

TeleDNA SMSC Gateway



DNA for Next Generation Networks

TeleDNA SMSC Gateway

TeleDNA SMSC Gateway serves as an interworking and relaying function of the message transfer between the External Short Messaging Entities (ESME's) and the Short Message Service Centers (SMSCs).

The SMSC Gateway uses database that checks, accepts, processes and distributes Short Messages among the SMSCs.

TeleDNA SMSC Gateway supports both temporary and persistent storage. SMSC Gateway has the capability to be provisioned both to forward the messages without storing in a database (instantaneous delivery) and /or with storing the messages and then forwarding (store and forward service) depending on various parameters. It will automatically appends, Changes or Replaces the short-code of the SMSC with a specific MSISDN or with a configured text before delivering the message to SMSC.

The Messages are received and sent over SMPP/CIMD/EMI interfaces existing with the ESMEs and with the SMSCs. The entire traffic routes over IP. TeleDNA SMSC gateway provides message storage, routing and confirmed delivery services between SME's that are consistent with the short message services specified in the SMPP, CIMD and EMI standards.

Commercial Grade Platform

SMSC GW is a carrier grade platform, which has undergone trials tests and readily available for commercial deployment.

Deployable in CSD and GPRS/CDMA2000 1X Networks

The SMSC Gateway is flexible and has the capabilities to be deployed in the environments like GSM/IS41-C/GPRS/UMTS/ IS41-D/IS41-E network and also with the combination of networks with SMPP/CIMD/EMI as Interfaces.



Interoperability with other SMSC's

SMSC Gateway has been tested for interoperability with 3rd party SMSCs

Enhanced Feature Rich Product

The SMSC gateway is technologically advanced product in the market offering following features:

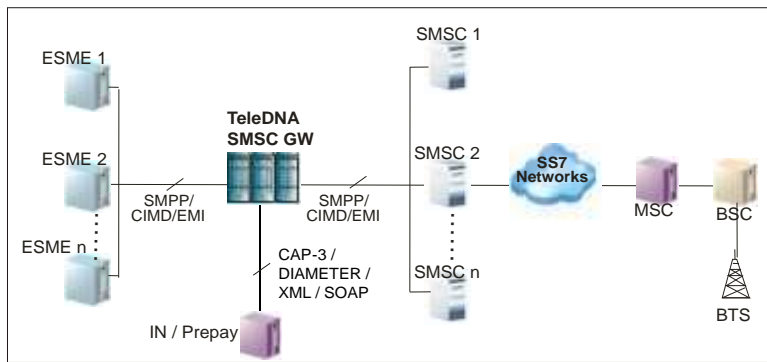
- SMPP, CIMD and EMI Support
- Multiple connections provisioning for ESME's and for SMSCs
- Advanced load balancing features like round robin and NID based routing
- Throughput regulation for receiving messages from ESME's and for sending messages to SMSCs
- Blacklisting and white listing of content providers (SMSCs)
- Filtering of contents from SMSC's based on the content ids
- Describing the allowed/not allowed content types for each SMSC
- Analysis of content delivered by the SMSC's
- Provision for differential charging based on content delivered
- Realtime content charging through Single Interface
Common MIS and uniform reporting

Better Price to Performance Ratio

The SMSC Gateway is built on robust standard Intel servers with proven carrier grade Linux clustering techniques. This yields better price for performance ratio, which helps in reducing cost of ownership to our customers, yielding better return on investment.

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SMSC Gateway architecture



As shown in the network diagram, TeleDNA SMSC Gateway is a complete plug and play solution that can be deployed in any network like GSM/GPRS/UMTS/IS41-C/IS41-D/CDMA 2000 and interacts with the SMSC of the network. Hence the gateway can be connected to multiple networks SMSCs on one side and to multiple content providers (SMSC's) on the other side. The number of connections on either side is scalable and can be increased from 1 to 500.

TeleDNA offer "Low end SMSC Gateway" as well as "High end SMSC gateway" with High Availability configuration. An SMSC gateway with 1 Msg/Sec to 50 Msg/Sec is classified as a Low end SMSC Gateway, and an SMSC gateway with 51 Msg/Sec to 1000 Msg/Sec is classified as high end SMSC Gateway.

Low end SMSC gateway configuration systems shall be deployed in Non-Clustered Architecture. All High end SMSC gateways will be deployed in Clustered Architecture. SMSC gateway supports 500 SMPP connections, catering 500 SMPP applications to connect to multiple SMSCs simultaneously. The number of connections is scalable by increasing the cluster.

Key Features

Scalability

TeleDNA's distributed architecture is highly scalable to support 1 message/sec to 1000s of messages per second traffic.

Hosting capabilities

The SMSC gateway can be hosted in the operator premises allows interfacing with multiple SMSCs content providers. It enhances the manageability and operational flexibility.

Secured Connectivity

SMSCGW has an option of offering secured connectivity to the enterprises (e.g. Triple DES for Banks) for sending confidential data using state-of-the-art standard encryption mechanism.

Capacity

TeleDNA's multi threaded software architecture can support hundreds of messages per second depending upon the content personalization and user preferences.

Availability

TeleDNA's high availability layer with redundancy and isolated fault zones can provide the much needed 5 Nines availability for the platform. The software layer also supports minimum downtime software upgrade strategies.

Intelligent Routing

TeleDNA's Intelligent Routing module ensures a convergence point between wired and wireless Internet addressing. The module makes intelligent decisions on its own and based on user preferences to route the message in an optimized and efficient way.

Standard Billing Interface

The SMSC Gateway solution provides flexible billing options to mobile network operators. For all SMS transactions CDRs are generated by SMSC gateway and written to Billing Log files in CDRS directory. The time interval for the creation of Billing Logs is configurable.

Realtime Content Charging

The SMSC Gateway integrates with pre-paid systems on CAP-3/SOAP/XML/HTTP API for real-time content charging. This provides a single interface for content charging

Security and Dispatch Support

Necessary filtering and tracking is supported to avoid attacks from anonymous sources. The data here is used to aid sender-billing concepts. Timer based dispatch messaging support is also provided for time sensitive applications.

SMSC profile

SMSC Gateway can define the profile for each SMSC comprising of authentication details and thru-put.

Platform Support

TeleDNA SMSC gateway is built on high density, highly available and highly scalable Linux Clusters with Intel Based Servers.

Billing and Reconciliation

TeleDNA SMS gateway generates conciliated billing and MIS reports for reconciliation with ESMES/ Applications. This gives integrated approach to the opera for instead of collecting and sorting the billing reports from multiple SMSCs.

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