Push-to-Talk Test System



Back to the Future with Push-to-Talk



The new "push-to-talk" services turn mobile phones into walkie-talkies with unlimited range. Mobile users like business men, delivery companies, taxi drivers can connect in a "walkie-talkie-style" at the touch of a button.

PoC a real-time, direct, 1-to-1 and 1-to-many voice communication service is mandatory for today's cellular networks. Companies, especially those needing to be in constant touch with several teams and locations, will soon discover PoC as the most efficient solution. The benefit of radio-style communication, especially broadcasting to many users, makes it much more convenient than many phone calls or even call conferencing.

Be sure your Push-to-Talk service meets the high quality and reliability required.

SIGOS offers you a fully automated Push-to-Talk over Cellular Test System!

Features

- Simulation of real subscriber behaviour
- Over the air testing
- Central SIM Multiplexer: infinite number of SIM cards can be managed
- Interfaces: GSM/GPRS Um, UMTS Uu, EDGE, CDMA2000
- Test 1-to-1 or 1-to-many communication
- Available KPIs
- Play and record speech data

- Emulating mobiles like Nokia 5140 and similar
- Real End2End Testing of real-time-always-on voice service
- Check SIP (Session Initiated Protocol) Control Plane of the PoC Application Server
- Check RTP (Real-time Transfer Protocol) User
 Plane of the PoC Application Server



QoS testing solution for PoC over GPRS:

- Test PoC availability
- Check Communication between UE and PoC server
- Check control plane
 - Handling SIP sessions which are used to establish and maintain the connection between PoC-enabled handsets (Interface: UE and PoC server via UDP)
 - Registration, authentication and authorization at PoC server
 - Group attachment

Check user plane

- Speech data transmission
- Send and receive speech data in AMR format to/from other group members
- Handling of RTCP messages



Available PoC KPIs*:

- Registration Failure Ratio
- Registration Time
- Session Initialization Failure Ratio [%]
- Session Initialization Time [s]
- Floor Request Failure Ratio [%]
- Floor Request Time [s]
- Stop-Talking Timer Failure Ratio [%]
- Stop-Talking Time [s]
- Session Cut-off Ratio [%]
- Session Setup Time [s]
- Voice Delay (in session) [s]
- Voice Delay (first) [s]
- Audio Quality
- * Reference: ETSI/STQ_Mobile(05)06TD06



- Automated testing: avoid time and money consuming manual tests
- Increase reliability of the GSM and UMTS networks \rightarrow ARPU
- Increase customer satisfaction
- SQM: monitoring and measuring of service availability and quality ightarrow Ensuring SLAs with precise KPIs
- Scalable architecture: from stand alone to widely distributed systems
- Central SIM Multiplexing \rightarrow No "SIM card traveling"
- Quick detection of problems due to parallel testing at any time