Base station and EPC communication principle

What is the difference between EPC & NGC?

EPC is classified into two types: traditional LTE core network (supporting access through LTE base stations) and upgraded LTE core network (also called EPC+,supporting access through 5G base stations). Next Generation Core(NGC): a 5G core network. NGC is a core network built based on 5G standards and supports access to 5G base stations.

What is EPC (Evolved Packet Core)?

Evolved Packet Core overview The EPC is a new,high-performance,high-capacity all-IP core network for LTE. EPC addresses LTE requirements to provide advanced real-time and media-rich services with enhanced Quality of Experience (QoE).

What are the components of EPC?

EPC consists of the SGW (Serving Gateway), PGW (Packet Data Network Gateway), MME (Mobility Management Entity), and HSS (Home Subscriber Server). It is connected to external networks such as IMS (IP Multimedia Core Network Subsystem).

What is a base station?

Base stations are the core of mobile communication,and with the rise of 5G,thermal and energy challenges are increasing. This article explains the definition,structure,types,and principles of base stations,while highlighting the critical role of thermal interface materials in base station heat management for reliable and efficient networks.

The present-day tele-space is incomplete without the base stations as these constitute an important part of the modern-day scheme of wireless communications. They are referred to as cell ...

Each eBN connects with the EPC by means of the S1 interface and it can also be connected to nearby base stations by the X2 interface, which is mainly used for signalling and packet forwarding during ...

The Evolved Packet Core (EPC) is a fundamental component of Long Term Evolution (LTE) networks, acting as the backbone that facilitates seamless data transfer and connectivity. In ...

S-GW Provides an anchor point for wireless base station eNodeBs or 3GPP access networks such as 2G/3G and relays user packet data to/ from P-GW. For roaming, the S-GW and P-GW provide ...

LTE will be end-to-end all-IP: from mobile handsets and other terminal devices with embedded IP capabilities, over IP-based Evolved NodeBs (LTE base stations), across the EPC and ...

The figure above depicts the EPS architecture, where the UE is connected to the EPC over the E-UTRAN network. The evolved NodeB (eNodeB) is the base station of the LTE radio system. EPS ...

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The second is to implement a backward-compatible NG-Core that can support both 4G and 5G base stations, where the new NG-Core could be implemented from scratch, but would likely ...

Basic Concepts A 5G network consists of a wireless network and core network. The following describes the concepts needed to understand 5G network architectures: Evolved Packet Core (EPC): an LTE ...

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The 4G (Fourth Generation) mobile communication network architecture, also known as the Evolved Packet Core (EPC), is a key component in providing high-speed and efficient data ...

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