



Wi-Fi Roaming Solution (802.11)

Syniverse is the first to offer a Wi-Fi Roaming Solution that gives you a cost-effective, competitive edge in bridging technical gaps and simplifying business relationships among a growing number of new roaming partners.

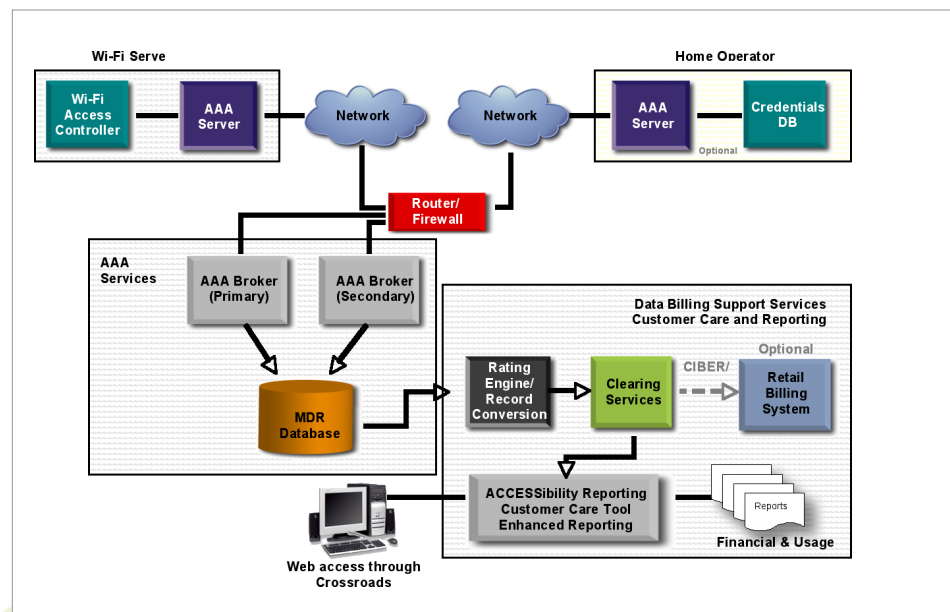
User expectations for mobile, high-speed access to the Internet, corporate intranets and other data applications continue to increase. To meet the “anywhere, anytime” demand for wireless connectivity, wireless operators, ISPs and other service providers must extend coverage to retain customers and obtain additional revenue. At the same time, owners of Wi-Fi hotspots want to build traffic and add value for their customers.

Syniverse is the first to offer a **Wi-Fi Roaming Solution** that gives you a cost-effective, competitive edge in bridging technical gaps and simplifying business relationships among a growing number of new roaming partners. You’ll be provided consolidated usage and financial information for billing and have access to subscribers who are roaming in other markets.

With our centralized network, clearinghouse and service bureau solutions, we’ve simplified the complexity of implementing and managing mobile data roaming services by reducing capital outlay and streamlining operations.

Benefits of Wi-Fi Roaming Solution

- Simplifies message routing across operators and provides you with security relationship management.
- Analyzes subscriber usage, allowing you to better determine direct marketing and partnering resources.





- Simplifies message routing.
- Analyzes subscriber usage.
- Makes the clearing and settlement of multiple business relationships simple.
- AAA Broker centralizes the collection and accumulation of the access and accounting records.
- Customer care and online analytics tools provides an online window into near real-time roaming data used for customer service.
- Makes the clearing and settlement of multiple business relationships simple (operators, WISPs, aggregators).
- Enhances customer satisfaction by allowing you to quickly resolve roaming issues and provide a consistent, uniform experience to end users.
- Allows you to make use of Syniverse's unique position of being able to support direct roaming relationships between "neutral-host" or "shared-common-access" venues and service providers/operators.
- Takes advantage of Syniverse's extensive experience in clearinghouse, transaction processing, rating and reporting of mission-critical information.

Features of Wi-Fi Roaming Solution

AAA Broker Services

The AAA Broker centralizes the collection and accumulation of the access and accounting records. It manages routing, inter-service provider relationships, protocol interoperability, attributes, tunnels and retries. Through a single relationship with Syniverse, operators can use the Syniverse AAA Broker Services to obtain connectivity to all participating AAA roaming partners. These services simplify routing and provide security management for AAA messaging (i.e., routing unknown traffic to one entity for resolution) across operators. By using a proxy RADIUS server based on standards defined in RFC 2865 and RFC 2866, Syniverse AAA Broker Services ensure consistent treatment and reporting across service providers. Syniverse supports emerging standards for Wi-Fi security, including 802.11x and EAP (e.g., SIM, TLS, TTLS, PEAP, WPA, AKA).

Furthermore, AAA Broker Services are capable of proxy routing inbound messages based on any of the following:

- Prefix delimiter rules.
- Suffix delimiter rules.
- Attribute mapping rules that allow Syniverse to route all session packets to a destination based on attributes in the access request.

In addition, the management of inter-service relationships between roaming partners is simplified through the use of a RADIUS proxy. Providers do not need to establish and maintain shared secret relationships with multiple roaming partners. This "hubbing" increases security for providers because the cryptographic information required for AAA messaging is shared only with Syniverse and requires only one point of interconnection with the security system (e.g., firewall).

Data Billing Support Services

Syniverse Data Billing Support Services include record aggregation, wholesale rating, translation and conversion. The AAA Broker Services feed the accounting records to



About Syniverse

Serving more than 900 mobile operators, cable and Internet providers, and enterprises in over 160 countries, Syniverse 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.

Billing Support Services, where the records are rated based on roaming agreement rates and terms. Records also can be converted into standard or proprietary billing formats for delivery to retail billing systems.

Syniverse's Data Billing Support Services will:

- Collect data events from multiple network elements.
- Mediate data events from diverse inputs.
- Provide wholesale rating and facilitate retail rating. Current Wi-Fi subscriber rating options include: session, duration, volume, any combination of session, duration or volume, an daily flat rate.
- Perform required specific customer edits of RADIUS attributes.
- Adhere to customer wholesale aggregation rules.
- Translate data events into standard or proprietary billing formats for delivery to billing systems (e.g., RADIUS, CIBER, TAP, IPDR).

In addition, Syniverse ACCESSibility® reports can be easily downloaded into third-party applications for business analysis and can be scheduled for maximum efficiency. ACCESSibility is available through CrossroadsSM, Syniverse's secure web infrastructure.

Customer Care and Online Analytical Tools

This functionality provides an online window into near real-time roaming data used for customer service. The AAA Broker feeds the RADIUS access and accounting messages to the system. This roaming activity information enables roamer management, customer service and network troubleshooting.

Through the customer care tool, providers may select a view to determine how many of their customers are roaming in a particular serving location and then drill down into a particular subscriber's transaction information. The subscriber information is available by a network access identifier as well as by serving location. If a particular subscriber is having connection issues, a customer service representative can troubleshoot the problem by simply requesting transaction data for that user.

Furthermore, special data subject areas have been created to enable data-specific reporting, and providers can perform ad hoc queries using predefined analytical subject areas. The tools also allow you to build reports using several customizable functions, including filtering, formatting, formulas, subtotals and grand totals.

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