

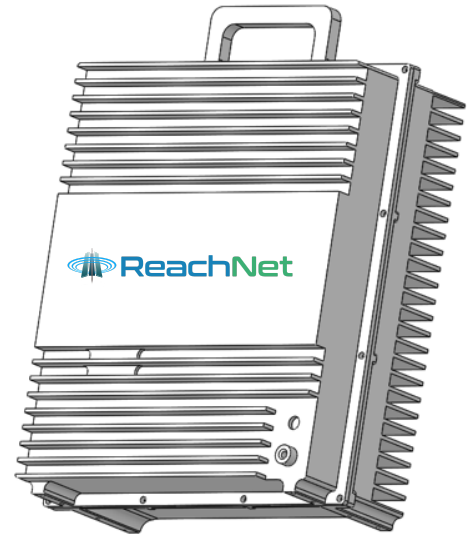
ReachNet

IMPROVING LIVES THROUGH CONNECTIVITY

PRODUCT DESCRIPTION

Network coverage in rural areas face many challenges, from the cost of building the infrastructure in such low-population density areas, lack of large power sources, deployment time, and more.

REACH NET is a small-scale, fully functional GSM network solution, designed to simplify and break the norms of conventional telecom network deployment. Quick to install and easy to manage, REACH NET allows you to deploy cellular networks in even the most remote areas, all at the fraction of the cost of a full-sized cell tower.



FEATURES

GSM NETWORK
ReachNet allows calls, messages and data with flexible charging rates

SMALL FORM FACTOR
Quick transport and can be easily mounted to existing structures

LOW POWER CONSUMPTION
Reduced power consumption for tapping into sources of renewable energy

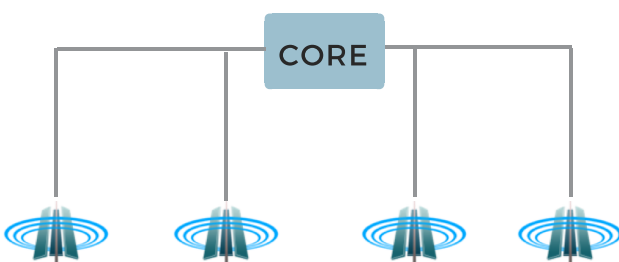
EASY TO SETUP
Administrators can easily manage their network and services

REDUCED CAPEX
Provide the capabilities of a telco service provider in one box

REMOTE MANAGEMENT
Manage the network via the cloud-based management for multiple nodes and locations

REACH CORE

Reach Core is a software implementation of the GSM Stack, interconnecting multiple ReachNet nodes for a multiple location implementation.



CONTROL MODULES

Subscriber Life Cycle Management

- SIM Card Activation
- Subscriber Usage
- Subscriber Top-ups
- SIM Card Deactivation

Telco Operator Business Logic

- Call Charging
- Flexible Call and SMS Rates
- Call Control
- Value Added Services

HARDWARE SPECIFICATIONS

Radio

Operation: GSM 850, 900, 1800 1900
 RX Sensitivity: -110 dBm
 Power Output: 2x10W
 Clocking: GPS, GPSDO TXCO
 Maximum Cell Radius: up to 5 Km

Capacity

Number of TRX: 2
 Simultaneous Voice Calls: 15FR/30HR
 Simultaneous SMS: 120

Services

Speech Format: Full Rate/Half Rate
 Data: GPRS
 Encryption: A5/0, A5/1, A5/2 and A5/3

Connectors/Interfaces

Antenna Port: N-type Female
 GPS Port: SMA-F Connector
 Traffic/Control Port: 10/100/1000 Mbps Ethernet
 WiFi Module: Yes

Electrical

AC Input: 220VAC
 DC Input:
 Consumption: <190W

Physical

Dimension: 350mmx300mmx140mm
 Weight: 10.5Kg
 Operating Temperature: -20°C to 55°C

SOFTWARE VARIANTS

BTS

- The BTS connects to an external BSC
- Supports Abis (e.g. Abis/IP) interface towards the BSC

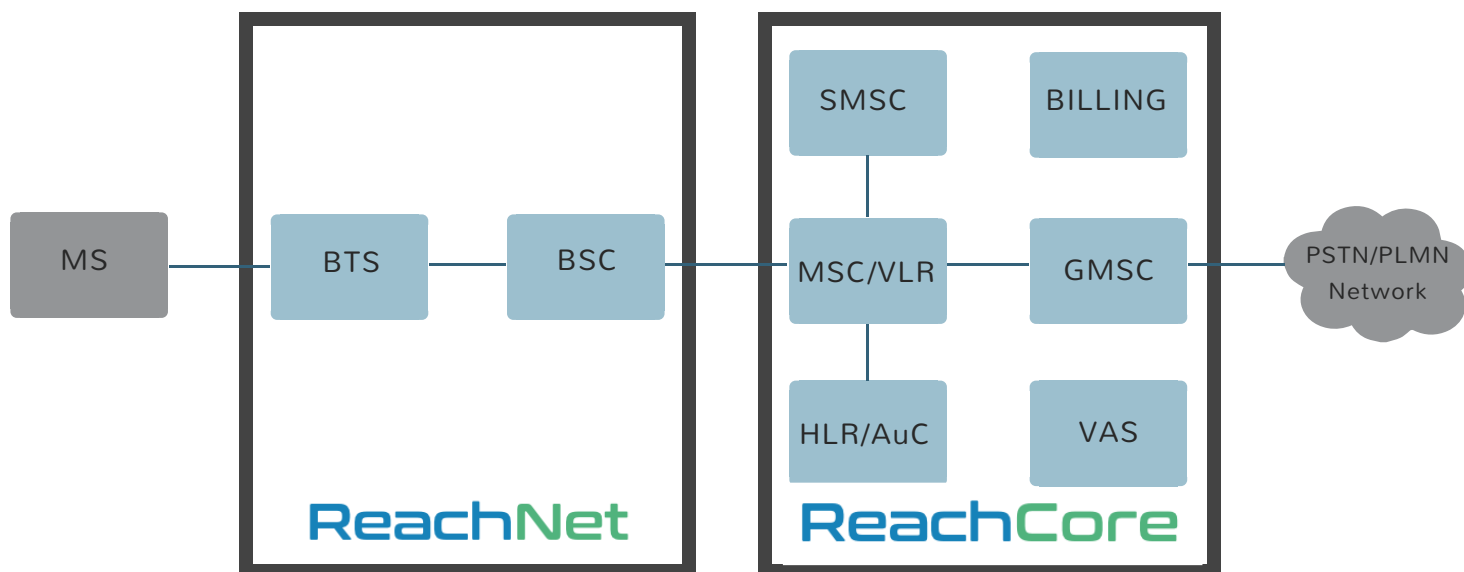
BSC

- Supports A-over-IP (AoIP) interface towards an external MSC

NITB

- Act as a standalone network-in-a-box

ARCHITECTURE



Architecture of ReachNet as BTS + BSC