



UMTS AND LTE PACKET CORE IN SP MOBILITY

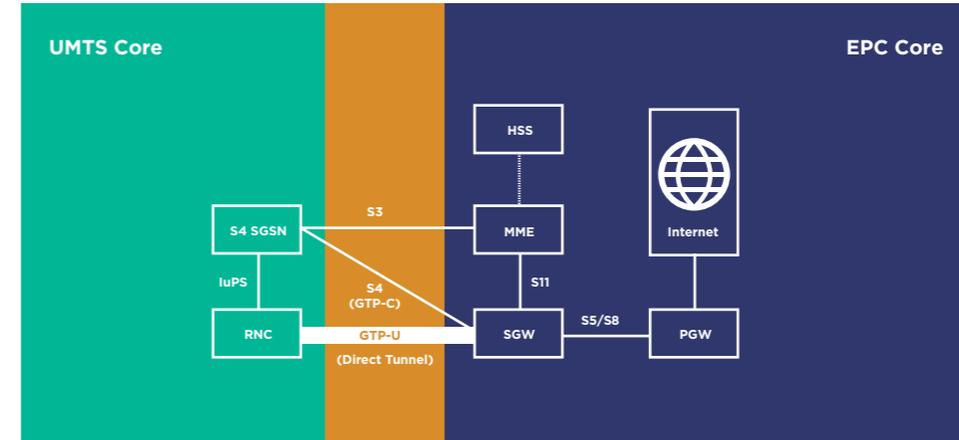
The Universal Mobile Telecommunications System (UMTS) is a third generation mobile cellular system for networks based on the GSM standard developed and maintained by the 3rd Generation Partnership Project. LTE, as a successor to UMTS, increases the capacity and speed together with many packet core network improvements. The challenge of interworking and seamless migration between the two technologies in the packet core area is a challenge that awaits many mobile service providers (SP's).

THE EVOLVED PACKET CORE NETWORKS

The UMTS Packet Core network is the packet switched part of the UMTS architecture, responsible for transferring data from the mobile devices to and from the public networks (Internet).

It is based on network elements such as the **Serving GPRS Support Node (SGSN)** and the **Gateway GPRS Support Node (GGSN)**. The Evolved Packet Core, as the latest evolution of the 3GPP core network architecture, does not include a circuit-switched domain so it is a direct evolution of the packet-switched architecture used in GPRS/UMTS.

The EPC is composed of four network elements: the **Serving Gateway (Serving GW)**, the **PDN Gateway (PDN GW)**, the **MME** and the **HSS**. The EPC is connected to the external networks, which can include the IP Multimedia Core Network Subsystem (IMS).



Picture: Interworking between UMTS and EPC cores

The **Cisco enabled packet core** networks leverage upon the powerful and versatile **ASR 5000** series devices which can, not only fill the roles of all the mentioned core nodes, but are also **capable of interworking and integration with** various other 3GPP and non-3GPP technologies such as **WI-FI**.

NIL VALUE PROPOSITION

NIL has comprehensive knowledge in design, planning, implementing and educating on the packet core networks used by the SP's in the mobile arena. NIL engineers are experienced in the intricacies of implementing, deploying and troubleshooting the Cisco ASR5000 series router, among others, which is a major component and a building block of a packet core network. NIL as a company is dedicated to continuously educating its engineers in SP technology so we can deliver you the services up to the highest standards of quality. NIL is also involved in UMTS/LTE training development and can offer suitable education services to SP's.

NIL CAN OFFER:

Learning services

Design services

Implementation services

Operation and maintenance services

UMTS and LTE Packet:

EPC is the evolution of UMTS packet core

UMTS nodes: SGSN, GGSN

LTE nodes: SGW, PGW, MME, HSS

Packet switched domain - responsible for data delivery between mobile devices and the public data networks

For more information, please contact us via sales@nil.com or find our local office.