



Roaming Shield Solution

Protect your roaming business with the capability to detect and block anti-Steering of Roaming (SoR) practices that may be used by roaming partners

Current Situation

More and more operators have recently started to employ Anti-SoR (Steering of Roaming) practices. Anti-SoR is defined as "any technical network based methods that can effectively frustrate roaming experience, counteract or undo the effect of SoR when applied without the consent or participation of either the Roaming Subscriber or the HPMN Operator" (BARG BA.30).

Starhome's Intelligent Preferred Network solution has been upgraded with the new Roaming Shield solution to identify such methods. Roaming Shield blocks illegal actions by the VPMN, and provides the operator with focused alarms and comprehensive reports enabling further investigation of the potential "violation."

Starhome's Solution - Detection and Blocking Capabilities

The Starhome® Roaming Shield™ solution allows mobile operators to detect and block the following potential Anti-SoR activities used by visited network operators on outbound roamers:

- Blocking Update Location messages from reaching Intelligent Preferred Network/SoR platform by changing of signaling numbering plan
- Using any of the following methods of simulating Update location:
 - Locking your roamers to the network ("Retain" mechanism, for example)
 - Simulation of manual selection

Reports and Alarms

Roaming Shield continuously monitors traffic behavior, as well as subsequent events following receipt of Update Location messages or following your SoR system's reactions to those messages. Exceptional events, such as drops or



Benefits of Starhome's Solution

- Provides the HPMN with a tool to detect and block illegal action by the VPMN
- Protects market share
- Protects subscribers' user experience while roaming
- Based on quality, field-proven product & platform at tier 1 & 2 operators and groups

Roaming Shield Solution

Key Features

- Detects and blocks:
 - Identifies suspected events, marks and blocks them (optional)
 - Creates event statistics per visited network
- Records and identifies exceptional behavior
 - Unusual drops or rises in traffic statistics
 - Unexpected signaling
- Comprehensive reports
 - Reporting Tool and other statistical reports with IPN
- Identifies steering "violators"
 - Enacts measures to stop Anti-SoR activities

peaks in traffic statistics, as well as unexpected signaling, are recorded and generate appropriate counters.

Recorded information is stored and can be viewed via comprehensive reports. Using Starhome's Reporting Tool, mobile operators can add the Roaming Shield reports to other statistical reports available with Starhome's Intelligent Preferred Network® service.

Updates

As experts in Steering of Roaming technology, Starhome keeps abreast of all the new Anti-SoR developments in the market. This information is translated into enhancing Anti-SoR detection and blocking capabilities. Detection procedures for newly developed Anti-SoR practices will frequently be made available for incorporation into Roaming Shield.

IntelliGate™ Service Mobility Platform

Starhome's IntelliGate is a Telco-quality roaming service mobility platform that provides mobile network operators with advanced roaming technology and services across multiple network types, with minimal impact on operator resources. With an unmatched record for on-time delivery, smooth integration and fast service deployments, Starhome's IntelliGate is constantly proving itself in the most complex and varied operator network environments worldwide.

The Roaming Shield is one of many advanced Next Generation SoR technologies and features from Starhome that ensure you have the best possible roaming management available.



Starhome

Starhome® is a global leader in providing innovative, market-driven roaming solutions. Since its establishment in 1999, the company has grown and matured into an industry-recognized authority on roaming solutions. Leveraging its accumulated roaming knowledge to zero in on market needs, Starhome provides operators with innovative and lucrative management tools, making it the driving force behind roaming profitability. We have developed a comprehensive range of products and services that work in synergy to target market opportunities, spanning the full spectrum of roaming industry needs. Our industry-intelligent solutions strengthen your competitive edge in the constantly changing mobile market. Starhome's product portfolio serves each major aspect of roaming:

Retail products stimulate and increase roaming traffic and usability. For **Wholesale** requirements we offer powerful solutions to enable you to meet your business targets and IOT discount agreements. Our **Network Operations** offering includes solutions to optimize network efficiency, improve quality of service, and reduce cost of ownership.

Our service portfolio includes real-time, integrative roaming management and innovation tools -- working in collaboration with our product portfolio - that provide analysis, forecasts, simulations and recommendations, along with a current worldwide visualization of your roaming business. System tools provide real-time access to the information you need to maximize your business goals and strategies.

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