



syniverse

Syniverse Value Added
Services (VAS) featuring
Steering of Roaming (SoR)

Balance Roaming Revenue Against Roaming Costs to **Raise the Bottom Line**



Evolving technologies mean that Mobile Network Operators (MNOs) are consistently experiencing rising investments in infrastructure to support new requirements, while revenue remains flat.

Subscribers demand top-notch customer experiences (CX) without added costs, making it hard for MNOs to justify investments. MNOs struggle to maintain subscriber expectations for seamless out-of-country roaming experiences that match what they're accustomed to at home.

MNOs must improve profitability to sustain themselves. The challenge is balancing roaming revenue with roaming costs.

Roaming revenue is among the most profitable sources of income for an MNO. That's why MNOs must control the cost-to-revenue ratio. Syniverse can show MNOs how to take command of roaming profitability and properly monetize it. We do this by steering subscribers to preferred MNOs with our range of Roaming Value Added Services, including Steering of Roaming, SMS Outreach, Network Identity Broker, Anti-Steering Detection, Border and National Steering, Call Correction, Managed Steering of Roaming, Integration, and Hosting.

Product Highlights

Increase Revenue

- Improve wholesale reach with International Mobile Subscriber Identity (IMSI) Translator and GTP Proxy
- Increase outbound roamer call completion with Call Correction
- Identify, profile, and monetize inbound Internet of Things (IoT) with Roam Insight
- Define better targeted outbound roaming packages with real-time visibility of data usage
- Steer subscribers to preferred MNOs:
 - optimize for best whole rate agreements
 - meet volume commitments
 - redirect roaming traffic OTA as roaming agreements change

Improve Roaming Quality

- Improve reporting and troubleshooting with broad and granular analytics across all protocols
- Steer based on network performance, data, and voicequality
- Ensure VoLTE attachment to guarantee QoS

Time to market

- Group solutions, hosted solutions, managed services
- Complete IoT, VoLTE, and 5G roaming with Steering and other VAS
- Automation reduces errors and time while increasing the speed of change

Cost

- Implement multiple services with a unified platform
- Gain full control of wholesale costs with a flexible rule engine
- Reduce outbound costs with Anti-Steering Detection
- Minimize signaling cost with Gateway Location Register
- Reconcile invoices with Roam Insight





Syniverse VAS Benefits

Ease-of-use

- Minimal configuration
- Modern, intuitive interface

Accuracy and effectiveness

- Quality-focused event-driven control
- Unique hybrid steering

Automation and analytics

- Reduce time on human capital
- Minimize errors
- Increase the speed of change

Solution-focused

- Hosted
- On-premises
- Virtual Machine

Engineered for groups

- MNOs
- IPX providers

Future-looking

- Constant improvement
- Ready for IoT, 5G, & VoLTE Roaming
- API biased for automation

Deep technical expertise

- Technical expertise at every stage: presales, integration, and support

Customer service

- Responsive, personal, and collaborative partnership every step of the way

Syniverse SoR - Direct roaming subscribers to preferred networks via signaling and OTA-based

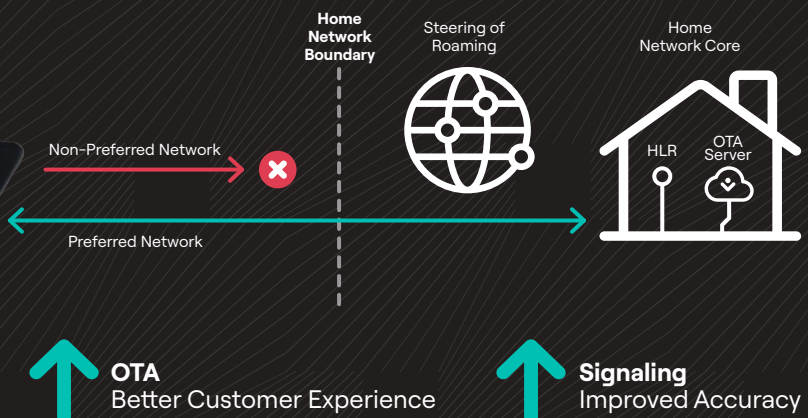
Features

- ✓ Active steering for 2G/3G, 4G/VoLTE, and 5G NSA/SA networks
- ✓ Integrates with and delivers OTA steering
- ✓ Responsive and highly accurate steering with a focus on subscriber QoS
- ✓ Supports border and national steering
- ✓ Easy steering migration from legacy systems
- ✓ Flexible subscriber segmentation
- ✓ Controls IoT roaming
- ✓ Border Roaming Gateway
- ✓ VoLTE Steering
- ✓ Real-time and granular reporting and analytics
- ✓ Supports multi-tenant functionality, engineered for Groups and IPX
- ✓ Minimal configuration, intuitive user interface
- ✓ Proven API biased for increasing automation and integration
- ✓ Complies with GSMA IR.73
- ✓ Integrates with the RaEX database
- ✓ Gateway Location Register (GLR)
- ✓ Voice Mail Tromboning – Service that is in harvest stage
- ✓ Firewalls: Signaling (SS7, Diameter, GTP-C, GTP-U), Messaging (SS7, SMPP), Voice
- ✓ Supports multiple deployment models: Hosted, On-Prem / Turnkey License Model, Hybrid
- ✓ Operational support model supported by geo-redundant active-active architecture
- ✓ Full training for new implementations (Additional fees apply)



Here's how SoR works

SoR directs roaming subscribers to a preferred network via signaling and OTA-based steering



SoR Reporting Engine

Business intelligence enables steering on data volumes, VoLTE quality, data quality, and more in real time.

Right: Control policies and alerting with flexible rules and reporting engine.

Below: Example of broadband analytics provide visibility into accurate user data based on signaling and GTP-U data for all roaming traffic.

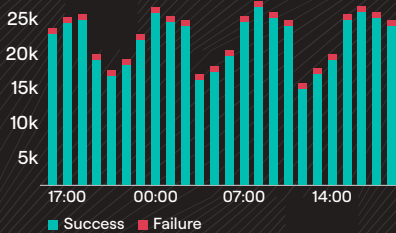
Inbound Countries

60

Inbound Operators

116

Inbound Failures



SoR Live Roamer Locations

Outbound Roamers

3148

Lorem Ipsum

4

Lorem Ipsum

2931

Lorem Ipsum

151

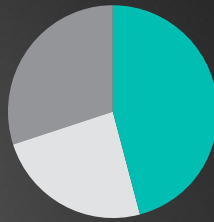
Lorem Ipsum

62

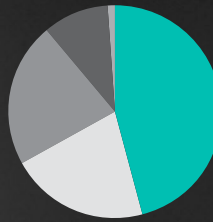
4G Only

60

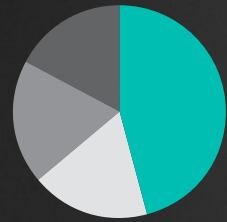
Country Distribution



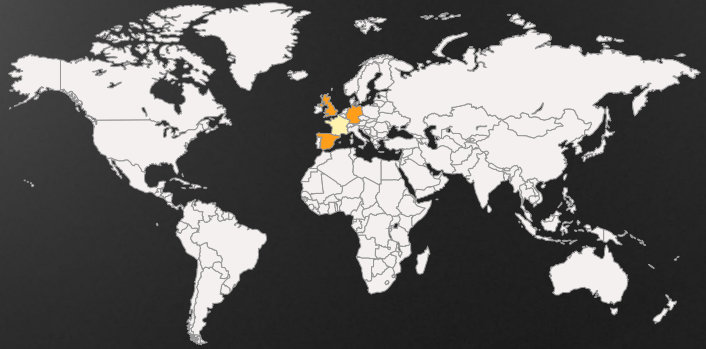
Network Distribution



Country Distribution



Roamer Locations Map

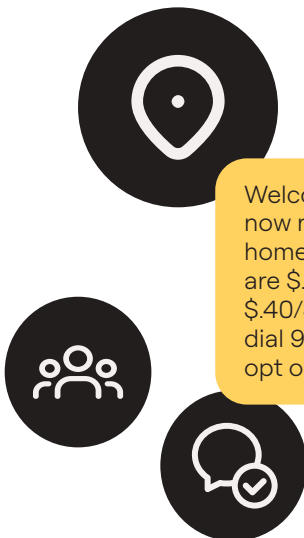


SMS Outreach

Automate a welcome SMS message to outbound and inbound roamers. When a subscriber attaches to a visited network, it triggers the message in real time based on signaling processing.

Features

- Gain visibility on subscriber locations and actions in real time
- Advanced segmentation of subscriber groups
- Opt out of SMS messaging
- In-depth reporting confirms SMS sent and message delivery
- Advanced and flexible rule configurations
- Flexible placeholder system simplifies rules and avoids duplication
- Integrated campaign management

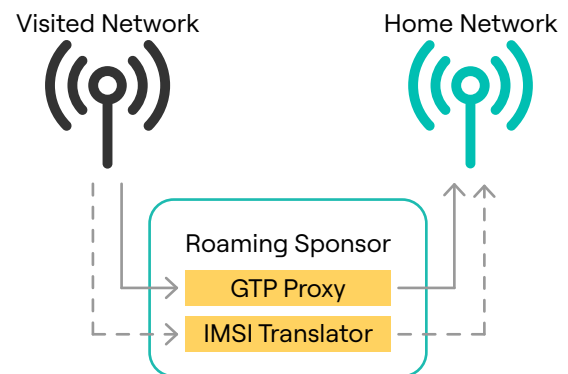


Welcome to France! You're now roaming outside of your home network. Roaming rates are \$.30/min, \$.15/MB and \$.40/SMS. For emergencies dial 999 or 112. Reply STOP to opt out of SMS notifications.

Network Identity Broker

Convert sponsor details in signaling to real network details in a multi-IMSI solution to enable sponsored roaming.

- Convert authentication requests from sponsor IMSIs to home IMSIs with an IMSI translator
- Redirect data sessions to correct home APN with GTP Proxy
- Intelligent traffic steering based on IMSI and APN



Call Correction

Improve call completion made by inbound and outbound roamers.

- Correct misdialed numbers
- Real-time roaming call visibility based on Customized Application Mobile Enhanced Logic (CAMEL)
- Block fraudulent calls
- Enable short code services dialing



Anti-Steering Detection

Analyze signaling traffic patterns to identify suspicious anti-steering behaviors that limit steering effectiveness.

- Reports on detected events and offending networks
- Detect: Registration Resubmission, Registration Interference, Direct to HLR and OTA interference

Managed Steering of Roaming

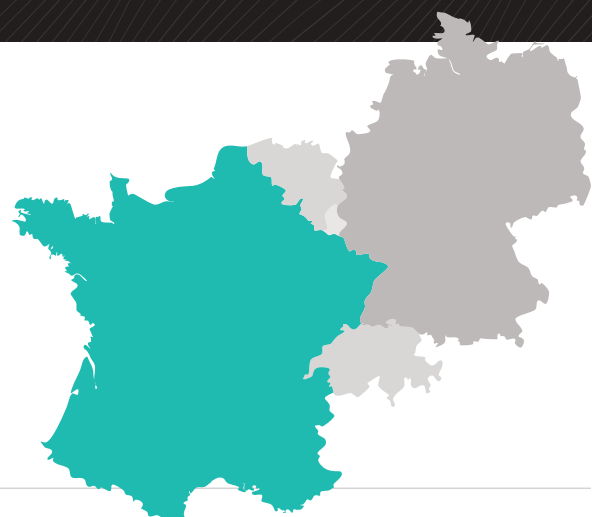
Syniverse has you covered.

Our expert team will configure, update, and maintain your steering policies, SMS campaigns, deliver customized reports, perform quality testing, troubleshoot, and more.

Boarder and National Steering

Detect and prevent accidental roaming near borders and enable control of national roaming.

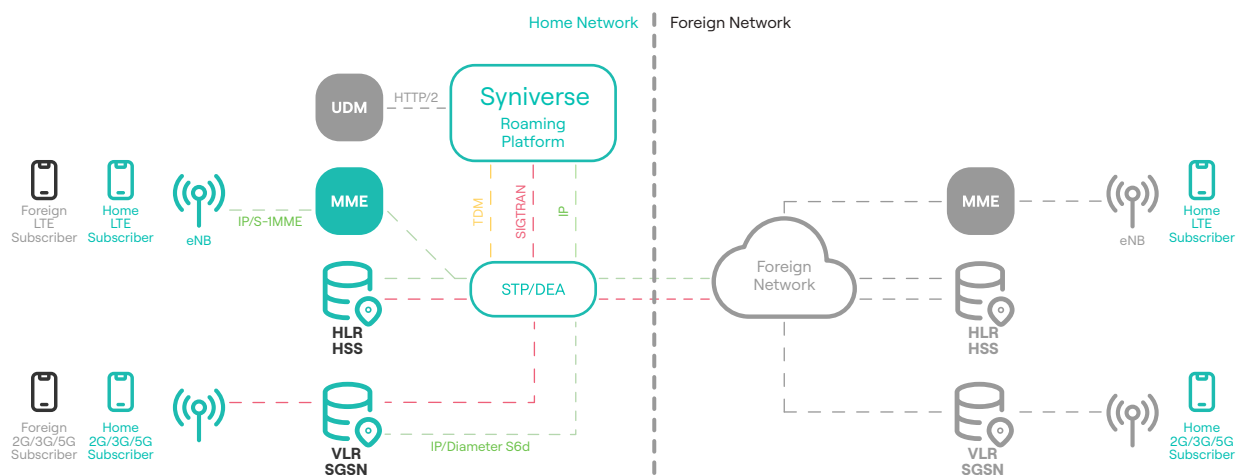
- Steer based on LACs and Cell IDs near the border with a neighboring network
- Steer to roaming partner in a country based on quality, location, and other parameters



Integration and Hosting

Operate and scale effortlessly with a range of various implementation, integration, and migration options for an efficient, smooth, and risk-free service introduction.

- Available on-premises, VM, and Cloud
- Redundancy on hardware, deployment, and logical level
- Add Message Processors for linear scalability
- Extensive migration expertise and processes
- Easy system integration via Representational State Transfer (REST) APIs



Why Syniverse?

We reach more people and devices than anyone on earth, empowering you to transform how you connect, engage, and exchange with the world. Every day, we power billions of transactions, continually improving how the world exchanges information, money, and more. Our reliability, security, and long-standing expertise has made us one of the most chosen and trusted messaging providers for the world's largest enterprises, across all industries.

Syniverse will show you how to take command of roaming profitability and properly monetize it – because every dollar earned is a dollar added to your bottom line.

[Contact us today.](#)



The world's
most connected
company®

syniverse.

