

Primal IP Multimedia Subsystem (IMS) OSP-IMS Services for LTE Networks

Long Term Evolution (LTE) provides network operators with higher download/upload data rates, low latency and better support for multicast and broadcast streaming while also being able to support mobile users traveling at higher speeds.

From the very beginning, Primal Technologies' Open Services Platform and Service solutions have been architected to support different access types including wireless, landline and cable companies. As LTE is the common upgrade path for both CDMA/1X/EVDO and GSM/UMTS wireless operators, Primal Technologies OSP-IMS Architecture has similarly evolved to be deployed in virtual public or private environments in order to take advantage of IMS functionality and messaging requirements, with no data migration necessary, and also ensuring that an operator can continue to support 2G/3G CDMA and GSM messaging within the same network (and with other roaming partners).

New LTE-Only operators also reap the benefit of a comprehensive set of feature functionality, interfaces and web screens that have already been developed for 2G/3G and 4G LTE wireless operators.

The Primal Technologies Online Charging Service (OCS) and Policy and Charging Rules Function (PCRF) continue to support 3GPP DIAMETER Charging Sessions over the Gy/Ro and Rf interface in the latest 3GPP releases. Immediate, Event and Session charging scenarios with/without rating are all supported. The Primal SMSC includes the IP-SM-GW module to support messaging with IMS clients on various phone models, interfaces with the SCC AS and HSS, while simultaneously supporting MAP/IS-41/SMPP messaging conversion between CS and IMS domains. Primal Unified Visual VM has been widely deployed in various operators' IMS networks for several years supporting SIP Call Control, and Message Waiting Indication and today also supports AMR WB codecs for high definition VoLTE calls.

In the situation where the existing Carrier Billing system may not support a SIP interface but where Real-Time VoLTE charging is a requirement - the Primal Technologies Real-Time Signaling Gateway (RTSG) actively converts SIP calls to DIAMETER sessions for charging with 3rd party billing servers.

Additionally, Primal Technologies has the background and experience to implement any Service Use Case brought forward by any LTE IMS operator that may require a new IMS Application Server (AS) functionality.

LTE IMS Features

- Same Advance Pay/Prepaid, SMSC, MMS, Data rating, Unified Visual VM Service features for a seamless operator experience and user experience
- Retraining requirements for Primal IMS Services subscription and maintenance is minimal
- Support for IMS interworking with C-CSCF/HSS and 2G/3G networks simultaneously
- No subscriber data migration to an IMS architecture
- IP-SM-GW module supports Sh DIAMETER interface with the HSS to detect the recipient's preferred method of delivery
- SMS-GW SIP Proxy of REGISTER messages
- 3GPP 32.299 support (Diameter charging applications)
- 3GPP TS 24.341 (SMS over IP networks, stage 3)
- 3GPP 23.204 (SMS over 3GPP IP access, stage 2)
- RFC 3261 (Session Initiation Protocol), RFC 3428, RFC 3680, MSRP
- 3GPP TS 29.329 (Sh Interface)
- 3GPP TS 24.229 (IP MPCC protocol based on SIP & SDP, stage 3)

Skylight and Skynet Integration

- Complete subscriber management regardless of access type
- Chargeable and non-chargeable CDRs generated for every transaction
- Customer Service Real-time Access To All CDRs
- Engineering Real-time Monitoring
- Finance Access To Hourly, Daily, Weekly Monthly Revenue Generation
- Up to 1000 Customer Service Representatives
- System and Revenue Performance Monitoring