



Diameter Signaling Service

Aicent's state-of-the-art Diameter Signaling Service for managing LTE roaming, signaling, interoperability, and roaming control.

As operators continue to migrate to LTE based networks to handle the rapid growth of data traffic, the need to better manage this traffic and the multitude of new applications being introduced is becoming increasingly more critical. Aicent's Diameter Signaling Service is a powerful solution to help operators ease congestion and optimize their networks in real-time.

Aicent's Diameter Signaling Service Overview

The rapid growth of mobile subscribers with smart devices, along with an ever expanding library of applications, has driven the dramatic increase in data consumption. As a result, operators are now tasked with handling rising data demands and network congestion caused by the uptick in signaling traffic. To help moderate this change, operators are transitioning to all IP based networks such as LTE, which rely heavily on Diameter routing, allowing them to better manage signaling congestion, take advantage of the enormous data swell, and boost their ability to generate revenues.

Aicent's Diameter Signaling Service enabled by a powerful Diameter platform, is designed to help alleviate the challenges operators will face while transitioning to an all IP network by offering scalability, security, routing, and subscriber roaming management.

With superior traffic management and load balancing capabilities, Aicent's Diameter solution is uniquely equipped to help control the impending data surge and signaling storm while reducing operator expenses.

Key Diameter Signaling Service Benefits

- Single Diameter peer implementation for all Diameter interconnections based on Aicent's scalable Diameter Signaling Service solution supporting high data roaming volume
- Geographical Diameter Signaling Service deployment for high availability, with automatic fail-over mechanism
- Ensures successful implementations between two incompatible Diameter gateways via a flexible AVP mediation capability
- Integration of Diameter sessions inspection, together with GTP sessions in the optional Aicent proprietary Roaming Intelligence Suite package
- Optional legacy signaling conversion support between Diameter and MAP

In addition to the standard Aicent Diameter Signaling Service, the operational inter-standard Diameter-MAP protocol conversion will also be available. This optional service allows LTE mobile operators the ability to maintain only one set of HSS with Diameter to manage roaming.

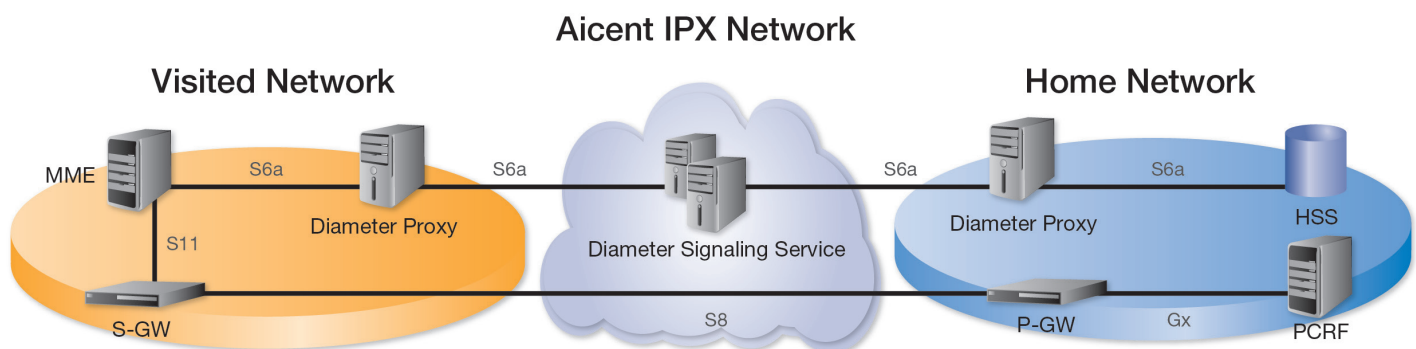
Aicent Diameter Signaling Service

Aicent LTE Roaming Architecture for Home Routed Scenario

Aicent's Diameter Signaling Service supports both home routed and local break-out roaming scenarios.

As a proxy relay of Diameter signaling, Aicent's Diameter Signaling Service fully supports the 3GPP S6a interface specification and provides the following main functions between two roaming partners:

- Guaranteed interoperability between two Diameter implementations from two networks
 - Provides AVP mediation to ensure the compatibility between MME and HSS
 - Provides service offering mediation between home and visited networks if service offering package mapping is required
- Provides roaming policy monitoring and enforcement
 - Roaming route management by PLMN ID, realm, or host
 - IMSI or IMSI block level roaming control and policy enforcement
- Support versatile Diameter routing options by:
 - Diameter application, realm, command, host, IMSI ranges, roaming route
- Proactively monitors Diameter signaling, traffic, and send alert on roaming problems
 - Active roamers
 - Roaming behavior
- Generates comprehensive roaming reports



On top of the IPX Transport Service, Aicent deploys state-of-art Diameter proxy gateways – a centralized Service based IPX service – for managing the LTE roaming, signaling, and roaming control.

Serving more than three billion mobile users around the world, Aicent, Inc. is a leading provider of data network services and solutions for global mobile operators. Aicent operates one of the largest GPRS, 3G, and LTE network exchanges supporting over two hundred customers including the world's ten largest global mobile operators and operator groups. The company also operates integrated mobile messaging services, including one of the first and largest multimedia messaging exchanges, and offers other value-added services to help operators maximize revenue opportunities.

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