5G

Product Data Sheet
5G CORE

AXYOMCORE.AI

Empowering the Future of 5G Connectivity

The Axyom.Core 5G Core is the foundation of next-generation connectivity, enabling seamless communication and driving innovation in 5G networks. Designed with a cloud-native architecture, our 5G Core delivers unparalleled performance, scalability, and reliability. With support for high-volume traffic and real-time adaptability, Axyom.Core's 5G Core empowers service providers to unlock the full potential of 5G, ensuring a superior user experience and operational efficiency for today's and tomorrow's networks.

The Challenge

Service providers face increasing pressure to manage the exponential growth in data traffic while delivering consistent, high-performance networks. The demand for low-latency, seamless connectivity spans diverse use cases, from IoT devices to mission-critical communications. Additionally, maintaining operational efficiency in an environment of rapidly evolving technology and growing complexity presents significant hurdles. Networks must navigate these challenges while staying resilient, efficient, and adaptable to future demands.

The Axyom.Core Solution

Axyom.Core 5G Core rises to these challenges with a transformative approach. Leveraging a cloud-native architecture, the solution provides the scalability, flexibility, and resilience needed to meet dynamic network demands. Advanced automation reduces manual interventions, facilitating faster service deployment and streamlined operations. Dynamic network slicing allocates resources effectively to diverse applications, enhancing efficiency and user experience. Robust security measures protect the network and user data, while the future-ready design ensures seamless integration with emerging technologies such as AI, edge computing, and private networks. These features make Axyom.Core the ideal partner for overcoming the challenges of modern 5G networks.

5G Core Specific Components

Access and Mobility Management Function (AMF): Manages mobility, session management, and security for user devices.

- **3GPP Access Support**
  - 5G SA access with network slice support
- **Non 3GPP Access Support**
  - Untrusted access via N3IWF, AGF
- **Seamless Mobility**
  - 4G <-> 5G handover
  - 5G <-> WiFi handover
- **Exhaustive Use Case Support**
  - FWA, IoT, eMBB, VoNR, VoWiFi, MPN, MEC services
- **Rich Feature Set**
  - AMF Set support
  - Intelligent Paging support.
  - Event exposure service support
  - Location service support
  - Local Area Data Network (LADN) Support
  - Support for Control Plane CIoT 5GS Optimization
  - Support for restriction of use of Enhanced Coverage
  - ATSSS support
  - SMSF support
  - Multimedia Priority Services (MPS) support
  - EPS Fallback for Voice
  - Lawful interception support
- **Rich Interface Support**
  - 5GC Interfaces – N1, N2, N8, N11, N12, N14, N15, N17, N20, N22, N26, N51, Nnrf
  - LI Interfaces - LI X1, LI X2
  - Routing - SCP Support
- **Adherence to 3GPP standards for better interoperability**
  - 3GPP Release 15
  - 3GPP Release 16
  - 3GPP Release 17/18*

References: *Future Roadmap

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Key Benefits

- Accelerate Deployment: Rapidly integrate with existing infrastructure to bring services to market faster
- Enhance Revenue Opportunities: Enable advanced 5G use cases such as private networks, IoT, and smart cities
- Optimize Operations: Reduce operational complexity with automation and streamlined network functions
- Seamless Scalability: Effortlessly scale network resources to meet growing demand, ensuring consistent performance during peak traffic loads
- Future-Ready Architecture: Built on a modular, cloud-native design that easily adapts to emerging technologies like AI and edge computing

Why Axyom.Core 5G Core?

Axyom.Core stands out as the strategic choice for service providers aiming to lead in 5G innovation. Our 5G Core solution offers unmatched flexibility, scalability, and performance, enabling your business to adapt seamlessly to evolving industry demands through cutting-edge, cloud-native technology. Leveraging decades of expertise, you can stay ahead in a competitive market and enhance operational efficiency while reducing costs through advanced automation and intelligent network slicing. This empowers you to deliver superior user experiences with reliable, high-performing networks. With Axyom.Core as your partner, you can confidently navigate the future of connectivity.

Learn More

Discover how Axyom.Core 5G Core solutions can transform your network. Visit www.axyomcore.ai for more information and resources to support your journey to 5G excellence.

Ready to Unlock the Full Potential of Your Network?

Discover how Axyom.Core 5G Core revolutionizes connectivity with unparalleled scalability, seamless integration, and unmatched network performance.

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:

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Visit our website: www.axyomcore.ai
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