

The 5G Redemption: From Connectivity Provider to Experience Enabler

How the convergence of advanced networks and cloud gaming creates the first true 5G monetization engine.

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Telcos Invested \$144 Billion Annually in 5G, But Risk Repeating the 4G Era

\$144 Billion

Annually



According to the GSM Association, telecom carriers are investing \$144 billion annually until 2025 to build out 5G networks. The critical challenge is avoiding a repeat of the 4G era, where tech companies generated the lion's share of value-added income while telcos were relegated to collecting network fees.

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Cloud Gaming is the Most Immediate and Monetizable 5G Application

\$218.8 Billion

Total Gaming Market

Projected for 2024, from \$180.3B in 2021

52%

Mobile Gaming Dominance

Share of the global market in 2021

\$6.5 Billion

Cloud Gaming Growth

Projected for 2024, up from \$1.6B in 2021, representing a **61% CAGR**

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While the metaverse evolves, gaming is the foremost driver and the application that can immediately take telcos closer to lucrative businesses.

Remotely accessible, low-latency cloud gaming is the future, powered by 5G and edge computing.

Gamers Are a Niche, Premium Segment Willing to Pay for a Better Experience

95%



Are willing to pay more for a better gaming experience.

79%



Would switch their existing home broadband and mobile connectivity for a 5G subscription with “high-quality” gaming services.

58%



Already pay a premium to their operators.

This is a clear market signal. Gamers can be treated as a priority group that demands and values premium, customized services in bandwidth, edge capabilities, and network slicing.

Source: Data from a 2020 Ribbon Communications study.



The Blueprint: Deutsche Telekom and NVIDIA Are Delivering Europe's First 5G SA Mobile Cloud Gaming Service

At Gamescom 2025, the partners unveiled a collaboration to bring latency-optimized cloud gaming to smartphones at a national scale in Germany.

"With 5G+ Gaming in Germany's largest 5G+ network, players can enjoy high-performance, seamless gameplay on the go... No downloads, no lag. Together with NVIDIA, we're delivering the best gaming experience on the best network."

— Wolfgang Metze, Head of Consumer Business, Telekom Deutschland.



A Console-Like Experience is Achieved Through a Combination of 5G SA, Network Slicing, and L4S



Network Slicing

Divides the network into virtual "slices" for specific applications, guaranteeing resources and prioritizing short, predictable response times for gaming.

L4S (Low Latency, Low Loss, Scalable Throughput)

A standardized IETF technology that uses Explicit Congestion Notification (ECN) to detect imminent overload and adapt data rates, ensuring stable, low latency and minimal jitter even in a busy cell.

The '5G+ Gaming' Option Packages Advanced Technology into a Clear Consumer Value Proposition



Service Name

5G+ Gaming Option

Launch

Autumn 2025

Cost

Free add-on for eligible MagentaMobil customers (plans from August 2024 onwards).

Platform

Integrates NVIDIA GeForce NOW.

Access

Easily booked via the MeinMagenta App.

Initial Device Support

Samsung Galaxy S24 Ultra and the S25 series, with more to follow.

GeForce NOW Details

Content Library

Access to over 2,300 supported titles from Steam, Epic Games, Xbox Game Pass, etc.

Access Model

Day passes available for Performance (€4,39) and Ultimate (€8,79) tiers for a 24-hour premium experience.

A Successful 5G Service Requires an Ecosystem of Partners, Each Playing to Their Strengths

Deutsche Telekom (The Experience Deliverer)

Controls the network infrastructure.

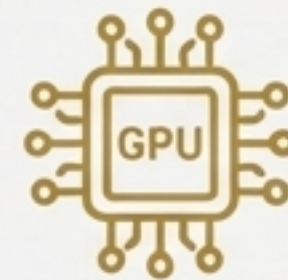
- 5G Standalone Network
- Network Slicing & L4S for QoS
- Customer Billing & Relationships
- Device Certification



NVIDIA (The Experience Creator)

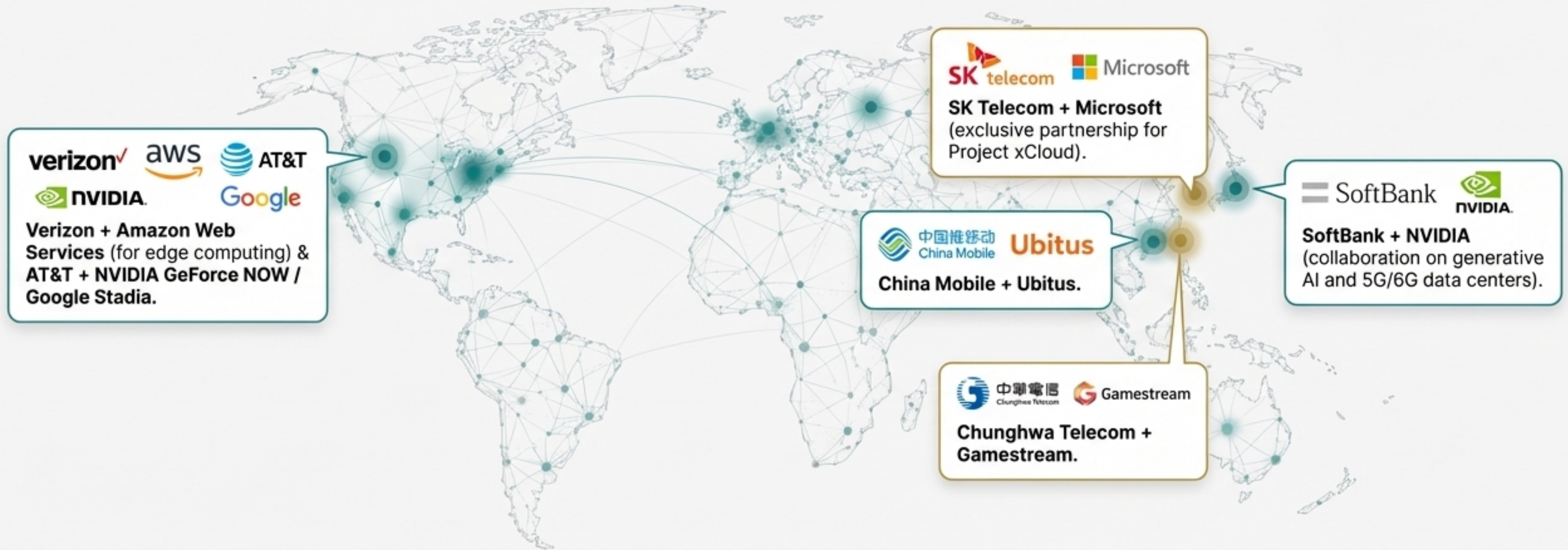
Provides the cloud platform and content.

- GeForce NOW Cloud Gaming Service
- Cutting-Edge GPU Hardware (RTX/Blackwell)
- Game Publisher Relationships (2,300+ titles)
- Client App



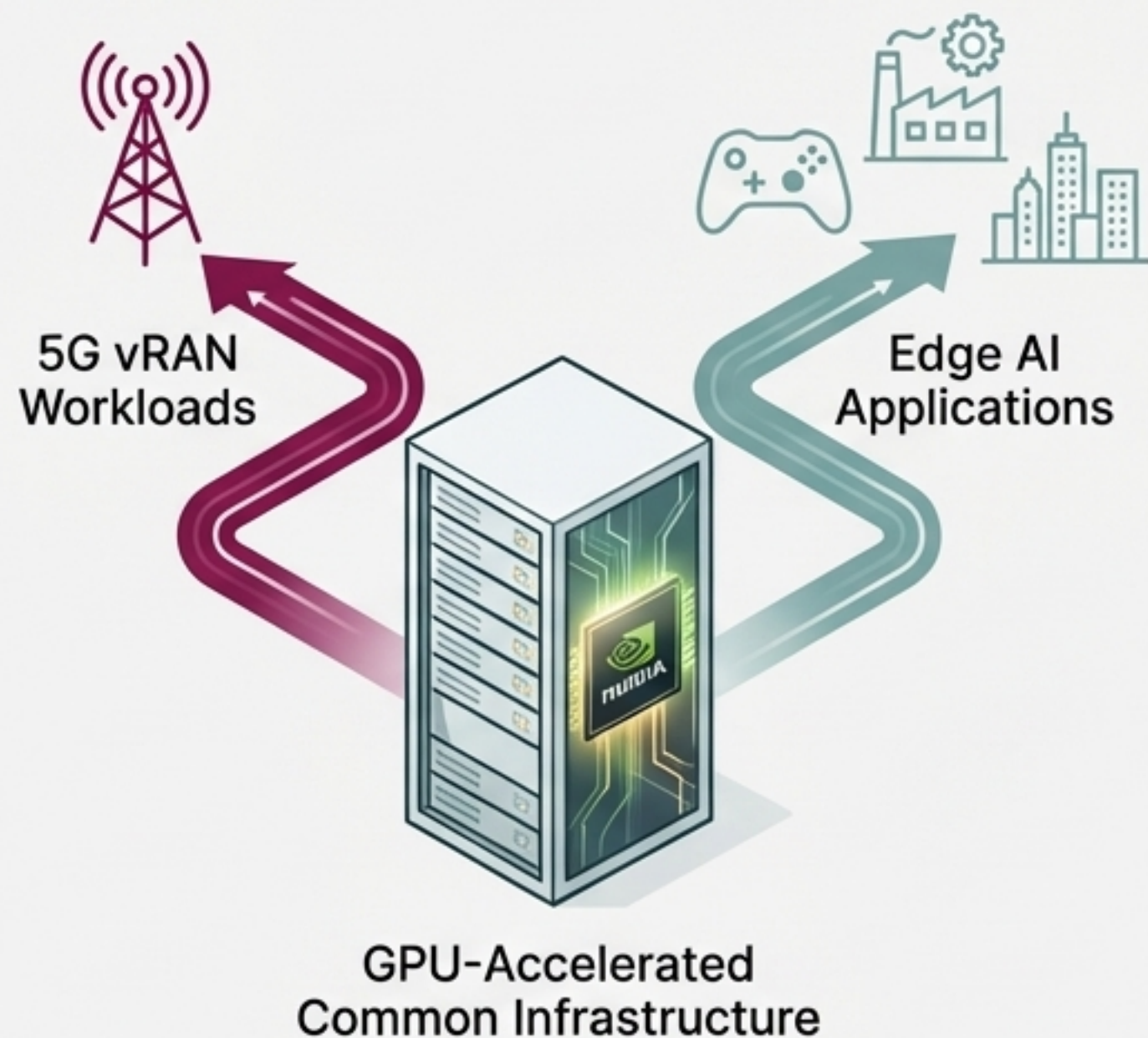
This model reframes 5G from commodity bandwidth to **application-grade performance**, allowing the operator to monetize the **network's quality** while the partner handles the content layer.

The Telco-Cloud-Gaming Partnership Model is Being Validated by Industry Leaders Globally



Telcos worldwide recognize they cannot build these capabilities alone. **Strong partnerships are the fastest, most effective way to create customized offerings and shift market positioning** from a standard network provider to a **strategic enabler of new-age experiences.**

AI-RAN is the Foundational Platform for the Next Generation of Wireless Networks



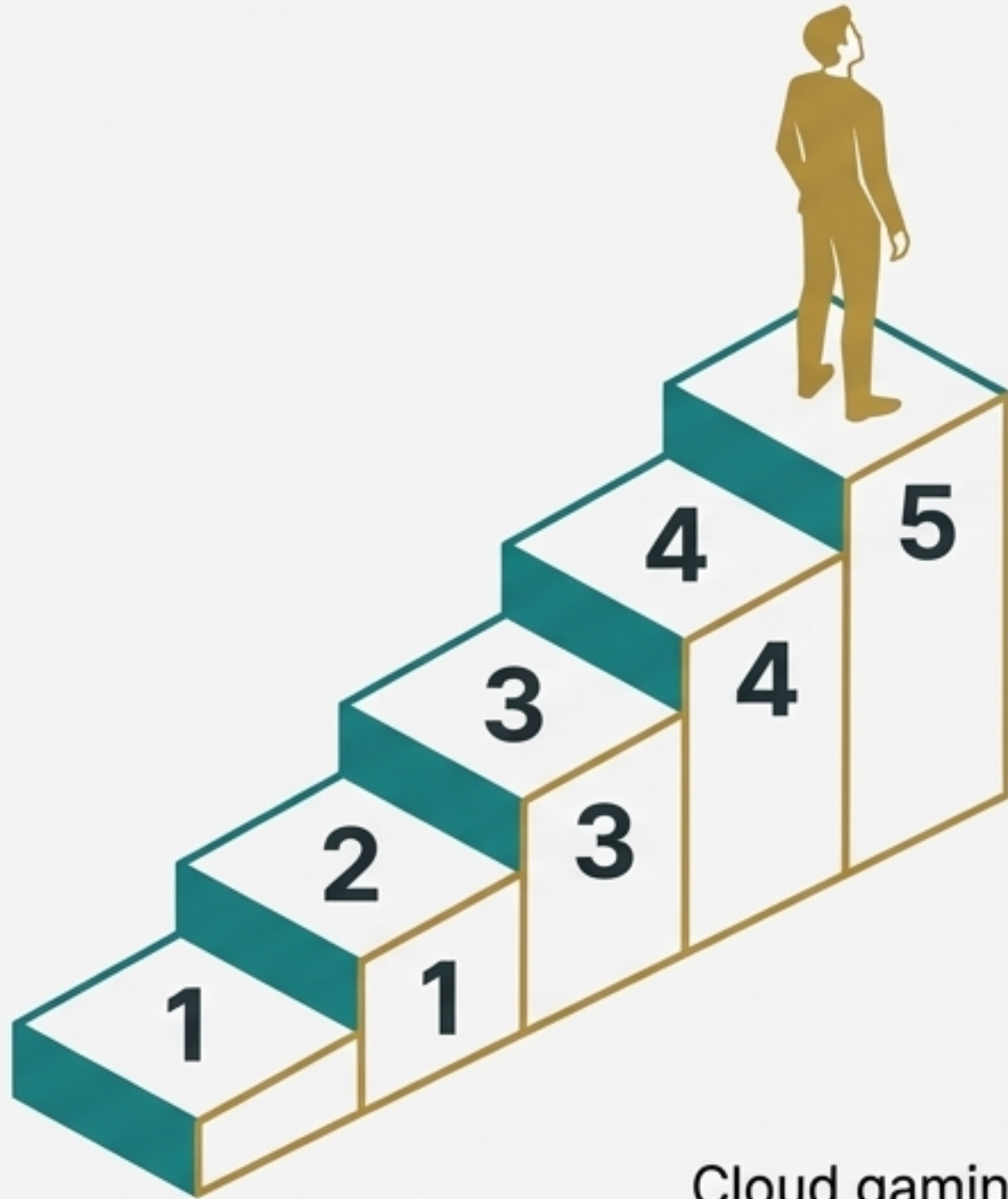
What is AI-RAN?

A software-defined architecture that fuses RAN and AI workloads on a common, GPU-accelerated infrastructure.

Key Benefits of NVIDIA's AI-RAN Platform (NVIDIA Aerial)

- 👉 **Unlock New AI Services:** Run generative AI, AI factories, and other AI applications on the same infrastructure, creating new monetization opportunities (e.g., GPU-as-a-Service).
- 👉 **Maximize Resource Utilization:** Dynamically allocate GPU resources for 5G and AI workloads, increasing capacity utilization by 2-3x and improving energy efficiency.
- 👉 **Boost Radio Performance:** Use AI algorithms to improve spectral efficiency and support more connections at higher performance.
- 👉 **Prepare for AI-Native 6G:** A software-defined path to 6G without hardware swaps.

The Playbook for 5G Redemption is Clear



- 1. **Move Beyond Connectivity:** Stop selling bandwidth and start selling guaranteed, application-grade performance for premium use cases.
- 2. **Target a High-Value Niche:** Identify and cater to a premium-paying customer base like gamers, who can validate the business case for quality-of-service products.
- 3. **Leverage 5G's Unique Capabilities:** Industrialize a playbook around 5G Standalone, Network Slicing, and L4S to create tangible, differentiated experiences.
- 4. **Build a Powerful Ecosystem:** Partner with cloud and content leaders to deliver a complete solution that plays to each partner's strengths.
- 5. **Invest in a Future-Proof Platform:** Adopt an AI-RAN architecture to reduce TCO, improve efficiency, and build the foundation for future 6G and AI-driven revenue streams.

Cloud gaming is not just an application; it is the first step in transforming the telco into the central enabler of the real-time, AI-native digital future.