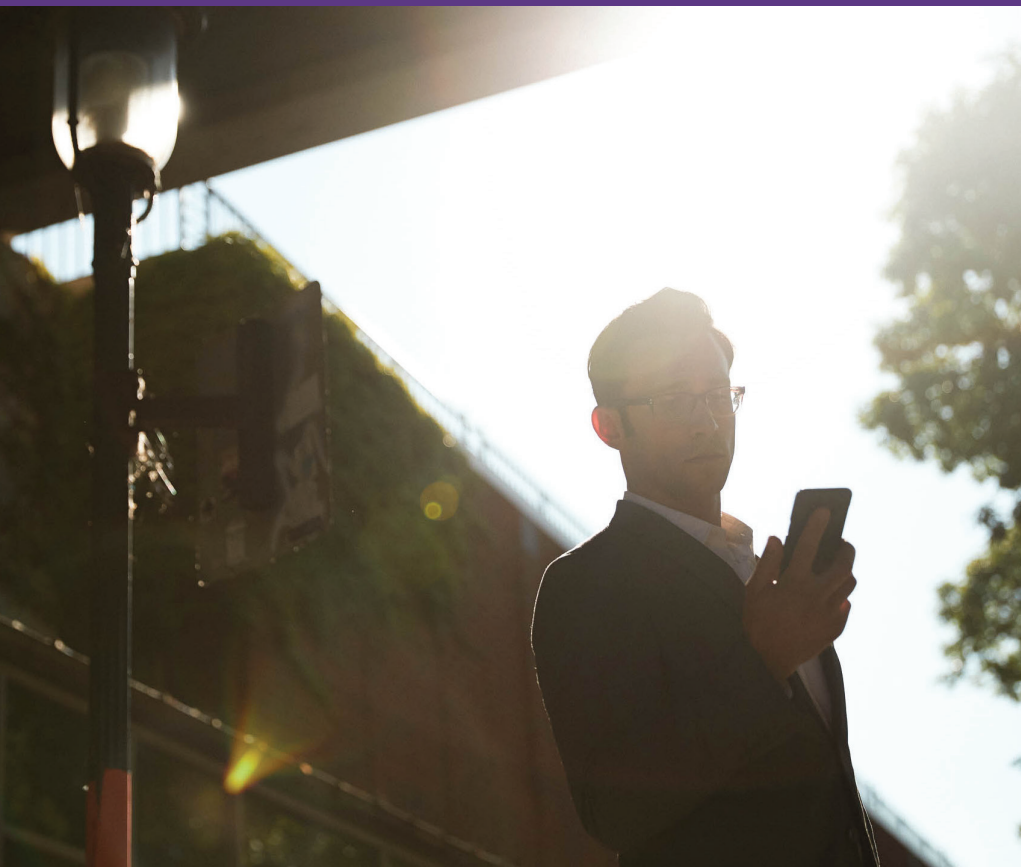# CSG Assure

Gain a Competitive Edge with Guaranteed Call Quality

The majority of operators today continue to test their end-to-end quality inefficiently, based on the old approach of passive monitoring and reactive manual testing in response to an issue. While this approach has been acceptable in the past, evolving customer requirements make the user experience more critical for customer satisfaction, loyalty and revenue.

Voice Carrier Challenges

Voice carriers face a rapidly changing and increasingly challenging environment:

- **Mobile:** Calls are increasingly terminated on mobile phones, raising the importance of Calling Line Identification (CLI) to maximize call acceptance. The growing use of blended and non-CLI routes makes it more likely that the CLI will be lost before it reaches the destination handset

- **NGN:** Many carriers' transition to Next Generation Networks (NGN) transit calls across switched and IP networks to the called number. Unfortunately, this often causes voice quality deterioration

- **Competition:** WhatsApp, Viber and other IP voice providers offer free or very cheap calls, putting pressure on traditional carriers to compete though superior voice quality

- **Fraud:** False Answer Supervision (FAS) fraud has grown rapidly in recent years, resulting in revenue loss and overpayment for unconnected calls

- **Disputes:** Inter-carrier settlement disputes are increasing, driven by service complexity, fraud awareness and shrinking profits

Why Active Testing

In the international voice market, quality monitoring has traditionally depended on CDR-driven measurements such as answer-seizure ratio (ASR) and average length of conversation (ALOC). Changing market dynamics mean that carriers need to apply Quality of Service parameters which can't be extracted from CDRs.

Active end-to-end testing, with control of the end point of the call (B Party), supports the monitoring of critical QoS features such as CLI delivery, FAS, DTMF tone support and fax testing. Active testing also supports reliable measurement of Mean Opinion Score (MOS).

Carrier Testing Benefits

CSG Assure helps service providers:

- Proactively monitor quality, all the way from your network to the end subscriber
- Take advantage of both outbound carrier testing and inbound call verification
- Identify fraud by pinpointing instances of overcharging and false connections
- Exploit new routing opportunities with outstanding cost/Quality of Service ratio
- Develop refined, premium-priced offerings with demonstrably superior QoS
- Monitor performance of all connected carriers
- Validate committed customer SLAs
- Obtain evidence of errors, failings and partner wrongdoing, strengthening carriers' negotiating position in the bill verification and dispute process
- Generate real network calls with an active probe
- Launch service within a week of agreed parameters

SMS Termination Challenges

SMS isn't just for consumers anymore. Enterprises—large and small, non-profits, and even governments—use Application-to-Person SMS Communications (A2P SMS) to provide appointment reminders, offer discounts, and communicate events to their customers. As the service has evolved, SMS notifications have become a tool for public and private institutions to share critical information during an emergency, communicating everything from localized severe weather alerts to emergency notifications. In these instances, service quality and timely delivery matter. With CSG Assure, you can test the quality of your SMS products—and end user experience—within days of deployment.

CSG Assure SMS Testing Benefits

- Ensure end-to-end SMS delivery testing of A2P and P2P
- Automatically verify the termination of SMS on your premium service level
- Identify routes with superior cost/termination ratio
- Test partner suppliers for maintenance of SLAs
- Support different type of SMS (originator type, sender address, short code, MSISDN, etc.)
- Take full control of interactive and scheduled calls

Roaming Challenges

Roaming represents a very profitable revenue stream for mobile operators, even more so today than in the past. The growth of mobile operators and international travel is driving roaming traffic worldwide — as is the continuous trend to abolish roaming surcharges. But this strong surge in demand, which is expected to be long-term, is not without challenges. Roamers want constant connectivity, and to receive the same quality of service abroad as they do at home.

> ❝ **CSG Assure really gives us the opportunity to test our suppliers and select them based on our KPIs, which include various quality parameters.** ❞
>
> Stefan Petrov, VP of Operations, Nobel

Why Roaming Assurance?

The mobile operators who serve roamers face a rapidly changing and increasingly challenging environment:

- **Increased demands:** Customer loyalty depends on excellent roaming service delivery (voice, SMS, data) on any network. Common roaming issues include slow setup times, service outages and unsuccessful data downloads

- **Technical complexity:** The number of mobile services is increasing—but all relevant services need to be tested with each roaming partner. New network technologies pose new challenges; LTE specifically introduces a completely new roaming technical environment

- **Price pressure:** Pricing regulations and growing competition make quality a decisive differentiator. WhatsApp, Viber and other OTT voice providers offer free or very cheap calls, putting pressure on traditional roaming providers to provide superior service quality

- **Fraud:** Bypass fraud is abundant in many markets, and false answer supervision (FAS) fraud has exploded in recent years. This has resulted in revenue loss, deteriorated roaming quality and customer complaints

Roaming Quality Testing Benefits

- One unique tool for all inbound and outbound roaming testing needs

- Cost-efficient cooperation with roaming partners through a shared set of QoS KPIs

- Increased roaming revenue and customer satisfaction through fast resolution of home and visited networks' SLA violations

- Periodic testing and real-time reporting everywhere in the world

- Save costs, increase operational efficiencies and revenues

- Detailed KPI reports according to GSMA standards

- Test standard and complex services without having to rely on cooperation of roaming partners (Steering of Roaming, IREG etc.)

- IREG and GRQ tests according to GSMA standards

- Easy test for 2G, 3G, 4G, LTE
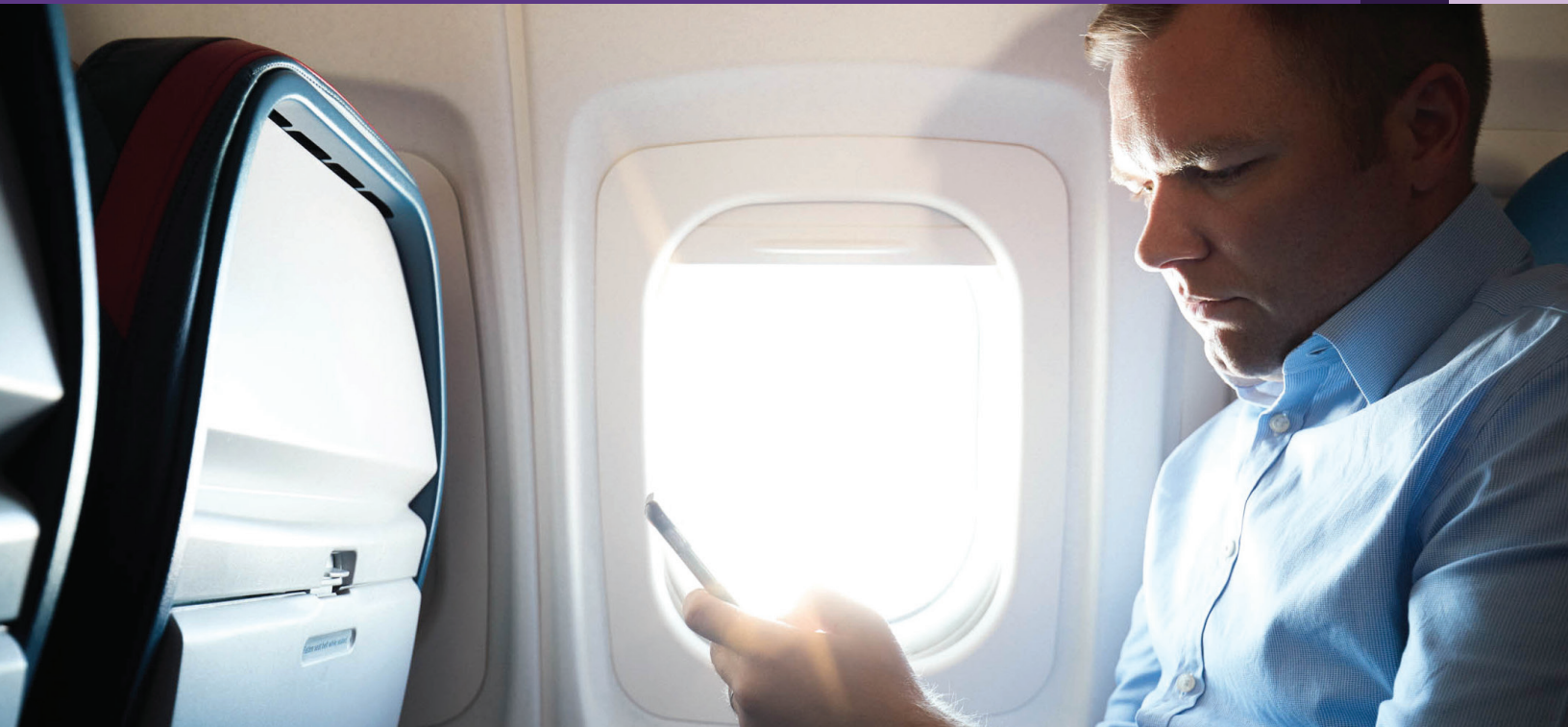
Why CSG Assure?

CSG Assure is the market-leading quality testing solution, used by over 150 mobile operators and carriers worldwide. It helps operators demonstrate and prove their call quality, attracting other operators and carriers to use their networks. The service is powered by the Assure Global Test Network, a proprietary test network which covers more than 450 mobile networks.

CSG Assure helps carriers protect and secure margin through guaranteed CLI delivery and other key quality features. CSG Assure also serves SMS aggregators in need of timely and correct delivery of SMS, and mobile operators who need to provide a flawless user experience for their customers traveling abroad.

About CSG

CSG empowers companies to build unforgettable experiences, making it easier for people and businesses to connect with, use and pay for the services they value most. Our customer experience, billing and payments solutions help companies of any size make money and make a difference. With our SaaS solutions, company leaders can take control of their future, and tap into guidance along the way from our more than 5k-strong experienced global team.

Want to learn more about how to be a change maker and industry shaper like our 1,000-plus clients? Visit **csgi.com** to learn more.

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