

R Systems replaces legacy PCRF solution with DigitalRoute's platform

Case study





Customer profile

The customer is a tier 1 Central an mobile operator that offers voice services (voice calls, video calls and voice access to email and SMS) and non-voice services (internet access and monitoring, telemetry and monitoring, information and entertainment services) for both individuals and business customers. The operator accounts for approximately 30% of the national market and serves over 14 million post-paid and prepaid subscribers. The data services are available via 2G/3G, CDMA and LTE networks.

Business challenge

The operator was striving with new services launch on their legacy PCRF solution as each new service had to be developed by the solution vendor's R&D team. This was increasing the cost and the time needed for launching any new service, and also raised technical problems for the operator.

The operator decided to implement DigitalRoute's PCRF platform in order to reduce the time-to-market and the costs associated with new services implementation. They also chose R Systems as system integrator for the PCRF replacement project.

The operator required R Systems to deliver the new PCRF platform with exactly the same implemented services (1:1 functional copy), without any impact on the interfaces from other systems (DPI/PCEF, provisioning, notifications). The operator also requested us to rapidly implement their new service offering and also develop a number of additional services:

- GPRS limiter (bill shock)

- ARP (EUREG III) implementation
- new complex tariffs

R Systems contribution and solution

The complete PCRF swap project was delivered in 5 months and the success of the project was highlighted by the efficient migration performed on-site in less than 5 days. R Systems was responsible for the end-to-end delivery of the project including:

- Solution architecture design
- Detailed requirements analysis
- Software and hardware delivery
- Installation and configuration
- Detailed requirements analysis
- Policy rules implementation
- Custom components development platform integration with operator BSS/OSS systems
- Site preparation: complex geo-redundant hardware-software environment, installed in several locations
- Testing and commercial go-Live support



- Maintenance and 24/7 offsite & onsite support
- Knowledge transfer through trainings and acceptance tests preparations support
- Project management

Policy control use cases – Basic services and new complex tariffs

- Shared bundles
- Multi-session for single IMSI, multi-PDP contexts with different IP addresses
- Products valid depending on time-of-day and special periods
- Block, throttle and redirect functionalities
- Top-up of buckets through external provisioning
- New complex tariff
- Different limits for day and night
- Different quota limits (buckets) for counting different services/protocols
- User can report on different rating groups at the same time
- Priorities in using data packets

- 80% and 100% threshold notifications

Currently the platform operationally supports 2G/3G/4G (LTE) and CDMA post paid customers, including the shared wallet functionality for the dual offer.

The strong collaboration between R Systems and the operator has extended to date with further solution developments, change requests for prepaid migration, debt connection, URL blocking, etc., and maintenance and support services.

Business benefits

- Lower TCO including lower investment in hardware, lower maintenance and support costs and lower costs associated to new services launch
- Scalability and flexibility – no vendor lock-in, easy to scale out when additional capacity is needed; furthermore, the platform enabled the operator to adjust the project scope during the solution implementation phase
- 100% shorter time to market for new services (e.g.: ARP functionality implemented in less than two and a half months as compared with the 6+ months needed on the legacy PCRF platform, under vendor lock-in).