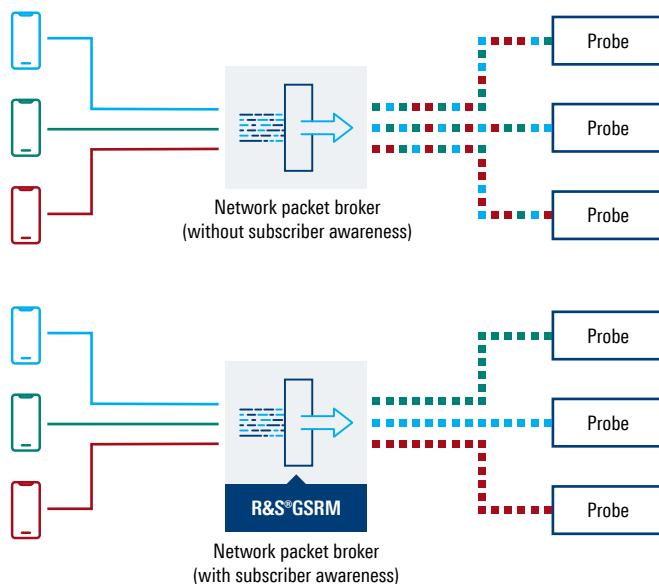




R&S®GSRM

GTP subscriber resolving module

R&S®GSRM is a software module to correlate control and user plane traffic within the core of mobile networks resolving data traffic per subscriber. This subscriber-level traffic visibility empowers network packet broker and IP probe vendors to enhance their solutions with session-aware traffic aggregation, filtering and load balancing capabilities. Policy control, cybersecurity and IP traffic management solutions also benefit highly from mobile subscriber awareness, easily integrated as OEM software.



The volume of data traffic traversing mobile networks has been increasing exponentially over the past years. New technologies such as cloud computing and 5G boost this development, introducing new risks and opportunities for mobile network operators (MNO). Vendors of network equipment, such as network packet brokers, can empower MNOs to handle growing traffic volumes intelligently. But to apply operations and services efficiently, control and user plane traffic in mobile networks needs to be correlated and attributed to subscribers. Accurately analyzing the data traffic tunneled with GTP (GSRM tunnel protocol) is a complex and challenging task. In-house development or outsourcing cause unforeseeable costs and a long time to market. By integrating R&S®GSRM (GTP Subscriber Resolving Module) as OEM software, vendors boost their solutions with a high-performance software module for reliable subscriber awareness.

Key features

- ▶ GTP correlation in real time based on subscriber ID
- ▶ Multi-core architecture with linear scalability to satisfy high bandwidth demands
- ▶ Supports 3G, LTE and 5G NSA networks including GTPv1 and GTPv2
- ▶ Easy-to-use REST APIs
- ▶ Configurable input buffer and filter
- ▶ Session metadata including cell location and bearer fields
- ▶ Support of all standard network interfaces such as Gn, S1-U, S11 and S5



An efficient OEM solution

R&S®GSRM is a mature OEM software solution, having established itself on the market with several successful customer projects. By licensing leading-edge technology developed with decades of experience in mobile network testing and analytics, network equipment vendors can focus on their core competencies. Predictable costs and flexible SLAs allow for the most efficient total cost of ownership (TCO).

Easy integration

Designed as a lean but powerful java module for use with Linux OS, R&S®GSRM is the only GTP correlation software module on the market that can be integrated directly into end solutions such as network packet brokers without vendor lock-in. All its dependencies are part of the official Linux packet sources and have no external dependencies except Intel CPU. Easy-to-use REST APIs facilitate a quick integration into any solution.

Suitable for many networking use cases

Retrieving subscriber information is a key functionality for several mobile networking use cases:

- ▶ Session-aware load balancing or smart traffic distribution ensures high-quality monitoring. In order not to lose information, forwarding all traffic from a certain subscriber to one respective probe is essential.
- ▶ Session-aware traffic filtering and forwarding enables traffic management solutions, such as video traffic optimization, for high priority customers.
- ▶ Intelligent policy control and management tools honor existing policies, especially in the context of private 5G, and include next-level cybersecurity measures for individual subscribers and endpoints. This can be crucial in order to protect key machinery within a private 5G industrial landscape or the mobile phone of a CEO.

Unlimited scalability

The multi-core architecture of R&S®GSRM allows for linear scalability to satisfy the performance requirements of ever-growing IP traffic rates. Even high bandwidth demands MNOs may face, such as multi-million subscriber bases and multiple Terabytes of user panel peak volume, can be met, because hardware can be assigned to the software module as needed.

Expandable with application awareness

R&S®GSRM can easily be extended with the advanced deep packet inspection (DPI) engine R&S®PACE 2 from Rohde&Schwarz to enable highly reliable classification of applications and protocols. Additionally, R&S®PACE 2 can extract valuable metadata to identify the time and duration of application usage, types of content and types of services. R&S®PACE 2 is deployed worldwide and known for its high performance. The DPI engine is constantly updated and enhanced with the newest applications. Machine-learning algorithms developed by our in-house data scientists ensure traffic visibility despite growing encryption and obfuscation.

Benefits of licensing R&S®GSRM

- ▶ Stand out on the market by adding a key functionality to mobile network solutions
- ▶ Boost time to market and focus on core competencies through quick integration
- ▶ No more vendor lock-in with this software-only OEM solution
- ▶ Reliability: leverage decades of mobile network testing and analytics expertise
- ▶ Predictable costs for the most efficient TCO
- ▶ Expandability: incorporate application awareness by integrating the market-leading DPI engine R&S®PACE 2
- ▶ Flexible SLAs to meet end-customer requirements

ipoque GmbH

A Rohde&Schwarz Company

Augustusplatz 9, 04109 Leipzig

Info: +49 (0)341 59403 0

Email: info.ipoque@rohde-schwarz.com

www.ipoque.com

Rohde & Schwarz GmbH & Co. KG

www.rohde-schwarz.com

R&S® is a registered trademark of Rohde&Schwarz GmbH&Co. KG

Trade names are trademarks of the owners

PD 3683.4478.32 | Version 01.00 | September 2021

R&S®GSRM

Data without tolerance limits is not binding | Subject to change

© 2021 Rohde&Schwarz GmbH & Co. KG | 81671 Munich, Germany

© 2021 ipoque GmbH | 04109 Leipzig, Germany



3683447832