



OpenAir™ API

Leveraging carrier grade technology on our OEM/SDR platform

5G
4G
3G
2G

The OpenAir™ API builds on the high quality small cell software from ip.access to provide enhanced functionality and flexibility

OpenAir™ API

OpenAir API enhances the standard 2G/3G/4G/5G applications by allowing deep analysis of air interface activity and the opportunity to directly influence subsequent events.

OpenAir is a flexible user-friendly software capability allowing users to influence, decode and command air interface behaviours and particular streams of information. The UE identifier, in exported messages, is easily correlated using the SRNTI along with other UE identities such as NBCCID, Context ID and IMSI.

General capabilities

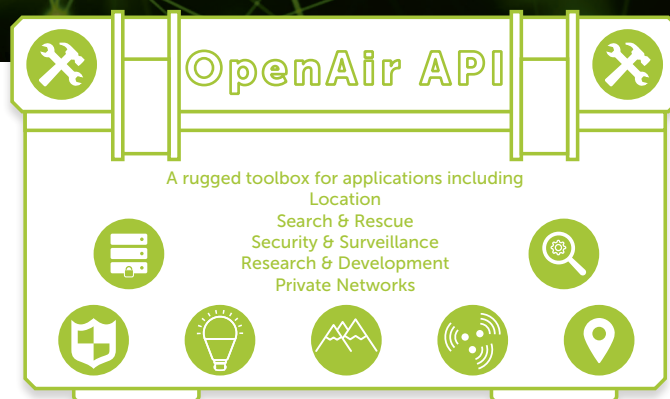
- Fast RAT Switching

5G capabilities

- NSA Mode
- SUPI Capture

4G capabilities

- Forced Handover - Trigger Forced Handover of a UE to a target cell at a specified time
- Forwarding L1/L2 Statistics - Periodically send key L1 and/or L2 related measurement reports to a listening application
- Macro Mimicking - Enable the AP to present as a macro cell to UEs within its cell



3G capabilities

- 3G NBAP Forwarding - Enables an information stream containing specified messages from the proprietary NBAP interface

Common 3G and 4G capabilities

- UE Redirection - Redirect UEs to a specific RAT and frequency
- IMSI/IMEI Capture - capture IMSI, IMEI or both
- Standalone Mode - The AP exchanges RRC messages with a UE without a connection to a core network
- L3 Message Forwarding - Send all RRC messages between an AP and all or specified attached UEs to a listening application
- UE Finder - Increase or decrease UE Tx power for locating the UE with an external directional finder (DF) instrument
- GPS Information - Obtain GPS coordinates of all or specified UEs attached to the AP
- Hold Signalling Connection - Sets up a persistent RRC connection with all or specified UEs and does not allow the UEs to release for either a specified duration or indefinitely
- Fast Network Listen (NWL) - Reduces scan time
- Neighbour Cell Measurements from UEs

OpenAir™ API

Candidate features

Speak to your ip.access sales representative about extending OpenAir to GSM.

AP Platforms

The OpenAir API is available on the multi-band multi-RAT S60z SDR module and the E62 OEM/SDR module. Both modules also support SSH access.

Standards Compliant Access Point Functionality

Use the OpenAir AP to leverage the carrier grade 5G, LTE, UMTS and GSM stacks in the S60z and E62 OEM/SDR modules for a variety of applications beyond the standard capacity and coverage AP capabilities.

Applications

In conjunction with controlling the functionality of the AP application layer with the usual configuration methods, customer-developed applications for OpenAir API can deliver a wide range of solutions including:

- Search and Rescue - use the UE transmit power control command to locate UEs to help find and rescue the owners
- Private Networks - set up secure communications
- Research and Development - analyse UE behaviour in different scenarios and help to ensure prototype UEs are functioning as expected
- Network Restoration - for scenarios including disaster recovery

