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Reimagining the *future* of connectivity

Shaping decentralized intelligence with edge computing and AI Tokenomics

November 2026

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01
The paradigm shift in telecom economics

The operator journey

Historically, telecom operators maintained a strong alignment between infrastructure demand and revenue by tightly controlling the monetization unit, but this model is now breaking down, as traffic growth no longer translates into revenue

Voice Era (Minute)

- Dedicated **voice channels**
- **Linear pricing** (per minute)
- Operators **owned and monetized** the service end-to-end

Data Era (Megabyte)

- Data usage measured in **MB/GB**
- **Tiered pricing** with caps and overage charges
- Operators captured value by **controlling customer usage**

AI-powered Era (Tokens)

- Always-on **access to digital services**
- **Flat rate pricing** (decoupled from usage)
- Operators carry the traffic, but **monetization is ruled by the AI service** and **application providers**

This evolution **breaks the link** between **traffic growth and revenue generation**

Infrastructure Paradox

Operators must invest heavily in **network upgrades** to support AI-driven traffic growth, yet **revenue remains decoupled** from that growth

Disruption in the Intelligence Era

Operators carry the **CapEx burden** to build AI-ready infrastructure, but **monetization models remain flat and unchanged**

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The asymmetric value chain

Today, telecom operators continue investing heavily in the connectivity and distribution infrastructure that underpins AI service delivery, while much of the value created on top of that infrastructure is captured by Big Tech

The CapEx burden (Telcos)

- The **widespread adoption of unlimited plans** severed the link between network traffic volume and operator revenue
- The birth of real time GenAI applications forces a new wave of heavy investments in **ultra-low latency edge infrastructure and fibre upgrades**
- Telcos are effectively **funding and building the complex physical highway** required to make the global AI ecosystem function

The value captured (Big Tech)

- Hyperscalers and tech giants leverage Telcos distributed infrastructure **while most AI value is captured beyond the connectivity layer**
- Big Tech owns the entire intelligence stack (LLMs, cloud processing, and APIs), positioning themselves **directly at the point of monetization**
- Tech giants scale their AI applications globally by **leveraging Telcos connectivity and distribution infrastructure** to reach millions of users

Implications:

Structural Imbalance
Operators carry increasing CapEx to sustain AI-driven traffic, while capturing only a **limited share of the resulting value**

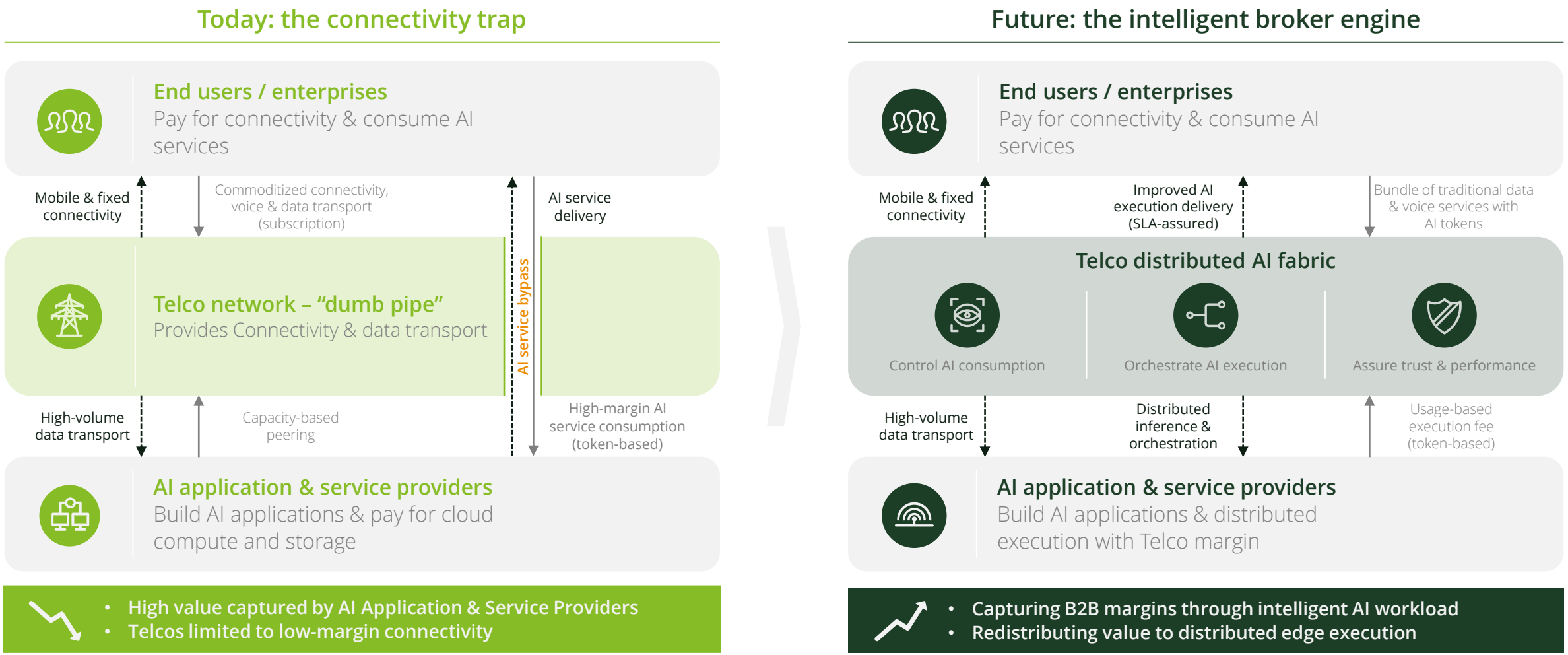
AI Investment Dilemma
Network investment requirements continue to grow (edge, fibre, capacity), without a **proportional increase in revenue** or clear monetization levers

Paradigm Shift
Traditional pricing models and performance metrics are **no longer aligned with where value is created** in the ecosystem

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From connectivity trap to intelligent broker engine

Repositioning Telcos at the centre of the ecosystem as intelligent brokers that capture value from both connectivity and AI execution, while maintaining a cost-neutral experience for end users



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Intelligence as the new metric

As Telcos move up the value chain from connectivity to AI execution, the unit of value must evolve accordingly, shifting from GB to AI Tokens

Shifting the Unit of Value

GB-based monetization is losing relevance

Traditional data bundles (GB) are **no longer a differentiating or sustainable monetization unit**, as value is increasingly created beyond simple data transport

Value is shifting from transport to execution

As AI workloads grow, value is created through **compute, inference, and orchestration**, areas that **traditional volume-based pricing** does not capture

A new metric is needed to measure AI value

To **monetize AI execution**, operators need a metric that reflects the **actual processing effort behind AI workloads**, not only the amount of data moved

The new metric of intelligence

Tokens convert AI consumption into a **measurable** and **controllable resource**, creating the foundation for orchestration, assurance and monetization

Cognitive atomic unit

The base element of **AI knowledge processing** replacing the simple bit packet

Compute effort signal

Every token generated reflects a **specific allocation of GPU cycles and energy**

The measurement unit

Tokens provide a standardized way to **measure AI consumption** and **execution effort**

While tokens provide the foundation to **measure AI consumption**, the real opportunity lies in **governing, orchestrating and assuring** how that consumption is delivered, creating a new layer of **value capture for Telcos**

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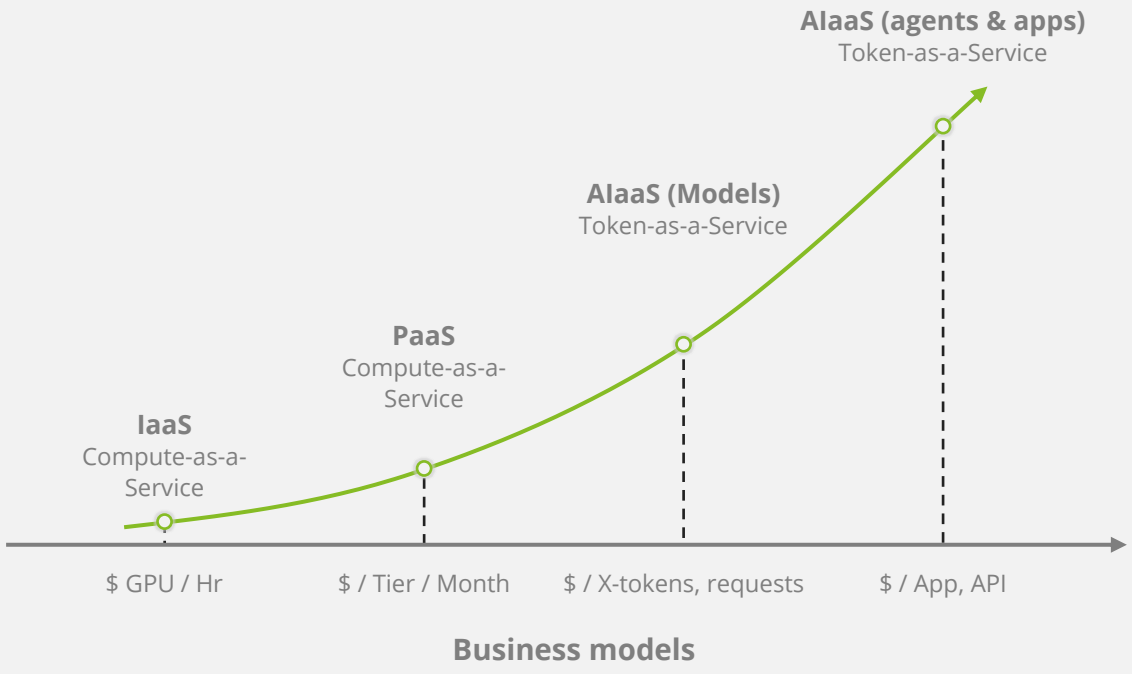
02

New revenue models and high-value use cases

Capturing the AI value shift

The migration of value from infrastructure toward the AI service layer opens a decisive window for Telcos to anchor the ecosystem by controlling and monetizing consumption

AI monetization curve



Source: NVIDIA Technical Blog, Building Token-Metered AI Services on Telco AI Factories (2026)

Telco opportunity in AI economy

Structural AI value shift

Traditional connectivity and compute resale models limit margin potential as value shifts upward in the AI stack

Unique Telco position

Ownership of network, edge, identity and traffic flows enables Telcos to act as the control point between AI supply and demand

The intelligent broker

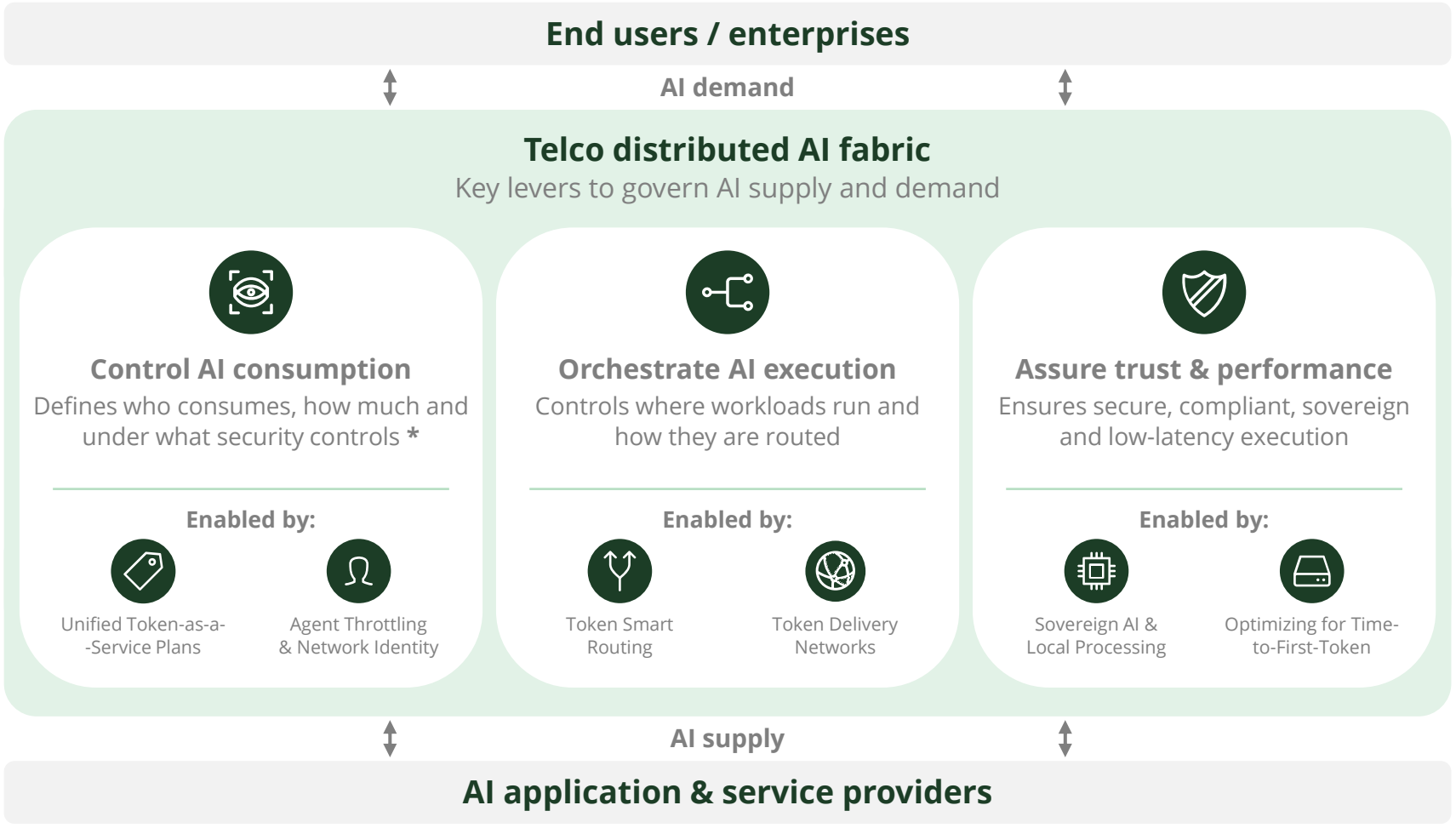
Control of AI consumption enables Telcos to monetize access, routing and policy enforcement across the ecosystem

The shift to **token-based AI consumption** is not just a change in pricing model, it redefines where value is captured, creating a **structural opportunity for Telcos** to **orchestrate and monetize AI services**

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The intelligent broker operating model

The next wave of Telco value creation will not come from owning AI infrastructure alone, but from operating the intelligent broker engine that governs how AI consumption is controlled, executed and assured across the ecosystem



Control defines monetization

Controlling AI consumption creates **new revenue streams for Telcos** while simplifying commercial access to AI demand for providers

Orchestration drives efficiency

Intelligent workload placement **improves Telco margins** while lowering execution costs and accelerating AI delivery

Trust and performance enables premium value capture

Trusted and sovereign execution enables **premium monetization for Telcos** while extending provider reach without local infrastructure investments

* While Telcos can govern identity, policy and usage controls, AI consumption is ultimately coordinated with AI application and service providers that retain control over access to their services and resources

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How the intelligent broker creates value

The intelligent broker creates value through capabilities that monetize AI consumption, optimize execution and deliver differentiated AI experiences

How capabilities create value?

Control AI consumption

Unified Token-as-a-Service Plans

Enabling usage-based monetization of AI consumption through connectivity and service plans

Agent Throttling & Network Identity

Controlling access and usage by enforcing identity, security polices and consumption limits across AI agents

Orchestrate AI execution

Token Smart Routing

Optimizing cost and performance by dynamically routing workloads to the most appropriate models

Token Delivery Networks

Distributing AI processing closer to users through edge-based delivery and caching mechanisms

Assure trust & performance

Sovereign AI and Local Processing

Ensuring compliant and sovereign AI execution through localized processing and data control

Optimizing for Time-to-First-Token

Delivering differentiated user experience through low-latency and real-time AI response performance

Revenue capture

Drive new revenue through measurable, usage-base billing

Margin optimization

Improve cost efficiency and performance to expand margins

Premium positioning

Differentiate through trust, sovereignty and low latency

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AI monetization use cases

While AI capabilities define how Telcos can operationalize AI consumption, value is captured through a focused set of use cases where they translate into differentiated and monetizable services

			Enabling Capabilities					
Use Case	**Description**	**Value Driver**	Unified Token-as-a-Service Plans	Agent Throttling & Network Identity	Token Smart Routing	Token Delivery Networks	Sovereign AI and Local Processing	Time-to-First-Token
Sovereign AI for Enterprises & Governments	Securing sensitive data through compliant, sovereign AI processing with integrated token-based monetization	**Data sovereignty**	✓	✓	✓	✓	✓	✓
Edge Inference for Industry & Mobility	Delivering ultra-low latency AI inference at the edge for real-time industrial and mobility use cases	**Ultra-low latency**	✓	-	✓	✓	-	✓
Trusted AI Marketplace	Enabling a secure marketplace for trading verified AI models and compute through token-based mechanisms	**AI service access**	-	✓	✓	✓	-	-
Network APIs & Developer Economy	Exposing network capabilities via APIs to enable scalable AI-driven applications and ecosystems	**Network monetization**	✓	✓	-	✓	-	-

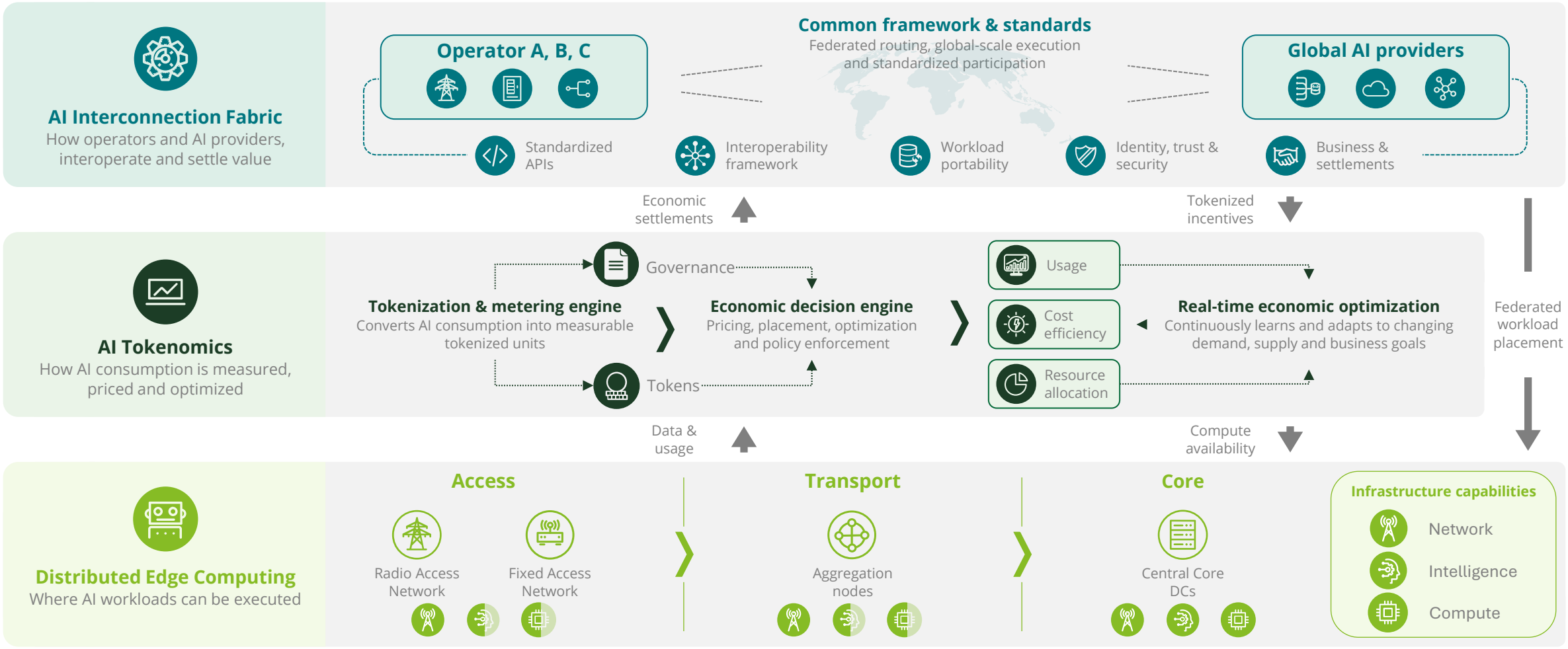
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Building the distributed AI fabric

Enabling the distributed AI fabric

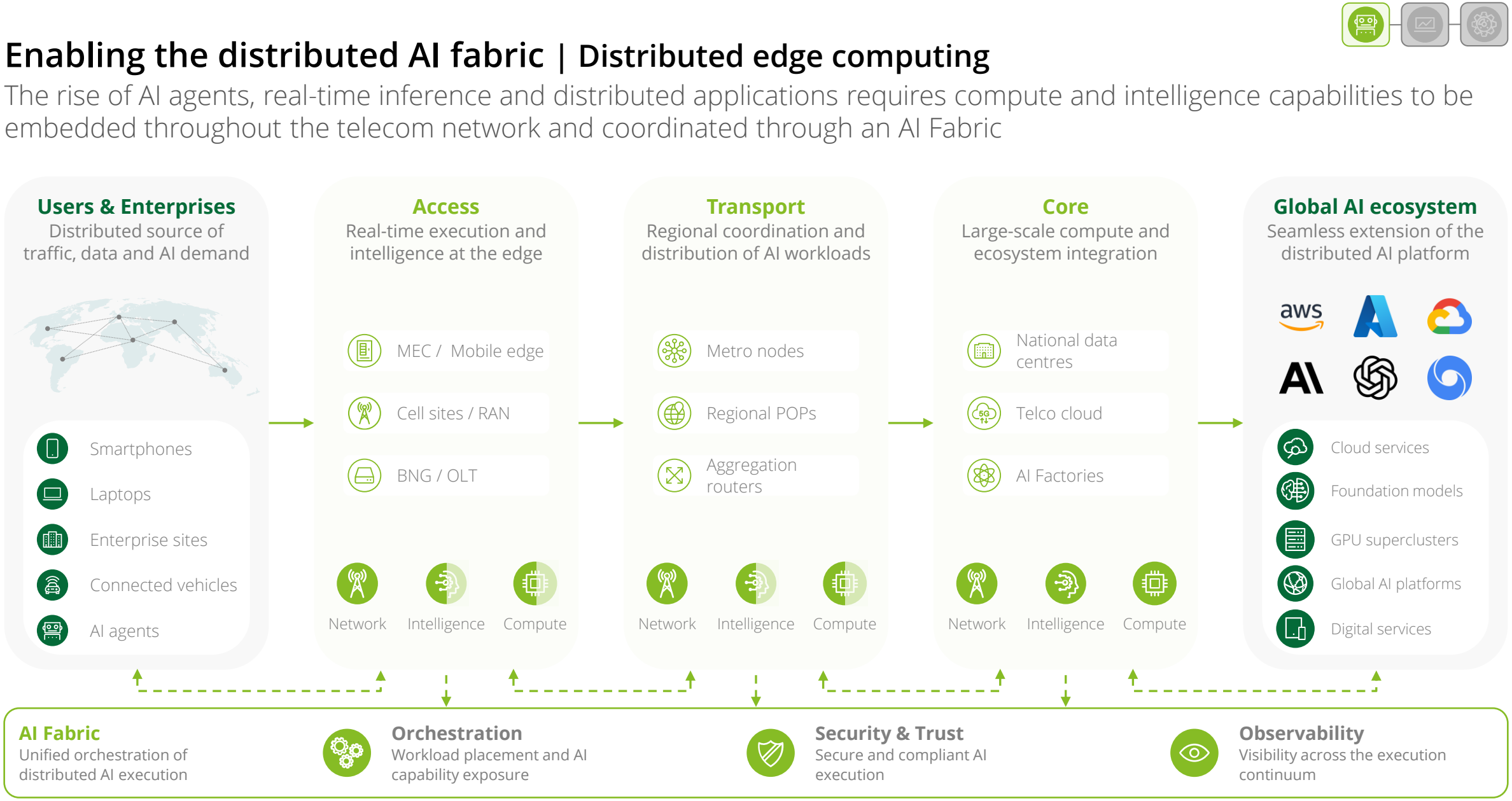
The intelligent broker model builds on existing Telco infrastructure, extending it with distributed AI capabilities, economic intelligence and ecosystem connectivity



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Enabling the distributed AI fabric | Distributed edge computing

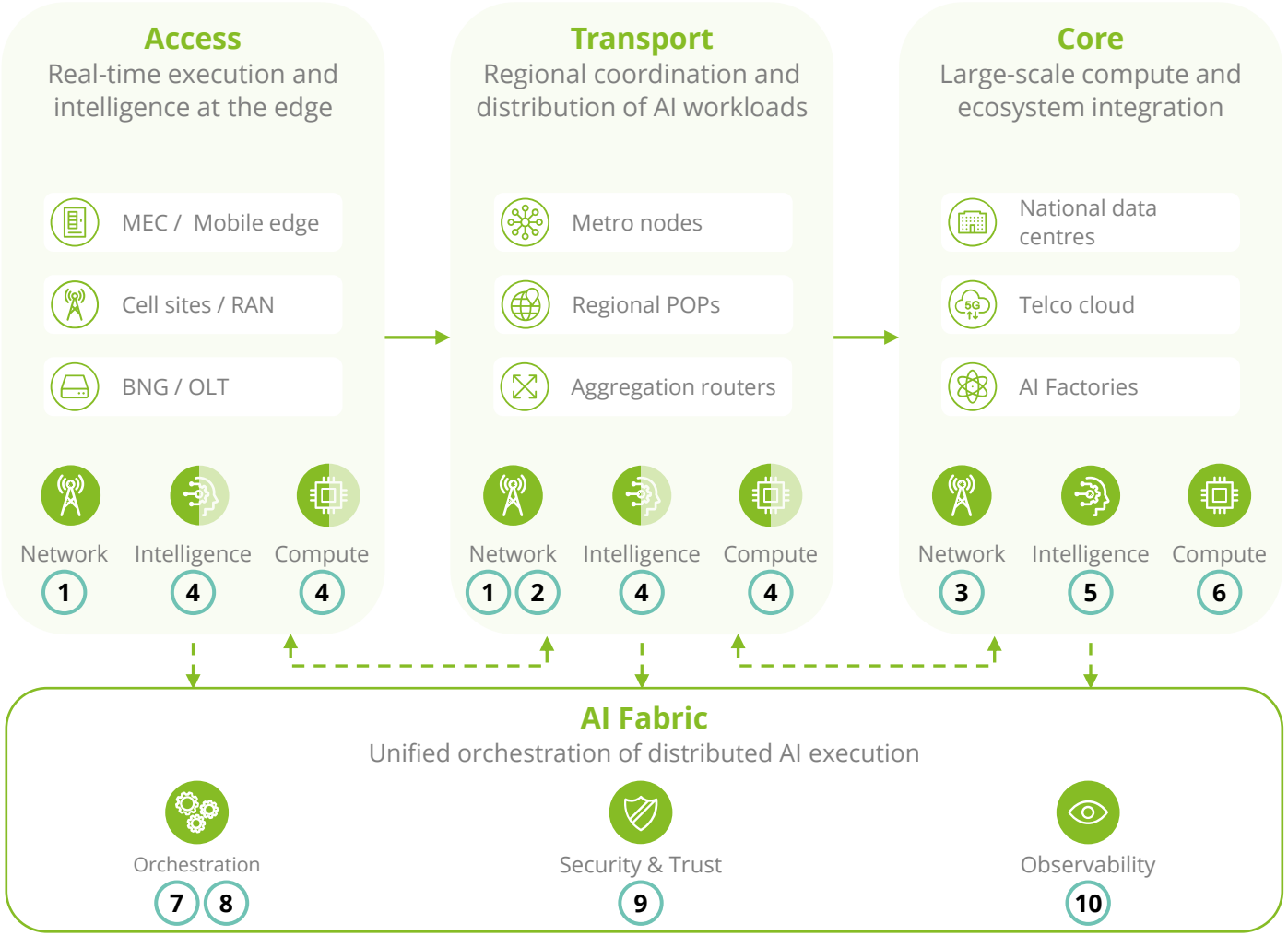
The rise of AI agents, real-time inference and distributed applications requires compute and intelligence capabilities to be embedded throughout the telecom network and coordinated through an AI Fabric



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Enabling the distributed AI fabric | How Cisco enables the distributed AI execution

Cisco provides the infrastructure foundation required to distribute network, compute and intelligence capabilities across telecom domains and orchestrate AI execution at scale



Cisco enablement portfolio

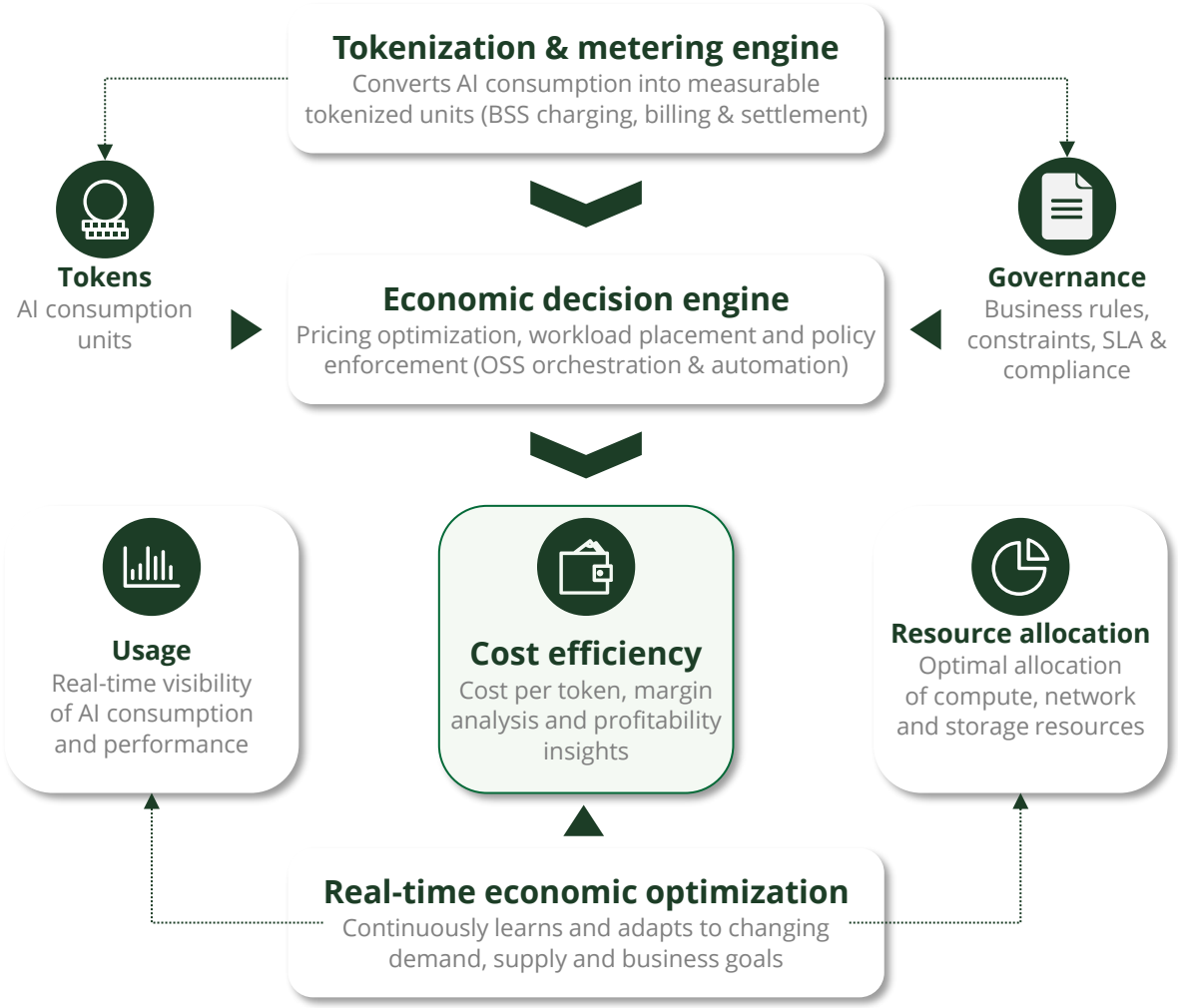
Network	
1	Agile Services Networking
2	Routed Optical Networking
3	Cisco Nexus HyperFabric AI
Compute & Intelligence	
4	Cisco UCS Edge Servers
5	Cisco Edge Intelligence
6	Cisco Secure AI Factory | NVIDIA & Supermicro
Orchestration	
7	Cisco Crosswork Network Automation
8	Cisco Mobility Services Platform
Security & Trust	
9	Cisco AI Defense
Observability	
10	Splunk Observability

Refer to appendix for additional information on Cisco's portfolio for AI-ready Telco infrastructure

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Enabling the distributed AI fabric | AI Tokenomics

Effective AI execution across distributed infrastructure requires an economic layer that transforms AI consumption into measurable, controllable and monetizable services



Tokenization & metering engine

- ✓ Convert AI consumption into standardized, tradable units
- ✓ Track usage across federated domains
- ✓ Enable transparent, interoperable billing signals

Economic decision engine

- ✓ Optimize workload placement (cost, performance, policy)
- ✓ Dynamically allocate resources across domains
- ✓ Enforce consistent pricing and policy models

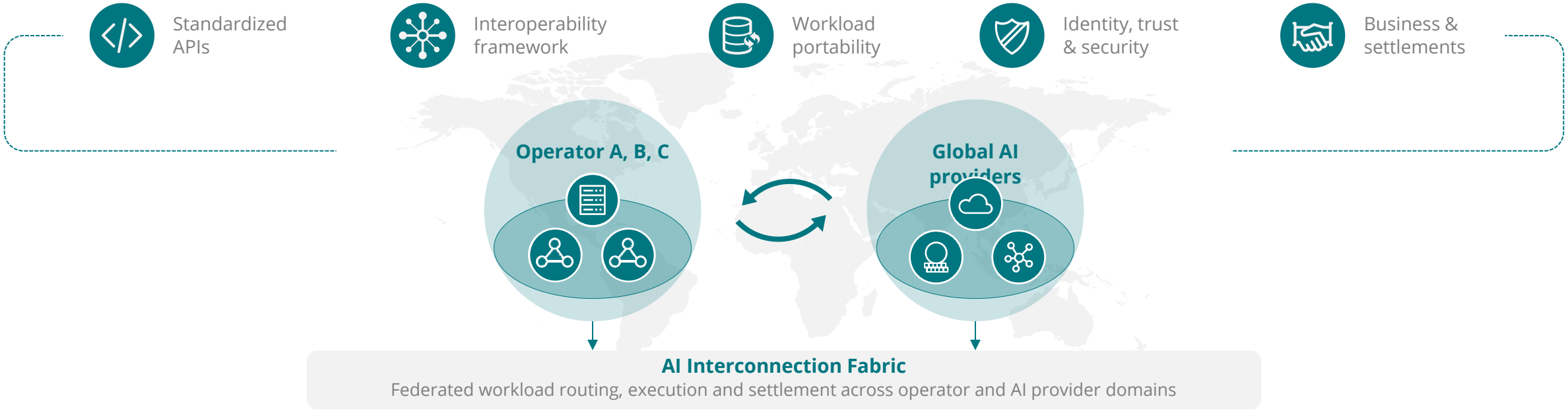
Real-time economic optimization

- ✓ Continuously balance supply, demand and business goals
- ✓ Maximize cost efficiency and resource utilization
- ✓ Align incentives to scale shared capacity

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Enabling the distributed AI fabric | AI interconnection fabric

To scale AI execution beyond a single network footprint, a strategic federation framework is required to connect operators, global AI providers and distributed execution domains



Federated workload orchestration

- ✓ Route AI workloads across operator and provider domains
- ✓ Place workloads based on policy, latency, cost and sovereignty
- ✓ Dynamic discovery of distributed capacity

Trust & secure execution fabric

- ✓ Federate identity and authentication across operators and AI providers
- ✓ Secure data and API exchange through policy-based controls
- ✓ Enforce data locality, sovereignty and regulatory compliance

Economic & settlement layer

- ✓ Track usage across operator, provider and execution domains
- ✓ Settle value between Telcos, AI providers and ecosystem partners
- ✓ Standardized participation and governance principles

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04

Becoming the backbone of the AI economy

Becoming the backbone of AI economy

Telecom operators can move beyond passive connectivity by combining AI monetization, distributed execution and interconnection to regain control over value capture in the AI economy

The Past

Legacy connectivity carrier *operating as an invisible, passive and heavily regulated utility, increasingly exposed to* ***commoditization*** *and* ***replacement by market competitors***

- Connectivity increasingly **commoditized**
- **Traffic growth** no longer translated into **revenue growth**
- **Growing CapEx burden** without proportional value capture
- Value shifts towards **cloud, applications and AI service providers**

The Future

Transformation into the ***foundational backbone of the global artificial intelligence economy*** *through a hyper local physical footprint of edge nodes required for real time autonomous systems*

- Edge infrastructure becomes **critical for real-time AI execution**
- **Trust, sovereignty and low latency** become key differentiators
- **Tokens** create a **new unit to measure** and monetize AI usage
- Telcos reposition from passive data transport to **distributed intelligence orchestration**

Infrastructure becomes Power

Owning the edge infrastructure allows Telcos to **reclaim control over the economic margins** of the AI revolution, repositioning operators from mere passive data providers into the **world's most important engine of distributed intelligence**

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Roadmap to AI economy

Success in the AI economy requires telcos to monetize AI consumption, operationalize distributed execution and extend services beyond individual networks

01

Define the AI monetization model

Define how AI consumption will generate value, including pricing, charging, settlement and revenue-sharing mechanisms.

Key actions:

- Define token-based commercial models
- Establish pricing and settlement mechanisms
- Adapt BSS for token-based charging, billing and settlement

02

Build distributed AI execution

Deploy the infrastructure required to deliver AI workloads with the latency, trust and performance demanded by AI services.

Key actions:

- Upgrade edge, transport and core for distributed AI workloads
- Deploy compute capabilities throughout the network
- Modernize OSS for AI orchestration and service assurance

03

Scale through AI interconnection

Establish how operators can scale AI services beyond their own footprint through common governance and settlement principles.

Key actions:

- Define ecosystem governance and participation frameworks
- Enable seamless execution across operator footprints
- Establish commercial and settlement mechanisms

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05
The Deloitte & Cisco advantage

Why Deloitte & Cisco?

Combining strategic transformation with AI-ready infrastructure, Deloitte and Cisco help operators reposition themselves within the AI value chain and capture a greater share of its economic value

CISCO

- **Cisco's AI-ready infrastructure portfolio** enables distributed AI execution across access, transport and core domains
- Cisco delivers **AI-optimized compute, networking, security** and **observability** required to operationalize distributed AI workloads at scale
- Cisco provides the **high-performance, secure and sovereign execution foundations** required for enterprise and regulated AI workloads



- Deloitte helps define **AI Tokenomics strategies**, including pricing, charging, settlement and revenue-sharing models
- Deloitte supports **end-to-end telecom infrastructure modernization** initiatives spanning network, cloud and operating model transformation
- Deloitte defines **governance, participation, settlement and value-sharing frameworks** required to scale AI services beyond individual operator footprints

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Our joint approach to secure telecom operator's transition

Deloitte and Cisco combine industry and technological expertise, delivering a tailored framework to help telecom operators define, build and operate the distributed AI fabric required to monetize AI consumption

Define the AI monetization model

Define the commercial and economic model required to monetize AI consumption
enabling operators to translate AI usage into measurable revenue streams and margin control

- **Define pricing, charging and settlement models**
- **Design BSS evolution and product catalogue logic**
- **Build value case, roadmap and revenue-sharing rules**

Build distributed AI execution

Lead the transformation and integration required to deploy the infrastructure, platforms and operating capabilities for distributed AI services
enabling operators to deliver AI workloads with the latency, trust and performance demanded by AI services

- **Deploy AI-ready infrastructure across edge, transport and core**
- **Enable orchestration, observability and service assurance**
- **Modernize OSS for AI workload operations**

Scale through AI interconnection

Establish the ecosystem model required to scale AI services beyond individual networks
enabling operators to interoperate, govern capacity and settle value across connected AI ecosystems

- **Define governance, partner roles and participation model**
- **Enable workload portability across operator footprints**
- **Establish settlement and value-sharing mechanisms**

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Refer to appendix for additional information on Cisco's portfolio for AI-ready Telco infrastructure

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06
Appendix

Cisco portfolio for AI-ready Telco infrastructure

Cisco provides an integrated portfolio spanning compute, networking, orchestration, security and observability to operationalize distributed AI workloads across the Telco architecture

Observability

splunk>

Splunk Observability

Unified observability across applications, infrastructure, networks and AI workloads for reliability and insights

Security & Trust



Cisco AI Defense

Security layer for discovering, validating and protecting AI applications, models and data across the AI lifecycle

Orchestration



Cisco Crosswork Network Automation

Closed-loop automation platform for service provisioning, assurance and network optimization



Cisco Mobility Services Platform

Cloud platform for monetizing 5G, IoT and enterprise mobility services

Compute & Intelligence



Cisco UCS Edge Servers

UCS X-Series and UCS C-Series servers for edge AI inference and distributed workloads



Cisco Edge Intelligence

DataOps platform collecting, filtering and distributing edge data to AI and cloud environments



Cisco Secure AI Factory

Supermicro rack-scale NVIDIA GPU systems integrated with Cisco networking, security and observability

Network



Agile Services Networking

Telco architecture built on Cisco Silicon One, 8000 Series and cloud-native network functions



Routed Optical Networking

Cisco 8000 routers and Routed Optical Networking architecture for high-capacity AI traffic transport



Cisco Nexus Hyperfabric AI

Cloud-managed Nexus-based fabric for connecting GPU clusters and scaling AI infrastructure

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Contacts



Pedro Tavares
Cyber & Telecom Networks
Partner
petavares@deloitte.pt



Luís Abreu
Cyber & Telecom Networks
Partner
labreu@deloitte.pt



Filipe Leonardo
Cyber & Telecom Networks
Associate Partner
fleonardo@deloitte.pt



Bruno Pires
Cyber & Telecom Networks
Senior Manager
brunpires@deloitte.pt

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