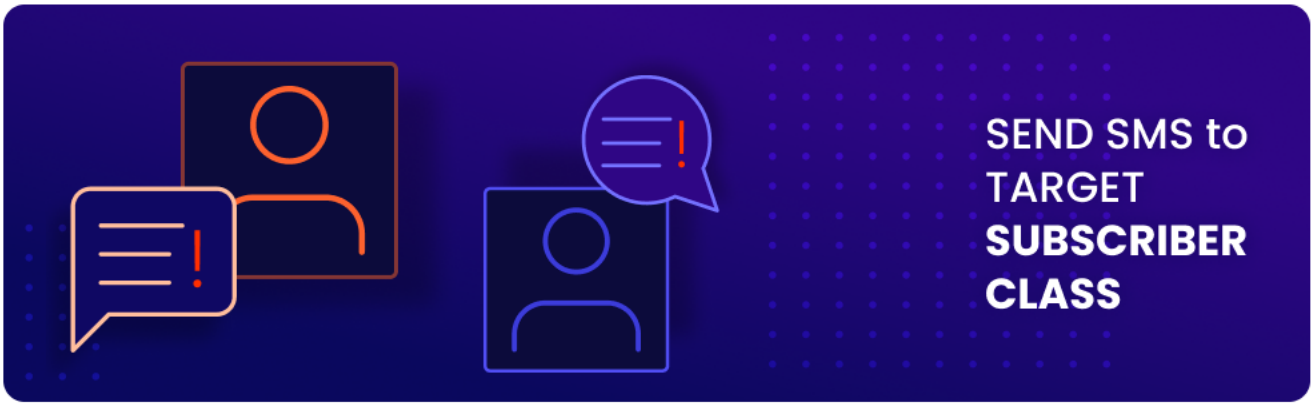
Defne Emergency SMSC: Enable emergency communication instantly with all subscribers with a single click

Emergency SMSC platform is designed to broadcast precautionary SMS alerts to its subscriber base quickly and effectively, with more than **50K MPS** (message delivery attempt per second). Being able to effectively alert subscribers is more crucial than ever because SMS is an essential service for both consumers and businesses, providing a variety of use cases that might generate income.

Operators may aid public authorities, rescue teams and security agents saving lives by providing them to share emergency alerts via SMS. They can quickly and efficiently connect with the subscribers whenever it is necessary. Critical crises can be forewarned of and kept in the public's awareness based on alert SMSs regarding events of public concern. There are many societal applications for SMS, here situations that put the public at risk or in danger are listed:

- Medical emergencies
- Alert for extreme weather (e.g. forecast of snow, thunderstorms)
- Forest fires (affected locations, information for firefighters, and travel advice)
- Accidents or potential threats to the public (chemical pollution...)
- Alerts in a particular area (for example, in a specific town or region)

'Emergency SMSC' is a great tool for quickly, securely, and effectively distributing information to the public in any of these situations. With configurable **private, public, or hybrid cloud deployments,** Emergency SMSC is a **virtualized, compact, high-capacity, multiprotocol SMS delivery application** that offers improved **flexibility and scalability.**



Presently, to broadcast SMS; MVNOs get the current list of the subscribers and transmit it to their operations team. Operation team starts the process of sending SMSs thru SMSC. By utilizing Defne's Emergency SMSC, all the steps are handled seamlessly and MVNOs will become able to run the campaign with an only one click.

Advantages

- It is quite simple to spread information about accidents, breakdowns, medical emergencies, etc. thanks to the system of sending SMS messages for risky situations. For instance, it's important to note that SMS texting offers instant communication (ideal for circumstances when information must be updated regularly) and is low cost, enabling you to reach a big number of individuals with only one action.

Why is SMS the most effective system in case of an emergency?

- Recent occurrences like terrorist attacks, forest fires, chemical incidents, and accidents involving multiple individuals have highlighted the necessity of putting in place systems to alert the population.
- Finding alternatives to traditional techniques has grown more crucial because it's crucial to receive messages on time and have current information available in a crisis.

How to serve public organizations?

- "Emergency SMSC" is beneficial to public organizations. Emergency messaging is most frequently utilized by town councils, regional governments, and law enforcement or firefighting agencies, but corporations can also use the service.
- To warn the people in the regions that may be under threat, the Turkish Government put Integrated Warning and Alarm System into force through AFAD (Disaster and Emergency Management Presidency) in recent years. Emergency Alert System is a warning system that will ensure that warning and disaster news are sent to the settlements under threat, via GSM Operators.
- It is not novel for official organizations, such as the Spanish national police, to use SMS in emergency situations. SMS alerts are used by the Spanish Government Civil Protection to inform the public of floods and other dangers to citizens. Similar to this, certain municipal governments and town councils, such as San Sebastian, inform residents via mobile messaging and send out notifications about the weather, fires, floods, and other events that pose a risk to persons or property.
- Following the devastation caused by super typhoon Haiyan (also known as Yolanda in the Philippines), the government of that nation established legislation in 2014 requiring telecommunications companies to provide free mobile notifications during natural and man-made disasters and calamities.

Broadcasting particularly towards a subscriber class such as VIP, Prepaid, Postpaid or any group specifed by the operator is offered. Subscriber class segmentation can be performed in 4 different methods such as manual MSISDN entry, list upload, to specific location(s) or to all subscriber lists by either using graphical user interface (GUI) or web services (W/S). Through the listbox option, the target audience list is created once and can be utilized afterwards without any further work.

An approval mechanism is also processed before the broadcasting functions . System gets confirmed from the relevant party referred to on the message header on every broadcast.

Value-Added Features

- **Location based SMS Broadcast;** Broadcasting SMS to a single or multiple regions/cities/districts is available.
- **Broadcasting SMS to all subscribers;** Broadcasting SMS to all subscribers with a single click is available.
- **Campaign based MPS;** Although Emergency SMSC system allows sending SMS at 20,000 MPS, it is possible to run a campaign at a specific throughput.
- **Broadcast Time Plan;** System admin can define different time plans on admin GUI and assign one of them to each customer.
- **Customer (Large Account) Based Retry Plan;** Periodic retry plan is defined to each customer. All pending short messages will be retried according to the retry plan.

Supported Formats

- **Sending SMS in GSM-7Bit Default Alphabet;** GSM-7 is a character encoding standard which packs the most commonly used letters and symbols in many languages into 7 bits each for usage on GSM networks.
- **Sending SMS in Locking Shift Format;** National Language Shift Tables are character sets that are customized for specific characters according to the language. Using extended character sets you can send messages with language-specific special characters at the same price as standard GSM-7 messages.
- **Sending SMS in Single Shift Format;** When single shift of a particular character set is used, each extended letter (not basic one) will take up double the space, because an invisible space character has to be used in order to access the table.
- **Sending SMS in Unicode Format;** Typically, an SMS text message contains up to 160 characters from the GSM alphabet. This alphabet knows all latin characters, digits and a few special characters. Alphabets which contain characters outside this alphabet and must be sent using the Unicode standard.
- **Concatenated SMS;** A concatenated short message service is used to overcome the limit on the number of characters that can be sent in a single SMS text message transmission. With this method, the sending device divides the long message into smaller ones that get recombined at the receiving end.

Supported Protocols

- **Sending SMS with MAP Protocol;** The Mobile Application Part (MAP) is an SS7 protocol used for for SMS delivery (A2P) that provides an application layer to access the HLR, VLR, MSC, EIR, AuC, SMSC and SGSN. Short messages are submitted to STP/VLR over SIGTRAN up to 50K TPS.
- **Sending SMS with UCP Protocol;** As short message transmission standards, UCP and EMI messaging use hexadecimal code to represent message content and reference the addresses of involved parties to form data packets. UCP protocol supports integrating 3rd party applications for sending SMS over ESMSC.
- **Sending SMS with SMPP Protocol;** The Short Message Peer to Peer (SMPP) protocol is an open, industry standard protocol designed to provide a flexible data communication interface for the transfer of short message data between ESME, RE and Message Centers. SMPP protocol supports integrating 3rd party applications for sending SMS over ESMSC.

Supported Modes

- **Priority Mode SMS Broadcast;** Each customer is defined with a specific priority. In priority mode, short messages are sent proportionally as per the weight of particular priority.
- **Starving Mode SMS Broadcast;** Each customer is defined with a specific priority. In starving mode, campaigns of the customer with highest priority are run first whereas the others can only start after the campaign has been finalized.

Supported SMS Types

- Defne Emergency SMSC platform offers several SMS sending methods such as Binary, Single shot (First Delivery Attempt), Silent, Flash and Regular SMSs.

Defne Telekomünikasyon AŞ,
headquartered in Istanbul, Turkey, established in 1996, is a leading global provider of telecom solutions, software products, and services for communications networks. Defne's solutions enable network operators and service providers to monetize every potential connection beyond limits while enhancing the subscriber experience.

Backed up with professional and managed services, Defne offers solutions in call completion, messaging, value added services and roaming business lines of telco. Expertise in IN, IVR, and messaging combined with a wealth of skilled resources, allows Defne to provide reliable and scalable solutions that seamlessly integrate with existing customer infrastructure.

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