



Global reach for IP-based services with optimal routing for internetworking between operators

Syniverse Global ENUM Service

As the future of mobile communications converges on the Internet Protocol (IP), operators need to deliver valuable, secure user experiences in a 4G environment. By taking advantage of LTE and Rich Communication Services (RCS), operators can boost margins by delivering value-added services like Voice over LTE (VoLTE), Video over LTE (ViLTE), IP Multimedia Subsystem (IMS)-based services, presence-enhanced phone books, rich media sharing, interactive multiuser chatting with text messaging, multimedia messaging services, and voice and video calling services. However, each of these new IP-based services has its own internetworking challenges that must be simplified before the benefits of these new offerings can be realized.

Built on Syniverse's leading IPX network, **Global ENUM (Electronic Number Mapping System) Service** enables mobile and fixed-line operators to correctly and efficiently route IP-based communications by delivering global reach with optimal internetworking between operators. IR.67-compliant, the service offers a secure, private implementation that delivers an enhanced user experience to subscribers globally.

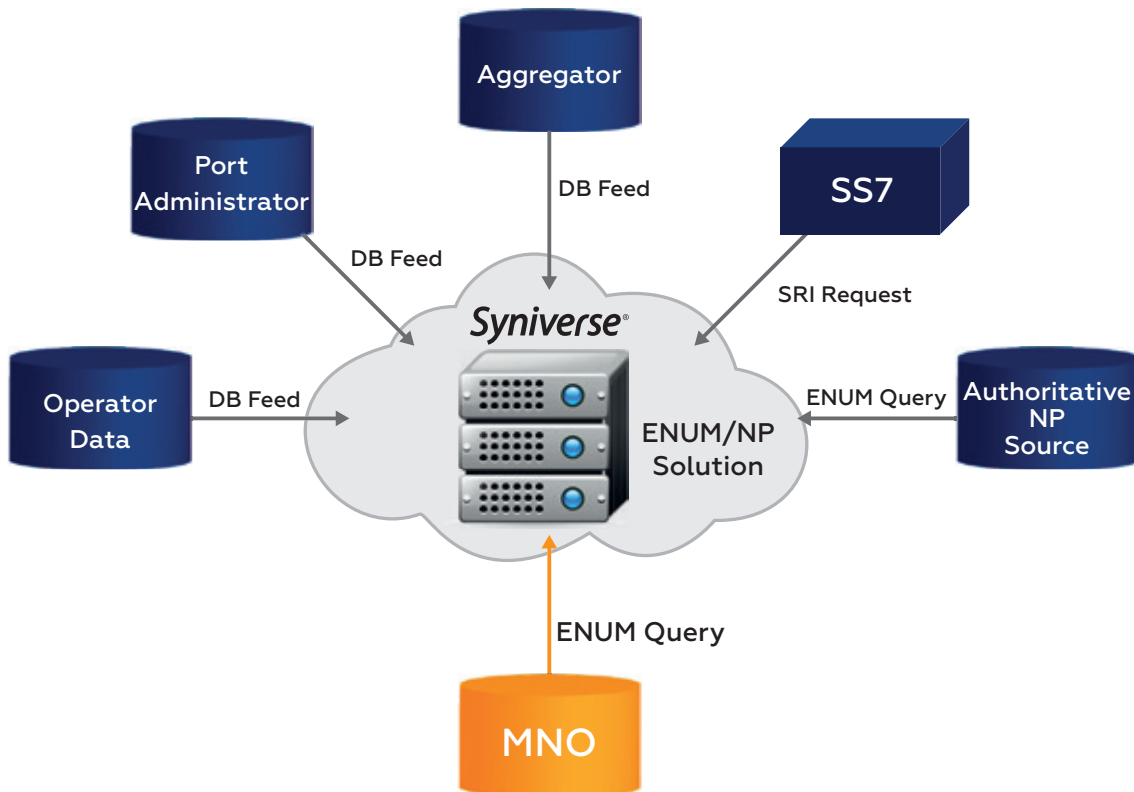
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How It Works

ENUM is an integral component of interworking utilized to provide telephone number resolution for routing current and next generation IP-based services. Queries are carried in-band, over the same transport facilities as the session payload. Origin-sensitive responses ensure the returned uniform resource identifiers (URIs) reflect the interworking agreements specific to the requestor and because ENUM is a private, secure DNS database service, it is accessible only by operators who register URIs.



Uses

- New VoLTE, ViLTE and RCS services introduce extra routing and control complexity in the underlying carrier networks. Compliant with the GSMA IR.67 standard, the Global ENUM Service was designed to control the new additional routing and control technology.
- A voice application including VoIP can be set up to always search for a SIP address associated with a telephone number. If a SIP address exists, then a voice session can be set up to route the call via IP versus using the public switched telephone network.
- A multimedia messaging service center (MMSC) can determine how to route an MMS message by submitting an in-band signaling query.
- An ENUM query can specify how a Short Message Service center (SMSC) should route any specific SMS message based on operator-specified criteria.

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Benefits

- Reduces costs by consolidating signaling for IP-based services with in-band signaling, and by acquiring updated and customized routing information in a timely manner.
- Decreases complexity by transparently utilizing SS7 queries when necessary – all queries are ENUM and use in-band signaling.
- Lessens capital investment and operating costs by enabling the operator to utilize a high-performance ENUM query engine without the expense of buying and operating private ENUM servers.
- Takes advantage of Syniverse’s advanced network operations center to monitor network and database services and ensure continued service reliability.

Features

- Single service bureau source simplifies implementation and operations.
- GSMA IR.67-compliant
 - Resolves a telephone number to the appropriate terminating operator or Tier 2 database (when possible)
 - Can be accessed directly by the operator with an ENUM query or indirectly upon receipt of a SIP-URI
 - Offers reduced iterative queries by leveraging Syniverse’s number portability reach
 - Enables operator to launch one query to Syniverse and get one response back
 - Provides capability for any iterative queries that are required to be performed by the Syniverse platform.
- Comprehensive global number portability solution that combines many onboard data sources and authoritative third-party partners.
- Transparent SS7 queries, with the ENUM service determining number ownership and returning the proper URI through ENUM, hiding the complexity of any SS7 queries, if required, from the IP-based service.
- Customized responses based on the interconnect relationship particular to the requesting operator, ensuring custom routing without the need to manipulate the response.
- 24/7 access to a staff of qualified, in-house technicians.

Get Started Today!

Syniverse is a global mobile solutions specialist that connects more than 1,500 mobile service providers and consumer companies in nearly 200 countries. We specialize in enabling the world’s mobile users to connect with each other regardless of device, network or location. Our advanced cloud-based solutions deliver superior user experiences through always-on services and real-time engagement. For more than 25 years, we have been simplifying complexity to deliver the promise of mobility – a simple, interoperable experience, anytime, anywhere.

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