

# DNA for Next Generation Mobile Networks

teleDNA  
DNA for Next Generation Mobile Networks  
SMSC



## TeleDNA Short Message Service Center

A Leading Data VAS Technology Provider

[www.teledna.com](http://www.teledna.com)  
[sales@teledna.com](mailto:sales@teledna.com)

# TeleDNA Short Message Service Center

SMS is a phenomenal success worldwide. Operators are continuously deploying new and innovative SMS services. This is leading to huge SMS usage, in turn Operators are required to deploy very high capacity, scalable and robust SMSC systems. Some of the innovative SMS based services require special features on the SMSC.

TeleDNA SMSC enables Operators to keep pace with growing SMS demand and the requirement for special features. TeleDNA SMSC provides innovative features such as Messaging personalization, Messaging Ad, Message Forwarding, Emoticon Service, etc.

TeleDNA SMSC is a carrier grade platform providing 99.999 % high availability of the system. The SMSC clustered architecture is modular and can scale up to 10,000 sms/sec

## Why SMSC?

Telecom Network Operator will need SMSC system to provide:

- SMS messaging service to mobile subscribers
- For launching SMS based Value Added Services, by integrating with third party Content Provider

## TeleDNA SMSC

The TeleDNA SMSC provides efficient delivery of person-to-person and application-to-person short messages for SMEs such as mobile users, ESME users, Email users.

### Commercial Grade Platform

TeleDNA SMSC is a fully redundant, fault tolerant, scalable carrier grade platform. TeleDNA SMSC is commercially deployed and operational in Tier-1 Mobile operators.

### Deployable in GSM, CDMA and UMTS Networks

TeleDNA SMSC can be deployed in 2.5G/3G GSM and CDMA Networks. TeleDNA SMSC is standards compliant platform.

### Better Price to Performance Ratio

TeleDNA SMSC is built on robust, industry standard, carrier grade, off the shelf hardware platforms. This yields better price to performance ratio, reducing the cost of ownership to Operators.

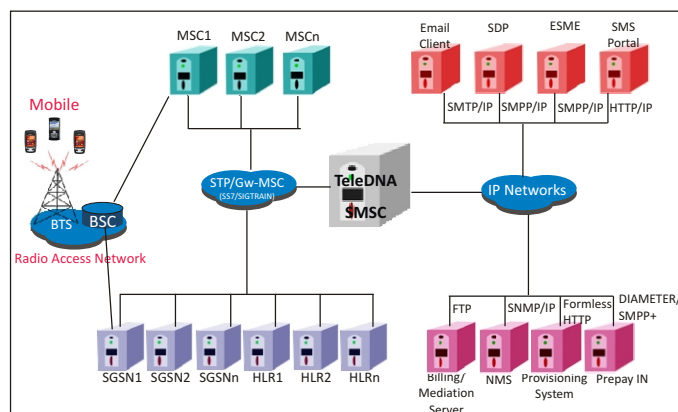
### Scalable and Cost Effective Business Models

TeleDNA offers flexible business model for deployment of SMSC, based on the Operator requirements.

## TeleDNA SMSC Network Integration

TeleDNA SMSC is designed to be deployed in GSM/CDMA Telecom Networks.

## TeleDNA SMSC Integration



## TeleDNA SMSC external Interfaces

- TeleDNA SMSC integrates with Operators Signaling Network Elements (STP / GwMSC / SSTP) on SS7 / SIGTRAN (SUA) directly to individual elements or centrally through Gw-MSC or STPs or SSTPs
- TeleDNA SMSC integrates with ESMEs (VMS / UMS / Fax Gateway / OTA Provisioning Server / MMSC / LBA, Stock Application / Ring Tone Download Application) on standard SMPP interface over IP network
- TeleDNA SMSC integrates with Service Delivery Platform (SDP) on standard SMPP interface over IP network
- TeleDNA SMSC integrates with Prepay IN Servers on industry standard DIAMETER / SMPP+ interface.
- TeleDNA SMSC integrates with Operators OSS Provisioning System on Formless HTTP interface over TCP/IP
- TeleDNA SMSC integrates with Mediation Servers on FTP interface
- TeleDNA SMSC integrates with NMS on SNMP interface

## TeleDNA SMSC Key Values

### Integration with Mobile Network

TeleDNA SMSC can be deployed in GSM (2G / 2.5G), UMTS, CDMA Mobile Network. The SMSC integrates with Mobile Network elements STP/GwMSC/SSTP on SS7 / SIGTRAN interface. TeleDNA SMSC is in compliance with 3GPP, ANSI specification

### Subscriber Provisioning

TeleDNA SMSC provides GUI, Bulk Provisioning and FormlessHTTP provisioning methods to provision the mobile subscribers for SMS services. Real time provisioning of subscribers can be carried out by operator's Provisioning Server on FormlessHTTP interface

### Multiple Service Center Address Support

TeleDNA SMSC can be configured with allowed Service Center Address list for accepting SMS Request from SMS Subscribers

# TeleDNA Short Message Service Center

## Multiple Mode of Operation

TeleDNA SMSC can be configured to operate in various modes of operation Full / Partial / Non Provisioned mode. In Full-Provisioned mode it is mandatory to provision all SMS subscribers on the SMSC. In Partial and Non Provisioned mode it is Mandatory to configure the NID (MSISDN) Ranges of the Operator subscribers.

## Multiple SMPP sessions for single short code

TeleDNA SMSC allows multiple SMPP connections for an ESME. The number of session per ESME is configurable by the operator.

## Multiple Short Codes for single ESME

TeleDNA SMSC allows assignment of multiple Short Codes for single ESME. The number of assigned short codes is a license max limit

## Address Translation and Digit pre-fixing

TeleDNA SMSC allows translation of Destination address based on configuration. Digit pre-fixing can be done on destination addresses based on configuration

## Fixed suffixing digits Mobile to ESME

TeleDNA SMSC allows configurable 'fixed digit suffixing' to the destination address, for Mobile to ESME call flow. This can be configured for individual ESME connected to the SMSC on a short code.

## Real-Time charging

TeleDNA SMSC supports industry standard DIAMETER interface (Optionally vendor specific interfaces) for integrating with the Operators Pre-paid IN System to charge SMS subscriber for SMS services.

## Real-Time charging of MO-SMS originated from Non-CAP3 MSC/VLR

TeleDNA SMSC can be configured to do real-time charging of MO-SMS messages originated by subscribers from non-CAP3 MSC/VLRs.

## Error based Retry Policy (MT-SMS)

SMSC can be configured for error based retry policy to reattempt delivery of MT-SMS message.

## Admin Portal for SMSC Administrator

TeleDNA SMSC provides user friendly GUI for Operator. The Admin Portal provides functionality such as:

- Subscriber Provisioning
- ESME Provisioning
- Subscriber Preference Management
- Group Management
- CALEA Management

## SMS message to Group (User/Admin Groups)

SMS subscribers / Operator can create the group having list of defined addresses (mobile numbers, email address). When SMS message submits a message to a group, the SMSC delivers the message to all the group members.

## SMS User Portal

TeleDNA SMSC provides a User Portal for provisioned SMS subscribers. User Portal provides functionality such as:

- SMS Composer
- Manage Preference (SMS Forward to other number or email address, Alias Name, CLI)
- Group Management

## Schedule Delivery

TeleDNA SMSC supports Future Delivery of SMS messages. SMS subscribers can submit a SMS message and set the future delivery date and time. The SMSC will attempt the delivery of the message at the requested time.

## Mobile Number Portability (Country Specific)

A Subscriber under one operator can change the subscription to another operator and can use the mobile with the same mobile number. SMSC supports Mobile Number Portability.

## GUI based CALEA

This feature on the SMSC allows the Operator to tap the SMS message for the specified MSISDN. The LEA users can login to CALEA Portal to view the intercepted multimedia message

## LI Interface

TeleDNA SMSC can be integrated with the external LI Server (MF function) over standard interface. Server for Target provision and Sending the intercepted messages over TCP/IP interface using ASN.1 format

## Regional Barring

TeleDNA SMSC provides Regional Barring support for MO and MT SMS messages. Operator can configure a set of MSCs/SGSN (GT address) as barred for SMS access, on SMSC. Subscribers roaming in barred MSC/SGSN areas will not be able to send / receive a SMS message.

## Lengthier messages from ESME

SMSC can receive lengthier messages (>160char) from ESMEs and deliver them to the Mobile in multiple segments.

## Mobile SMS Advertisement

TeleDNA SMSC has a feature where the Operator can configure a Text Advertisement to be inserted in the short message. SMSC will insert this text if sufficient free space is available.

# TeleDNA Short Message Service Center

## Allowed Sender Address for an ESME account

The SMSC allows Administrator to configure the Allowed Sender Address List for each ESME.

## Geo Redundancy

TeleDNA SMSC can be deployed in Geo-Redundant mode with a common Global IP Loadbalancer. When any of the Geo-Redundant site is inaccessible due to catastrophic events then the SMS Request are routed to other site.

## MIS Reports

TeleDNA SMSC provides Business Intelligence Tool (BIT) to provide rich MIS reports such as:

- Number of Accepted, Rejected SMS requests
- Hourly, Day, Month wise statistics reports

The MIS reports can be exported as an excel sheet.

## Operation and Maintenance

TeleDNA SMSC provides GUI based Remote Administrator Maintenance Tool (RAMT) tool. The Operator can monitor the SMSC server status. The RAMT provides functionality such as:

- Server Management (Start/Stop of SMSC servers)
- Alarm Management (Monitoring alarms)

## SNMP interface

TeleDNA SMSC supports north bound SNMP V2.0 interface for integration with Operators NMS systems.

## 24 X7 Product Support

24X7 support is provided by TeleDNA Customer Care.

Please contact us by sending a email to [sales@teledna.com](mailto:sales@teledna.com)



[www.teledna.com](http://www.teledna.com)  
[sales@teledna.com](mailto:sales@teledna.com)

The materials presented here are summary in nature, subject to change, and intended for general information only. For further information, email us at [sales@teledna.com](mailto:sales@teledna.com)

Copyright 2009-10 TeleDNA Inc. All rights reserved. All denoted product names may be trademarks or registered trademarks of their respective owners.