telecom verified signals to strengthen fraud prevention and secure digital onboarding.
- **Marketing & consumer brands** use aggregated mobility, presence, and engagement signals to improve audience segmentation, measure campaign effectiveness, personalize offers in real time, and link marketing exposure to in store or online purchasing outcomes.
- **Retail & logistics** use mobility patterns and movement density to optimize store placement, supply chains, and customer experiences.
- **Media, social, and digital service** providers rely on identity, location, and QoS signals to deliver secure onboarding and highly personalized digital content.

This shift from connectivity to intelligence represents one of the most compelling monetization opportunities for operators today.

As industries transition towards AI-driven decisioning, the demand for trusted, real-time insights has never been greater. Telecom operators are strategically positioned to meet this need, given the scale, reliability, and richness of the data they generate. Telecom data monetization market opportunity is projected to grow **from $ 5.3 B in 2024 to ~$14.8 B by 2029, reflecting a 23.9% CAGR.** This surge is fueled by the widespread deployment and operationalization of 5G and cloud-native architectures, alongside with the enterprise and consumer uptake of services that depend on low latency, higher reliability, and real-time responsiveness. Together these developments enable the commercialization of network signals, giving rise to a new class of data products, APIs and AI-driven services.

Telecom data monetization market forecast ($b)

Year	Value
2024	5.3
2025	6.3
2026	7.8
2027	9.7
2028	12
2029	14.8
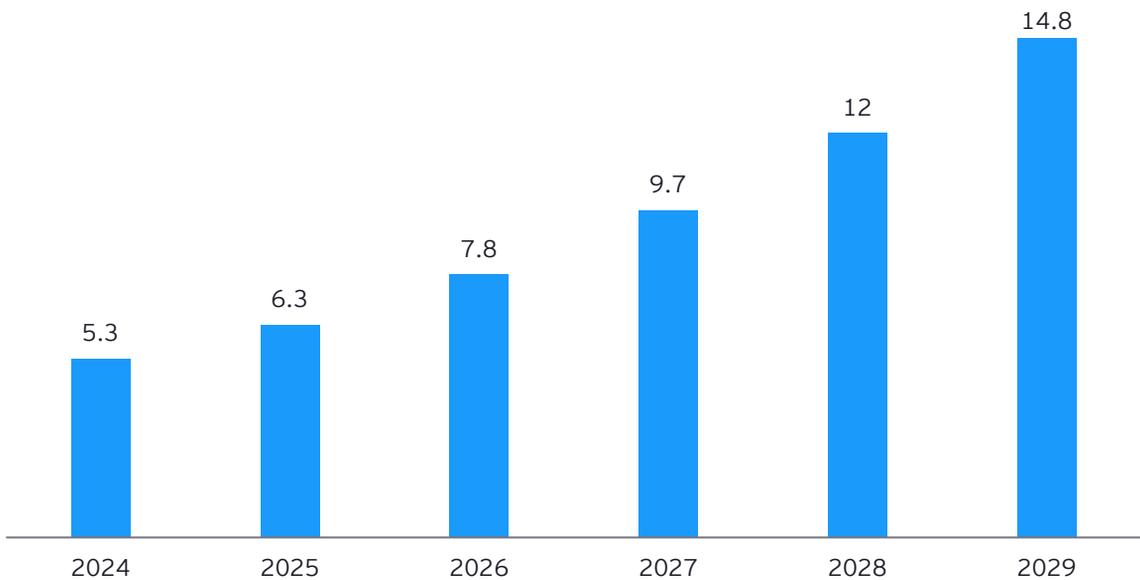
This shift is being accelerated by industry-wide standardization. Initiatives such as **GSMA Open Gateway** and **CAMARA** (open-source initiative launched by the GSMA in collaboration with Linux foundation) are defining and testing standardized, operator-agnostic network APIs. Together, they are making telecom capabilities more accessible to developers and enterprises. These frameworks make API-based monetization scalable and feasible at a global level.

Source: Business research company.
Note: Data monetization in telecom refers to the practice of data monetization on unstructured data from the telecommunications industry to create valuable insights and obtain economically quantifiable benefits.

Why now is the right time?

A structural shift is underway in the telecom industry, driven by surging digital demand, increasing intelligent network infrastructure, and standardized exposure models that make telecom data usable at scale. These forces need to accelerate the industry's evolution from connectivity providers to intelligent driven platforms.

Rising demand for real-time insights and verifiable intelligence

Enterprises across sectors now rely on real-time signals for fraud detection, onboarding, identity verification, location validation, experience optimization – capability that only networks can deliver with the required accuracy and trust.

5G & cloud-native core

This duo acts as "programmable service platform" that enables decoupling network software from rigid hardware, allowing operators to dynamically "slice" a single network into custom-fit virtual lanes that deliver precision and low-latency for real-time use-cases. Also, by moving processing to the network edge, operators can rapidly launch and monetize data-intensive experiences, such as lag-free gaming, remote robotics or immersive media, shifting from selling raw connectivity to delivering experience-driven outcomes.

API standardization & strengthened privacy frameworks

Adoption at scale is often accelerated through standardization. Global industry bodies with their initiatives such as GSMA Open Gateway and CAMARA are standardizing network APIs and data-sharing models that can make telecom network intelligence easier, safer, and more scalable to consume across industries and regions. The ability to expose device location, number verification, SIM-swap detection and QoS on demand via secure APIs are creating a foundation for enterprise and developers to build applications that leverage them at scale.

Together, these forces create a unique inflection point for telecom operators **to capture value by transitioning from connectivity utilities to intelligent platforms**, unlocking significant monetization opportunities tied to real time data, API and experience driven services.

Industry landscape & who is leading (Internal & external use cases)

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Across the globe, leading telecom have already begun exposing real-time network signals such as location verification, fraud-risk assessment, device status, and QoS controls through standardized APIs and data marketplaces. These initiatives have validated strong enterprise demand for telecom-verified intelligence and are providing a blueprint for operators seeking to scale similar models.

This shift towards monetizable value-creation is powerful because it delivers value on two fronts:

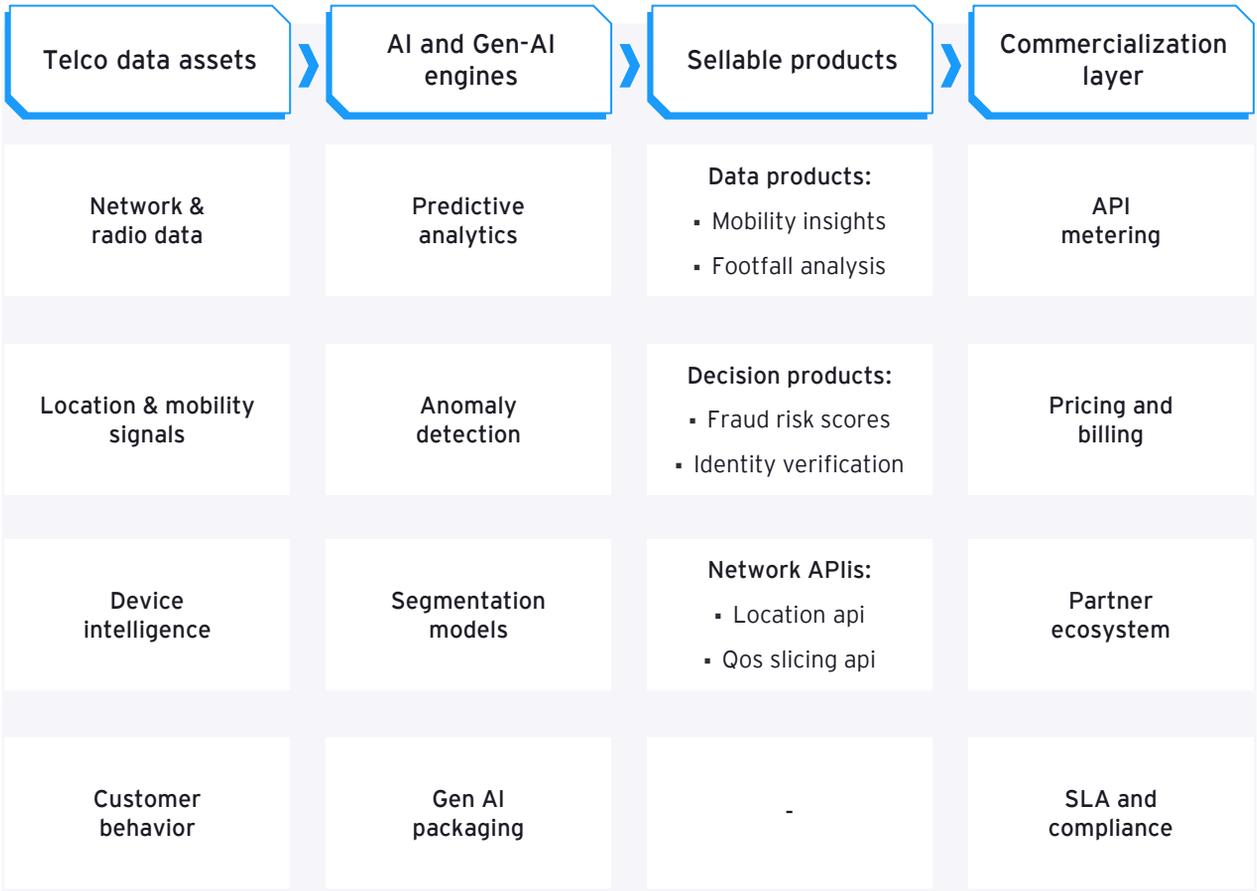| Internal value	External value
Operators can use real-time analytics to reduce outages, predict network faults, optimize performance and enhance overall customer experience to drive operational efficiency and cost savings.	The same intelligence packaged as governed data products or real-time APIs, enables enterprises to bolster fraud defences, improve operational accuracy, and build richer and more reliable digital services.

Together, this dual value system positions **telecom data as uniquely differentiated and highly scalable**, improving operator economics internally while enabling large scale commercialization externally.
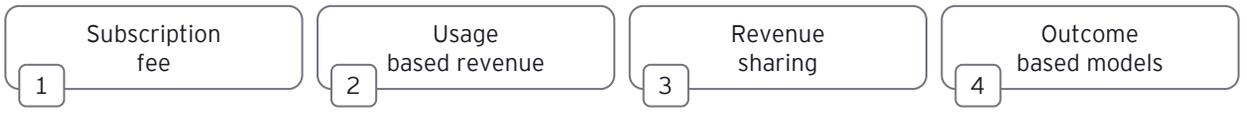
Telecom data monetization value chain

Telco data assets	AI and Gen-AI engines	Sellable products	Commercialization layer
Network & radio data	Predictive analytics	**Data products:** ▪ Mobility insights ▪ Footfall analysis	API metering
Location & mobility signals	Anomaly detection	**Decision products:** ▪ Fraud risk scores ▪ Identity verification	Pricing and billing
Device intelligence	Segmentation models	**Network APIis:** ▪ Location api ▪ Qos slicing api	Partner ecosystem
Customer behavior	Gen AI packaging	-	SLA and compliance

New revenue streams

1 Subscription fee	2 Usage based revenue	3 Revenue sharing	4 Outcome based models

Use case examples: API or datasets as offerings

1 Fraud detection	2 Identity verification
3 Quality-of-service	4 Mobility

The opportunity for telecom operators (and the practical pathways for monetization)

A clear monetization gap exists between the intelligence telecom networks can provide and what enterprises can currently access. To bridge this gap, operators are prioritizing two practical and highly scalable monetization pathways: First-party data products and Network APIs.

First-party data products

Through first-party data products, operators can convert anonymized, aggregated network insights into packaged data products that enterprises can consume instantly. These may include:

- **Location intelligence:** Store placement, mobility insights, logistics planning, urban mobility and traffic optimization
- **Identity and fraud insights:** SIM-swap detection, account takeover prevention, and digital onboarding
- **Network experience and QoS intelligence:** Used for app optimization, gaming, streaming quality, and customer experience tuning

These first-party data products allow enterprises to inject telecom-verified intelligence directly into the decision engines, operational workflows, fraud systems, and experience management platforms.

Network APIs

Network APIs represent the second major pathway and are rapidly becoming a cornerstone of telecom monetization. Through developer-friendly APIs, operators can expose real-time network capabilities such as device status, QoS boosts, location verification and network-event notifications. This model turns the telecom network into an on-demand programmable asset.

For instance, financial institutions can use network-verified signals to strengthen fraud controls and accelerate secure digital onboarding. The power of this approach lies in its scalability: once a network capability is exposed as a standardized API, it can be consumed by thousands of developers and enterprises without custom integrations. As global operators converge around common standards, these APIs become even easier to adopt across markets.

The shift across these two pathways is transforming the telecom network into a platform for intelligence, security, and performance, consumed as modular building blocks. This helps enterprises **innovate faster while creating high-margin, recurring revenue streams** for telecom operators.
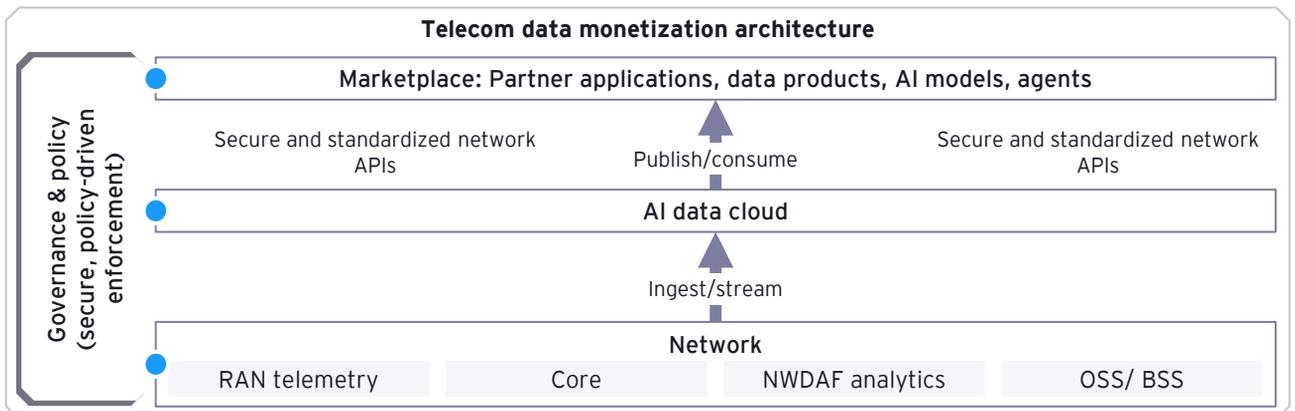
What this means for leaders?

For telecom leaders

This moment presents a unique chance to unlock new revenue streams. By leveraging real-time network signals and insights, operators can move beyond traditional connectivity models and become essential partners in enterprise transformation. This transition strengthens commercial relationships and positions the network as a programmable platform powering, critical decisioning, digital trust, enterprise-grade performance and reliability.

For leaders across other industries

Industries such as banking, fintech, retail, consumer brands, media, logistics, mobility, and digital platforms stand to benefit even more directly. Beyond security and operations, these capabilities unlock powerful marketing and growth use cases, including trusted audience validation, real-world attribution of marketing spend to purchases, reduced fraud in digital advertising, and more relevant, real-time customer engagement. Telecom-verified intelligence can strengthen fraud defences with trusted identity, presence, and device signals, improve transaction security, reduce friction in digital customer journeys through seamless background validation, and enhance application performance with network-aware tuning and real-time QoS controls.

The collective opportunity

Across sectors, this shift represents a shared opportunity to build a safer, smarter, and more responsible digital ecosystem, unlocking innovation, operational efficiency, and entirely new revenue models.

Telecom data monetization architecture

Governance & policy (secure, policy-driven enforcement)	Marketplace: Partner applications, data products, AI models, agents
	Secure and standardized network APIs — Publish/consume — Secure and standardized network APIs
	AI data cloud
	Ingest/stream
	Network
	RAN telemetry / Core / NWDAF analytics / OSS/ BSS

GTM playbook for telecom operators

As data products and APIs mature, go-to to market execution becomes a primary differentiator for operators. Selecting the right distribution model becomes critical whether through aggregators, cloud marketplaces, direct enterprise sales, or hybrid partnerships. Operators must clearly articulate how telco grade intelligence differs from traditional hyperscaler analytics, particularly in its trustworthiness, real-time precision, and network-verified authenticity.

Pricing models should align to tangible business outcomes such as verified identities, QoS events, or mobility insights. Additionally, targeting vertical partnerships in sectors like financial services, logistics, media, and smart cities enables operators to package offerings into end-to-end solutions that accelerate adoption and strengthen competitive positioning.

Ultimately, telecom monetization succeeds only when it's supported by disciplined product management, cross-functional governance, and strong commercial alignment. **The below approach provides a pragmatic blueprint that operators can adopt at any of the maturity stage:**

Foundation	Acceleration	Scale
Build the data and API backbone	Initial productization and market entry	Institutionalize monetization into recurring growth

The road ahead...

Shaping the next wave of intelligence-driven solutions

Whether you are a telecom operator exploring new monetization models or an enterprise leader seeking trusted, real-time intelligence to power onboarding, fraud prevention, location services, or digital experiences, this is the moment to engage.

The next wave of digital innovation will be shaped by those willing to collaborate, challenge assumptions, and build cross-industry partnerships that unlock the full potential of network-verified intelligence.

Join the conversation.

Contribute your perspective.

Together, we can shape the next era of intelligence-driven innovation.

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