



# SLA Testing according to GSMA GRQ

## Consistency & comparability of roaming QoS testing

Since the traffic in outbound roaming has a big value for operator revenue, it is important to monitor the most frequently visited roaming operators. The GSM Association has designed the right concept: GRQ.

Roaming traffic may be a low percentage of the entire network traffic, but remains a significant profit contributor.

How to gain a global perspective on roaming quality with consistent measurements and thus comparability between home network and visited networks?

And how to achieve this goal in a cost efficient manner?

The Global Roaming Quality (IR.81) standards – developed by the GSMA in cooperation with selected partners like Keynote SIGOS – provide an answer to this question regardless of the monitoring and testing methods used.

GRQ is a comprehensive framework for pro-active testing and assurance of end-to-end roaming services quality. With SITE and GlobalRoamer you have a unique tool to monitor your SLA agreements with numerous roaming partners.

Keynote SIGOS is a self-certified vendor of the GSMA GRQ compliant test systems.



Get the full picture of your roaming services



- 27 Active QoS parameters on voice, data and SMS traffic
- KPIs for five different categories:
  - Network access
  - Service Accessibility
  - Connection Establishment
  - Connection Sustainability
  - Connection Quality

### Why GRQ?

- Common understanding about the criteria for measuring Quality of Service in outbound situations
- Developed and defined by GSMA
- Focus on periodic testing of service quality
- Applied for monitoring of top roaming partners

### Key Benefits:

- Cost-efficient co-operation with roaming partners by adherence to a shared set of QoS KPIs
- Improve operational cost effectiveness, by automated testing and realtime reporting
- Increased Roaming revenue through fast resolution of home and visited networks' SLA violations

### GRQ Parameters, defined by GSMA

#	GRQ Parameter name	Category	Description	Major target	Minor target	KPI alarm	Trend report
1	CS LU SR	Voice	Circuit Switched Location Update Success Rate	95%	98%	yes	X
2	CS LU Delay	Voice	Circuit Switched Location Update Delay	50s	10s		
...							
10	CLI	Voice	CLI Transparency	95%	98%		x
11	SpQ	Voice	Speech Quality	2.5	3		x
12	SA-MO	SMS	Service Accessibility SMS MO	95%	98%	yes	X
13	SA-MT	SMS	Service Accessibility SMS MT	95%	98%	yes	X
14	AD-MO	SMS	Access Delay SMS MO	10s	4s		
15	AD-MT	SMS	Access Delay SMS MT	10s	4s		
...							
24	Throughput	Data	Throughput (kbit/s)				X
25	Goodput	Data	Goodput (kbit/s)				X
26	Roundtrip Time	Data	Roundtrip Time				
27	Packet Loss	Data	Packet Loss	2%	1%		