MARBEN Diameter

COMPLETE AAA FOR IMS CONTROL PLANE

C++ AND NATIVE JAVA FLEXIBLE DIAMETER STACKS ENSURING YOU A FAST GOTO MARKET AND TO STAY SYNCHRONIZED WITH THE IMS EVOLUTION.

FAST GOTO MARKET – *OFFERS COMPLETE DIAMETER CONNECTIVITY AT SMALL INTEGRATION COST.*

EASY INTEGRATION

- Two implementations for better integration: C++ and Native Java.
- JAIN-like APIs guarantee short learning curve.
- Very complete documentation and sample code for quick jump start.

STANDARD AND INTEROPERABLE

- MARBEN Diameter has been tested for standard compliance and proven interoperable with industry equipments.

CUSTOMIZABLE AND FUTURE PROOF – *ADAPTS TO SPECIFIC CUSTOMER REQUIREMENTS AND EVOLUTION OF THE STANDARDS.*

FOLLOW STANDARD EVOLUTION

- Marben is committed to follow IMS and NGN standards and to provide the implementation of the latest versions of these standards.

OPEN AND EXTENSIBLE SOLUTION

- Keeps Diameter standard openness and extensibility by allowing you to dynamically extend Diameter applications commands AVP sets.

CARRIER GRADE READY – *ENABLES YOU TO MEET THE REQUIREMENTS OF NEXT GENERATION BROADBAND NETWORKS.*

HIGH PERFORMANCE

- Multithreaded architecture ready for multicore, multi processor architectures. Very efficient message switching ensuring very low latency.

HIGH AVAILABILITY AND SECURITY

- Extends intrinsic Diameter protocol reliability mechanisms by supporting an active/standby High Availability (**HA**) .
- Secure AAA data with TLS and IPsec when offered by the hosting operating system.

TARGET APPLICATIONS

CSCF, Home Subscriber Server (HSS), Application Server (AS), Policy Decision Function (PDF) Presence server,
Online Charging Server (OCS), 3GPP2 AAA server….

About Marben

A leading provider of key software solutions for next generation service-driven networks.

More than 25 years of experience

Delivers interoperable, robust and efficient signaling, routing and AAA solutions to accelerate the delivery of network services.

Marben Customers

Alcatel-Lucent, Amdocs, Ciena, Cisco, Ericsson, Fujitsu, HP, Nortel, NEC, Nokia Siemens Networks, Oracle, Tellabs, Verizon, …

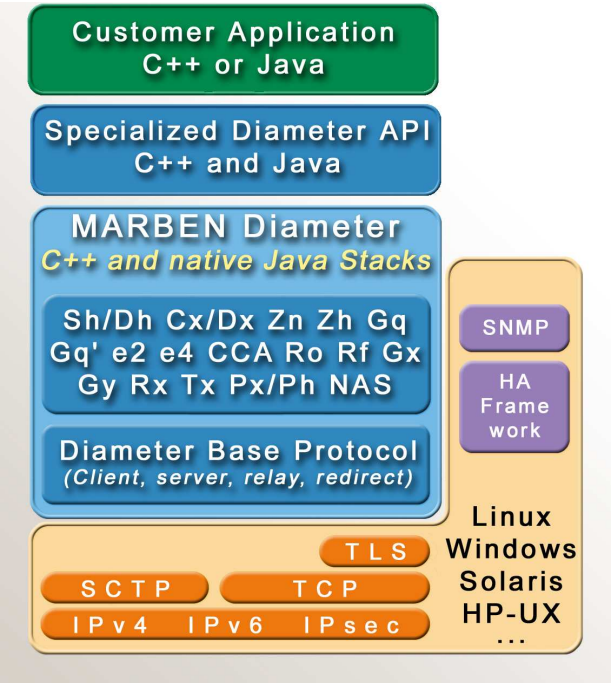
Affiliate of
NE Technologies, Inc.

MARBEN Diameter

Technical Overview

MARBEN Diameter offer consists of two products: MARBEN **C++ Diameter**, a Diameter stack written in C++ and MARBEN **Java Diameter** a Diameter stack implemented in **native Java**. These products do not make any compromise and are optimized to fully take advantage and offer a perfect integration in the C++ or Java environment.

MARBEN Diameter stacks are packaged as libraries to be embedded into customer's IMS software. They share the same design concepts, provide the identical level of functionality as detailed below.



Rich Set of Interfaces

The core of MARBEN Diameter C++ and Java stacks is a robust and high performance implementation of the Diameter base protocol (RFC 3588). MARBEN Diameter stacks include the following features:

- Peer transport connection with failover/failback.
- Relay and redirect functions with priority routing.
- Stateless and stateful session management.
- Support of TCP and SCTP, with or without TLS and IPsec.
- Support for High Availability compatible with SAF specifications.
- Client and server role for DBP and all applications.

On top the base protocol, MARBEN Diameter stacks implement more than **20 Diameter applications**:

CCA, NAS, EAP, Sh/Dh, Cx/Dx, Rf, Ro, Ph, Px, Tx, Zh/Dz, Zn, Gy Gx, Rx, Gq, Gq', e2, e4

that cover requirements from IETF, 3GPP, TISPAN, 3GPP2: TISPAN, and making it the most complete Diameter implementations of the market.

Specialized APIs and Extensible Diameter Applications

Each of the supported Diameter application is accessed via a dedicated API for facilitating access to Diameter messages. All these APIs follow the same high-level object oriented JAIN-like design making them easy to learn and to mix with SIP or other signaling protocol in the same application.

Description of Diameter application commands in XML dictionary. This dictionary is dynamically loadable and extendable to allow service developers to adapt AVP set to specific constraints or requirements

APIs include primitives for building and parsing the sequence of AVPs in Diameter messages. Parsing is driven by the Diameter command syntax description stored in the XML dictionary and brings adaptability and openness to applications. But, specialized APIs give direct access to values of the most important AVPs of Diameter messages.

CONTACTS

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Conformance

Base Protocol: RFC 3588, 3589 and 3539
Credit Control Application: RFC 4006
NAS and EAP: RFC 4005, RFC 4072
Sh,Dh: 3GGP TS 29.328 and TS 29.329
Cx,Dx: 3GGP TS 29.228 and TS 29.229
Rf: 3GGP TS 32.225 and TS 32.299
Ro: 3GGP TS 32.225 and TS 32.299
Gq: 3GGP TS 29.209
Gq': ETSI TS 183.017
e2: ETSI ES 283.035
e4: ETSI ES 283.034
Ph/Px: 3GPP TS 23.141
Zn/Zh/Dz: 3GPP TS 29.109
Gx: 3GPP TS 29.212
Rx: 3GPP TS 29.214
Gy: 3GPP TS 32.240

System Requirements

MARBEN C++ Diameter runs on:

- Windows XP, Vista, 2003, 2008
- RedHat and other Linuxes on Intel x86
- Solaris 9 and 10 on SPARC and X86_64
- HP-UX 11iv2 & v3 on PA-RISC and Itanium.

MARBEN Java Diameter needs Java RE v1.5

OpenSSL v0.9.8e for TLS support
IPv4, IPv6, IPsec.

Related Offers

MARBEN HSS Emulator
Consulting, training, turn key projects