Revenue from voice services is in decline, and this trend is not going to change. The demand for new services is growing; however, voice still remains the main revenue source for most telecom operators. Combining voice-based applications with content-sharing applications and mobile terminal applications with PC applications is becoming self-evident. IMS as defined by standardization bodies has become the de facto architecture of the modern telecommunication networks in the last years.

PSTN Emulation is the mechanism that enables existing POTS and ISDN Access Gateways to be integrated to the IMS network. Using an AGCF controlling element, these legacy devices appear as yet another IMS user in the IMS network. The service logic for emulating PSTN services is provided by Telephony Application Server (TAS).

IMS goes beyond replacing a circuit-switched core network with a packet-switched one. Due to the complexity and costs involved, a significant challenge that operators face, is how to migrate their legacy TDM networks to the IMS.

Since the operators made large investments in their current networks, it is very important to allow them the possibility to exploit it as much as possible and provide them with a smooth transition to the new IMS architecture.

The Iskratel AGCF solution leverages Si3000 CS and SMG products that provide all the functionalities required for integration of TDM to IMS network.

The broad legacy protocol and functionality support enables integration of both POTS and ISDN users connected via RGW/AGW and users connected through V5.2 ANs. Extending this solution with the M-AGCF module, also brings all the benefits from the IMS service network to users connected via 2G/3G networks. Implementing M-AGCF in the network does not require any changes to the existing MSC products.
Operator benefits:

- Smooth transition to IMS without replacing existing access nodes
- Guaranteed cost efficiency
- No enhancements required in existing 2G/3G networks

IMS EDGE - AGCF FEATURES

- IMS SIP Mw interface
- Support for access side protocols: MGCP, H.248, SIGTRAN (M2UA, M3UA, IUA, V5UA), ISDN BRI/PRI, V5.2, H.323
- User registration/deregistration
- SIP Digest Authentication
- Service Change detection
- DigitMap
- Support for wide range of PSTN services
- Emergency call
- High scalability based on ATCA HW platform
- High reliability with active calls preservation
- Heartbeat administration
- Geographical redundancy
- Overload protection
- Security for CDR with data reservation and backup
- SW upgrade without affecting traffic

NETWORK MANAGEMENT

The Iskratel IMS Edge solution is managed by the SI3000 MNS Management System, which provides advanced management including but not limited to fault monitoring, real time alarm surveillance and network configuration.

Open interface mechanisms enable easy integration into operator OSS/BSS systems and other higher network management systems.

Iskratel IMS Edge - AGCF solution enables easy migration towards IMS networks without replacing the existing TDM access network. Thanks to the standard SIP interface towards IMS networks and wide range of existing TDM protocols, the IMS Edge - AGCF provides flexibility and straightforward integration of different types of existing access network elements.