



## Visibility<sup>®</sup> Services

Visibility Services allow you to work faster and smarter by providing the near real-time data you need about the roaming activity of visitors in your home market and the activity of your roaming subscribers.

When roamers suffer from service failure or poor quality, your inbound and outbound roaming operations are subject to numerous challenges. Not only do you lose the revenue associated with the usage that would have occurred for that event, but you also may see increases in operational costs and churn since your roaming subscribers will likely use the service less or completely give up.

To circumvent these issues, you need:

- Immediate access to crucial roaming information to deal with problems in real time
- Analytical tools to assess inbound and outbound roaming quality (network and end-to-end)
- Proactive tools to analyze what is currently happening in comparison to what is normal, using intelligence to maximize results while minimizing resources

Syniverse provides a holistic approach to solve subscribers' roaming issues actively and proactively with **Visibility Services**. Our solution allows you to work faster and smarter by providing the near real-time data you need about the roaming activity of visitors in your home market and the activity of your roaming subscribers. Founded on network monitoring driving three critical functions (traffic analysis, subscriber/visitor reporting and unique roamer analysis (URA)), Visibility helps you satisfy your subscribers' needs and give them high-quality service so they can easily communicate no matter where they are roaming.

### Benefits of Visibility

- Enhances efficiency and accelerates bottom-line results.
- Drives value by enabling a broader operator audience (roaming, marketing, account management).
- Streamlines operations through the use of a single online tool that can be used across troubleshooting groups, including customer service representatives and technical users.
- Reduces operational costs by enabling first-level support to identify problems at initial contact with minimal training.
- Reduces churn and helps retain high-value customers by enabling you to provide premier customer service.
- Increases roaming revenue by reducing time spent resolving roamer issues so roamers can quickly be allowed to use their services.
- Helps manage interoperator operations through clear metrics and detail to aid collaboration to support negotiation and improve decision making.
- Provides savings via a service bureau solution, allowing smaller operators to afford a solution and larger operators to realize savings in hardware, software licensing and subject matter expertise.
- Gives access to extensive training and online help as well as 24x7 assistance from knowledgeable Syniverse customer support members.
- Takes advantage of Syniverse's 15 years of industry experience with this specific tool and more than 20 years experience in roaming services.



- Enhances efficiency and accelerates bottom-line results.
- Streamlines operations through the use of a single online tool that can be used across troubleshooting group.
- Reduces operational costs by enabling first-level support to identify problems at initial contact with minimal training.
- Traffic analysis tool analyzes signaling messages by partner or network element.
- Subscriber/Visitor reporting provides a more detailed view of activity by end point, giving a quick view of the number of roamers in a market.
- URA displays near real-time roaming data for a specific subscriber so you can act fast to troubleshoot and rectify any situation.

## Features of Visibility

- Traffic analysis tool analyzes signaling messages by partner or network element and offers URA drill-down capabilities for detailed analysis.
- Subscriber/Visitor reporting provides a more detailed view of activity by end point, giving a quick view of the number of roamers in a market and their status for voice, data and SMS. Drill down into more detailed views for the most detailed level of analysis.
- URA displays near real-time roaming data for a specific subscriber so you can act fast to troubleshoot and rectify any situation. URA brings a subscriber's roaming traffic from the last hour to seven days prior into one display and provides multiple levels of analysis, including message summary, call-flow and TCAP (raw and decoded).
- Provides access to real-time roaming activity, helping both GSM and CDMA operators solve roaming issues for inbound and outbound subscribers.
- Provides support for interstandard roaming with visibility into the network activity on the GSM side of the translation function where otherwise a CDMA operator would be blind to subscriber issues.
- Provides comprehensive signaling analytics needed for international roaming.

## Global Roaming Quality (VisGRQ)

Syniverse ensures compliancy with GSMA GRQ guidelines with the most comprehensive and industry-unique GRQ solution. We are unique among GRQ providers because we integrate the active testing GRQ solution with our network monitoring and troubleshooting capability. This expands your understanding of quality beyond fixed point testing alone, leverages live roaming to develop passive metrics across all roaming activity, accelerates root cause analysis and resolution, and drives more targeted testing to maximize your active GRQ investment. Whether focused on inbound or outbound quality or both, VisGRQ helps you maximize your GRQ investment.

## Visibility Proactive (VisProactive)

VisProactive takes roaming analysis to a new level by allowing you to proactively identify and fix a roaming problem before an event or trend has significant impact. Based on operator-defined preferences, this feature proactively analyzes roaming data, identifies operator-specific anomalies, and alerts you of critical events impacting subscribers, positioning you to optimize roaming revenues.

We analyze multiple inputs both in near real time and historically, applying rules-based processing to analyze, identify and alert on critical events. Driving a sophisticated alerting function, flexible dashboards and reporting, VisProactive further enhances your operational effectiveness and efficiency to assure subscriber satisfaction and an improved bottom line. VisProactive also enables you to drive benefits from traffic analysis to more parts of your organization. High value roamers (HVRs) may be monitored and managed explicitly, and roamer attributes may be analyzed to view roaming data in new ways, so you can learn successes and failures by rate plan, by device or roamer.



## Syniverse Technologies

Serving more than 800 communications companies in over 160 countries, Syniverse Technologies (NYSE:SVR) offers market-leading solutions that simplify the complexities of roaming, messaging, network interoperability and business intelligence for mobile operators, MSOs, enterprise verticals and emerging mobile providers.

## Specialized Options

### SS7 Data Collection Option

Visibility includes valuable operational tools regardless of your SS7 provider. With the SS7 Data Collection Option, SS7 data is collected from signal transfer points (STPs) in Syniverse's INLink® intelligent network and matched using Syniverse proprietary software. If you do not use Syniverse's intelligent SS7 or IPX networks exclusively, or if you have IPX MPLS configurations, it is important to capture data at connection points to assure all data is captured and analyzed.

Visibility adds value to operators that are our network customers, and it adds even more value to those with multiple Syniverse networks because our Data Collection Option brings all the traffic into one holistic solution. Typically network providers can only report on what transits their network, and asymmetrical routing is prevalent in GSM, meaning you may be blind to any real understanding of your roaming traffic. It is critical for GSM operators with MPLS or multiple networks to have a consolidated, complete view of traffic.

### GRQ for Home Networks

Our home-based network testing service assures your network performance for your own subscribers. VisGRQ's active testing functionality is designed to service this need and others like IREG.

### Additional Features

Depending on your technology, added functionality may be available, including network statistic reports and market reports.

© 2010 Syniverse Technologies, Inc. All rights reserved under U.S. and international copyright laws. Rev. 09-10