Oracle® Communications Diameter Signaling Router

Related Publications Reference

E53481 Revision 01

July 2014

ORACLE®

Oracle® Communications Related Publications Reference

Copyright © 2014,

Table of Contents

Related Publications

Oracle Communications Diameter Signaling Router Documentation Set

The Diameter Signaling Router (DSR) documentation set includes the following publications, which provide information for the configuration and use of DSR and related Applications.

Some documents, such as *Release Notes*, are available only through the Oracle Technical Network (OTN).

The current releases of all documents are available through the Oracle Technical Network.

Feature Notice describes new features in the current release, provides the hardware baseline for this release, and explains how to find customer documentation on the OTN.

Release Notes are published when a release becomes available. The contents include a list of Problem Reports that have been fixed in the release and a list of Problem Reports that are still open in the release.

Roadmap to Hardware Documentation provides links to access manufacturer online documentation for hardware related to the DSR.

Operation, Administration, and Maintenance (OAM) Guide provides information on system-level configuration and administration tasks for the advanced functions of the DSR, both for initial setup and maintenance.

SS7/Sigtran User's Guide describes explains how to use the SS7/Sigtran GUI pages to perform configuration and maintenance tasks related to Adjacent Servers, SS7 Signaling Points, Link Sets, Associations, Routes, and SS7 Sigtran Options, for the Signaling Network Interface (SRI) used by the MD-IWF SS7 Application. The Signaling Network Interface provides standard SCCP functions, traditional MTP3 routing capabilities, and a standard M3UA interface to the external network.

Transport Manager User's Guide explains how to use the Transport Manager GUI pages to configure "Transports" (SCTP Associations with remote hosts over an underlying IP network). Transport Manager provides the interface to the Adapter Layer and manages the connections and data transmission from SCTP sockets.

Communication Agent User's Guide explains how to use the Communication Agent GUI pages to configure Remote Servers, Connection Groups, and Routed Servers, and to maintain configured connections.

Diameter Common User's Guide explains how to use the Diameter Common GUI pages to configure components that are common to more than one DSR Application, including Network Identifiers (MCC Ranges and MCCMNC), MPs (Profiles and Profile Assignments). The Guide also describes the use of the Bulk Import and Export functions for exporting Diameter, IPFE, and DSR Application configuration data on demand and at scheduled intervals, and for importing configuration data from exported files.

Diameter User's Guide explains how to use the Diameter GUI pages to manage the configuration and maintenance of Diameter Configuration components, including Local and Peer Nodes, Connections,

Configuration Sets, Peer Routing Rules, Application Route Tables, System Options,DNS options, AVP dictionary functions; introduces IDIH and Diameter Mediation; addresses Topology Hiding; describes the functions of Diameter Message Copy; and describes DSR capacity and congestion controls.

Diameter Mediation User's Guide describes the functions of Diameter Mediation, and explains how to use the Diameter Mediation GUI pages (nested inside the Diameter GUI folder) to configure and test Rule Templates, how to use the Formatting Value Wizard, and how to configure Rule Sets.

IP Front End (IPFE) User's Guide explains how to the use the IPFE GUI pages to configure IPFE to distribute IPv4 and IPv6 connections from multiple clients to multiple nodes.

Range-Based Address Resolution (RBAR) User's Guide explains how to use the RBAR GUI pages to configure RBAR to route Diameter end-to-end transactions based on Diameter Application ID, Command Code, Routing Entity Type, and Routing Entity address ranges and individual addresses.

Full-Address Based Resolution (FABR) User's Guide explains how to use the FABR GUI pages to configure FABR to resolve designated Diameter server addresses based on Diameter Application ID, Command Code, Routing Entity Type, and Routing Entity addresses.

MAP-Diameter IIWF User's Guide describes the configuration and operation of the MAP-to-Diameter Interworking Function (MD-IWF) and Diameter-to-MAP Interworking Function (DM-IWF) DSR Applications.

Charging Proxy Application (CPA) and Offline Charging Solution User's Guide describes the Offline Charging Solution and explains how to use the CPA GUI pages to set System Options for CPA, configure the CPA's Message Copy capability, and configure the Session Binding Repository for CPA.

Policy DRA User's Guide describes the topology and functions of the Policy Diameter Routing Agent (Policy DRA) DSR Application and the Policy Session Binding Repository, and explains how to use the GUI pages to configure Policy DRA.

Gateway Location Application (GLA) User's Guide describes the functions of retrieving subscriber data stored in Policy Session Binding Repository (pSBR) provided by Policy DRA and explains how to use the GUI pages to configure GLA.

DSR Alarms, KPIs, and Measurements Reference provides detailed descriptions of alarms, events, Key Performance Indicators (KPIs), and measurements; indicates actions to take to resolve an alarm, event, or unusual Diameter measurement value; and explains how to generate reports containing current alarm, event, KPI, and measurement information.

DSR Administration Guide describes DSR architecture, functions, configuration, and tools and utilities (IPsec, Import/Export, IDIH, and database backups); and provides references to other publications for more detailed information.

IDIH User's Guide describes the configuration and use of Integrated Diameter Information Hub (IDIH).

Locate Product Documentation on the Oracle Technology Network Site

Oracle customer documentation is available on the web at the Oracle Technology Network (OTN) site, *http://docs.oracle.com*. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at *www.adobe.com*.

1. Log into the Oracle Technology Network site at *http://docs.oracle.com*.
2. Under **Applications**, click the link for **Communications**.

The **Oracle Communications Documentation** window opens with Tekelec shown near the top.

3. Click **Oracle Communications Documentation for Tekelec Products**.

4. Navigate to your Product and then the Release Number, and click the **View** link (the **Download** link will retrieve the entire documentation set).

5. To download a file to your location, right-click the PDF link and select **Save Target As**.

Glossary

C

CPA   Charging Proxy Application

The Charging Proxy Application (CPA) feature defines a DSR-based Charging Proxy Function (CPF) between the CTFs and the CDFs. The types of CTF include GGSN, PGW, SGW, HSGW, and CSCF/TAS.

D

DNS   Domain Name System

A system for converting Internet host and domain names into IP addresses.

DSR   Diameter Signaling Router

A set of co-located Message Processors which share common Diameter routing tables and are supported by a pair of OAM servers. A DSR Network Element may consist of one or more Diameter nodes.

F

FABR   Full Address Based Resolution

Provides an enhanced DSR routing capability to enable network operators to resolve the designated Diameter server addresses based on individual user identity addresses in the incoming Diameter request messages.

G

G

GLA

Gateway Location Application A
DSR Application that provides a
Diameter interface to subscriber
data stored in the DSR's Policy
Session Binding Repository (pSBR).
Subscriber data concerning binding
and session information is
populated in the pSBR-B by the
Policy Diameter Routing Agent
(Policy DRA). GLA provides
methods for a Diameter node to
query binding information stored
in the pSBR-B. The query can be by
either IMSI or MSISDN. GLA
processes Diameter Requests and
generates Diameter Answers.

I

IDIH

Integrated Diameter Intelligence
Hub

IPFE

IP Front End

A traffic distributor that routes TCP
traffic sent to a target set address
by application clients across a set
of application servers. The IPFE
minimizes the number of externally
routable IP addresses required for
application clients to contact
application servers.

IPsec

Internet Protocol Security

A protocol suite for securing
Internet Protocol communications
by authenticating and encrypting
each IP packet of a data stream.

K

KPI

Key Performance Indicator

M

M

MCC	Mobile Country Code
	A three-digit number that uniquely identifies a country served by wireless telephone networks. The MCC is part of the International Mobile Subscriber Identity (IMSI) number, which uniquely identifies a particular subscriber. See also MNC, IMSI.

P

| Policy DRA | Policy Diameter Relay Agent. A scalable, geo-diverse DSR application that creates a binding between a subscriber and a PCRF, and routes all policy messages for a given subscriber to the PCRF that currently hosts that subscriber's policy rules. Policy DRA is capable of performing Topology Hiding to hide the PCRF from the Policy Client. |
| pSBR | Policy SBR |

R

RBAR	Range Based Address Resolution
	A DSR enhanced routing application which allows the user to route Diameter end-to-end transactions based on Application ID, Command Code, "Routing Entity" Type, and Routing Entity address ranges.

S

SCTP	Stream Control Transmission Protocol
	An IETF transport layer protocol, similar to TCP that sends a message in one operation.

S

The transport layer for all standard IETF-SIGTRAN protocols.

SCTP is a reliable transport protocol that operates on top of a connectionless packet network such as IP and is functionally equivalent to TCP. It establishes a connection between two endpoints (called an association; in TCP, these are sockets) for transmission of user messages.