

**Oracle® Communications  
Diameter Signaling Router**

Related Publications Reference

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## Oracle Communications Diameter Signaling Router Related Publications Reference

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# Chapter 1

## Related Publications

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## 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.

*Release Notice* describes new features in the release; lists the known and fixed bugs, and the software lineup; and explains how to find customer documentation on the Oracle Technology Network (OTN).

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

*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, Peer Node Groups, Connections, Configuration Sets, Peer Routing Rules, Application Route Tables, System Options, DNS options, AVP dictionary functions, Egress Throttling, and Shared Traffic Throttling Groups. It also introduces IDIH, RADIUS, and Diameter Mediation; addresses Topology Hiding; describes the functions of Diameter Message Copy; and describes DSR capacity and congestion controls.

*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 Dashboard, 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.

As of DSR 7.2, the Charging Proxy Application (CPA) has reached its end of service life. The product has no replacement.

*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 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.

*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.

*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.

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

*MAP-Diameter IWF 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.

*Policy and Charging Application User's Guide* describes the configuration and maintenance functions of the Policy and Charging Application (PCA), including Policy Diameter Routing Agent (Policy DRA) and Online Charging DRA (OCDRA) DSR Application. and explains how to use the GUI pages to configure PCA.

*SBR User's Guide* describes the configuration and maintenance functions of the SBR, including SBR database management, reconfiguration, resizing, and migration.

*RADIUS User's Guide* describes the features associated with RADIUS (Remote Authentication Dial In User Service).

*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.

*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.

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

*DSR Measurements Reference* provides detailed descriptions of measurements, indicates actions to take to resolve unusual Diameter measurement value, and explains how to generate reports containing current measurement information.

## Oracle Communications Subscriber Database Server Documentation Set

The Subscriber Database Server (SDS) documentation set includes the following publications, which provide information for the configuration and use of SDS and related applications.

Some documents, such as the *Provisioning Interface Guide*, are available only on the Oracle Technical Network (OTN).

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

*Getting Started Guide* provides an overview of the SDS documentation, application, system architecture, and functionality including user interface elements, main menu options, supported browsers, and common user interface widgets.

The *User's Guide* provides screen-by-screen documentation to describe each SDS menu option.

*Operations, Administration, and Maintenance (OAM) User's Guide* describes how to view and manage the basic operation, administration, and maintenance for SDS.

*Communication Agent User's Guide* describes the plug-in included with SDS that includes infrastructure features and services for enabling inter-server communication including the High-Availability (HA) services sub-resources.

*SDS Alarms, KPIs, and Measurements (AKMs) Reference* provide information relevant to understanding alarms and events that may occur in the SDS application; recovery procedures for addressing alarms and events, as necessary; tasks for viewing alarms and events, generating alarms reports, and viewing and exporting alarms and events history; and information, including any relevant customer actions for addressing unusual measurement values.

*Provisioning Interface* describes the provisioning XML and SOAP interfaces local and remote provisioning client applications use to administer the Oracle Communications User Data Repository (UDR) system provisioning database.

## Oracle Communications IDIH Documentation Set

The IDIH documentation set includes the following publications, which provide information for the configuration and use of IDIH and related applications.

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

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

*IDIH Audit Viewer Administrator's Guide* provides information about the Audit Viewer application, including its functionalities to efficiently and effectively monitor applications, user's activities, and alarm status.

*IDIH Alarm Forwarding Administrator's Guide* provides information about the Alarm Forwarding application, including definitions and instructions to help the user efficiently and effectively define conditions and destinations for forwarding alarms.

*IDIH Operations, Administration, and Maintenance Administrator's Guide* provides information about the OAM application, including its functionality to configure IDIH mediation for processing and storing TDR records. It also provides configuration functionality for viewing TDR records in the ProTrace application.

The *IDIH ProTrace User's Guide* describes the ProTrace application, including its functionality to monitor traces.

*IDIH System Alarms User's Guide* provides information about the System Alarms application, including its functionality to efficiently and effectively monitor alarm status.

*IDIH Log Viewer User's Guide* explains the Log Viewer application, including its functionalities to efficiently and effectively monitor applications, user's activities, and alarm status.

## Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) 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 <http://www.adobe.com>.

1. Access the Oracle Help Center site at <http://docs.oracle.com>.
2. Click **Industries**.
3. Under the Oracle Communications subheading, click the **Oracle Communications documentation** link.  
The Communications Documentation page appears. Most products covered by these documentation sets will appear under the headings “Network Session Delivery and Control Infrastructure” or “Platforms.”
4. Click on your Product and then the Release Number.  
A list of the entire documentation set for the selected product and release appears.
5. To download a file to your location, right-click the **PDF** link, select **Save target as** (or similar command based on your browser), and save to a local folder.



## 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

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

**G**

in the pSBR-B. The query can be by either IMSI or MSISDN. GLA processes Diameter Requests and generates Diameter Answers.

**H**

HA

**High Availability**  
High Availability refers to a system or component that operates on a continuous basis by utilizing redundant connectivity, thereby circumventing unplanned outages.

**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.

**K**

KPI

**Key Performance Indicator**

**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.

**O**

## O

OAM	<p>Operations, Administration, and Maintenance</p> <p>The application that operates the Maintenance and Administration Subsystem that controls the operation of many products.</p>
OAM	<p>Operations, Administration, and Maintenance. These functions are generally managed by individual applications and not managed by a platform management application, such as PM&amp;C.</p> <p>Operations – Monitoring the environment, detecting and determining faults, and alerting administrators.</p> <p>Administration – Typically involves collecting performance statistics, accounting data for the purpose of billing, capacity planning, using usage data, and maintaining system reliability.</p> <p>Maintenance – Provides such functions as upgrades, fixes, new feature enablement, backup and restore tasks, and monitoring media health (for example, diagnostics).</p>
OTN	<p>Oracle Technology Network</p> <p>Oracle website where Info Dev documents are posted at P2.</p>

## P

PCA	Point Code ANSI
Policy DRA	Policy Diameter Relay Agent. A scalable, geo-diverse DSR application that creates a binding between a subscriber and a PCRF,

**P**

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**

RADIUS

Remote Authentication Dial-In User Service

A client/server protocol and associated software that enables remote access servers to communicate with a central server to authorize their access to the requested service. The MPE device functions with RADIUS servers to authenticate messages received from remote gateways. See also Diameter.

RBAR

Range Based Address Resolution

A DSR enhanced routing application which allows you 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.

The transport layer for all standard IETF-SIGTRAN protocols.

**S**

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.

## SDS

Subscriber Database Server

Subscriber Database Server (SDS) provides the central provisioning of the Full-Address Based Resolution (FABR) data. The SDS, which is deployed geo-redundantly at a Primary and Disaster recovery site, connects with the Query Server and the Data Processor System Operations, Administration, and Maintenance (DP SOAM) servers at each Diameter Signaling Router (DSR) site or a standalone DP site to replicate and recover provisioned data to the associated components.

**X**

## XML

eXtensible Markup Language

A version of the Standard Generalized Markup Language (SGML) that allows Web developers to create customized tags for additional functionality.