



Product Data Sheet

4G CORE

AXYOMCORE.AI

Powering Seamless Connectivity with 4G Core Solutions

Axyom.Core 4G Core delivers high-performance, scalable solutions designed to optimize connectivity and ensure reliability for modern mobile networks. With a cloud-native architecture, our 4G Core enables seamless communication, efficient traffic management, and supports both enterprise and service provider needs, all while preparing for future 5G integration.

The Challenge

In today's rapidly evolving telecom environment, operators face several critical challenges in maintaining efficient, scalable, and reliable networks. These include managing growing data traffic, ensuring seamless connectivity across regions, and preparing networks for future 5G integration. Operators also struggle with reducing latency to enhance real-time services and optimizing operational efficiency to meet customer demands while controlling costs. As the volume of connected devices and data continues to surge, maintaining a flexible and adaptable network infrastructure is essential.

The Axyom.Core Solution

Axyom.Core 4G Core addresses these challenges with a high-performance, cloud-native solution designed for scalability and reliability. Our flexible architecture ensures seamless traffic management, efficiently handling increasing data demands, even during peak usage periods. With built-in low-latency communication, Axyom.Core 4G Core enhances real-time applications and improves user experiences. The solution is also future-ready, offering seamless integration with 5G technologies, ensuring a smooth evolution for operators as they transition to next-generation networks. By optimizing operational efficiency and reducing overhead, Axyom.Core 4G Core empowers service providers and enterprises to meet the connectivity demands of today and tomorrow.

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Comprehensive 4G Core Key Components

Mobility Management Entity (MME): Manages signaling, mobility, and session control for LTE devices.

- **Exhaustive Use Case Support**

- FWA, MBB, IoT, VoLTE services

- **Rich Feature Set**

- 5G Non-Standalone (NSA) Architecture support
- 4G/5G handovers over N26
- Circuit Switched Fallback (CSFB) support
- IMS voice over packet-switched (PS) sessions support
- Emergency bearer services support
- 3GPP Location Services (LCS) support
- Cellular IoT support
- Machine Type Communication (MTC) support
- Dedicated Core Networks (DCN) support
- Optimized Paging with custom paging procedure
- SCTP multi-homing support
- Supports DSCP marking on Control Plane
- Roaming support
- Lawful Interception support
- Adherence to 3GPP standards for better interoperability

- **Rich Interface Support**

- EPC Interfaces: S1-MME, S11, S10, S6a, S13, SBc, SGs, SLg, SLs, T6a
- 5GC Interfaces: N26
- LI Interfaces: LI X1, LI X2
- Routing: DRA Support

- **Enhanced Flexibility & Performance with Axyom™ Platform**

- Built on Axyom™ CNF Platform
- Highly efficient resource usage to support large number of UE and UE mobility management call flows
- Local & geographical redundancy
- Subscriber tracing

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Serving Gateway – Control Plane (SGW-C): Mobility anchor point for UE related mobility.

- **Rich Feature Set**
 - CUPS Architecture with separate SGW-C & SGW-U functionality
 - Offline charging support
 - Pause of Charging support
 - Roaming support
 - Adherence to 3GPP standards for better interoperability
- **Rich Interface Support**
 - EPC Interfaces: S11, S5-C, S8-C, Sxa, Ga, Rf
- **Enhanced Flexibility & Performance with Axyom™ Platform**
 - Built on Axyom™ CNF Platform
 - Highly efficient resource usage to support large number of UE sessions
 - Local redundancy
 - Subscriber & Interface tracing

Key Benefits

- Cloud-Native Flexibility
- Low Latency for Real-Time Services
- Scalable and Efficient Traffic Management
- Future-Ready for 5G Transition

Learn More

Discover how Axyom.Core's 4G Core solutions can elevate your network capabilities. Visit us at www.axyomcore.ai for more information or contact our team for personalized assistance.

Ready to Unlock the Full Potential of Your Network?

Discover how Axyom.Core 4G Core elevates network performance with seamless integration, unmatched scalability, and low-latency connectivity for enhanced mobile experiences.

Transform Tomorrow with Us. Start the Conversation.

Let's Build the Future Together. Get in Touch!

For more information or to schedule a demo, reach out to us at:

contact@axyomcore.ai

Visit our website: www.axyomcore.ai

Axyom.Core | Empowering Your 5G Transformation

