Oracle® Communications Diameter Signaling Router Release Notes





Oracle Communications Diameter Signaling Router Release Notes, Release 9.0.2.0.0

F94922-03

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Call the Customer Access Support main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. When calling, make the selections in the sequence shown below on the Support telephone menu:

- 1. Select 2 for New Service Request.
- 2. Select **3** for Hardware, Networking and Solaris Operating System Support.
- 3. Select one of the following options:
 - For Technical issues such as creating a new Service Request (SR), select 1.
 - For Non-technical issues such as registration or assistance with My Oracle Support, select **2**.

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

My Oracle Support is available 24 hours a day, 7 days a week, 365 days a year.



What's New in this Guide

This section introduces the documentation updates for release 9.0.2.0.0.

Release 9.0.2.0.0 - F94922-03, September 2024

- Updated the media pack details in the DSR Release 9.0.2.0.0 section.
- Added DSR resolved bugs in the DSR section.

Release 9.0.2.0.0 - F94922-02, April 2024

- The part number for DSR OVA and DSR Full Address Resolution is updated in the Media Pack section.
- Updated DSR resolved bugs in the Resolved Bug List section.
- Updated VNFM version in the Load Line Up section.
- Updated VNFM part number and description in the Media Pack section.
- Updated guide names in the following sections:
 - DSR
 - vSTP

Release 9.0.2.0.0 - F94922-01, April 2024

- Updated the supported upgrade paths in the Supported Upgrade and Migration Paths section.
- Updated media pack contents in the Media Pack section.
- Updated load line up in the Load Line Up section.
- Added DSR 9.0.2.0.0 resolved bugs in the Resolved Bug List.
- Added vSTP 9.0.2.0.0 resolved bugs in the Resolved Bug List.
- Added the description for Enhancing Security using HTTPS and Measurements Data Streaming in the DSR section.
- Added the description for Tracing and Troubleshooting in the vSTP section.



Introduction

This Oracle Communications Diameter Signaling Router Release Notes includes the following:

- Feature descriptions
- Information on supported hardware baseline
- Media and documentation pack
- Supported upgrade paths for this release
- Resolved and known bugs for this release

Release Notes are included in the documentation pack and made available with every software release.

1.1 DSR Overview

Oracle Communications Diameter Signaling Router (DSR) helps communications service providers monetize their network more efficiently to remain competitive in the market. It creates a centralized and secure signaling architecture that enables core networks to grow incrementally and to support increasing service and traffic demands. The distinctive advantages provided by the Oracle Communications Diameter Signaling Router are network scalability, resiliency, interoperability, and security, as well as network visibility. The cloud deployable Oracle Communications Diameter Signaling Router enables service providers to manage Diameter signaling while optimizing network resources, therefore maximizing the return on network and technology investments.

Disclaimer

Before installing third-party software on the same server with Oracle products, for example, DSR, PCRF, UDR, PIC, EAGLE, and so on, you must be aware of the following information:

- Oracle is not responsible for installation, operation, maintenance, and so on, of any non-Oracle distributed software with Oracle products, for example, DSR, PCRF, UDR, PIC, EAGLE, and so on.
- Additional due diligence, including testing, is recommended to be performed in the lab before deploying non-Oracle software on production sites to avoid potential issues.
- Oracle is not responsible for validating or integrating non-Oracle software with Oracle products, for example, DSR, PCRF, UDR, PIC, EAGLE, and so on. Additionally, the persistence of the non-Oracle software over the upgrade of any Oracle product may or may not occur, and Oracle does not guarantee that the non-Oracle software will persist.
- Oracle Support may require that the customer uninstall the non-Oracle software and reinstall Oracle products, for example, DSR, PCRF, UDR, PIC, EAGLE, and so on, to recover the system to address any field issue.

Virtual Platforms Supported

Virtual DSR is tested and supported only on the following platforms:

- VMware ESXi 6.0 U2
- KVM QEMU 6.2.0, libvirt 8.0.0, and API QEMU 8.0.0
- OpenStack Train



BareMetal is not supported from DSR 9.0.0.0.0.

For more information, see DSR Cloud Benchmarking Guide.

Note:

Our benchmarking and performance numbers are based only on the above mentioned platforms. If the customer environment is deployed on any other platform, all issues including compatibility and infrastructure concerns would be the responsibility of the customer. Oracle would only be responsible for application related issues.



Feature Descriptions

This chapter describes the features for the 9.0.2.0.0 release.

3.1 Release 9.0.2.0.0

This chapter introduces the new features or feature enhancements for DSR, vSTP, and VNFM.

3.1.1 DSR

This chapter provides overview of DSR features.

Table 3-1 DSR Features and Enhancements

Features/ Enhancements	Name	Description	Scope
Enhancing Security using HTTPS	NA	The HTTPS adds a layer of encryption that helps the user to secure connection between server and clients. For more information, see Oracle Communications DSR Automated Test Suite Installation and User Guide.	
Measurements Data Streaming	NA	Oracle's Diameter Signaling Router (DSR) Measurements Data Streaming (MDS) solution provides DSR's statistics to remote servers communicating through Apache Kafka in the 3G core network. For more information, see Oracle Communications Measurements Data Streaming User Guide.	

3.1.2 vSTP

This chapter provides overview of vSTP features.

Table 3-2 vSTP Features and Enhancements

Features/ Enhancements	Name	Description	Scope
Tracing and Troubleshooting	NA	The vSTP Tracing feature adds to VSTP capabilities by allowing the life cycle of any ingress message at VSTP to be tracked and traced using message parameters. For more information, see Oracle Communications Diameter Signaling Router Virtual Signaling Transfer Point User Guide.	Feature

3.1.3 VNFM

No new features or feature enhancements have been introduced in this release.



Media and Documentation

Oracle Communications software is available for electronic download on the Oracle Software Delivery Cloud (OSDC). Documentation is delivered electronically on the Oracle Help Center (OHC). Both the software Media Pack and Documentation Pack are listed in this chapter.

4.1 Media Pack

All components available for download from the Oracle Software Delivery Cloud (https://edelivery.oracle.com/) are in the following Media Pack contents tables.



This list is accurate at the time of release but is subject to change. See the Oracle Software Delivery Cloud website for the latest information.

4.1.1 DSR Release 9.0.2.0.0

Table 4-1 Media Pack Contents for DSR 9.0.2.0.0

Part Number	Description	
V1045052-01	Oracle Communications Diameter Signaling Router 9.0.2.0.0-99.14.0 OVA	
V1041490-01	Oracle Communications Diameter Signaling Router 9.0.2.0.0-99.14.0 DIU ISO	
V1045053-01	Oracle Communications Diameter Signaling Router, Full Address Resolution 9.0.2.0.0-99.14.0 OVA	
V1041498-01	Oracle Communications Diameter Signaling Router, Full Address Resolution 9.0.2.0.0-99.14.0 DIU ISO	
V1041499-01	Oracle Communications Diameter Signaling Router Diameter Security Application 9.0.2.0.0-99.14.0	
V1041500-01	Oracle Communications Diameter Signaling Router Steering Of Roaming Application 9.0.2.0.0-99.14.0	
V1041501-01	Oracle Communications Diameter Signaling Router Zero Balance Application 9.0.2.0.0-99.14.0	
V1041502-01	Oracle Communications Diameter Signaling Router Rx ShUDR Application 9.0.2.0.0-99.14.0	
V1041503-01	Oracle Communications Diameter Signaling Router 9.0.2.0.0-99.14.0 DIU Upgrade Scripts	
V1041504-01	Oracle Communications Diameter Signaling Router 9.0.2.0.0-99.14.0 DUI Upgrade Checksums	
V1041505-01	Oracle Communications Diameter Signaling Router 9.0.2.0.0-99.14.0 MIBs	
V1041399-01	Tekelec Platform Distribution 8.0.0.0-90.15.0 OL7 DIU ISO	

Table 4-1 (Cont.) Media Pack Contents for DSR 9.0.2.0.0

Part Number	Description	
V1041511-01	Oracle Communications Diameter Signaling Router Automated Test Suite (ATS) 9.0.2.0.0-1.0.20	
V1041822-01	Oracle Communications Diameter Signaling Router Virtual Network Functions Manager 6.0.2.0.0-60.2.9 QCOW2	
V1041830-01	Oracle Communications Diameter Signaling Router Virtual Network Functions Manager Artifacts 6.0.2.0.0-60.2.9	
V1041466-01	Oracle Communications Diameter Signaling Router User Data Repository 14.0.2.0.0-114.23.0 DIU ISO	
V1042494-01	Oracle Communications Diameter Signaling Router User Data Repository 14.0.2.0.0-114.23.0 OVA	

4.2 Load Lineup

This section provides information about supported services and ATS for this release.

4.2.1 DSR Release 9.0.2.0.0

DSR Release 9.0.2.0.0 contains the following components:

Application Lineup

- DSR: 9.0.2.0.0-99.14.0

- SDS: 9.0.2.0.0-99.14.0

VNFM: 6.0.2.0.0-60.2.9

ATS: 9.0.2.0.0-1.0.20

UDR: 14.0.2.0.0_114.23.0

Platform Lineup

TPD: 8.9.0.1.0-130.6.0

gSOAP: 2.8.131

Comcol: 8.0.0.37.0-14231

– Appw: 9.9.0-99.10.0

Exgs: 9.9.0-99.10.0

4.3 Documentation Pack

All documents are available for download from the Oracle Help Center (OHC) site.

Table 4-2 Documentation Pack Contents

Release Notes and Licensing Information User Manuals Document Set		
Release Notes		
Licensing Information User Manual		
DSR Planning, Installation, Upgrade, and Disaster Recovery Document Set		

Table 4-2 (Cont.) Documentation Pack Contents

DSR Feature Guide
DSR/SDS NOAM Failover User Guide
DCA Feature Activation Procedure
DTLS Feature Activation Procedure
FABR Feature Activation Procedure
Mediation Feature Activation Procedure
PCA Feature Activation Procedure
RBAR Feature Activation Procedure
DSR Network Impact Report
DSR NIR MEALS Data
DSR Security Guide
DSA with UDR User Guide
DSR Security App Using Mediation Example Procedure
Zero Balance Application User Guide
Diameter Signaling Router Rx ShUDR Application User Guide
DSR VM Placement and CPU Socket Pinning Tool
DSR Compliance Matrix
Cloud Installation and Upgrade Document Set
DSR Cloud Installation Guide
DSR Cloud Software Upgrade User Guide
DSR BareMetal to Cloud Migration Guide
DSR Cloud Disaster Recovery Guide
DSR Automated Test Suite (ATS) Installation and User Guide
DSR VNFM Installation and User Guide
VNFM HEAT Templates
DSR Cloud Benchmarking Guide
SDS Cloud Installation Guide
SDS Cloud Disaster Recovery Guide
Diameter Signaling Router Core Document Set
DSR Getting Started
Operation, Administration, and Maintenance (OAM) User Guide
Diameter User Guide
MMI API Specification
Communication Agent User Guide
Policy Charging Application User Guide
Mediation User Guide
Range Based Address Resolution (RBAR) User Guide
Full Address Based Resolution (FABR) User Guide
Subscriber Binding Repository (SBR) User Guide
IP Front End (IPFE) User Guide
Diameter Common User Guide
Equipment Identity Register User Guide
Diameter Custom Application (DCA) User Guide
Diameter Custom Application (DCA) Programmer Guide



Table 4-2 (Cont.) Documentation Pack Contents

Roaming Steering Application User Guide **RADIUS User Guide** vSTP User Manual vSTP Heat Template vSTP SS7 Security User Guide vSTP eLYNX Card Installation Guide **ENUM User Guide ENUM Heat Template** Mobile Number Portability (MNP) User Guide TIF User Guide Alarms and KPIs Reference Measurements Reference Glossary Related Publications Reference **Subscriber Data Server Document Set** SDS Getting Started SDS User Guide SDS Provisioning Interface Guide SDS Software Upgrade Procedure SDS BareMetal to Cloud Migration Guide UDR Installation, Upgrade, and Disaster Recovery Document Set UDR Cloud Installation and Configuration Guide UDR Cloud Disaster Recovery Guide Provisioning Gateway Installation Guide **UDR Heat Templates Provisioning Gateway Heat Templates** UDR SOAP Provisioning Interface Specification UDR REST Provisioning Interface Specification UDR Bulk Import/Export File Specification UDR Provisioning Database Application and Interface Specification Integrated Diameter Intelligence Hub (IDIH) Document Set IDIH Release Notes IDIH User Guide IDIH Alarm Forwarding Administrator's Guide IDIH Audit Viewer Administrator's Guide IDIH Operations, Administration and Maintenance Administrator's Guide IDIH ProTrace User Guide IDIH Log Viewer Administrator's Guide



Supported Upgrade and Migration Paths

This release has been tested for an upgrade and migration from specific prior releases. This chapter contains the exact paths for the upgrade and migration. Verify that your current installed release is listed on a valid upgrade and migration path.

The possible upgrade paths to DSR Release 9.0.2.0.0 are listed in the following table:

Table 5-1 Supported Upgrade Paths

Component	From	То	
DSR	9.0.0.0.0, 9.0.1.0.0	9.0.2.0.0	
SDS	9.0.0.0.0, 9.0.1.0.0	9.0.2.0.0	
IDIH	8.2.1, 8.2.2, 8.2.3.2	8.2.3.3	
vSTP	9.0.0.0.0, 9.0.1.0.0	9.0.2.0.0	

Note:

- Any upgrade other than those listed above is not recommended or supported. Version 9.0.X.0.0 is supported as a new or fresh installation.
- VEDSR is not supported from DSR Release 8.3 onwards.
- Diameter Security Application (DSA) with Universal-SBR (USBR) application is not supported from DSR Release 8.4.0.5.0. Customers using this application must not upgrade DSR software to DSR 8.4.0.5.0 release and must migrate to DSA with UDR based application.
- Zero Balance Application with USBR and Steering of Roaming (SOR) with USBR are not supported from DSR Release 8.4.0.5.0 and later. Customers using these applications must not upgrade the DSR software to DSR 8.4.0.5.0 or a later release and must migrate to ZBA with UDR and SOR with UDR based applications.

The possible migration paths from DSR BareMetal to DSR 9.0.2.0.0 are listed in the following table:

Table 5-2 DSR Baremetal

Component	From	То
DSR	8.4.0.3.0, 8.5.0.2.0	9.0.2.0.0
SDS	8.4.0.3.0, 8.5.0.2.0	9.0.2.0.0



For further information on migration, refer to DSR BareMetal to Cloud Migration Guide and SDS BareMetal to Cloud Migration Guide.



Deprecated Software and Features

The following software element is not compatible with DSR 9.0.0.0.0 and later:

SCEF



Baremetal is not supported from DSR 9.0.0.0.0.

The following features are deprecated from 8.4.0.5 and later:

- DSA with USBR
- ZBA with USBR
- SOR with USBR

The following software elements are not compatible with DSR 8.4 and later:

- DAMP Active-Standby Configuration
- GLA
- MAP Diameter Interworking

Virtualized Engineered DSR (VEDSR) deployment, also known as TVOE based Fully Virtualized Rack Mount Server (FV RMS) Signaling node, is not supported from DSR 8.3 and later. The following are the non-supported network elements of Virtualized Engineered DSR (VEDSR):

- DSR NOAM
- DSR SOAM
- DSR Message Processors (MP)
- SS7 MP
- DSR IPFE
- DSR SBR (Session or Binding or Universal)
- SDS NOAM
- SDS SOAM
- SDS QS
- SDS DP

Virtualized Engineered DSR (VEDSR) networks and associated elements need to be migrated to virtual DSR implementation based on KVM with or without OpenStack or VMware prior to DSR 8.3 or 8.4.x upgrade or install.

Resolved and Known Bugs

This chapter lists the resolved and known bugs for DSR.

These lists are distributed to customers with a new software release at the time of General Availability (GA) and are updated for each maintenance release.

7.1 Severity Definitions

The problem report sections in this document refer to bug severity levels. Definitions of these levels can be found in the publication, *TL 9000 Quality Management System Measurement Handbook*.

Problem Report

A report from a customer or on behalf of the customer concerning a product or process defect requesting an investigation of the issue and a resolution to remove the cause. The report may be issued through any medium.

Problem reports are systemic deficiencies with hardware, software, documentation, delivery, billing, invoicing, servicing, or any other process involved with the acquisition, operation, or performance of a product. An incident reported to request help to bring back the service or functionality to normal without the intent to investigate and provide a resolution to the cause of the incident is not a problem report.

Severity Definitions

Service requests for supported Oracle programs may be submitted by you online through Oracle's web-based customer support systems or by telephone. The service request severity level is selected by you and Oracle and should be based on the severity definitions specified as follows:

- Severity 1 Your production use of the supported programs is stopped or so severely
 impacted that you cannot reasonably continue work. You experience a complete loss of
 service. The operation is mission critical to the business and the situation is an emergency.
 A Severity 1 service request has one or more of the following characteristics:
 - · Data corrupted.
 - A critical documented function is not available.
 - System hangs indefinitely, causing unacceptable or indefinite delays for resources or response.
 - System crashes, and crashes repeatedly after restart attempts.

Reasonable efforts will be made to respond to Severity 1 service requests within one hour. For response efforts associated with Oracle Communications Network Software Premier Support and Oracle

Except as otherwise specified, Oracle provides 24 hour support for Severity 1 service requests for supported programs (OSS will work 24x7 until the issue is resolved) when you remain actively engaged with OSS working toward resolution of your Severity 1 service request. You must provide OSS with a contact during this 24x7 period, either on site or by phone, to assist with data gathering, testing, and applying fixes. You are requested to

propose this severity classification with great care, so that valid Severity 1 situations obtain the necessary resource allocation from Oracle.

Network Software Support & Sustaining Support, please see the Oracle Communications Network Premier & Sustaining Support and Oracle Communications Network Software Support & Sustaining Support sections above.

- Severity 2 You experience a severe loss of service. Important features are unavailable with no acceptable workaround; however, operations can continue in a restricted fashion.
- 3. Severity 3 You experience a minor loss of service. The impact is an inconvenience, which may require a workaround to restore functionality.
- 4. Severity 4 You request information, an enhancement, or documentation clarification regarding your software but there is no impact on the operation of the software. You experience no loss of service. The result does not impede the operation of a system.

7.2 Resolved Bug List

This sections lists all resolved bugs for DSR, vSTP, and VNFM in this release.

7.2.1 DSR

Release 9.0.2.0.0

The following table lists the resolved bugs in DSR 9.0.2.0.0 release.

Table 7-1 DSR 9.0.2.0.0 Resolved bugs

_			
Bug Number	Severity	Found in Release	Title
36343511	3	9.0	Host OS and KVM version needs to be updated for DSR 9.x documents
36141126	3	8.6	Fixing DSA issue : When peer node name configured is greater than 15 characters
35963762	2	8.5	Process Resources Exceeded alarm appears continuously/active NOAMP (apwSoapServer)
36120741	3	8.6	DSR:DCA removal of routed service due to replication issue in UDR in 9.0.2
36220105	3	9.0	TCL India Duplicate Alarms observed from both Active and Standby SOAM to NMS system
35785631	3	9.0	Utilizing whitelisting rather than blacklisting example, FS.19/B.3.4.6 (Vendor Specific AVPs)
36254481	3	9.0	LDAP not working in DSR 9.x
36293150	3	9.0	Getting dsr process rebooted when Radius traffic has started Fresh Installed Setup 9.0.2.0.0-99.8.0

7.2.2 vSTP

Release 9.0.2.0.0

The following table lists the resolved bugs in VSTP 9.0.2.0.0 release.



Table 7-2 VSTP Bugs

Bug Number	Severity	Found in Release	Title
36362100	4	8.6	[vENUM] Response for Queries with digits less than 5 digits changed from SERVFAIL to NXDOMAIN
36341699	4	8.6	There is a need of functionality where user can select and copy the data from the Maintenance section of the vSTP SOAM GUI
36312989	4	8.6	[vENUM] DNSKEY queries to ENUM application turned off
36176548	3	8.6	VstpDynVelCrossed not reflecting actual count in VSTP SFAPP Performance Report - Simple
36163111	3	8.6	GTT Selector configuration issue
36366450	3	8.6	VSTP boot when configuration update on MRN set happens
36157593	3	8.6	eLynx driver crash on receiving ATH
36189385	3	8.6	RSP Status not updated for indirect high cost route via other VSTP MP
35944185	3	8.6	MMI is allowing to create users with un-allowed characters in comment

7.2.3 VNFM

There are no known bugs for the VNFM 6.0.2.0.0 release.

7.3 Known Bug List

The section lists the known bugs for DSR, vSTP, and VNFM along with the associated customer impact statements.

7.3.1 DSR

Release 9.0.2.0.0

There are no known bugs for this release.

7.3.2 vSTP

Release 9.0.2.0.0

There are no known bugs for this release.

7.3.3 VNFM Known Bugs

Release 6.0.2.0.0

There are no known bugs for this release.

