

Ericsson Cloud Core Exposure Server



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Introduction

The Ericsson Cloud Core Exposure Server (CCES) is a cloud-native exposure solution that lets communications service providers (CSPs) expose 4G and 5G network capabilities as easy-to-consume Application Programming Interfaces (APIs) in a secure and flexible way towards enterprises and application developers. It combines 3GPP-standard network APIs, CAMARA and TM Forum -aligned (TMF-aligned) service APIs and Ericsson proprietary APIs into monetizable offers for many use cases.

Turning network capabilities into business value

Exposing network capabilities through standardized and secure Network APIs allows service providers to unlock the full value of their networks and move beyond best-effort connectivity. By making network intelligence and control available to applications and partners, the network becomes a programmable platform that supports new services, new customers, and new revenue opportunities.

Programmable networks

Network APIs enable applications to dynamically influence how the network behaves. Instead of static configurations, connectivity can be adjusted in real time based on application needs, user context, or business policies. This programmability allows service providers to support advanced use cases such as on-demand performance, traffic prioritization, dynamic routing, and network slicing—without exposing the complexity of the underlying network.

Service-level enforcement and control

By exposing capabilities through controlled APIs, service providers can enforce service-level agreements directly from the network. Applications can request specific performance characteristics, while the network continuously enforces and monitors these requirements.

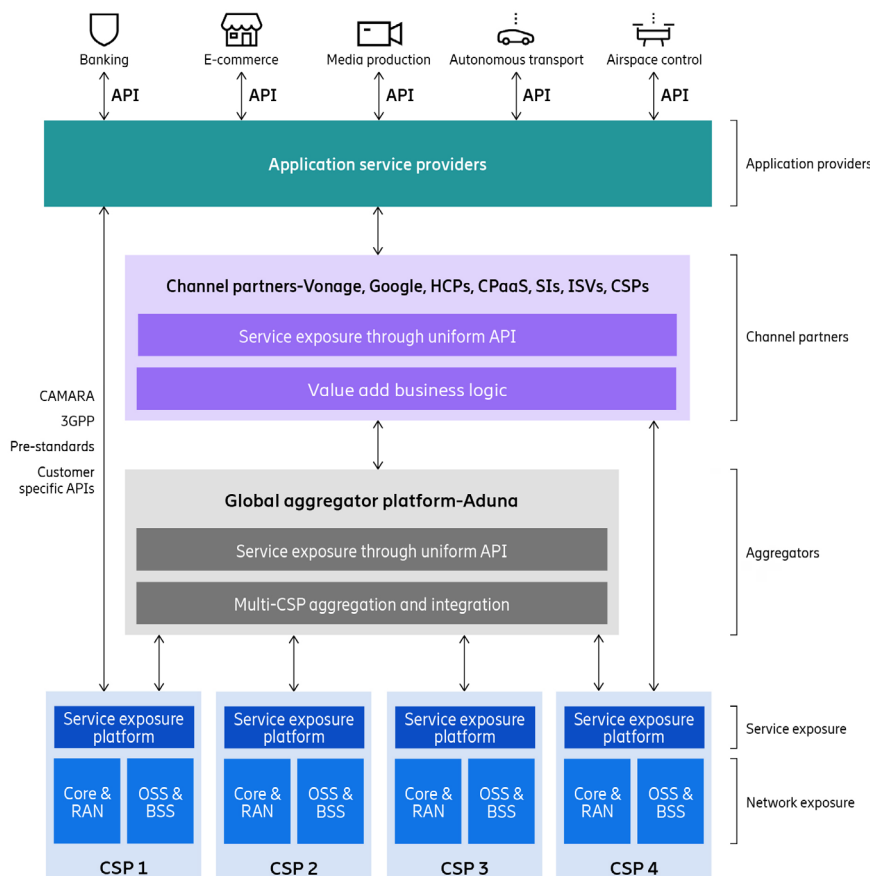
This ensures predictable quality, reliable service delivery, and clear accountability—whether the customer is an enterprise, an application provider, or an ecosystem partner.

New revenue streams from network intelligence

Network APIs transform previously internal network capabilities into monetizable services. Trusted signals such as location, device status, identity, and performance can be offered as premium services to enterprises, developers, and aggregators. This enables new revenue streams based on API consumption, premium connectivity, or value-added services—complementing traditional subscription models.

New business models and ecosystems

Exposing network capabilities enables service providers to participate in broader digital ecosystems. By offering standardized APIs aligned with initiatives such as CAMARA, service providers can collaborate with application developers, hyperscalers, and industry partners at scale. This supports flexible business models including pay-per-use APIs, revenue sharing, sponsored connectivity, and industry-specific solutions—positioning the network as a platform for innovation rather than a commodity.



With 5G Standalone (SA) and the new 5G Core architecture, CSPs can further expose capabilities for edge computing and network slicing, enabling local breakout for ultra-low-latency services and dynamic movement of traffic between slices to match application requirements.

Cloud Core Exposure Server as the Network API platform

Ericsson Cloud Core Exposure Server is the central exposure platform that connects applications and partners to network capabilities. It consolidates exposure for both 4G and 5G in a single cloud-native solution.

CCES integrates the 3GPP Network Exposure Function (NEF) for 5G and the Service Capability Exposure Function (SCEF) for 4G, complemented by a Service Exposure Enabler that provides security, API management, and service

composition. Support for built-in CAMARA APIs and Ericsson Service APIs enables CSPs' proprietary APIs as well as rapid introduction of new, use-case-driven offerings. In combination with partners that delivers consent management capabilities for the Network API Exposure Layer, Ericsson offers common solution blueprints for API access and consent management that help communications service providers accelerate monetization of advanced network APIs.

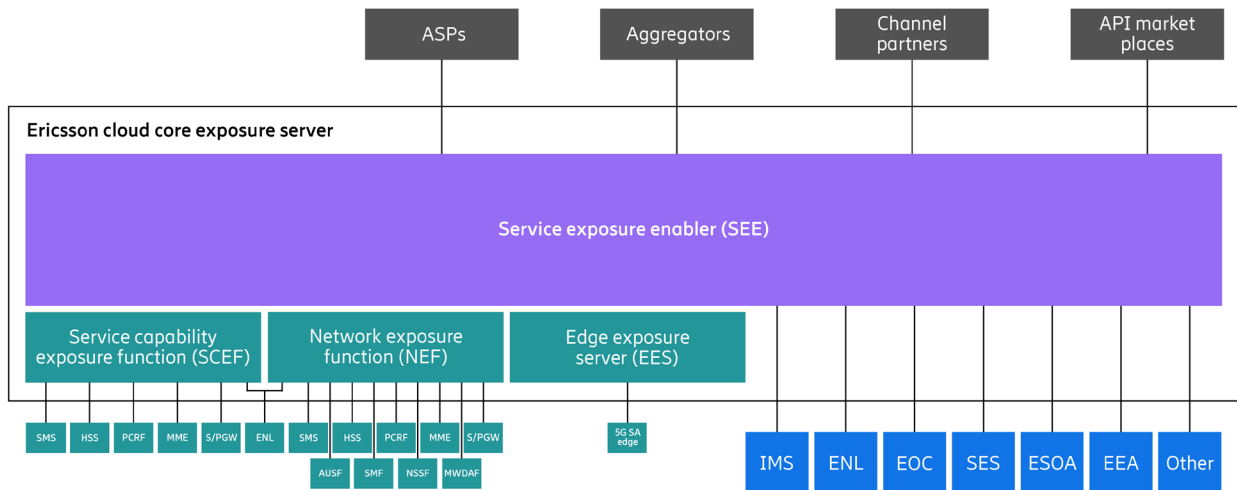


Figure – CCES functional architecture

Network API categories enabled by CCES

Ericsson is a key driver in the CAMARA open-source project, actively shaping common network API specifications and implementing them in Cloud Core Exposure Server.

CCES exposes network capabilities through a structured set of Network API categories, covering both 4G and 5G

environments, including CAMARA aligned Service APIs such as but not limited to, Quality On Demand (QoD), Device Status, Device Location and Number Verification, as well as Ericsson Service APIs like Device Reporting, Communication Status, Fraud Prevention and Enhanced QoS.

Dual mode Core APIs are available across 4G and 5G, enabling consistent exposure of core capabilities such as QoS, Quality of Service (QoS), identity, device status, reachability, and event notifications.

5G only APIs leverage native 5G capabilities to support advanced use cases including changing QoS, slice selection, policy control, and performance differentiation, taking advantage of the service-based architecture of the 5G Core

4G only APIs ensure continuity by exposing mature LTE capabilities through standardized interfaces, supporting use cases such as changing QoS, IoT, messaging, charging, and legacy service enablement.

Edge exposure APIs extend network exposure closer to the application by enabling discovery, connectivity control, and performance optimization for edge based services.

Together, these API categories allow service providers to address a wide range of use cases while ensuring a smooth evolution from 4G to 5G and beyond.

Agentic Exposure for Model Context Protocol (MCP) and Agent-to-Agent (A2A) communication fueled by network and service APIs will be enabling agent to network interoperability and new monetization models.

Ericsson Cloud Core Exposure Server characteristics

Ericsson Cloud Core Exposure Server is designed for service providers who want to lead in the Network API economy. Ericsson Cloud Core Exposure Server is ahead of competition when addressing operator challenges in the exposure area.

	Challenges	Value propositions	Value arguments
High-performing networks while controlling costs	Operational cost increase	Cost efficient implementation of CCES	- CSPs can bring efficiency by implementation of a Dual Mode Core enabled node with SCEF and NEF in the same cloud native function, being 50% more efficient through integration efforts in 4G and 5G - Based on 3GPP specifications and adheres to industry standards like CAMARA and GSMA, supporting easy integration with northbound applications / aggregators and allowing southbound integration with NFs from other vendors.
	Smaller CSPs require smaller versions to be able to start at low cost	Small deployment profile	- CCES is available in small deployment profile (NEF/SEE) for dual-mode 5GC telco and enterprise for any tier CSPs. - Small deployments will seamlessly be able to be expanded to standard / large deployments.
Agile, secure and future-proof	Exposing network capabilities in a controlled and secure way	High security and access control	- Support for multiple layers of security, such as network protection, identity and access management, security logging and data protection. - Support for service policy controls per application like: Quota and Throttling
New revenue	Lack of monetization use cases with consumers and enterprises	Innovation in supporting multiple use-cases and business models	- Allows CSPs to create new revenue streams through API exposure by charging for API usage, data consumption, or offering premium services with enhanced features. - CSPs can also enter partnerships with aggregators, developers and enterprises, sharing revenue, generated from innovative applications and services built on top of their infrastructure. - Service Exposure is a use case driven business.
	Proprietary APIs to support specific use cases that are ahead of standardization	Flexibility to support different types of APIs and quickly adapt to changing market requirements	- Support for both 3GPP defined SCEF and NEF APIs, as well as CAMARA APIs, which simplify the integration between Applications and CSPs and hides network complexity. - Flexibility to create CSP own APIs and Business Logic - New API compositions are exported to the execution environment without interruption

Use case examples

CCES supports a multitude of use cases based on different network APIs, and these are few examples of what can be supported.

Multiple differentiated connectivity 5G SA use cases validated end to end using simple northbound APIs with device, applications, channel partners addressing several enterprise verticals.

- **Mobile gaming / high-quality video:** Allow Over the top (OTT) apps and content providers to request premium QoS so gamers and streamers enjoy consistent, high-quality experiences even at peak hours

- **Public Safety:** Guarantee robust connectivity and location awareness for first responders inside a defined emergency area so critical communications work even under pressure
- **Improved end user experience:** Dynamically boost network quality for demanding applications like gaming, drones and XR, only for the time it's needed
- **Fraud detection and prevention:** Let banks check real time information from the network about a customer's suspicious transaction that may be initiated during scam calls and blocking it

- **FWA mobility monetization:** Use location-based monitoring to offer premium plans that enable mobility for users of their FWA services moving outside of their designated area
- **Events performance enhancement:** Monetize major events by offering verified subscribers' premium connectivity with higher, more secure performance inside the venue
- **Connected drones:** Give drone applications prioritized QoS and location visibility so they can stream high-quality video and stay under precise, real-time remote control

Further reading

[Ericsson Cloud Core Exposure Server](#)

[Unlock the potential of your 5G network with network and service exposure](#)

[Ericsson 5G Core \(5GC\)](#)

For more technical or commercial information, please [contact us](#).

About Ericsson

Ericsson's high-performing networks provide connectivity for billions of people every day. For nearly 150 years, we've been pioneers in creating technology for communication. We offer mobile communication and connectivity solutions for service providers and enterprises. Together with our customers and partners, we make the digital world of tomorrow a reality.

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