



Integrated Signaling Gateway (ISGW) Product Summary.

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ISGW - Integrated Signalling Gateway Product Summary

Flash Media Group specializes in mobile and telecommunication solutions. We acquired SS7/SIGTRAN skills at development level and gained extensive implementation experience on various network configurations.

Through our own inhouse developed SS7/SIGTRAN stack we offer a range of unique products to compliment enhanced services for SMS, GPRS, USSD, LBS, MMSC, Billing and Value Added Services with simple integrated architecture.

We pride our self on an Exceptional Solutions offering due to our development experience on SS7/SIGTRAN that forms the backbone of any telecommunications network. Our solutions offer network operators, banks and corporations additional communication options, revenue generators and management tools.

We offer value for money combined with flexible business solutions to enable our clients to deploy ISGW fast with the ability to grow and expand.

Our Business & Solutions

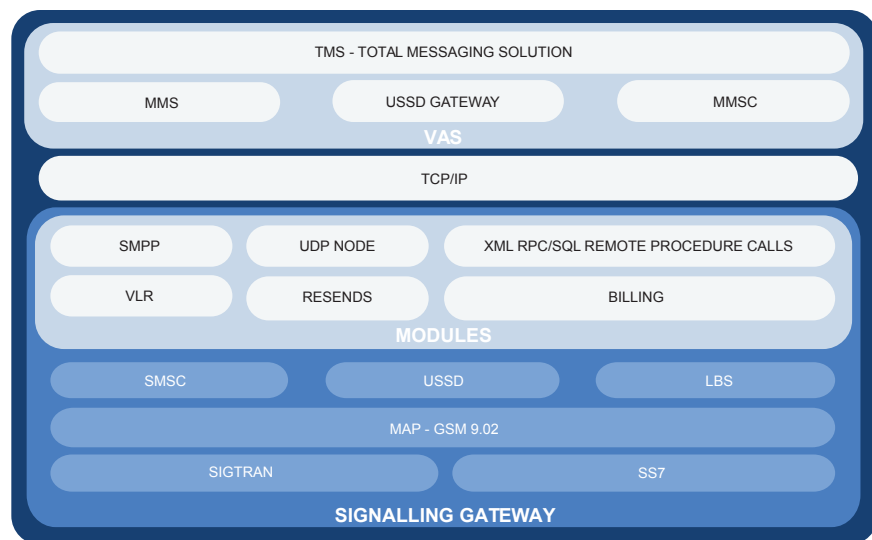


Figure 1 - The ISGW Messaging Platform

ISGW-SMSC SWITCH (Signalling Gateway)

The ISGW SMSC Switch includes a SMSC that distributes SMS text messages from a mobile handset to the recipient mobile handset. It also distributes messages from an application to the specified mobile handsets as well as from one application to another.

ISGW Unique Features:

- ISGW is a Data SMSC that acts like a router. It includes traditional store and forward SMSC therefore it is much more suitable for data applications utilizing SMS only.
- ISGW does not throttle SMS traffic and therefore allow increased traffic, which in turn increase revenue via the ISGW Switch.
- ISGW Switch is specifically designed for speed and effective delivery of data messages.
- ISGW has advanced delivery reporting.
- The Value Added Services (VAS) tool is included and used for delivery of content.
- Integration with other SMSC's
- ISGW can load balance between multiple SMSC's

ISGW SWITCH Revenue Streams:

- Due to no throttling of throughput, the number of SMS messages delivered through our SMSC are much higher, therefore increasing revenue of Network Operator for SMS traffic.
- VAS with billing is included, the Network Operator will charge their subscribers for content delivery, therefore increasing traffic, attracting new subscribers and preventing churn.

ISGW-USSD

USSD is an attractive alternative bearer for services to SMS and used for content delivery.

ISGW USSD Revenue Streams:

- As USSD is an alternative bearer to SMS, with added security, this will increase delivery of sensitive information and increase revenue for the Network Operator.
- USSD is very popular for financial and banking transactions and content delivery due to the high security features of this messaging service.
- USSD allows for menu based communication between network and handset.
- Billing on USSD is included.

ISGW-SMPP (Short Message Peer to Peer)

SMPP is utilized by clients that use an application to send out SMS messages. Our ISGW-SMPP is highly suited for content delivery with sophisticated data functionality and therefore ensures quick delivery and implementation.

ISGW-SMPP Revenue Streams:

- Network Operator will offer the ISGW-SMPP to Corporate clients as a tool to send bulk SMS messages to their clients. Examples of SMPP services include Bulk SMS marketing messages to groups of clients, accounting information to clients, for example payment information, etc.
- Billing on SMPP is included.

ISGW-LBS (Location Based Services)

ISGW-LBS are utilized by networks and their clients. The ease of integration with any other product offers demographic information on registration with USSD.

ISGW LBS Revenue Streams:

- Combines location with content e.g. proximity services, route finders/navigation.
- Enables personalised, localised information and m-commerce

ISGW MMSC SWITCH

The ISGW MMSC acts as the message-switching system for MMS within the core network. It distributes multimedia messages from a mobile handset to the recipient mobile handset. It also distributes messages from an application to specified mobile handsets as well as from one MMSC to another.

ISGW MMSC Main Features:

- Receive MMS messages and transmit them to their destinations
- Receive messages for MMS users from other services, such as email
- Convert the content of a message, where supported, to suit the capabilities of the destination device
- Generate the data records needed to bill subscribers for service usage and content.

ISGW MMSC Switch Interfaces:

- Phone-to-phone (MM1 interface)
- Phone-to-email (MM3)
- Inter-MMSC (MM4)
- Between MMSC and HLR (MM5) – If MM5 is not available MAP RRI will be utilised
- MMS VAS (MM7)

Glossary of terms

API	Application Programming Interface
AOL	Age of location
ATI	Anytime interrogation
CDR	Call Data Record
HLR	Home Location Register
IETF	Internet Engineering Task Force
ITU	International Telecommunication Union
LAC	Location Area Code
M3UA	MTP Level 3 User Adaptation: IETF RFC 4666
MAP	Mobile Application Part: GSM 09.20
MO	Mobile Originating
MCC	Mobile Country Code
MMSC	Multimedia Messaging Service Centre
MNC	Mobile Network Code
MSC	Mobile Switching Centre
MSISDN	Mobile Station International ISDN
MT	Mobile Terminating
MTP2	Message Transfer Part Layer 2: ITU-T Q.701 to Q.705
MTP3	Message Transfer Part Layer 3: ITU-T Q.701 to Q.705
PT	Performance Technologies (http://www.pt.com)
PSI	Provide subscriber information
RRI	Request for Routing Information
SCCP	Signalling Connection Control Part: ITU-T Q.711 to Q.714
SCTP	Streams Control Transmission Protocol: IETF RFC 3873, RFC 4166 and RFC 4960
ISGW	Integrated Signalling Gateway
SIGTRAN	Reliable datagram service and user layer adaptations for SS7 and ISDN: IETF RFC 2719
SMPP	Short Message Peer-to-Peer protocol
SMSC	Short Message Service Centre
SNMP	Simple Network Management Protocol
Solaris	Solaris 10 Operating System (http://www.sun.com/software/solaris/10)
SS7	Signalling System #7
TCAP	Transaction Capabilities Application Part: ITU-T Q.771 to Q.775
UM	Unified Messaging: integration of different communication streams into a single unified message store
USSD	Unstructured Supplementary Service Data