Diameter, Meet Your Future

The BorderNet™ Diameter Services Helix

The BorderNet™ Diameter Services Helix raises the bar for signaling controller functionality by combining unparalleled multiprotocol Interworking Functionality and high-availability Diameter Edge Agent (DEA) and Routing Agent (DRA) features in a single, unified solution.
The BorderNet Helix empowers 3G, 4G, IPX, IMS and Wi-Fi operators with support for:

- Seamless service creation and interworking
- Secure and scalable any-to-any Diameter, RADIUS and SS7 services connectivity
- Increased velocity in bringing networks and services to market

Helix’s ground-breaking service orchestration framework enables operators to seamlessly combine or deploy separately interworking, security and routing functionality to help you gain better control of your LTE and 3G signaling traffic and cross-network services. If you’ve already deployed a DRA, Helix can enhance its capabilities with unmatched interworking and service enhancement in ways you didn’t think possible.

Advanced Interworking

The BorderNet Diameter Services Helix is the next generation of signaling controllers and represents the most flexible and easy-to-use solution when it comes to interworking and mediating different signaling protocols.

Helix is designed for rapid conversion of signaling messages without the need for separate or bolt-on modules enabling service providers to:

- Easily interwork Diameter, RADIUS and SS7 based services
- Enhance, manipulate and dynamically modify messages
- Accelerate 3G-4G-Wi-Fi roaming, and
- Resolve incompatibility issues in and between mobile core networks.

Service Enhancement

The advanced service orchestration architecture of Helix enables rapid service creation and service enhancement through an intuitive graphical user interface without the need for developing complex scripts or costly vendor development.

Helix lets you enhance your services through access to external data sources using LDAP, SOAP, XML or HTTP. You can extract, inspect and enhance policy and charging message flows to rapidly develop personalized and targeted services.
Diameter Routing and Edge Agent

Helix makes it possible for service providers to centrally manage and route the ever growing volume of Diameter traffic. Helix supports DRA functionality including Diameter proxy, relay, redirect and translation agent as well as PCRF binding (TS 29.213) and HSS Subscription Locator Function (TS 29.228).

Helix has an integrated Diameter Edge Agent (GSMA IR 88) to secure and manage inter-operator network connections with features such as overload protection, topology hiding and traffic shaping and policy.

Helix goes beyond the capabilities of first generation DEAs and DRAs to include support and management of any Diameter interface or proprietary variant, highly granular routing, and unparalleled mediation to help make managing, securing and interworking complex MNO, MVNO and IPX networks easier.

Vendor Interoperability

Diameter Interoperability issues can prevent you from turning up new networks or enabling innovative revenue opportunities using new charging and policy capabilities. The BorderNet Diameter Services Helix puts the control back in your hands by enabling you to easily fix incompatibility issues between vendor platforms without the need for costly and time consuming development work from your network element vendor.

Helix can quickly mediate and enhance Diameter and RADIUS messages, and the template driven architecture allows service providers themselves to:

- Accommodate proprietary Diameter AVPs
- Correct OCS, OFCS, PCRF and HSS compatibility issues with mobile core nodes
- Mediate interconnection between Wi-Fi networks

Seamless Roaming

The BorderNet Diameter Services Helix helps you provide your customers with seamless 3G-to-4G roaming. Helix supports 3GPP TS 29.305 roaming scenarios and automates the Diameter to SS7/MAP interworking process including conversion of security vectors between 3G and 4G networks. The advanced GUI and service orchestration capabilities enable point-and-click implementation of roaming scenarios to allow 3G subscribers from 3GPP release 7 or earlier home networks to roam in partner networks that have been upgraded to a 3GPP release 8 or greater Evolved Packet Core.

Equipment Identity Register interworking is also supported, as are scenarios for 4G-to-3G roaming.
Wi-Fi Offload Interworking

Service providers can take advantage of true Any-to-Any interworking between Wi-Fi and 3GPP Wireless LAN networks with the multi-protocol and service orchestration capabilities of the BorderNet Diameter Services Helix. Helix Interworks WRIX, GSMA IR 61, and 3GPP-based networks regardless of whether Diameter or RADIUS is used. Capabilities include:

- Ability to rapidly interwork RADIUS-based authentication, authorization (RFC 2865) and accounting (RFC 2866) messages with the corresponding Diameter-based applications
- Elimination of stand-alone Diameter, RADIUS or SS7 gateways for HSS or HLR authentication
- Deep packet access to message attributes to enhance service offerings
- Sharing of policy and charging information between Wi-Fi and 3GPP networks
- Ability to access external data sources to create custom logic and unique service offerings

Go to [www.dialogic.com/helix](http://www.dialogic.com/helix) to learn more or contact your Dialogic account executive for an actual demonstration on how Helix can energize your LTE, 3G and Wi-Fi networks today!