

Druid

Raemis™ Outbound Roaming

Raemis™

More than a network core

The Raemis™ platform features a 3G/4G/5G core with a range of extensions, including Private Cellular network, FWA, Outbound Roaming and Inbound Roaming.



Flexible Deployment Radio Agnostic Simple to use Prioritize Devices Easy to Integrate Scale up & down

System Overview

The Raemis Outbound Roaming solution is specialised for scenarios where the home network does not own any radio infrastructure. Instead, Raemis Outbound Roaming is connected to many other operators with radio infrastructure through roaming agreements and partnerships. The Raemis Outbound Roaming provider supplies SIM cards (or eSIMs) to users, who can then use the network capacity provided by roaming partners.

Typical applications include

- Roaming for IOT devices, where the service provider or device manufacturer does not know in advance where a device may be activated and which network it should connect to.
- School Districts, where students need access to cellular communications over multiple existing networks.

Raemis Outbound Roaming GUI

The Raemis Outbound Roaming GUI is a simple interface that enables users to monitor and control the various entities in the system. The GUI runs on any Google Chrome or Mozilla Firefox web browser in the same network as the core server. Administrators can define multiple, password-protected levels of user access. The clear, intuitive visual layout allows users to monitor User Status, Networks, Diameter, SIGTRAN and SMPP links and be notified of alarms, from a single pane of glass.

Raemis™ Outbound Roaming: Main Features

- Comprehensive, intuitive administration Dashboard.
- Easy installation and enhanced integration with enterprise LANs.
- Full support for 3GPP Roaming Interfaces.
- Easy, rapid subscriber onboarding.
- Multi-IMSI, Multi-MSISDN support.
- Real-time change of IMSI via SMS message.
- Real-time System monitoring and alarm reporting.
- Real-time charging data available to 3rd party OCS.
- Short Message Peer-to-Peer (SMPP) support for connection to Over the Air (OTA) servers in visited networks.
- Full 3G/4G/5G core built-in.
- An open RESTful API with full access to the Raemis™ platform.

It's SIM-ple!

Druid Software can provide Raemis Outbound Roaming customers with SIM cards, but any industry-standard SIM card can be provisioned and used with the platform. Druid Software also offers an e-SIM capability.

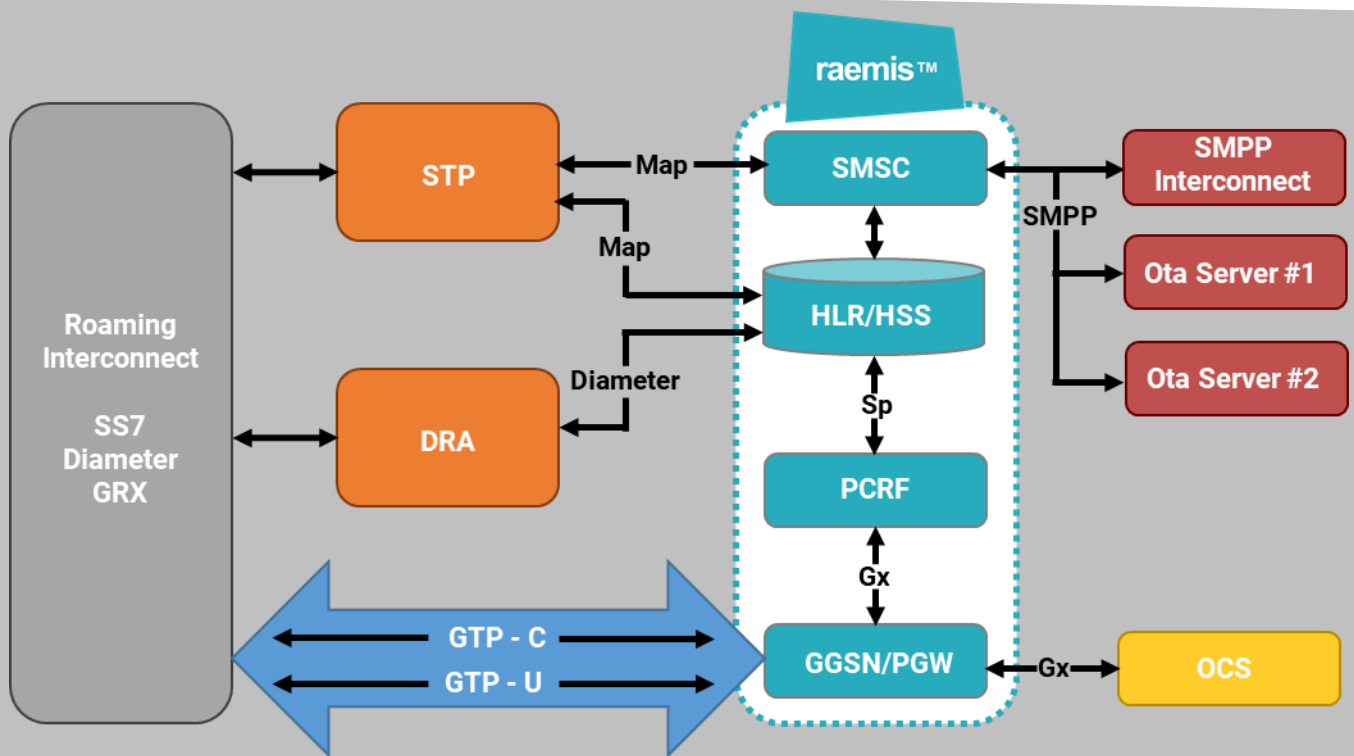
Multi-IMSI, Multi-MSISDN

Using Raemis Outbound Roaming, subscriber accounts and SIM cards can be provisioned with one IMSI or multiple IMSIs. Different IMSIs can be used for preferential roaming rates depending on the visited network. Calls and SMS messages for any IMSI in a subscriber account profile are always routed to the active IMSI. Raemis Outbound Roaming can trigger a change of IMSI using an SMS message. Multiple MSISDNs can be configured in the same manner. With a single SIM, Raemis Outbound Roaming ensures your subscribers are always on the correct network, and never miss a call or message.

Easy Installation

Raemis™ Outbound Roaming is simple to install and provision. It runs on multiple Linux versions including Cent OS7, Ubuntu and Red Hat Enterprise Version 8. The software can be installed on COTS servers, Virtual Machines like VMware and Hyper V, Containerized deployments or cloud deployments including Azure, AWS or Google.

System Configuration



Raemis Outbound Roaming includes

- **Full 2G/3G/4G/5G network core** : In addition to the roaming interfaces, Raemis contains a full 3GPP- cellular core.
- **Integrated Roaming Core features**: HLR/HSS to manage individual users; S6a and S8 interfaces, GGSN / PGW; ability to configure GTP-C and GTP-U endpoints; online charging data over Gy interface to external Online Charging System.
- **Integrated SMSC**: Enables SMS support via MAP over external network STP, SMS forwarding regardless of IMSI and ability to change users IMSI in real time (e.g. where a different IMSI may provide a better roaming rate).
- **User Group Separation**: In Raemis, the administrator can organise users in logical groups, configure the functionality of that group (internet access, voice calling, SMS tec.) and assign groups to the PDN best suited to their needs.
- **For 4G networks**: Configure Diameter endpoints, routes, and local identities for the local HSS and PGW, and remote Diameter Routing Agent (DRA) or direct connections to remote MMEs.
- **For 2G/3G networks**: Configure SIGTRAN endpoints, associated signalling gateways, for the HLR and PGW/GGSN, global title translations, and local global titles.
- **For 4G networks and 2G/3G networks**: Configure local network elements PGW, HSS, and optionally SMSC for communication with remote network elements.
- **Real-time charging** : Usage data exchanged with the OCS over the Gy interface in real time, to prevent users exceeding allocation and bill-shock.
- **Simple GUI for administration**: User-friendly dashboard enables users to start benefitting from Raemis Outbound Roaming with minimum training; security features include different password-protected administration levels.

The Raemis™ API

The Raemis™ platform exposes a powerful RESTful API that enables application developers to build on top of Raemis or integrate external applications with the Raemis platform. Druid developed the Raemis™ PCN GUI using the same RESTful API that is available to application developers. Any feature, data, or action that currently available in the Raemis GUI is also available using the RESTful API.

Scalability and User Type

- The Raemis™ platform works for organizations of any size, from small businesses to large enterprises.
- Raemis Outbound Roaming supports unlimited users.
- Raemis supports different user types from Real time, Data Only, IoT and Fixed Wireless Access, enabling users to offer differentiated services to their customers
- Raemis enables administrators to create groups of users and manage each groups' ability to connect to internet, make/ receive voice calls, send /receive SMS, make / receive international calls etc.