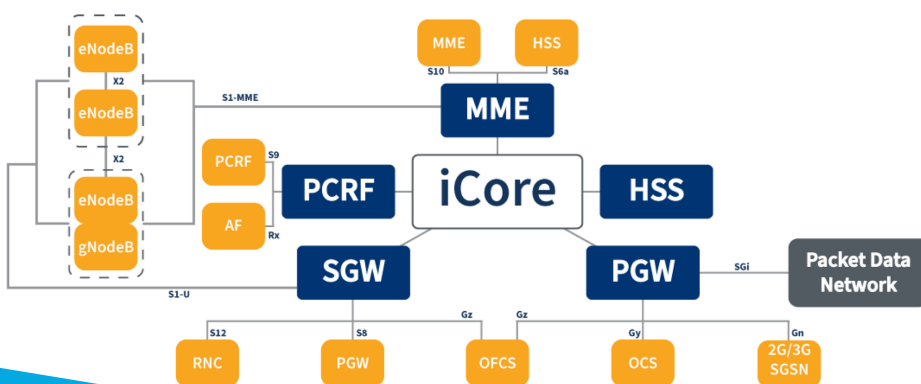# iCore® 4G LTE EPC

4G LTE EVOLVED PACKET CORE

Long Term Evolution (LTE) is the fourth generation of wireless technology, enabling faster and richer applications while streamlining the network infrastructure over IP. Consistent with its track record, Tecore is leading the industry by delivering an Evolved Packet Core (EPC), focusing specifically on the needs of smaller markets such as rural and remote operators, as well as specialized and government applications. The iCore® 4G LTE EPC provides a unique integrated architecture with compliant interface capabilities to operate as a stand-alone system or as an integrated component in a larger network deployment. At the heart of the iCore 4G LTE EPC is the critical cross section of Network Function Virtualization (NFV) and Software-Defined capability. The iCore delivers the most agile architecture ready to adapt to changing network requirements, capacity growth, and cloud-based services.

Scalable & Flexible

In addition to traditional network deployments, Tecore's 4G EPC may be rapidly deployed as a 4G Network-in-a- Box (NIB) for rapid response and disaster recovery applications. Alternatively, it may be rack-mounted in the cloud or central office for Tier 2/3 commercial wireless services providers. Scalable from less than 100 subscribers to over 100,000 subscribers, the software-based EPC can be deployed across any of the iCore hardware platforms including the Network-in-a-Box, the Mobility Virtualized Platform, and the LiTECore form factor that delivers the world's smallest 4G Core Network. The flexibility of the EPC and the scalability of the software architecture allows the system to be tailored to meet the requirements of its customers.

Features & Benefits

- Scalable from 1 - 1,250,000 SAU
- EPC with integrated HSS and optional PCRF
- Software Defined Network
- Network Function Virtualization (NFV)
- Circuit Switch Fall Back (CSFB)
- Voice over LTE (VoLTE)
- Interoperable with leading vendors eNodeB's
- 99.999% Availability
- Linux-based processing
- Compliant with 3GPP Release 15+

Tecore Networks LTE Architecture

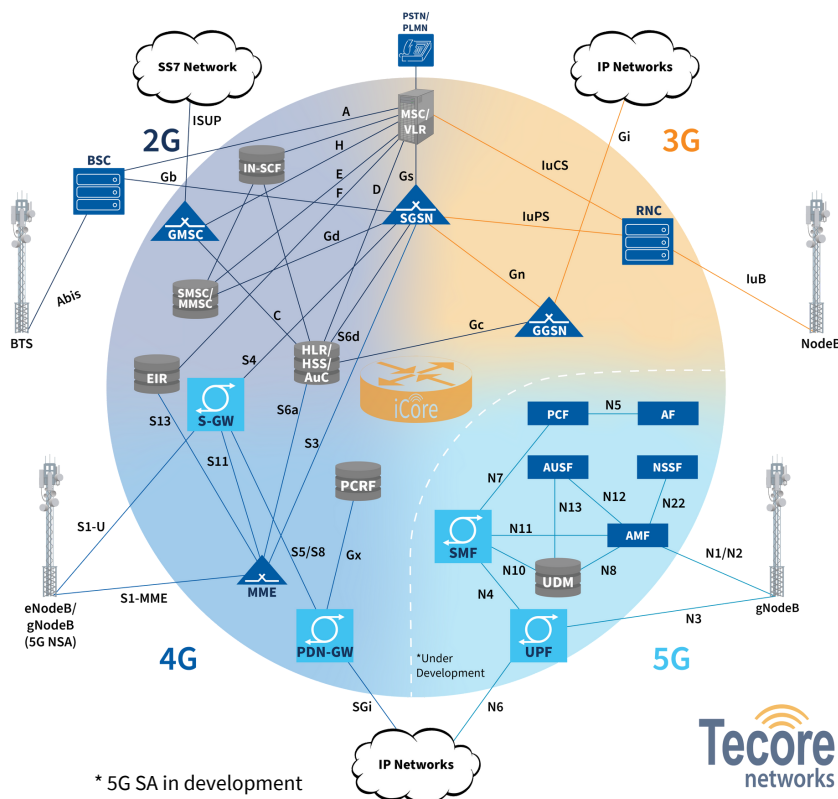| Specifications	
4G NIB	Target markets - Remote, transportable and laboratory systems Operation - Standalone or Interconnected Packet Connectivity - Multiple 1 Gb Interfaces Scalable - Up to 5,000 SAUs
MVP 2000	Target markets - Entrepreneurial operators Operation - Standalone or Interconnected Packet Connectivity - Multiple 1/10 Gb Interfaces Scalable - Up to 500,000 SAUs
MVP 3000	Target markets - Larger Operators Operation - Standalone or Interconnected Packet Connectivity - Multiple 1/10 Gb Interfaces Scalable - Up to 750,000 SAUs
MVP 4000	Target markets - Large Operators Operation - Standalone or Interconnected Packet Connectivity - Multiple 1/10 Gb Interfaces Scalable - Up to 1,000,000 SAUs
MVP 5000	Target markets - Multi-Site, Large Operators Operation - Standalone or Interconnected Packet Connectivity - Multiple 10 Gb Interfaces Scalable - Up to 1,250,000 SAUs

2G & 3G Interoperability

Tecore's iCore 4G LTE EPC solution leverages Tecore's patented multi-technology software to deliver capabilities across not only 4G LTE, but backwards compatibility and support with 3G and 2G, as well. The EPC was designed to be flexible and interwork with 2G and/or 3G network solutions, providing a software based migration path to 4G that avoids the traditional telecom "forklift upgrade." As a key element to the cross-generation support, the platform supports VoLTE technology as well as CS Fallback (CSFB) to enable the interoperability of voice services between networks and technologies. The flexible and modular carrier-grade platform architecture can support All-Gs on a single platform and is scalable to meet the business requirements of versatile market segments

Evolution to VoLTE

With a focus on the requirements for rural and remote system deployments, Tecore also offers the integration of key cloud-based capabilities locally on the iCore system. Available as an option, the iCore 4G LTE EPC can be expanded to support the IP Multimedia Subsystem (IMS) as a local virtualized function, thus paving the way for localized processing of voice-over LTE (VoLTE) services. As the larger networks transition from current fallback capabilities to the incorporation of VoLTE, the iCore is ready to support the migration forward.

5G NSA Support

As the industry evolves to deploying 5G networks, Tecore Networks All-G solution provides support for 5G NSA and facilitates the necessary evolution on the same platform to support 5G SA* and future NexGen technologies.

* 5G SA in development

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