

# KIATEL

## KSS200 NGN/IMS Platform



**1395**

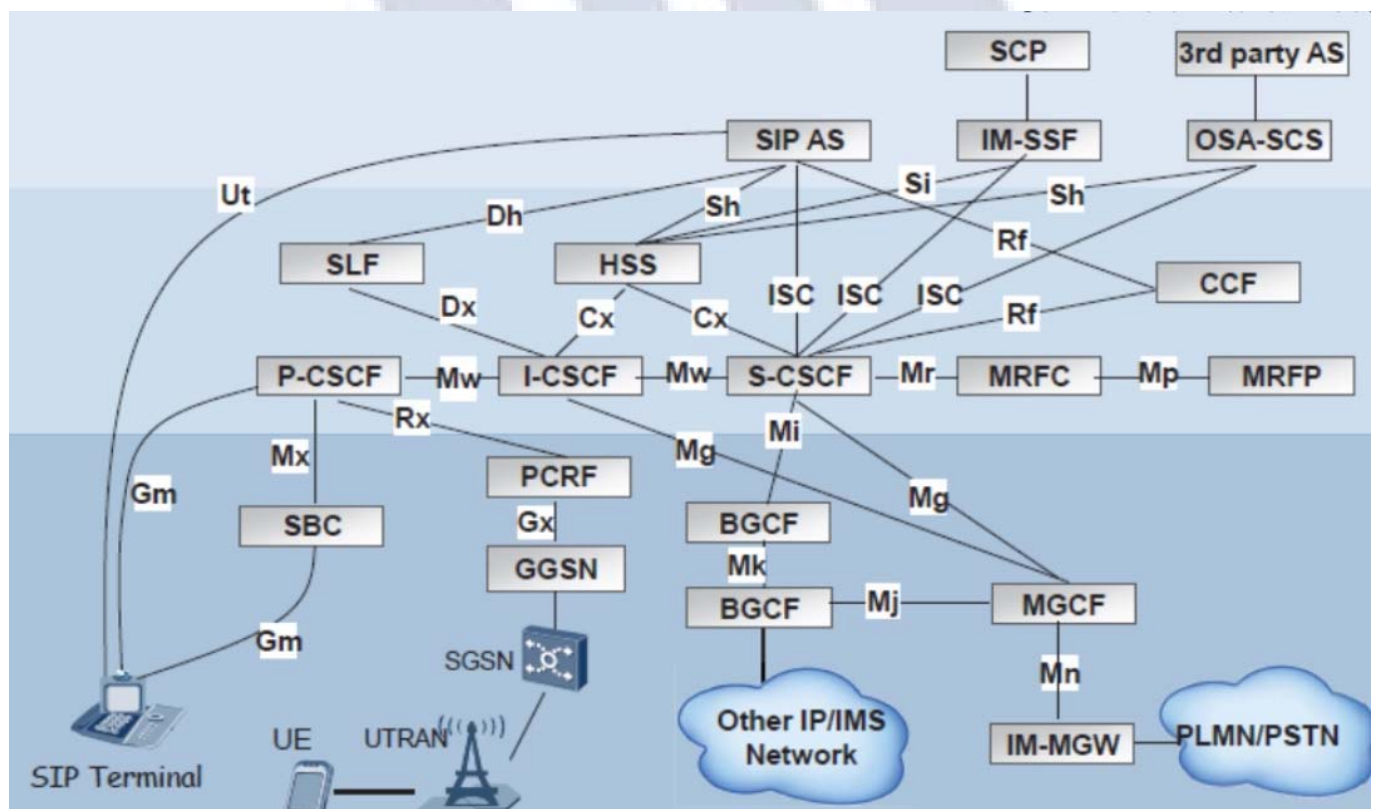
## KIATEL KSS200 NGN/IMS Platform at a glance

KSS200 is a Carrier Grade VoIP NGN/IMS Platform. It is the core system of KIATEL Unified Communication Solutions. It is developed specifically for fixed, converged and wireless networks, as well as FCPs, who support different types of access technologies (e.g. Cable, xDSL, FTTx, Wi-Fi and WiMAX). The KSS200 NGN/IMS Platform is made to be scalable per the size of your business. Thus, it can handle different business levels, from a view thousand subscribers up to several million, whether it is for residential or business market.

KSS200 has ability to act as GSM Core, 3G Core & LTE Core. In LTE Core it can provide VoLTE Services and features.

### KSS200 NGN/IMS Platform

KSS200 has a flexible as well as robust platform which enables designers to implement a reliable and functional network. .



## What the KIATEL KSS200 NGN/IMS Platform can do?

With the KIATEL KSS200, internet and telephony service providers will be able to offer excellent real-time communication services, such as Cloud PBX, voice and video calls, voice conferences, instant messaging or presence. This allows your clients to truly tap into the world of unified communications with just one software installation from KIATEL. This also makes subscribers able to use voice over IP (VoIP) calls on their mobile phones. The system can be further expanded to cater the needs of network operators and providers with other products like KIATEL Gateway and KIATEL IP-PBX.

KIATEL KSS200 supports 200 call attempts per second (CAPS) and can handle 200,000 concurrent calls for 2,000,000 registered users, which are performed by one core server and one database server.

## KSS200 Features

### ▪ Services

KIATEL KSS200 is designed to provide Next Generation Services for residential and business customers. Its features include:

- ✓ Voice and Video Telephony
- ✓ Instant Messaging (IM) and Presence
- ✓ Voice/IM conferencing
- ✓ Interactive Voice box and Voice-to-mail
- ✓ Fax-to-mail, Web fax and Fax Clients
- ✓ Serial and Parallel Call Forking
- ✓ CRBT
- ✓ Web Call
- ✓ Periodic, time-based Call Forwarding (CFU, CFB, CFNA, CFT)
- ✓ Inbound and outbound Call Blocking and Anonymous Call Rejection
- ✓ CLIP/CLIR, DDI, DID and Extension Dialing
- ✓ Signaling over UDP, TCP, TLS, WS, WSS
- ✓ DTLS-SRTP transcoding for WebRTC bridging

- ✓ Source number discriminatory CF
- ✓ SMS send/receive/forward via SMPP
- **Reseller Web Interface(OSS-BSS)**

The hierarchical object-oriented architecture of the KIATEL Web Interface which called OSS-BSS allows operators to offer their services white-labelled to resellers. Resellers are able to perform administrator tasks within their reseller realm. The platform administrator may access the reseller interface and reseller data to provide operational support.

- **Architecture**

Our open architecture based on standardized protocols allows targeting new business models. By providing open APIs (Application Programming Interfaces), well-established services like Voice/Video Telephony and emerging technologies like Presence/IM and WebRTC can easily be integrated into existing ecosystems. These APIs and protocols not only provide typical end-to-end services (like buddy lists, messaging, telephony etc.), but also support innovative push-services (subscriptions to online information, which is delivered on demand to soft-phones or mobiles) and find-me/follow-me solutions.

- **Protocols**

KSS200 has been designed to support many ETSI & ITUT defined protocols. Some of these protocols are:

- 1) H.248 (Megaco)
- 2) SIP, RFC-3261
- 3) H.323
- 4) H.264
- 5) SIGTRAN Including IUA, M2UA, M3UA, SCTP and V5UA

- **Administrator Web Interface**

The Administrator Web Interface provides system administrators and customer support agents with access to the platform's configuration and troubleshooting applications through a standard Web browser.

- **Customer Web Interfaces**

The appearance of the user interfaces can be customized, supporting specific corporate look and feel. Persian & English languages are supported through language packs including resource files, localized images and voice prompts. Packs for Persian and English are pre-installed. Additional language packs can be easily added.

- **Provisioning**

Well defined interfaces allow for customization and easy integration into existing IT infrastructure. Standardized transport protocols like HTTPS and description languages like JSON-HAL simplify integration with third party applications and ensure minimum time to market. For security reasons, all requests to the provisioning system are encrypted and authenticated.

- **Billing and Rating Engine(DIAMETER)**

The centralized approach of our KIATEL KSS200 NGN/IMS Platform using the SIP routing engine as data source, simplifies accounting processes and provides reliable and consistent ways of creating Call Detail Records. By using a real-time rating engine, an up-to-date balance at millisecond precision can be provided to subscribers at any time with both prepaid and postpaid billing models.

- **Monitoring**

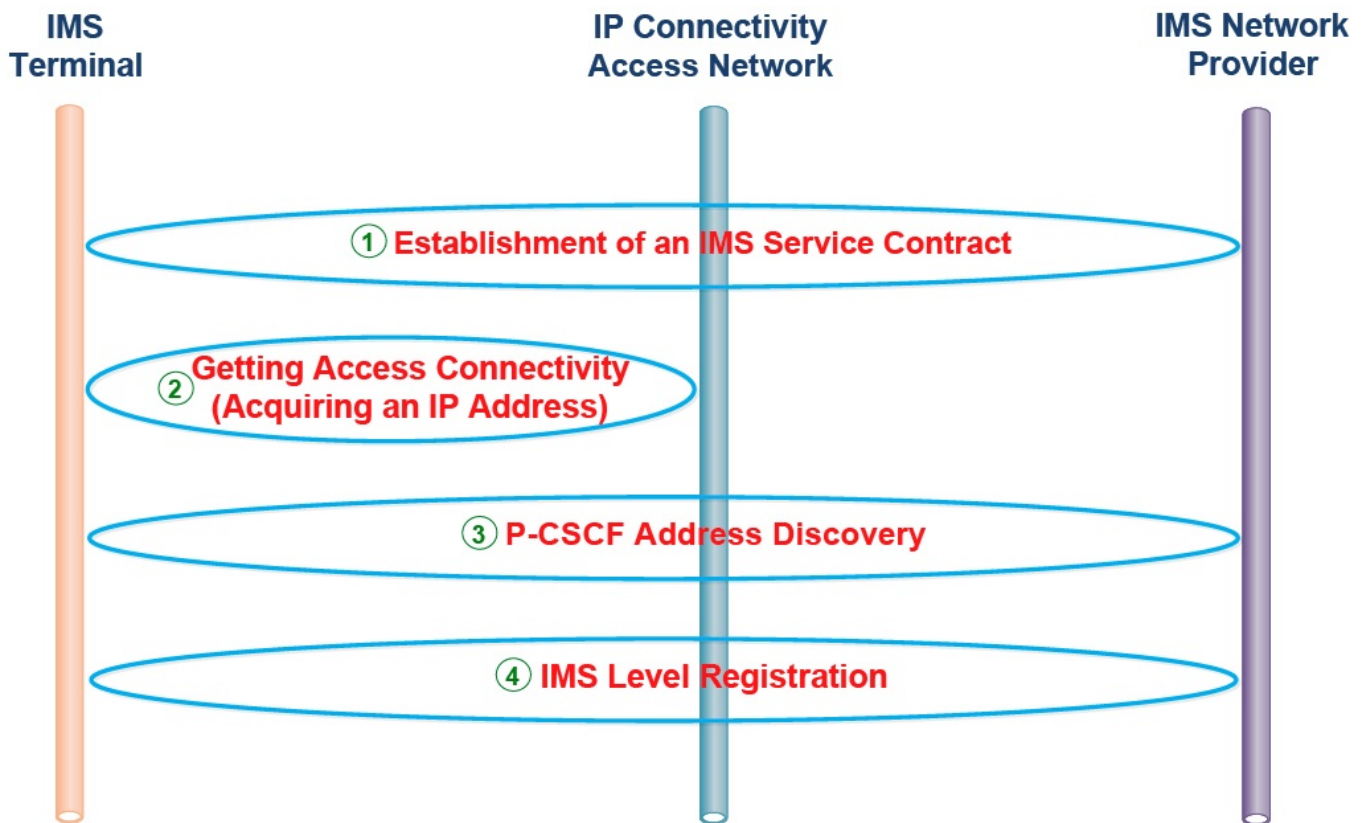
Efficient system monitoring and alerting is critical when providing highly available services to customers. KIATEL KSS200 provides an SNMP interface to poll the status of every single element in the system to monitor the health of the platform and the availability of its services. Besides polling low-level metrics like CPU utilization, memory- and disk-usage and the status of all applications running on the platform, also high-level black-box tests are performed by routing SIP messages via different sub-systems to detect lock-ups and other service outages.

## **KSS200 Platform Design**

The design focuses on easy manageability while still offering cutting edge next generation communication features. Our KSS200 NGN/IMS Platform provides an “all-in-one” system for fast and

cost-effective deployment of various IP Telephony and “Rich Communication” services. All components of the KSS200 appliance are fully compliant with SIP and XMPP standards.

Below shows KSS200 signaling layout:



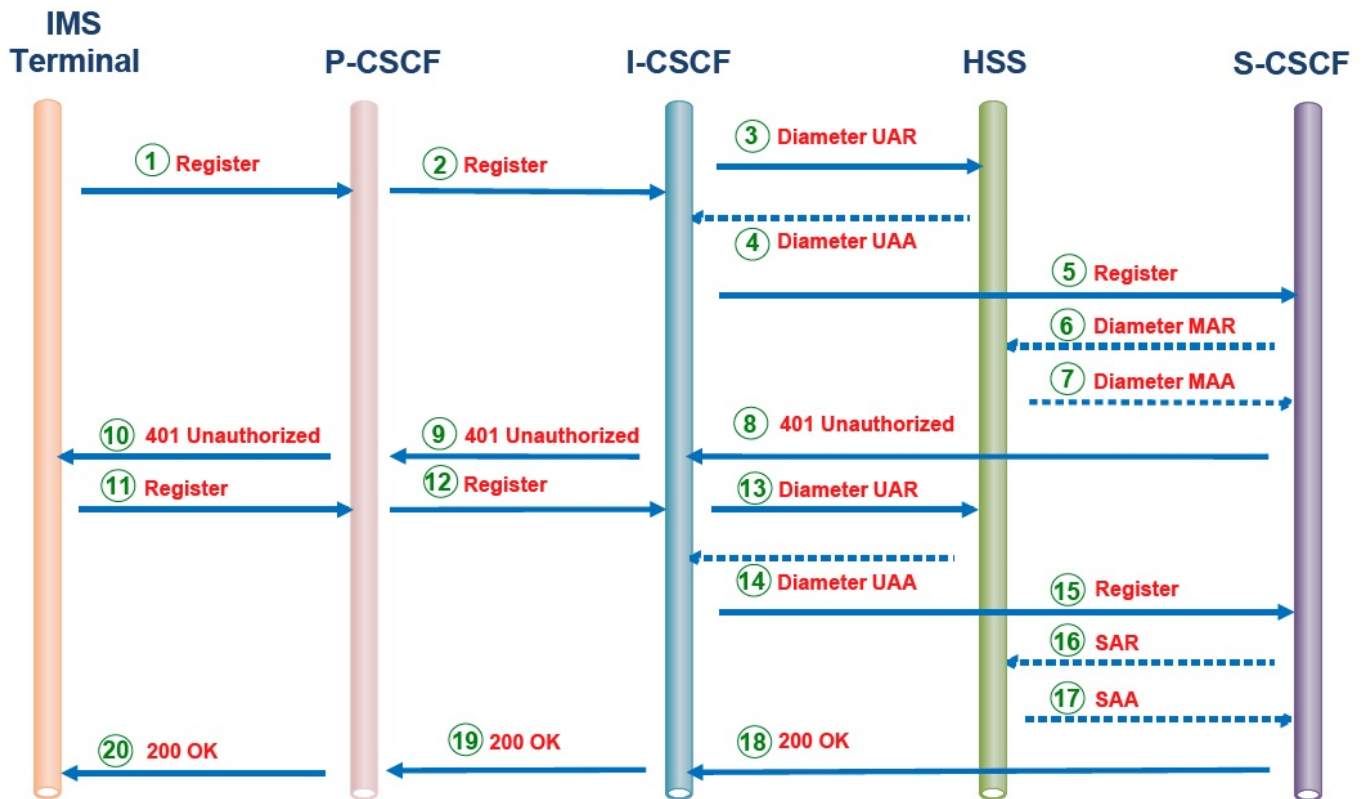
## Deployment

In NGN architecture, the KSS200 is a fully featured platform that can directly be connected to voice carriers using SIP trunks, to existing Class 4 switches, other NGN/IMS Platforms and Media Gateways, or to the PSTN via SS7 using KIATEL Gateways, which passes calls from and to the circuit switched network.

With a powerful configuration framework, well-documented interfaces and the usage of fully standardized protocols our platform offers the shortest time to implement in the network. The KSS200 NGN/IMS Platform can also be efficiently integrated into any IMS environment.



Below shows KSS200 registration procedure:



## Modules

The platform integrates Call Routing Services, Back-to-Back User Agent Functionality, Pre- and Post-Paid Billing, Monitoring and Reporting Systems and Customer Web-interfaces designed for implementations in mixed VoIP/PSTN and pure VoIP telecom ecosystems.

## High Availability

High availability is guaranteed by services and data being available on each node of a pair in active and standby mode (Dual Homing) respectively. Synchronization runs via dedicated network link between the nodes of a platform pair. Signaling and media connections are preserved in case of fail-over.

## Security

Users authentication and calls security have major priority in KSS200 and are guaranteed by well-designed of SBC and HSS modules.

Below shows KSS200 authentication and security policy:

