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A ROLE OF SMS GATEWAY SERVER

IN MOBILE COMMUNICATION

Continued technology advancements over the years have enabled us to send as well as receive pictures, gif images, videos, text messages and more. With this, you are able to engage in the most interactive way possible.

Despite different modes of communication, text messaging has remained to be one of the most preferred ways of communication even today.



DID YOU KNOW?

Did you know that the first-ever text message was sent in the year 1992 by Engineer Neil Papworth? He had sent a text, 'Merry Christmas' wishing his Vodafone director 'Richard Jarvis' who was at a party at that time. Since then, Short Message Service (SMS) allows users to send and receive messages to family, friends, colleagues across the globe. This is enabling them to get in touch with their loved ones.

Over the years, more and more users started using SMS. Merchants wanted to get engaged with customers and capitalize. This further led to the evolution of Business SMS Campaigns. Enterprises could now easily send notifications, reminders, product launches, and promotional messages. All this changed the way text messages were used to convey messages.



TEXT MESSAGING CONVENIENCE

According to the recent GSMA Intelligence Report, there are 5.22 billion mobile users in the world. And 93 million have grown in the past year. As the benefit of text messaging spread, SMS became a communication of choice for everyone. But, it was initially limited to Person -to- Person messaging (P2P).

Now, marketers are backed by the benefits of SMS marketing that include technology, low cost, and simplicity of text messaging. SMS Marketing is not a new marketing technique but 2020's pandemic accelerated its growth. With more and more businesses understanding the power of SMS techniques, they are getting connected with the SMS providers for retaining their customers.



The Siltan Tropic Shop specializes in breezy outfits that guarantee maximum comfort in warm states show 98% of SMS are opened and 95% of them are a response within 3 minutes. SMS for communication with the customers requires Global SMS Gateway. We're prepping our online store, so stay tuned!



WHAT IS SMS GATEWAY?

A mobile service provider acts as the medium to transmit messages between mobile phone users. SMS Gateway helps in delivering SMS to the customers and then returns a delivery report with details (includes delivery time and delivery status).

The International SMS gateway translates the message sent while making it compatible for delivery over the network so that it reaches the recipient successfully. Every SMS Gateway Server acts as a bridge between the mobile phone users.

WHAT IS SMS GATEWAY MSC (SMS GMSC)?

SMS-GMSC is a gateway MSC that enables the destination mobile phone to receive messages. This cellphone network point makes communication possible with other networks. An SS7 network is used by GMSC for message reception from the SMC. The current location is found with the help of the Home Location Register.





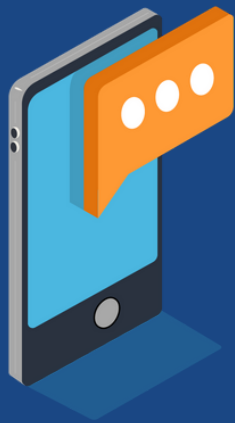
WHAT IS HOME LOCATION REGISTER?

HLR better known as Home Location Register is the basic component in the mobile network. It has 'Subscription Profiles' as well as 'Subscribers' Routing Information. With this, the current location of the mobile unit can be tracked. This becomes easy with Bulk SMS Gateway provider.

HLR is a database having information regarding the authorized subscribers that are basically using a global system for mobile communication (GSM) core network.

When someone purchases a new SIM, everything about its subscription is registered in the Home Location Register of that operator.





MOBILE SWITCHING CENTER (MSC)

SMS Gateway service offers comprehensive and best SMS gateway to the customers. MSC is a core part of the GSM or CDMA network system. MSC is basically a control center of a Network Switching Subsystem (NSS). This is done by switching the digital voice packets between network paths.

SMS GATEWAY - MSC

SMS gateway company has MSC which is responsible for the management of mobile services registration, authentication, location updating, handovers, and call routing to a roaming subscriber. In addition to this, it also manages:



VISITOR LOCATION REGISTER (VLR)

Bulk SMS gateway service provider has Visitor Location Register. You may be wondering what the Visitor Location Register is? VLR is a database housing temporary information regarding the subscribers (required by MSC) that have roamed within a mobile switching center location area. Its primary work is to communicate with each MSCs. This Visitor Location Register decreases the number of queries sent to the home location register having permanent records of mobile subscribers.

Base Station Subsystem (BSS)

Best SMS gateway provider has a reliable base station subsystem. The Base Station Subsystem is responsible for sending and receiving messages. It has two parts:

- The Base Transceiver Station (BTS)
- The Base Station Controller (BSC)

Both of them communicate across the specific Abis interface while enabling operations between components that are made by different suppliers. This makes the complete process possible. BSS radio component have one or more than one base station.



The Base Transceiver Station (BTS)

The Base Receiver Station has radio transceivers. It defines a cell and handles the radio link protocols with the MS. The deployment depends from area to area. Rural areas have fewer BTS while a large number of BTSs may be deployed in urban areas.

This Base Receiver Station is available if you have opted for International bulk sms gateway providers that are present in the center of a cell. Every BTS has 1-16 transceivers. This quantity depends on the density of the users in the cell.

BTS comprises of the following functions:

Encoding, encrypting, multiplexing, modulating, and feeding the RF signals to the antenna

- Transcoding and rate adaptation
- Time and frequency synchronizing
- Voice through full- or half-rate services
- Decoding, decrypting and equalizing received signals · Random-access detection
- Timing advances
- Uplink channel measurements

Base Station Controller

The Base Station Controller manages the radio resources for multiple Base Transceiver Stations. It takes care of the radio channel setup, frequency hopping, and handovers. It is the connection between the mobile and the MSC. Premium SMS_gateway's Base Station Controller also holds the ability to translate a 13Kbps voice channel to the standard 64 Kbps channel used by the Public Switched Telephone Network (PSDN) or ISDN.

Base Station Controller is also held responsible for assigning, releasing frequencies and time slots for the MS. Besides this, it controls the power transmission of BSS and MS in a particular area.

BSC has to allocate necessary time slots between BTS and MSC. More features include:

- Frequency hopping control
- Performing traffic concentration to reduce the number of lines from the MSC
- Providing an interface to the Operations and Maintenance Center for the BSS
- Reallocation of frequencies among BTSs
- Time and frequency synchronization
- Power management
- Time-delay measurements of received signals from the MS



Network Switching System

A Reliable SMS Gateway has a Mobile Switching Center which is the main component of the Network Switching System(NSS). NSS performs the switching of calls between mobiles and other fixed or mobile network users. Also, it takes care of mobile service management like authentication.



Wrapping Up

The SMS Gateway server is a powerful network security mechanism to prevent unauthorized and unauthenticated sessions. So, if you want to ensure that your SMS Gateway server gives an optimum performance, Globe Konnect got you covered. When we provide services, you can ensure that messages are directly sent to your recipient's phone. We take utmost care about quality ensuring everything works year-round and meets the standard of modern applications.