IPLOOK

A fully-integrated, highly-scalable
and cost-effective LTE mobility platform

IPLOOK IKEPC 500 series

Overview

The IKEPC 500 series core network software combines MME, SGW, PGW, HSS, PCRF, IMS and DRA network elements in one X86 COTS(commercial off the shelf) platform what are 100% 3GPP compliant, and each of them can support all standard interfaces defined by 3GPP.

The IKEPC 500 series consists of IKEPC 510 and IKEPC 520, using a unified EMS (Element Management System) to reduce OPEX.

The IKEPC 500 series can also be deployed in a centralized cloud or at the network edge, allowing a broad range of deployment scenarios.

Applications

- Wireless Internet Services Provider(WISP)
- Citizens Broadband Radio Service (CBRS)
- Private LTE Networks
- Campus Coverage

IKEPC 510 (1U Server)

IKEPC 520 (2U Server)

About IPLOOK

IPLOOK is an industry-leading end-to-end, cloud-based mobile core solution provider. We have a full stack of 3G/4G/5G core network portfolio and tailor-made mobile core solutions for MNO, MVNO, WISP and Private Networks.

We build 4G/5G infrastructure with extremely simplified design, superior network performance and high O&M efficiency.

35+ carriers globally use our LTE/5G Platform

Managing 30+ million subscribers worldwide

At a glance

- All-In-One design
- High capacity & light weight
- Fast and easy installation (one touch)
- Deployable in a centralized cloud or at the network edge
- Interoperable with 3GPP standards compliant base stations, devices and 3rd party systems
- Multi-deployment scenarios supported
- Ensure a smooth migration to 5G

An ultra simplified network design With seamless integration and multiple deployment

Comply to 3GPP standards, the IKEPC 500 series is simplified, flexible and highly compact.

It is a new generation of unified service node product, providing single server deployment option or two server deployment option to meet the various network requirements of operators and enterprises at different stages and in different application scenarios.

As highlighted in Figure 1, it shows the standard network elements of IKEPC 500 series contained under single server, including complete MME, SGW, PGW, HSS, PCRF, IMS, DRA and web management functions. It can implement LTE high-speed internet data services, VoLTE voice/video/SMS and other basic services. At the same time, it supports roaming functions between operators.

IKEPC 500 series also supports Gy interface and RADIUS interface for external billing system, and IPLOOK could provide its own billing system what supports local deployment and cloud deployment.

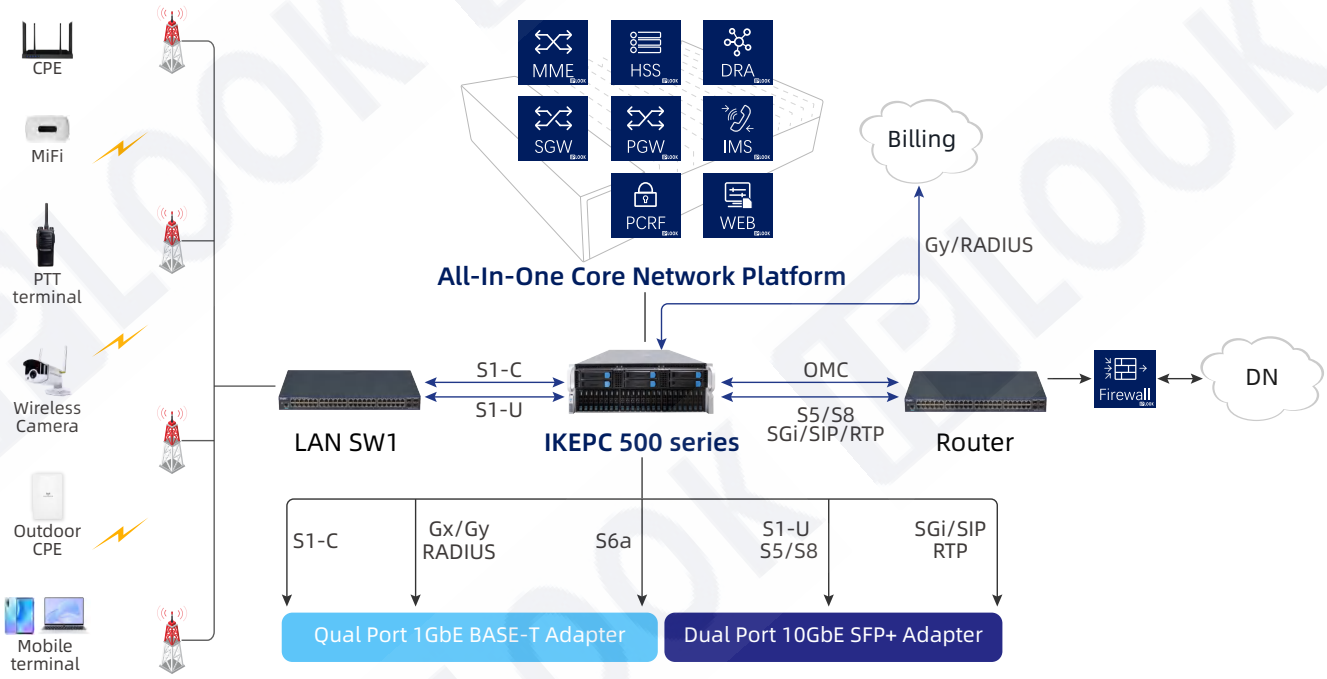

Figure 1

As shown in Figure 2, IKEPC 500 series is also a tailored solution deployed on the AWS Cloud that satisfies telecom industry requirements.

This offers a new cost effective, pay-as-you-go model for many mobile core networks that can be available globally in minutes.

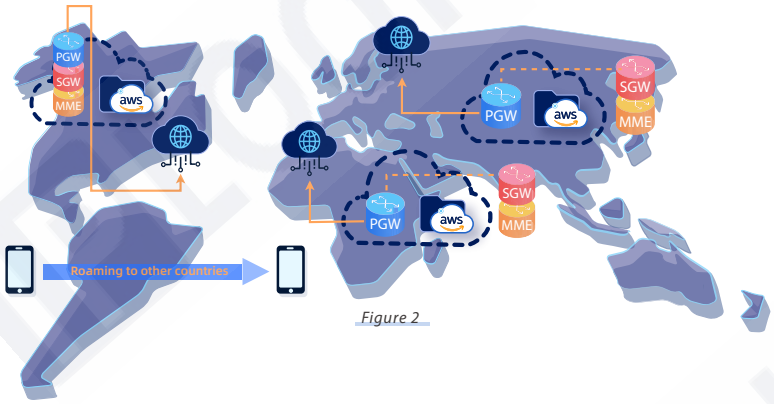

Figure 2

With this solution, WISP/CBRS can deploy new 4G network easily and in short time, at the future it could smoothly evolve to 5GC with a simple software upgrade.

Key Features and Benefits

Flexible deployment

- From a small cost effective network to a large distributed network.
- Unified EMS, standardized interfaces and customized northbound interfaces can be provided for third party integration.
- Support flexible hardware specification and multiple server types from different COTS manufactures.
- All-In-One compact product, easy O&M and lower TCO.

99.999% availability

- The IKEPC 500 series supports active/standy or active/active redundancy mode, and the backup node could be deployed at a remote site for geo-redundancy.

High reliability

Key processes backup

- A high availability design of key processes within each network element ensures servies stability and continuity.

Overload control

- Overload control is used to reject new service request when the system is in overload status, this ensures the existing serive in system running normally during entire overload period.

Automatic data backup

- Provide real-time synchronization and backup of user data. It ensures that data can be restored quickly and correctly when the system restarts.

Fault alarm

- Through the unified EMS, the alarm is reported from each network element to the unified EMS, and uniformly presented on the fault management page for quick feedback.

License warning

- When the license capacity reaches the maximum value, the system will make an alarm notification to inform users to update in time.

Specification

Name	IPLOOK IKEPC 510	IPLOOK IKEPC 520
Product Description	• Compact EPC (MME/HSS/PGW/SGW/PCRF/IMS/DRA/OAM)	• Compact EPC (MME/HSS/PGW/SGW/PCRF/IMS/DRA/OAM)
Hardware Type	1U Server	2U Server
Hardware Specifications	• 2nd Gen Intel® Xeon® Scalable Processors Silver/Gold/Platinum full series • CPU*2, 2GHz or higher • 16GB RAM or greater • 480GB*2 SSD RAID1 • Quad Port 1GbE*4 Base-T	• 3nd Gen Intel® Xeon® Scalable Processors Silver/Gold/Platinum full series • CPU*2, 2GHz or higher • 32GB RAM or greater • 480GB*2 SSD RAID1 • Intel 82599 Dual Port 10GbE SFP+ Quad Port 1GbE*4 Base-T
Number of UE	⩽2,000	⩽5,000
Number of eNodeB	⩽20	⩽50
Throughput	Up to 600 Mbps	Up to 6 Gbps

Note:

Based on different traffic model of live network, the system capacity will be different, please contact us for a detailed evaluation. IPLOOK also offers deployment service that enable customers to deploy networks of all sizes.