



telenity

**Telenity IP-SM Gateway
IP Short Message Service Center**



Mobile networks are rapidly evolving from circuit-switched network architecture to packet-switched network architecture. Although Long Term Evolution (Evolved Packet Core) networks provide high bandwidth, low latency, and improved spectrum efficiency, they do not support some services such as Short Message Communication (SMS), which continue to be extremely valuable to operators. Separate network elements and gateways are needed for LTE network architecture for services similar to integrated and value-added services provided in 2G / 3G networks and also for LTE only services.

Although Over-The-Top (OTT) applications replace a part of these legacy services and decrease peer-to-peer (P2P) SMS traffic, the SMS-based services are still essential to the operators. In addition to that, application to peer and peer to application message traffic are still increasing. Since SMS communication continues to be one of the major revenue items for operators., it is essential that SMS service is also available in the Next Generation Networks.

Telenity IP Short Message Gateway (IP-SM GW) is positioned in the LTE core network structure so that operators can transparently deliver SMS service to LTE subscribers and maintain SMS interworking with other operators that have not deployed LTE core network. Telenity IP-SM GW is the base networking component that provides interconnection and management of SMS messaging traffic flowing between different protocols and interfaces, mainly between LTE and 2G / 3G networks.

Telenity IP-SM GW is a member of the Telenity VAS consolidation platform and provides text messaging interworking between SMSC and IP Multimedia Subsystem (IMS). The gateway allows functionality to forward SMS messages from/to IMS capable equipment. Telenity IP-SM GW enables service providers/operators to provide SMS delivery services efficiently over the next-generation IP networks, which are fully integrated with the traditional legacy networks (2G/3G).

In today's highly dynamic and evolving environment, it is essential for an operator to be able to deploy a next-generation IP based messaging service platform that:

- Provides seamless service availability and continuity to the end-users, which can work on their legacy (2G/3G) as well as next-generation infrastructure (LTE/IMS)
- Supports millions of subscribers
- Supports thousands of applications and application developers
- Minimizes time and cost to market of applications

Product Overview

As a member of Telenity's field-proven next-generation consolidated IP messaging services products, Telenity IP-SM GW seamlessly handles both mobiles originated (MO) and mobile terminated (MT) SMS messages by providing consistent treatment for all messages to/from all subscribers whether they are connected to the next-generation network (LTE/IMS) or legacy circuit-switched network (2G/3G). Telenity IP-SM GW can work with Telenity SMSC in a fully integrated manner and can also interwork with third-party SMSCs.

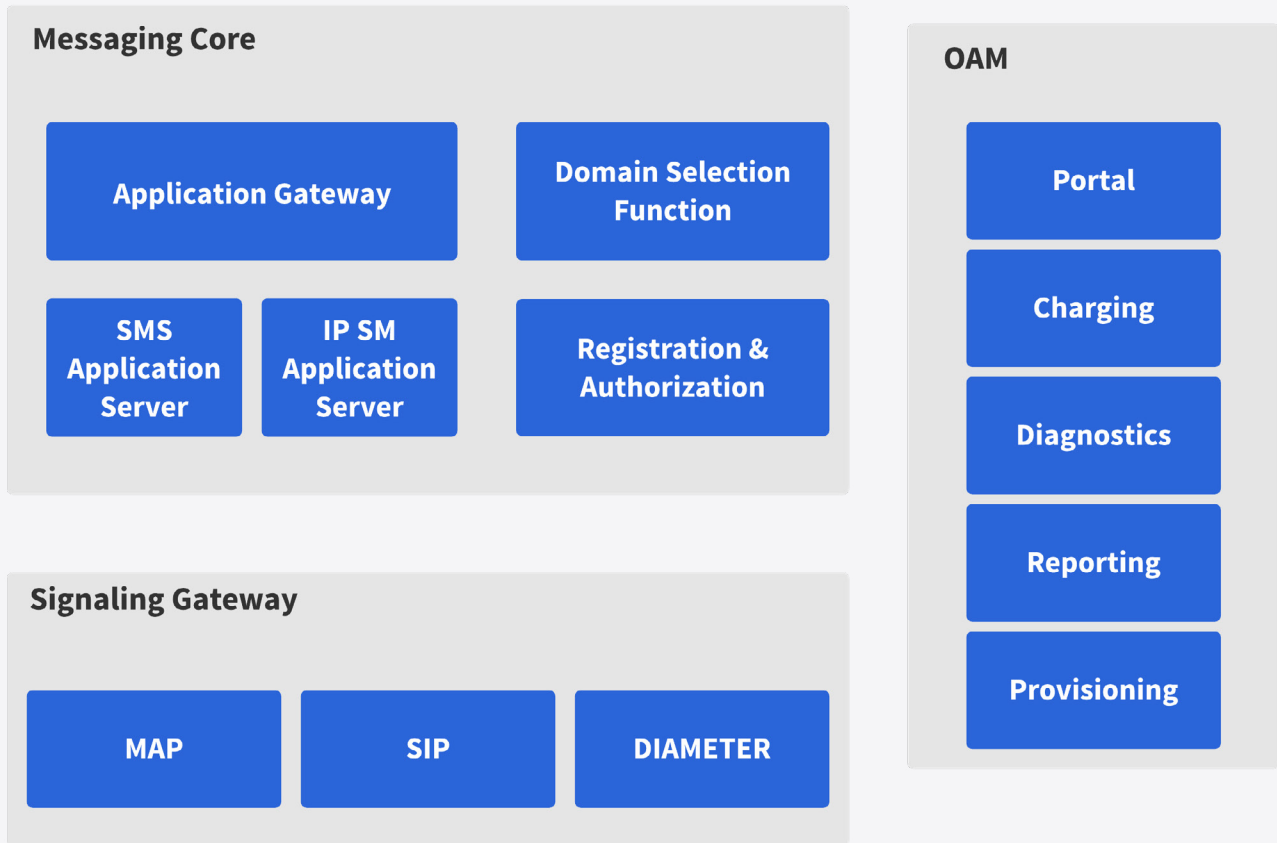
Within Telenity's consolidated IP messaging services architecture, IP-SM GW is a product that comprises several functional components and it can provide a fully integrated, resource-efficient next-generation messaging center solution in conjunction with Telenity SMSC platform and Telenity USSD over IMS Gateway (USSI GW). Telenity IP-SM GW is the bridge between the circuit-switched and LTE/IMS domains, providing full support for 2G/3G MAP text messages transported in the LTE/IMS domain using the SIP interface.

Feature Summary

- Interconnection with 2G/3G, and IMS/VoLTE networks
- Virtual HLR & MSC Functionality
- Session mode and Page mode messaging over IP networks
- Transport level and service level interworking
- Domain selection function to determine of target delivery network
- Retrieval of subscriber information from HLR/HSS
- Handling of user equipment registration over IMS network
- USSI (USSD over IMS) add on option
- Flexible routing procedures to deliver short message to terminating mobile/application
- Advanced SLA and QoS configuration support
- Flexible Event Data Record (EDR) & Charging Data Record (CDR) generation
- Real time charging
- Screening list management
- Lawful Intercept support
- Centralized OA&M features, out-of-the-box reports, troubleshooting/transaction history
- Modular and scalable architecture with built-in redundancy/high-availability
- Fully virtualized and NFV enabled deployment options
- Support for different deployment models (on-premises, cloud-based, hybrid)

Architecture

TELENITY IP Short Message Gateway



Interfaces	Core Technologies	Operation Environment
GSM/GPRS/UMTS/CDMA/LTE/IMS/5G VoNR	Java SE/EE	Red Hat Enterprise Linux
SS7 TDM (LSL/HSL) and SS7 over IP (SIGTRAN)	JDBC	CentOS
SIP MSRP	JMX	VMware
Diameter	Web Services	RHEV
SMPP, SOAP/XML, REST	REST	AWS
SNMP	XML	OpenStack
		Azure
		Google Cloud



for more information please contact:

info@telenity.com

Corporate Headquarters: Telenity Inc 755 Main Street, Building 7 Monroe, CT 06468, USA
Phone:+1 203 445 2000

EMEA Headquarters: Telenity A.S. AHL Serbest Bolgesi, A Blok No. 57 Yesilkoy – 34149, Istanbul, Turkey-
Phone:+90 212 468 2100

APAC Headquarters: Telenity India Pvt Ltd 1st Floor, A-17, Sector-4,201301, Noida, Uttar Pradesh, India
Phone: +91 120 4311 157

Telenity Middle East Office: Telenity FZE 1 Central The Office,01.03 & 01.04 P O Box 9821 Dubai
World Trade Center, Dubai – UAE