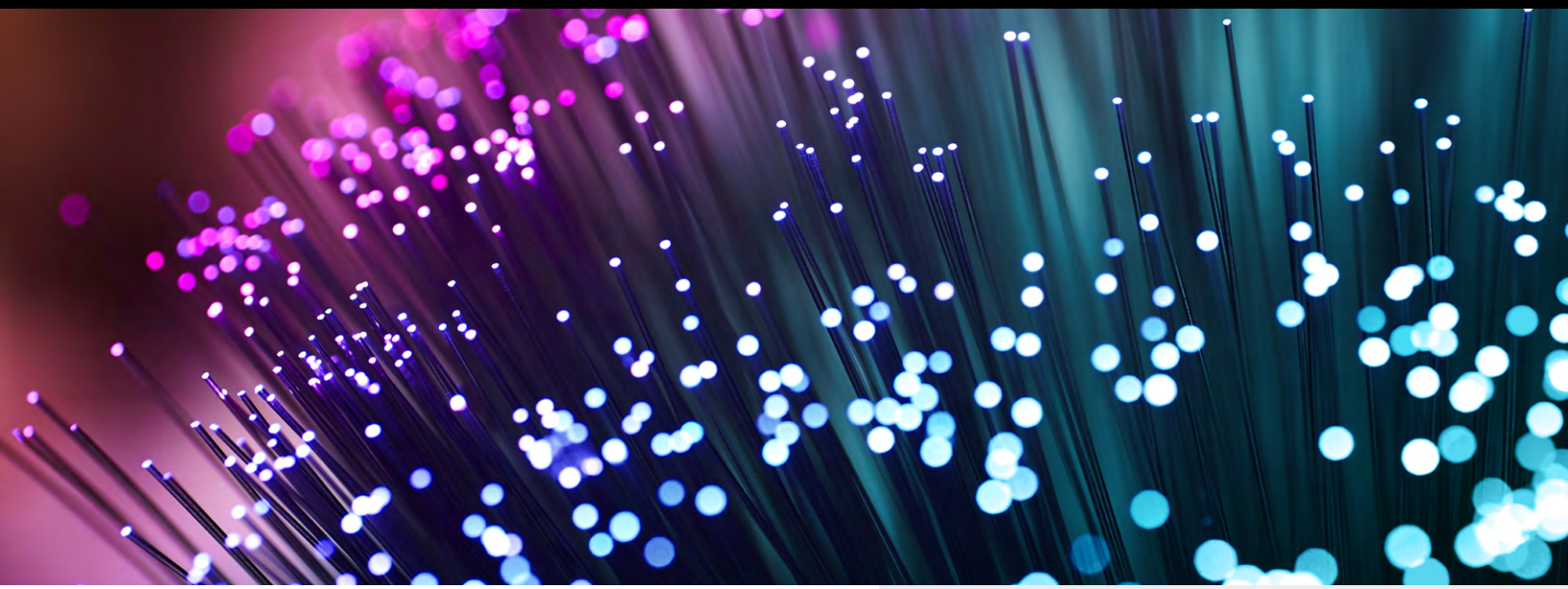

POWERING CRITICAL TELCO WORKLOADS WITH AMD

INDUSTRY OVERVIEW AND TRENDS

Telecommunications networks are rapidly evolving. Growth in data traffic and capacity demands is being driven by both consumer and enterprise needs.

Average mobile phone data traffic will ***more than double*** *from 2023 to 2029.*[1]

Operators also face tightening energy budgets and sustainability requirements. Architecture choices are shifting toward AI-native and cloud-native approaches, with growing demand for flexible, open, multi-vendor ecosystems.

Edge computing is becoming a standard part of the footprint as operators push compute closer to users and services. Spending on edge computing is expected to increase yearly through 2027[2].

WHAT OPERATORS NEED NEXT

- Infrastructure that scales efficiently across core, RAN, edge, and cloud.
- Lower power consumption and smaller footprint while increasing performance.
- Support for AI workloads across the network.
- Secure, cloud-native operations.

AMD SOLUTIONS FOR TELCO

RAN: OPEN RAN AND VRAN

AMD EPYC™ server CPUs and SoCs provide low-latency, high performance and energy efficient processing for Open RAN and vRAN. AMD EPYC 8000 Series server CPUs support vRAN and O-RAN implementations, including inline, lookaside, and software-only approaches. AMD EPYC 8000 Series server CPUs enable a software-only implementation of L1 to simplify design, increase flexibility, and improve total cost of ownership (TCO).

5G CORE NETWORK

AMD EPYC server CPUs deliver energy-efficient, high-throughput, cloud-native performance for core networks. Featured processors include AMD EPYC 9004 and EPYC 9005 server CPUs. These OEM platforms are validated by major 5G core software stack vendors including Ericsson, Nokia, ZTE, Samsung, Cisco, and Mavenir. AMD EPYC server CPU based platforms enable automation, network slicing, Telco AI and future 6G.

CLOUD AND AI

AMD provides a single, interoperable compute foundation for core, RAN, edge, and IT environments. AMD Instinct™ GPUs and AMD EPYC 9005 server CPUs help address cloud and AI requirements, including real-time analytics and AI inference with EPYC server CPUs. Organizations can deploy universal AI workloads such as chatbots and security, as well as telco-specific AI workloads such as intelligent RAN controllers and automated network management.

TELCO SUCCESS STORIES

ORGANIZATION	OUTCOME
Swisscom	Nearly doubled vCPU density. Reduced energy use by 24% across 3,000 nodes[3].
CHT ITG	Achieved 1.6× rack space savings while boosting compute capacity.[4]
Ericsson	Improving power efficiency by 40% from Gen 4 to Gen 5 EPYC server CPUs.[5]
Nokia	Increased Cloud Mobile Gateway performance by 80% while improving power efficiency with EPYC 9005 server CPUs.[6]

COLLABORATIONS IN TELCO

In Telecommunications, technology is only valuable if it synergizes with key ecosystem leaders. That is why AMD solutions are validated with leaders like Ericsson, Nokia, Cisco, ZTE, and Mavenir.

PARTNER / ECOSYSTEM	HIGHLIGHT
Ericsson	Certified Packet Core, IMS, SC, UDM, Charging and Billings, and Cloud Infrastructure (CNIS & NFVI) on EPYC 9000 Series server CPUs.
Nokia	Certified Nokia Cloud Platform / NFVI 5.0 on EPYC 9005; deploying Cloud Mobile Gateway on EPYC 9004; Certified Packet Core and IMS on EPYC 9000 Series server CPUs.
ZTE	Deploying Packet Core on EPYC 9004 and 9005 server CPUs.
Mavenir	Certified Packet Core on EPYC 9004 server CPUs.
Open Telecom AI Platform	Cisco, Nokia, Jio and AMD are partnering to develop the Open Telecom AI Platform to help operators apply AI to increase efficiency, strengthen security, and unlock new revenue.

SPECIFIC PRODUCT OFFERINGS AND PLATFORM EXAMPLES

OEM	CORE NETWORK + TELCO CLOUD	CLOUD RAN 1P
HPE	DL325 DL345 DL365 DL385	
DELL	R7715 R7725	
Lenovo	SR635/645 SR655/665 SR675	SR455V3
SUPERMICRO	H14 platforms	H13 platforms

MODERNIZE YOUR TELCO INFRASTRUCTURE

Power the next wave of intelligent network services with scalable, secure, and energy-efficient AMD EPYC server CPU based solutions.

Learn more at www.amd.com/telco or speak to your AMD Sales Representative.

1. Ericsson, Mobile Data Traffic Outlook 2024, https://www.ericsson.com/en/reports-and-papers/mobility-report/dataforecasts/mobile-traffic-forecast
2. "New IDC Spending Guide Forecasts Edge Computing Investments Will Reach $232 Billion in 2024", March 14, 2024, IDC, https://www.idc.com/getdoc.jsp?containerId=prUS51960324
3. https://www.amd.com/en/resources/case-studies/swisscom.html
4. https://www.amd.com/en/resources/case-studies/chunghwa.html
5. https://www.amd.com/en/blogs/2025/amd-and-ericsson-build-smarter-scalable-5g-networks.html
6. Performance claims are provided by NOKIA and have not been independently verified by AMD. Performance benefits are impacted by a variety of variables. Results may not be typical. GD-181