



Delivering the Digital Future

Netcracker

An NEC Company

ROBOTIC DOG: AI at the Edge, Sustainable Revenue at Scale



Netcracker recently participated in a Catalyst project, “Robotic Dog: AI at the Edge, Sustainable Revenue at Scale,” demonstrating how communications service providers can monetize distributed edge infrastructure by supporting Physical AI applications. The project, which won the prestigious TM Forum Open Innovation Catalyst Award, showcased how intelligent orchestration, automation and monetization can enable entirely new B2B2X business models while reducing deployment complexity and accelerating time to market.

Open tmforum
Innovation
Catalysts

Award Winner 2026



Innovative & Futuristic

Robotic dog: AI at the edge – sustainable revenue at scale



Physical AI is the next major growth frontier for CSPs

Robots, companions, vehicles, factories, smart cities, devices and accessibility solutions all need intelligence that operates in the physical world. But today's architecture is constrained. Device-only AI is expensive, power-hungry and hard to upgrade. Cloud-only AI introduces latency, reliability and control challenges. Physical AI needs intelligence distributed across the device, the edge, the network and the cloud.



The global market could approach **\$1 trillion** by 2033.

Grand View Research, June 2026





This Catalyst demonstrates how CSPs can own that role

Through a robotic guide dog use case, we show a visually impaired user being guided safely through outdoor and indoor environments using real-time sensing, obstacle avoidance, voice interaction, route planning and edge-assisted perception. The robot stays lightweight, while the CSP edge provides the intelligence anchor, service assurance, AI lifecycle management and monetization foundation.

Netcracker's core value = Monetization + Orchestration

Netcracker plays a critical role with its AI-native BSS/OSS platform to deliver autonomous multi-domain operations, manage complex multi-partner workloads and scale flexible B2B2X business models. Netcracker transforms raw infrastructure into an integrated intelligence delivery platform.

DIMENSION	 AI-NATIVE INTELLIGENCE SERVICE DELIVERY EDGE (AIN-ISDE)	 CENTRAL CLOUD & NETCRACKER BSS/OSS
Latency	Ultra-low latency (sub-second) for real-time localized responsiveness	Latency-tolerant; optimized for systemic batch data management
Core Role	Main inference anchor hosting distilled VLMs/LLMs and path routing	Global continuous learning, lifecycle automation and billing orchestrator

Netcracker supports operators' B2B2X business transformation journeys

Netcracker enables operators to move beyond simple connectivity pricing to capture value across every token and task. The commercial power of the Netcracker architecture lies in its universal, highly reusable framework. A single, unified AI-native BSS/OSS fabric successfully pilots and scales a wide array of high-impact vertical applications.

 PHASE 1: FOUNDATION	 PHASE 2: ACCELERATION	 PHASE 3: LEADERSHIP
5G + Edge-Enabled AI Leveraging 5G networks to offer localized Physical AI trials and targeted multi-industry vertical pilots	AI-Native Edge Services Providing guaranteed uplink, low latency, full lifecycle management and predictable Edge AI-as-a-Service	Ecosystem Orchestrator Driving dynamic multi-partner marketplaces, token billing and end-to-end multi-party revenue settlement