Oracle® Communications Diameter Signaling Router

Licensing Information User Manual Release 8.4.0.1.0

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Oracle Communications Diameter Signaling Router Licensing Information User Manual, Release 8.4.0.1.0

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1. Introduction

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2. Licensing Information

Description of Product Editions and Permitted Features

Prerequisite Products

Entitled Products and Restricted Use Licenses

Product	Subproduct	Licensing Information					
Oracle Communications	Oracle Communications Diameter Signaling Router (base fee) – per Server	Description : This product provides the following base Diameter Signaling Router functionality:					
Diameter Signaling Router		Signaling Router	Signaling Router	Signaling Router	Signaling Router	Signaling Router	OAM – Operations, administration, measurements functionality including:
		SNMP, event logs, security logs, configuration, topology, user/group management, and reports.					
		Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.					
		Congestion Management – Ingress and egress, local and remote Diameter congestion control.					
		Connection Management – TCP, SCTP uni- and multi- homing, IPv4-IPv6 interworking, IPsec, load balancing and capabilities exchange.					
		Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.					
		Range Based Address Resolution – Stateless diameter proxy routing application that routes Diameter end-to-end transactions based on application ID, command code, routing entity type and routing entity address ranges.					
		Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.					
		IP Front End – TCP/SCTP connection based ingress load balancing which enables Diameter clients to access multiple Diameter Signaling Router servers via one or more virtual IP					

Product	Subproduct	Licensing Information
		addresses.
		Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.
		High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.
		Included products:
		MySQL Enterprise Edition
		Restriction: MySQL Enterprise Edition is included for use with Oracle Communications Diameter Signaling Router (Base Fee). Use of MySQL Enterprise Edition, including without limitation MySQL Enterprise Backup, is restricted to use with Oracle Communications Diameter Signaling Router (Base Fee).
	Oracle Communications Diameter Signaling Router	Description : Determines the maximum number of networkwide Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:
	(capacity) – per 100 Network-wide Messages per Second	Processing of an ingress Diameter message and either transmitting a single outgoing message or discarding the ingress message. The outgoing message may be a variant of, or a response to, the ingress message.
		Transmission of any Diameter message that is associated with incremental actions/events associated with #1 above. For example, the re-routing of a Request upon connection failure or the copying of a Request.
		Messages excluded from this measure are:
		Diameter peer-to-peer messages: CER/CEA, DWR/DWA, and DPR/DPA
		Ingress Diameter messages discarded by the DSR due to Overload controls
		Answers received in response to message copy
		Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in 100 MPS increments.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router (base fee) is a prerequisite to license and use Oracle Communications Diameter Signaling Router (capacity) or a license to one of the following legacy products:
		DSR Initial Content per server
		DSR RMS Initial Content per server
		DSR 5 Content Bundle per server

Product	Subproduct	Licensing Information
		DSR 5 Initial Content per server
		DSR Diameter MPS per network
		DSR Core Routing per server
		 DSR Core Routing per blade is a prerequisite to license and use Oracle Communications Diameter Signaling Router (capacity).
	Oracle Communications Diameter	Description : This sub-product adds the roaming proxy features listed below to the Oracle Communications Diameter Signaling Router.
	Signaling Router Roaming Proxy –	MME Topology Hiding
	per Server	HSS Topology Hiding
		Path Topology Hiding
		Prerequisites : A license to Oracle Communications Diameter Signaling Router (base fee) is a prerequisite to license and use Oracle Communications Diameter Signaling Router Roaming Proxy or a license to one of the following legacy products:
		DSR Initial Content per server
		DSR RMS Initial Content per server
		DSR Core Routing per server
		DSR Core Routing per blade
		DSR Policy Proxy per blade
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Roaming Proxy.
	Oracle Communications Diameter Signaling Router Full Address Resolution – per Server	Description : This sub-product adds full address resolution features to the Oracle Communications Diameter Signaling Router. Full address resolution is an enhanced proxy routing application that routes end-to-end Diameter transactions based on app-ID, Command Code, Routing Entity type, and Individual Routing Entity. This sub-product adds the following functionality to the Oracle Communications Diameter Signaling Router:
		Subscriber Database Server – Provides provisioning and storage of database information for full address resolution. Supports querying, reports and audits.
		Database Processor – Provides real-time access to the subscriber database at the signaling node.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router (base fee) is a prerequisite to license and use Oracle Communications Diameter Signaling Router Full Address Resolution or a license to one of the following legacy products:
		DSR Initial Content per server

		Licensing Information
		DSR Core Routing per server
		DSR Core Routing per blade
		DSR Policy Proxy per blade
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Full Address Resolution.
C D Si Fi R	Oracle Communications Diameter Signaling Router full Address Resolution – per	Description : Determines the number of subscribers or entities allowed by Oracle Communications Diameter Signaling Router for full address resolution. Licensing for Subscribers is provided on a network-wide basis. Each entry (entity) in the provisioned subscriber (SDS) database server (SDS) counts as one subscriber.
25	5k Subscribers	Orderable in 25k subscriber increments.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Full Address Resolution per server is a prerequisite to license and use Oracle Communications Diameter Signaling Router Full Address Resolution per 25k subscribers or a license to one of the following legacy products:
		DSR Address Resolution Proxy per server
		DSR Full Address Resolution I per server
		DSR 5 Content Bundle per server
		DSR 5 Initial Content per server
		DSR Subscribers per network
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Full Address Resolution per 25k subscribers.
C D Si	Oracle Communications Diameter Signaling Router	Description : This sub-product adds policy proxy to the Oracle Communications Diameter Signaling Router to enable the Policy DRA function. Policy DRA enables dynamic routing of subscriber sessions to PCRFs.
	Policy Proxy – per Server	This sub- product:
	-	 Distributes Gx/Gxx/S9/Rx sessions across PCRFs
		 Provides network-wide subscriber session binding
		 Provides session correlation across mated pairs
		 Performs topology hiding to hide the identities of the PCRFs from other elements in the network.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router (base fee) is a prerequisite to license and use Oracle Communications Diameter Signaling Router Policy Proxy or a license to one of the following legacy products:
		DSR Initial Content per server

Product	Subproduct	Licensing Information
		DSR Core Routing per server
		 DSR Core Routing per blade
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Policy Proxy.
	Oracle Communications Diameter Signaling Router	Description : Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router Policy Proxy. Licensing for concurrent sessions is provided on a network-wide basis.
	Policy Proxy – per 5K Network-wide Concurrent Sessions	Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in 5k session increments.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Policy Proxy per server is a prerequisite to license and use Oracle Communications Diameter Signaling Router Policy Proxy per 5k Network-wide Concurrent Sessions or a license to one of the following legacy products:
		DSR Policy Proxy 1 per server
		DSR 5 Content Bundle per server
		DSR 5 Initial Content per server
		DSR Policy Concurrent Sessions per network
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Policy Proxy per 5k Network-wide Concurrent Sessions.
	Oracle Communications Diameter Signaling Router	Description : Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router Online Charging Proxy. Licensing for concurrent sessions is provided on a network-wide basis.
	Online Charging Proxy – per 5K Network-wide Concurrent	Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
	Sessions	Orderable in 5k session increments.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Online Charging Proxy per server is a prerequisite to license and use Oracle Communications Diameter Signaling Router, Online Charging per 5k Networkwide Concurrent Sessions or a license to one of the following legacy products:
		 DSR Charging Proxy OCS Per Server
		 DSR Charging Concurrent Sessions per network
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router, Online Charging Proxy per 5k

Product	Subproduct	Licensing Information
		Network-wide Concurrent Sessions.
	Oracle Communications Diameter	Description : This sub-product adds policy proxy features to the Oracle Communications Diameter Signaling Router Policy Proxy.
	Signaling Router, Policy Proxy II – per Server	This sub-product adds:
		 Support for multiple PCRF pools including the ability to select the pool based on the APN+IMSI
		Support for Gx' and Gx-Lite messages
		 Gateway Location Application (GLA) interface support to access the binding database
		 Policy Proxy Selection & routing to a PCRF pool based on APN
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Policy Proxy is a prerequisite to license and use Oracle Communications Diameter Signaling Router Policy Proxy II or a license to one of the following legacy products:
		DSR Policy Proxy 1 per server
		DSR 5 Content Bundle per server
		DSR 5 Initial Content per server
		DSR Core Routing per blade
		DSR Policy Proxy per blade
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Policy Proxy II.
	Oracle Communications Diameter Signaling Router Translation Agent Base – per Server	Description: This sub-product adds MAP Diameter Interworking features to the Oracle Communications Diameter Signaling Router. For LTE-3G roaming, the DSR plays the role of the Interworking Function (IWF) to provide protocol mediation between Gr/Gr+ (3GPP MAP) and S6d (Diameter). The IWF also supports 3G-3G roaming over the S6d interface (SGSN Rel8). This capability also supports access by the MME or Rel8 SGSN over the S13 Diameter interface to an SS7 EIR DB, or vice-versa.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router is a prerequisite to license and use Oracle Communications Diameter Signaling Router Translation Agent Base or a license to one of the following legacy products:
		DSR Initial Content per server
		DSR RMS Initial Content per server
		DSR Core Routing per server
		DSR Core Routing per blade
		DSR Policy Proxy per blade

Product	Subproduct	Licensing Information
		DSR 5 Content Bundle per server
		DSR 5 Initial Content per server
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Translation Agent Base.
	Oracle Communications Diameter	Description : This sub-product adds Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router.
	Signaling Router, Core Routing I –	The following features are added with this sub-product:
	per Server	Active/Standby Peer Node Support
		Mediation Enhancements:
		 Support for logical OR'ing and a mechanism to group conditions
		 Support for "optional" actions
		 Support for a combined 'set/add AVP' action
		 Support for grouped AVPs to a depth of 5
		Support for checking of ranges on numbers
		Import/export of templates
		 Support for setting Message Priority and Route List in mediation.
		Support for Discard message action
		Support for Bit Set/Reset in conditions and actions
		Ability to check for peers/connections in conditions
		Special function to set Destination Realm from IMSI.
		 Support for setting "OctetString" type from the GUI.
		DSR maximum message size of 60,000 bytes
		PDU Pool Flexible Message Sizing
		DSR NOAM/SDS 32 Node Support
		Prerequisites : A license to Oracle Communications Diameter Signaling Router is a prerequisite to license and use Oracle Communications Diameter Signaling Router Core Routing I or a license to one of the following legacy products:
		DSR Initial Content per server
		DSR RMS Initial Content per server
		DSR Core Routing per server
		DSR Core Routing per blade
		DSR Policy Proxy per blade
		DSR 5 Content Bundle per server

Product	Subproduct	Licensing Information
		DSR 5 Initial Content per server
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Core Routing I.
	Oracle Communications Diameter	Description : This sub-product adds Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router.
	Signaling Router, Core Routing II – Per Server	The following features are added with this sub-product:
		IPFE Enhancements:
		 Peer Node Group aware least load distribution algorithm
		IPFE initiator support: DSR 'initiator only' connections
		Mediation Enhancements:
		Mediation support for Re-routed requests.
		Support for "optional" actions.
		 Mediation support for accessing components of the Diameter ingress request at the Answer Trigger Points
		Ability to import/export mediation rules
		Additional DCL trigger points
		Additional DRL/DAL triggers
		Support for Scripting in Mediation
		Mediation: per rule pegging
		Making AVP dictionary editable
		Comcol logging for CAPM
		Debug shell support for CAPM
		Support for grouped AVPs that are 6 levels deep
		Support for setting "OctetString" type from the GUI.
		Pending Answer timer increase to 16 (from 8)
		Extended Command Codes
		RBAR -> PDRA Application Chaining
		Ingress Message Screening
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Core Routing I is a prerequisite to license and use Oracle Communications Diameter Signaling Router Core Routing II.
	Oracle Communications Diameter Signaling Router,	Description : This sub-product adds Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router.

Product	Subproduct	Licensing Information
	Core Routing III –	The following features are added with this sub-product:
	Per Server	IPFE Enhancements:
		IPFE Initiator + Responder Support
		Mediation Enhancements:
		Support for grouped AVPs that are 8 levels deep
		Support for "Set Alarm/Event" as an action
		Support for "Re-direct" as an action
		Support for "Parse Decorated NAI" as an action
		Support for new Mediation conditions to identify Requests Redirected by DSR
		Routing Attributes by (Extended) Command Code
		Coordinated Egress Throttling across multiple DSRs
		Support for Redirect Client
		Realm-Based Redirect Notification Support
		Session SBR Database Consolidation and Remating
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Core Routing II is a prerequisite to license and use Oracle Communications Diameter Signaling Router Core Routing III.
	Oracle Communications Diameter Signaling Router, Core Routing IV –	Description : This sub-product adds Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router.
		The following features are added with this sub-product:
	Per Server	Mediation Enhancements:
		Routing Loop Alarm
		Tekelec specific AVP removal
		DCL peg and event normalization
		Dynamic Peer Discovery
		Increased Diameter Connection Limits (in a route group)
		DOIC Overload Control: DSR as a Reacting Node
		Implicit Realm Routing
		DSR Application ID aware routing
		Shared Traffic Throttle Groups (TTGs) for DOIC
		Support for FABR & OC-DRA interworking
		FABR – PDRA Application Chaining
		FABR – RBAR Application Chaining
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Core Routing III is a prerequisite to license

Product	Subproduct	Licensing Information
		and use Oracle Communications Diameter Signaling Router Core Routing IV.
	Oracle Communications Diameter	Description : This sub-product adds Active/Standby Peer Node Support enhancement features to the Oracle Communications Diameter Signaling Router.
	Signaling Router, Core Routing V –	The following features are added with this sub-product:
	Per Server	New Generation Network Priority Service ("NGN-PS") allows DSR to assign all NGN-PS messages higher priority over non NGN-PS messages (request and answers).
		Control for NGN-PS feature on a per diameter interface basis and for any combination of the following Long Term Evolution (LTE) and IP-Multimedia Subsystem (IMS) diameter interfaces:
		Gx interface: The Gx is used between the Policy Control and Charging Rules Function (PCRF) and the Policy and Charging Enforcement Function (PCEF) in the 3GPP interface specifications TS29.212. The Gx is used for provisioning and removal of Policy and Charging Control (PCC) rules from the PCRF to the PCEF and the transmission of traffic plane events from the PCEF to the PCRF.
		 Rx interface: The Rx interface is used to exchange application level session information between the Policy and Charging Rules Function (PCRF) and the Application Function (AF).
		 Cx/Dx: The Cx interface between the Call Session Control Function (CSCF) and the Home Subscriber Server (HSS). The Dx interface between the CSCF and the Server Locator Function (SLF).
		 Dh/Sh: Dh and Sh Interfaces are used between the Application Server (AS) and the HSS. The procedure is invoked by the AS and is used to read transparent and/or non-transparent data for a specified user from the HSS.
		Support NGN-PS where priority service messages are assigned the highest priority of Priority four (P4).
		If required DSR throttles normal traffic to an engineered capacity such that internal resources, including resources related to message queuing, resource pools, and message control functions are always available for a small amount of additional NGN-PS traffic. DSR per-connection ingress Multimedia Priority Service ("MPS") control algorithms shall discard the messages based on message priority in Priority zero (P0), Priority one (P1), Priority two (P2) and Priority three (P3) order respectively when the ingress message rate exceeds the configured maximum capacity of the given Diameter Peer Connection.
		Prerequisites: A license to Oracle Communications Diameter

Product	Subproduct	Licensing Information
		Signaling Router Core Routing IV is a prerequisite to license and use Oracle Communications Diameter Signaling Router Core Routing V.
	Oracle Communications Diameter	Description : This sub-product adds Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router.
	Signaling Router, Core Routing VI –	The following features are added with this sub-product:
	Per Server	Diameter Custom Application Framework
		Enables Operators to use in-house R&D resources or 3rd party application development organizations to rapidly develop and deploy new Diameter applications on DSR without requiring a new DSR software release.
		Diameter Custom "starter" Applications
		Roaming Steering
		The Roaming Steering platforms allow the home network to control successful registration rate of their outbound roamers. Therefore, the home network defines roaming steering policies for each group of roaming partners that are part of the same country.
		Online Charging Zero Balance Offload
		The primary purpose of the Online Charging Server (OCS) Zero Balance Offload feature defined here includes the following capabilities:
		 Detecting when a given subscriber, identified by MSISDN, has zero balance in their account.
		 Detecting when the OCS rejects the subscriber's session setup attempt N times during a given interval due to zero balance.
		 Responding to the PCEF to deny service to the subscriber on behalf of the OCS during a second given interval.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Core Routing V is a prerequisite to license and use Oracle Communications Diameter Signaling Router Core Routing VI.
		Additionally for CAF applications following are prerequisites.
		Oracle Communications Diameter Signaling Router, Policy Proxy – 5K Network-wide Concurrent Sessions
		Or
		Oracle Communications Diameter Signaling Router, On-line Charging Proxy – 5K Network-wide Concurrent Sessions
	Oracle Communications Diameter	Description : The Oracle Communications Diameter Signaling Router.

Product	Subproduct	Licensing Information
	Signaling Router,	The following features are added with this sub-product:
	Core Routing VII – Per Server	IETF RFC 7944 Diameter Routing Message Priority
		Overview of Diameter Routing Message Priority (DRMP)
		Mechanism to allow Diameter endpoints to indicate the relative priority of Diameter transactions. Message priority is be used in routing, resource allocation and overload abatement decision
		Use cases
		 First Responder Related Signaling
		Emergency Call Related Signaling
		Differentiated Services
		Application Specific Priorities
		Ability to assign message priorities based on DRMP AVP received in diameter messages as well as static message priorities configured using Message Priority Configuration Set (MPCS). Message priorities are used for message throttling decisions during congestion conditions
		Enable and disable DRMP AVP based message priority assignment for configurable diameter app-ID. Ability to assign priorities to answer messages equal to that of request messages.
		Support Answer message back from different connections (21072456)
		Allows DSR to process the Ingress Answer Diameter message received from connection of the upstream Diameter Peer, which is different from the connection, which was used to send the egress Diameter request for a given Diameter Transaction.
		Route Group Measurements (19091550)
		New measurements to monitor the amount of traffic being routed through specific route group
		Provides visibility of traffic distribution across different route groups
		Configuration to enable and disable route group measurements for individual route groups through SOAM GUI
		Support up to maximum of 250 Route Groups per DSR network element
		Two new measurement groups are added to support route group measurements:
		Route Group Performance
		Route Group Exception
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Core Routing VI is a prerequisite to license

Product	Subproduct	Licensing Information
		and use Oracle Communications Diameter Signaling Router Core Routing VII.
	Oracle Communications Diameter	Description : This sub-product adds the roaming proxy features listed below to the Oracle Communications Diameter Signaling Router.
	Signaling, Roaming Proxy II	S9 PCRF Topology Hiding
	– Per Server	S9 AF/pCSCF Topology Hiding
		S6a/S6d HSS Topology Hiding with multiple pseudo hosts names
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Roaming Proxy is a prerequisite to license and use Oracle Communications Diameter Signaling Router Roaming Proxy II or a license to the following legacy product:
		DSR_Roaming Proxy Per Server
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Roaming Proxy II.
	Oracle Communications Diameter Signaling Router, Online Charging Proxy – Per	Description : This sub-product adds online charging server proxy features to the Oracle Communications Diameter Signaling Router. The online charging proxy supports a stateful Diameter proxy agent over the Gy interface between multiple charging clients such as LTE PGWs, 3G GGSNs, IMS AFs, and multiple online charging servers (OCS).
	Server	Prerequisites: A license to Oracle Communications Diameter Signaling Router (base fee) is a prerequisite to license and use Oracle Communications Diameter Signaling Router Online Charging Server Proxy or a license to one of the following legacy products:
		DSR Initial Content per server
		DSR Core Routing per server
		DSR Core Routing per blade
		DSR Policy Proxy per blade
		DSR 5 Content Bundle per server
		DSR 5 Initial Content per server
		is a prerequisite to license and use Oracle Communications Diameter Signaling Router Online Charging Server Proxy.
	Oracle Communications Diameter Signaling Router Translation Agent RADIUS- per Server	Description: This sub-product adds RADIUS-Diameter Interworking features to the Oracle Communications Diameter Signaling Router. The DSR plays the role of the Interworking Function (IWF) to provide protocol mediation between RADIUS and Diameter for trusted/untrusted Wi-Fi access to 3GPP core. This will also provide the ability for WLAN Access Gateway (WAG) to continue using the legacy RADIUS AAA server, HLR authentication for legacy RADIUS-MAP, and HSS authentication for RADIUS-Diameter S6d.

Product	Subproduct	Licensing Information
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Translation Agent Base is a prerequisite to license and use Oracle Communications Diameter Signaling Router Translation Agent RADIUS.
Oracle Communications Integrated	Oracle Communications Integrated	Description : This product provides a troubleshooting tool for the Oracle Communications Diameter Signaling Router. This product:
Diameter Intelligence Hub	Diameter Intelligence Hub –	Integrates the configuration of trace filters directly into DSR
3	per Server	Allows trace filters to be applied against all messages processed by DSR
		Allows Transaction Data Records containing both Diameter Requests and Answers to be captured for additional analysis and filtering.
		Provides Ladder Diagrams to facilitate troubleshooting concerning message sequence and peer connection issues
		Supports detailed decoding of AVPs associated with the base Diameter protocol, as well as the following interfaces: Sh, Cx, Gy, Cc, S6a/d, Gx, Rx, SLg, SLh, SWm, SWx, STa, S6b, S9, Gxa
		Prerequisites: A license to Oracle Communications Technology Foundation for Monitoring Applications is a prerequisite to license and use Oracle Communications Integrated Diameter Intelligence Hub or a license to the following products:
		Oracle Database Enterprise Edition
		 Oracle Database Enterprise Edition Option: Partitioning
		WebLogic Server Enterprise Edition
		are prerequisites to license and use Oracle Communications Integrated Diameter Intelligence Hub.
		Included Products:
		MySQL Enterprise Edition
		Restriction: MySQL Enterprise Edition is included for use as the Oracle Communications Integrated Diameter Intelligence Hub Management Repository. Use of MySQL Enterprise Edition, including without limitation MySQL Enterprise Backup, is restricted to use with Oracle Communications Integrated Diameter Intelligence Hub.
	Oracle Communications Network Integrated	Description : This sub-product provides network-wide Integrated Diameter Intelligence Hub (iDIH), which enables correlation of trace data across a network of Integrated DIH (iDIH) instances. This sub-product:
	Diameter Intelligence Hub – per Server	Provides the ability to correlate trace data across a network of Integrated DIH (iDiH) instances.
		Retrieves and correlates trace data that has been captured

Product	Subproduct	Licensing Information
		across multiple DSR (iDIH) sites, and render an integrated trace to the user allowing centralized troubleshooting of all DSR's in the network.
		Is required at each integrated DIH (iDIH) node/server in the network to enable a network view.
		Prerequisites : A license to Oracle Communications Integrated Diameter Intelligence Hub is a prerequisite to license and use Oracle Communications Network Integrated Diameter Intelligence Hub.
	Oracle Communications	Description : This sub-product adds the following features to the Oracle Communications Diameter Signaling Router:
	Diameter Signaling Router,	Signaling Transfer Point (STP) functionality
	SS7 Signaling Transfer Point I –	Possibility to combine SS7 and Diameter signaling on the same node
	per server	The SS7 Signaling Transfer Point on DSR includes SIGTRAN protocols (M3UA and M2PA), Global Title Translation (GTT) and GTT Advanced load-sharing features
		Signaling and MTP3
		 M3UA and M2PA
		 Signaling Gateway mode for M3UA
		 M2PA can be either server or client at the SCTP connection level
		 Flow control at SCTP to manage incoming and outgoing traffic rates on each link
		 Link Transaction Per Second values defined at linkset level (all links within a linkset shall have the same capacity)
		• MTP3
		 Routing based on Destination Point Code of MTP3 layer
		 Supports equal load-sharing or dominant/backup up to 2 destinations
		SCCP
		 Supports UDT/XUDT and UDTS/XUDTS routing based on Called Party SCCP information
		 Enhanced Global Title Translation (GTT) designed for the Signaling Connection Control Part (SCCP)
		 Enables selection of various translation tables based on Global Title Information:
		 Numbering Plan (NP)
		 Nature of Address Indicator (NAI)

Product	Subproduct	Licensing Information
		Translation Type (TT)
		Variable GTT Length in the same GTT Set
		Advanced Load-Sharing features
		 Intermediate GTT Load-Sharing
		Flexible GTT Load-Sharing
		 Allows creation and customization of load-sharing groups in Mated Relay Node (MRN) or Mated APplications (MAP) tables.
		 Weighted GTT Load-Sharing
		 Allows creation and customization based on weighting for each destination, in-service threshold for group of load-sharing groups in MRN or MAP tables.
		 Transaction Based GTT Load-Sharing
		 Allows creation and customization based on transaction types and keys of load-sharing groups in MRN or MAP tables.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router (base fee) is a prerequisite to license and use Oracle Communications Diameter Signaling Router, SS7 Signaling Transfer Point I.
	Oracle Communications Diameter Signaling Router, SS7 Signaling Transfer Point II – per server	Description : This sub-product adds the following features to the Oracle Communications Diameter Signaling Router:
		Signaling Transfer Point (STP) functionality
		Possibility to combine SS7 and Diameter signaling on the same node
		The SS7 Signaling Transfer Point on DSR includes SIGTRAN protocols (M3UA and M2PA), Global Title Translation (GTT) and GTT Advanced load-sharing features
		Routing/Screening Features
		Flexible Origin Linkset Based Routing (FLOBR)
		TCAP Operation Based Routing (TOBR)
		GTT Actions for screening
		Prerequisites : A license to Oracle Communications Diameter Signaling Router, SS7 Signaling Transfer Point I is a prerequisite to license and use Oracle Communications Diameter Signaling Router, SS7 Signaling Transfer Point II.
	Oracle Communications	Description : This sub-product adds the following features to the Oracle Communications Diameter Signaling Router:
	Diameter Signaling Router, Diameter Security Application - Per	Deploying Diameter Signaling Router (DSR) at interconnects as DEA (Diameter Edge Agent) allows security policies per GSMA FS.19 and IR.88 based

Product	Subproduct	Licensing Information
	Server	integrated Diameter Firewall to be applied to all Diameter incoming traffic.
		Prerequisites: The following license are prerequisite to license and use Oracle Communications Diameter Signaling Router, Diameter Security Application
		Oracle Communications Diameter Signaling Router, (base fee) – Per Server
		Oracle Communications Diameter Signaling Router, (capacity) – Per 100 Network-wide Messages per Second
		Oracle Communications Diameter Signaling Router, Core Routing VII- Per Server
		Oracle Communications Diameter Signaling Router, Policy Proxy – 5K Network-wide Concurrent Sessions
		• Or
		Oracle Communications Diameter Signaling Router, On-line Charging Proxy – <u>5K Network-wide</u> Concurrent Sessions

3. Network Function Edition Licensing Information

Description of Product Editions and Permitted Features for the Diameter Signaling Router Network Function Edition. The Network Function Edition products cannot be mixed in the same network as any other Diameter Signaling Router products managed by a single Network OAM (NOAM).

Prerequisite Products

Entitled Products and Restricted Use Licenses

Product	Subproduct	Licensing Information
Communications Diameter Signaling Router Signal Netwo	Oracle Communications Diameter Signaling Router Network Function	Description : This product provides the following base Diameter Signaling Router functionality on a network-wide basis. Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:
	Edition – per Network-wide Messages per Second Perpetual	Processing of an ingress Diameter message and either transmitting a single outgoing message or discarding the ingress message. The outgoing message may be a variant of, or a response to, the ingress message.
		Transmission of any Diameter message that is associated with incremental actions/events associated with #1 above. For example, the re-routing of a Request upon connection failure or the copying of a Request.
		Messages excluded from this measure are:
		Diameter peer-to-peer messages: CER/CEA, DWR/DWA, and DPR/DPA
		Ingress Diameter messages discarded by the DSR due to Overload controls
		Answers received in response to Message Copy
		Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in 5000 MPS increments.
		OAM – Operations, administration, measurements functionality including:
		SNMP, event logs, security logs, configuration, topology, user/group management, and reports.
		Congestion Management – Ingress and egress, local and remote Diameter congestion control.
		Connection Management – TCP, SCTP uni- and multi- homing, IPv4-IPv6 interworking, IPsec, load balancing and capabilities exchange.

Product	Subproduct	Licensing Information
	Oracle Communications Diameter	Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.
	Signaling Router Network Function Edition – per Network-wide Messages per	Range Based Address Resolution – Stateless diameter proxy routing application that routes Diameter end-to-end transactions based on application ID, command code, routing entity type and routing entity address ranges.
	Second Perpetual – continued	Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.
		IP Front End –TCP/SCTP connection based ingress load balancing which enables Diameter clients to access multiple Diameter Signaling Router servers via one or more virtual IP addresses.
		Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.
		High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.
		Core Routing – All core routing and process functionality which includes specific handling of real-time Diameter messages
		Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router
		Roaming Proxy – All roaming proxy functionality for the Oracle Communication Diameter Signaling Router.
		Translation Agent – All Diameter Interworking functionality for the Oracle Communication Diameter Signaling Router.
		Included Products:
		MySQL Enterprise Edition
		Restriction: MySQL Enterprise Edition is included for use with Oracle Communications Diameter Signaling Router Network Function Edition. Use of MySQL Enterprise Edition, including without limitation MySQL Enterprise Backup, is restricted to use with Oracle Communications Diameter Signaling Router Network Function Edition.
		The Network Function Edition products cannot be mixed in the same network as any other Diameter Signaling Router products.

Product	Subproduct	Licensing Information
rioduct	Oracle Communications Diameter Signaling Router Network Function Edition for Database Applications – per 25k Subscribers Perpetual	Description: This product provides subscriber application Diameter Signaling Router functionality, such as Full Address Based Resolution, on a network-wide basis. Determines the number of subscribers or entities allowed by Oracle Communications Diameter Signaling Router for full address resolution. Licensing for Subscribers is provided on a network-wide basis. Each entry (entity) in the provisioned subscriber database server (SDS) counts as one subscriber. Orderable in 25k subscriber increments. Prerequisites: A license to Oracle Communications Diameter Signaling Router Network Function Edition is a prerequisite to license and use Oracle Communications Diameter Signaling Router Network Function Edition for Database Applications.
	Oracle Communications Diameter Signaling Router Network Function Edition for Stateful Applications – per 5k Network-wide Concurrent Sessions Perpetual	Description : This product provides stateful session application Diameter Signaling Router functionality, such as Policy Proxy and On-line Charging Proxy, on a network-wide basis. Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router. Licensing for concurrent sessions is provided on a network-wide basis.
		Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in 5k session increments.
		Prerequisites : A license to Oracle Communications Diameter Signaling Router Network Function Edition is a prerequisite to license and use Oracle Communications Diameter Signaling Router Network Function Edition for Stateful Applications.

Product	Subproduct	Licensing Information
	Oracle Communications Integrated Diameter Intelligence Hub Network Function Edition – per Server Perpetual	Description : This product provides a troubleshooting tool for the Oracle Communications Diameter Signaling Router Network Function Edition. Functionality included: Integrated DIH and Network Integrated DIH
		Prerequisites: A license to Oracle Communications Technology Foundation for Monitoring Applications is a prerequisite to license and use Oracle Communications Integrated Diameter Intelligence Hub Network Function Edition or a license to the following products:
		Oracle Database Enterprise Edition
		Oracle Database Enterprise Edition Option: Partitioning
		WebLogic Server Enterprise Edition
		are prerequisites to license and use Oracle Communications Integrated Diameter Intelligence Hub Network Function Edition.
		Included Products:
		MySQL Enterprise Edition
		Restriction: MySQL Enterprise Edition is included for use as the Oracle Communications Integrated Diameter Intelligence Hub Network Function Edition Management Repository. Use of MySQL Enterprise Edition, including without limitation MySQL Enterprise Backup, is restricted to use with Oracle Communications Integrated Diameter Intelligence Hub Network Function Edition.
		The Network Function Edition products cannot be mixed in the same network as any other Diameter Signaling Router products.

4. Common Signaling Licensing Information

Description of Product Editions and Permitted Features for the Diameter Signaling Router Common Signaling Licensing Model. The Common Signaling Licensing Model products cannot be mixed in the same network as any other Diameter Signaling Router products managed by a single Network OAM (NOAM).

Prerequisite Products

Entitled Products and Restricted Use Licenses

Product	Subproduct	Licensing Information
Oracle	Oracle	Description: Signaling Unit is defined as follows.
Communications Common Signaling	Communications Common Signaling – per	In the case of EAGLE, defined as a 4 nodal TPS which includes failover and engineered throughput.
G.g. a.m.g	Signaling Unit	In the case of DSR, defined as 1 network-wide MPS.
		This product provides the following base Diameter Signaling Router functionality on a network-wide basis. Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:
		Processing of an ingress Diameter message, RADIUS, SS7 message and either transmitting a single outgoing message or discarding the ingress message. The outgoing message may be a variant of, or a response to, the ingress message.
		Transmission of any Diameter message, RADIUS, SS7 message that are associated with incremental actions/events associated with #1 above. For example, the re-routing of a Request upon connection failure or the copying of a Request.
		Messages excluded from this measure are:
		 Diameter peer-to-peer messages: CER/CEA, DWR/DWA, and DPR/DPA
		 Ingress Diameter messages discarded by the DSR due to Overload controls
		Answers received in response to Message Copy
		Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in 5000 MPS increments.
		OAM – Operations, administration, measurements functionality including:
		SNMP, event logs, security logs, configuration, topology, user/group management, and reports.
		Congestion Management – Ingress and egress, local and remote Diameter congestion control.
		Connection Management – TCP, SCTP uni- and multi- homing, IPv4-IPv6 interworking, IPsec, load balancing and capabilities exchange.

Subproduct	Licensing Information
Oracle Communications Common Signaling – per Signaling Unit – continued	Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.
	Range Based Address Resolution – Stateless diameter proxy routing application that routes Diameter end-to-end transactions based on application ID, command code, routing entity type and routing entity address ranges.
	Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.
	IP Front End – TCP/SCTP connection based ingress load balancing which enables Diameter clients to access multiple Diameter Signaling Router servers via one or more virtual IP addresses.
	Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.
	High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.
	Core Routing – All core routing and process functionality which includes specific handling of real-time Diameter messages
	Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router
	Roaming Proxy – All roaming proxy functionality for the Oracle Communication Diameter Signaling Router.
	Translation Agent – All Diameter Interworking functionality for the Oracle Communication Diameter Signaling Router.
	This product also provides base and signaling unit throughput for the Oracle Communications EAGLE application. Refer to the EAGLE License Information Manual for licensing details when used to deliver SS7 routing.
	Included Products:
	MySQL Enterprise Edition
	Restriction:
	MySQL Enterprise Edition is included for use with Oracle Communications Common Signaling. Use of MySQL Enterprise Edition, including without limitation MySQL Enterprise Backup, is restricted to use with Common Signaling.
_	Communications Common Signaling – per Signaling Unit –

Product	Subproduct	Licensing Information
	Oracle Communications Common Signaling for Database Applications – per 25k Subscribers Perpetual	Description: This product provides subscriber application Diameter Signaling Router functionality, such as Full Address Based Resolution, on a network-wide basis. Determines the number of subscribers or entities allowed by Oracle Communications Diameter Signaling Router for full address resolution. Licensing for Subscribers is provided on a network-wide basis. Each entry (entity) in the provisioned subscriber database server (SDS) counts as one subscriber.
		Orderable in 25k subscriber increments.
		This product also provides database applications and capacity for the Oracle Communications EAGLE application. Refer to the EAGLE License Information Manual for licensing details when used to deliver SS7 database applications.
		Prerequisites: A license to Oracle Communications Common Signaling is a prerequisite to license and use Oracle Communications Common Signaling for Database Applications.
	Oracle Communications Common Signaling for Stateful Applications – per 5k Network-wide Concurrent Sessions	Description: This product provides stateful session application Diameter Signaling Router functionality, such as Policy Proxy and On-line Charging Proxy, on a network-wide basis. Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router. Licensing for concurrent sessions is provided on a network-wide basis. Network-wide concurrent sessions are calculated as the peak
	Perpetual	5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in 5k session increments.
		Prerequisites : A license to Oracle Communications Common Signaling is a prerequisite to license and use Oracle Communications Common Signaling for Stateful Applications.
	Oracle Communications	Description : This sub-product adds the following features to the Oracle Communications Diameter Signaling Router:
	Common Signaling, SS7	Signaling Transfer Point (STP) functionality
	Signaling Transfer Point – per node	Possibility to combine SS7 and Diameter signaling on the same node
		The SS7 Signaling Transfer Point on DSR includes SIGTRAN protocols (M3UA and M2PA), Global Title Translation (GTT), and GTT Advanced load-sharing features.
		Signaling and MTP3
		M3UA and M2PA
		 Signaling Gateway mode for M3UA
		M2PA can be either server or client at the SCTP connection level

Product	Subproduct	Licensing Information
		Flow control at SCTP to manage incoming and outgoing traffic rates on each link
		 Link Transaction Per Second values defined at linkset level (all links within a linkset is have the same capacity)
		• MTP3
		 Routing based on Destination Point Code of MTP3 layer
		 Supports equal load-sharing or dominant/backup up to 2 destinations
		SCCP
		 Supports UDT/XUDT and UDTS/XUDTS routing based on Called Party SCCP information
		 Enhanced Global Title Translation (GTT) designed for the Signaling Connection Control Part (SCCP)
		 Enables selection of various translation tables based on Global Title Information:
		Numbering Plan (NP)
		 Nature of Address Indicator (NAI)
		Translation Type (TT)
		Variable GTT Length in the same GTT Set
		Advanced Load-Sharing features
		 Intermediate GTT Load-Sharing
		Flexible GTT Load-Sharing
		 Allows creation and customization of load- sharing groups in Mated Relay Node (MRN) or Mated Applications (MAP) tables.
		Weighted GTT Load-Sharing
		 Allows creation and customization based on a weighting for each destination, In-service threshold for a group of load-sharing groups in MRN or MAP tables.
		 Transaction-Based GTT Load-Sharing
		 Allows creation and customization based on transaction types and keys of load-sharing groups in MRN or MAP tables.
		Prerequisites: A license to Oracle Communications Diameter Signaling Router Network Function Edition (base) or Oracle Communications Common Signaling (base) is a prerequisite to license and use Oracle Communications Diameter Signaling Router, SS7 Signaling Transfer Point.

Product	Subproduct	Licensing Information
	Oracle Communications Common Signaling, Security Application - per NODE	Description : This sub-product adds the following features to the Oracle Communications Diameter Signaling Router:
		Deploying Diameter Signaling Router (DSR) at interconnects as DEA (Diameter Edge Agent) allows security policies per GSMA FS.19 and IR.88 based integrated Diameter Firewall to be applied to all Diameter incoming traffic.
		Prerequisites : The following license is prerequisite to license and use Oracle Communications Common Signaling, Security Application
		Oracle Communications Common Signaling – per Signaling Unit
		Or
		Oracle Communications Diameter Signaling Router Network Function Edition – per Network-wide Messages
		Oracle Communications Common Signaling for Stateful Applications – per 5k Sessions
		Or
		Oracle Communications Diameter Signaling Router Network Function Edition for Stateful Applications – per 5k Networkwide Concurrent Sessions.
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router:
	Common Signaling, Equipment Identity Register – per NODE	Equipment Identity Register (EIR) reduces the number of GSM mobile handset thefts by providing a mechanism that will allow the network operators to prevent stolen or disallowed handsets from accessing the network. This control is done by using the International Mobile Equipment Identity (IMEI) provided during handset registration and comparing it against a set of lists provided by the network operator. This application may also provide an option to validate IMEI based on the IMSI (International Mobile Subscriber Identity).
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Equipment Identity Register – per Node
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
		Oracle Communications Common Signaling for Database Applications - per 25k Subscribers
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Service Capability	Service Capability Exposure Function (SCEF) is a new network element in EPC which provides a means to securely expose the services and capabilities provided by 3GPP

Product	Subproduct	Licensing Information
	Exposure Function - per NODE	network interfaces. It provides access to network capabilities through homogenous network application programming interfaces (e.g. Network APIs) defined over T8 interface towards SCS/AS. The important functionalities of SCEF include Non IP data delivery for low power devices, Monitoring a device's state, SCS/AS AAA (Application Server authorization, accounting and SLAs), Device Trigger Delivery through SMS acting as an MTC-IWF, QoS of a data flow, sponsoring a data flow (i.e. changing the chargeable party), Scheduling data transfers, and Receiving reports about the network congestion condition of the RAN.
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Service Capability Exposure Function - per NODE
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
		Oracle Communications Common Signaling for Stateful Applications - per 5k Network-Wide Concurrent Sessions
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Nodal Configuration	Nodal Configuration capacity provides enhanced configuration capacity on a nodal bases for following items.
	capacity - per NODE	500K MPS for Diameter and 300K MPS for STP
		Virtual Network Function Manager (VNF-M)
		32K connections per node (SOAM)
		 Application Routing Tables & Peer Routing Tables to 50K
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Nodal Configuration capacity - per NODE
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
Common Signaling, Service Proxy Function - per NODE	The Service Proxy Function (SPF) addresses introduction of 5G Service Based Architecture and the usage of HTTP/2 for signaling. Provides congestion control in cases of flooding and at the same time protect servers from being overloaded. Facilitates traffic prioritization to ensure that the higher priority traffic is addressed in overload situations Uniform Authorization/Authentication mechanism in the network Simplifies the network and provider better visibility into the health of the network. Reduces the connection mesh to a manageable number of connections, thereby decreasing the chances of failure.	

Product	Subproduct	Licensing Information
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Service Proxy Function - per NODE
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
	Oracle Communications Common Signaling, Network Repository Function - per NODE	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
		The Network Repository Function (NRF) supports management and discovery services and the management services allow for Network Function (NF) instances to be Introduced/Updated/Removed in the 5G core without manual configuration. The more NRF developments will come as part of future releases.
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Network Repository Function - per NODE
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Routing and Selection domain – per NODE	Routing and Selection domain combines both Service Proxy Function (SPF) and Network Repository Function (NRF) provides a real-time information about any Network Function (NF) and leads to better NF selection decision making by the NRF and SPF able to perform overload protection without configuration and dynamic re-routing where applicable. Refer to following Subproduct information for additional details.
		Oracle Communications Common Signaling, Service Proxy Function - per NODE
		Oracle Communications Common Signaling, Network Repository Function - per NODE
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Routing and Selection domain – per NODE
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
		Oracle Communications Common Signaling, Service Proxy Function - per NODE
		Oracle Communications Common Signaling, Network Repository Function - per NODE
	Oracle Communications Common Signaling, Binding Support Function	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
		The Binding Support Function (BRF) provides session binding functionality, which ensures request for session reaches the

Product	Subproduct	Licensing Information
	– per Node	relevant PCF holding the session information.
	This service:	
		- Allows Network Function (NF) consumers to register, update and remove the binding information; and
		- Allows Network Function (NF) consumers to retrieve the binding information.
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Binding Support Function - per NODE
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
		Oracle Communications Common Signaling for Stateful Applications – per 5k Network-wide Concurrent Sessions Perpetual
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Network Exposure Function - Per	The Network Exposure Function (NEF) provides RESTful APIs that allow access to the services and capabilities provided by network entities and securely exposed by NEF.
	Node	The NEF Northbound interface supports the following procedures:
		- Procedures for Monitoring
		- Procedures for Device Triggering
		- Procedures for resource management of Background Data Transfer
		- Procedures for Communication Pattern Parameters Provisioning
		- Procedures for Packet Flow Description Management
		- Procedures for Traffic Influence
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Network Exposure Function - Per Node
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
		Oracle Communications Common Signaling for Stateful Applications – per 5k Network-wide Concurrent Sessions Perpetual
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Interworking and Mediation	The Interworking and Mediation (IWF) provides Interworking and mediation function between HTTP ⇔ HTTP and HTTP ⇔ Diameter that allow access to the services and capabilities

Product	Subproduct	Licensing Information
	Function - Per	provided by network entities.
	Node	Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Interworking and Mediation Function - Per Node
		Customer must purchase a license of Interworking and Mediation Function (IWF) for each separately purchased Network Function (NF) where the customer requires IWF whether deploying all functions on one node or on separate nodes. When licensed in the Routing and Selection offering, pricing includes the use of IWF for the following five functions deployed in the same node: Service Proxy Function (SPF), Network Slice Selection Function (NSSF), Binding Support Function (BSF), Security Edge Protection Proxy (SEPP), and Network Expose Function (NEF). IWF is not applicable to Network Repository Function (NRF).
	Oracle Communications	Oracle Communications Common Signaling, Network Slice Selection Function - Per Node
	Common Signaling, Network Slice	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Selection Function - Per Node	The Network Slice Selection Function (NSSF) provides an important capability to bring network resource utilization efficiency, deployment flexibility and support fast growing over the top (OTT) application and services.
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Network Slice Selection Function - Per Node
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Security Edge Protection Proxy - Per Node	The Signaling Security Edge Protection Proxy (SEPP) Security Edge Protection Proxy (SEPP) is a nontransparent proxy that supports message filtering and policing on inter-PLMN control-plane interfaces and topology hiding for the PLMN network. A SEPP function should perform the firewall role for transactions between domains. Given that the SEPP is the point where integrity protection and encryption are applied, the SEPP has visibility into each aspect of a transaction.
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Security Edge Protection Proxy - Per Node
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
	Oracle Communications	Oracle Communications Common Signaling, Mobile Number Portability - Per Node
	Common Signaling, Mobile	Description: The sub-product adds the following features to

Product	Subproduct	Licensing Information
	Number Portability	the Oracle Communications Diameter Signaling Router
	- Per Node	The Mobile Number Portability (MNP) Process is the facility that helps you switch from one mobile phone network service provider to another in any Licensed Service Area (LSA) while retaining your existing number.
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Mobile Number Portability – per Node
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
		Oracle Communications Common Signaling for Database Applications - per 25k Subscribers
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Automated Test Tools and Scripts	The Automated Test Tools, Scripts license provides tools and scripts for functional, and performance testing needs in the field.
	- Per Node	Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Automated Test Tools and Scripts – per Node
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Network Function Cloud Native	The Network Function Cloud Native Environment provides tools and capabilities to run cloud native network functions in the network.
	Environment - Per Node	Prerequisites: Any one of the following license is prerequisite to license and use Oracle Communications Common Signaling, Network Function Cloud Native Environment – per Node
		Oracle Communications Common Signaling, Security Edge Protection Proxy - Per Node
		Oracle Communications Common Signaling, Network Slice Selection Function - Per Node
		Oracle Communications Common Signaling, Interworking and Mediation Function - Per Node
		Oracle Communications Common Signaling, Network Exposure Function - Per Node
		Oracle Communications Common Signaling, Binding Support Function - per NODE
		Oracle Communications Common Signaling, Network

Product	Subproduct	Licensing Information
		Repository Function - per Node
		Oracle Communications Common Signaling, Service Proxy Function - per Node
		Oracle Communications Common Signaling, Routing and Selection domain – per Node
		Oracle Communications Common Signaling, Unified Data Repository – per Node
		Oracle Communications Common Signaling, Unstructured Data Storage Function – per Node
		Oracle Communications Common Signaling, Diameter Routing Agent – per Node
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Unified Data Repository – per Node	The User Data Repository (UDR) is a functional entity that acts as a single logical repository of user data and is unique from Application Front End's perspective. Entities which do not store user data and that need to access user data stored in the UDR are collectively known as application front ends
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Unified Data Repository – per Node
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
		Oracle Communications Common Signaling for Database Applications - per 25k Subscribers
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling, Unstructured Data Storage Function – per Node	The Unstructured Data Storage Function (UDSF) function is a part of the UDM entity. Network Functions (NFs) can store/retrieve "unstructured" data from an Unstructured Data Storage Function (UDSF). This data is based on the state information of different NFs, intermediate representation of data crossing different technologies, etc.
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Unstructured Data Storage Function – per Node
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second
		Oracle Communications Common Signaling for Database Applications - per 25k Subscribers
	Oracle Communications	Description: The sub-product adds the following features to the Oracle Communications Diameter Signaling Router
	Common Signaling,	The Diameter Routing Agent (DRA) provides ability to route

Product	Subproduct	Licensing Information
	Diameter Routing Agent – per Node	diameter messages between Network Functions (NF) in the 4G network
		Prerequisites: The following license is prerequisite to license and use Oracle Communications Common Signaling, Diameter Routing Agent – per Node
		Oracle Communications Common Signaling – per Signaling Unit – per Message per Second

5. Oracle Communications Diameter Signaling Router – Licensing Notes – Legacy

Product	Subproduct	Licensing Information
Oracle Communications Diameter Signaling Router	EXG DSR MPS Per Node	Description : Determines the maximum number of nodal Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:
		Processing of an ingress Diameter message and either transmitting a single outgoing message or discarding the ingress message. The outgoing message may be a variant of, or a response to, the ingress message.
		Transmission of any Diameter message that is associated with incremental actions/events associated with #1 above. For example, the re-routing of a Request upon connection failure or the copying of a Request.
		Messages excluded from this measure are:
		Diameter peer-to-peer messages: CER/CEA, DWR/DWA, and DPR/DPA
		Ingress Diameter messages discarded by the DSR due to Overload controls
		Answers received in response to Message Copy
		Nodal MPS is calculated as the peak 5-minute interval of the signaling node. A node is defined as a network element that is managed by a single system operation, alarms, and measurements server pair.
		Orderable in MPS increments that match MPS capacity product description.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR IPSEC MPS Per Node	Description : Determines the maximum number of nodal Messages per Second (MPS) using IPsec encryption allowed by Oracle Communications Diameter Signaling Router.
		Orderable in MPS increments that match IPsec MPS capacity product description.
		Prerequisites: A license to Oracle Communications Diameter

Product	Subproduct	Licensing Information
		Signaling Router EXG DSR MPS Per Node is a prerequisite to license and use Oracle Communications Diameter Signaling Router EXG DSR IPSEC Per Node.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Connections per	Description : Determines the number of connections allowed by Oracle Communications Diameter Signaling Router.
	Node	A connection is defined as an SCTP association or a TCP/IP connection.
		Orderable in increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR ADDL Routing Pkg 1	Description : Enables the capability per node of the Oracle Communications Diameter Signaling Router to route based on Command Code and Origin-Realm.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR ADDL Routing Entries per Node	Description : Determines the number of routing entries allowed by Oracle Communications Diameter Signaling Router.
		A routing entry is defined as an entry in the DSR routing table.
		Orderable in increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR NPA Splits Per Node	Description : This sub-product enables the Oracle Communications Diameter Signaling Router Subscriber Database Server to create temporary duplicate MSISDN records automatically during Numbering Plan Area (NPA) split process.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR LTE Address Resolution	Description: This sub-product adds full address resolution features per node to the Oracle Communications Diameter Signaling Router for the LTE HSS. Full address resolution is an enhanced proxy routing application that routes end-to-end Diameter transactions based on app-ID, Command Code, Routing Entity type, and Individual Routing Entity. This sub-product adds the following functionality to the Oracle Communications Diameter Signaling Router:
		Subscriber Database Server – Provides provisioning and storage of database information for full address resolution. Supports querying, reports and audits.
		Database Processor – Provides real-time access to the subscriber database at the signaling node.

Product	Subproduct	Licensing Information
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR IMS Address Resolution	Description: This sub-product adds full address resolution features per node to the Oracle Communications Diameter Signaling Router for the IMS HSS. Full address resolution is an enhanced proxy routing application that routes end-to-end Diameter transactions based on app-ID, Command Code, Routing Entity type, and Individual Routing Entity. This sub-product adds the following functionality to the Oracle Communications Diameter Signaling Router:
		Subscriber Database Server – Provides provisioning and storage of large amounts of database information for full address resolution. Supports querying, reports and audits.
		Database Processor – Provides real-time access to the subscriber database at the signaling node.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR IMS Range Address Resolution	Description : This sub-product adds range based address resolution features per node to the Oracle Communications Diameter Signaling Router for IMS.
		This sub-product adds the following functionality to the Oracle Communications Diameter Signaling Router:
		Routing based on app-ID, Command Code, Routing Entity Type, and Routing Entity address ranges
		Routing Entity types can be a user identity (IMSI, MSISDN, IMPI or IMPU) or an IP address
		Allows definition of a prioritized (primary and secondary) Routing Entity type and associated range for each app- ID/Command Code combination.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR LTE Range Address Resolution	Description : This sub-product adds range based address resolution features per node to the Oracle Communications Diameter Signaling Router for LTE.
		This sub-product adds the following functionality to the Oracle Communications Diameter Signaling Router:
		Routing based on app-ID, Command Code, Routing Entity Type, and Routing Entity address ranges
l		Routing Entity types can be a user identity (IMSI, MSISDN, IMPI or IMPU) or an IP address
		Allows definition of a prioritized (primary and secondary) Routing Entity type and associated range for each app- ID/Command Code combination.
l		Restrictions : This product SKU is for legacy customer applications only.

Product	Subproduct	Licensing Information
	EXG DSR SLF	Description : This sub-product adds full address resolution features per node to the Oracle Communications Diameter Signaling Router. Full address resolution is an enhanced proxy routing application that routes end-to-end Diameter transactions based on app-ID, Command Code, Routing Entity type, and Individual Routing Entity. This sub-product adds the following functionality to the Oracle Communications Diameter Signaling Router:
		Subscriber Database Server – Provides provisioning and storage of database information for full address resolution. Supports querying, reports and audits.
		Database Processor – Provides real-time access to the subscriber database at the signaling node.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Subscribers	Description : Determines the number of subscribers or entities allowed per node by Oracle Diameter Signaling Router for full address resolution. Each entry (entity) in the provisioned subscriber database server (SDS) counts as one subscriber.
		Orderable in subscriber increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	SDS Software Kernel	Description : This sub-product enables per node the Oracle Communications Diameter Signaling Router Subscriber Database Server (SDS), which is used for IMS or LTE Full Address Resolution or SLF.
		Restrictions : This product SKU is for legacy customer applications only.
	SDS Query Server	Description : This sub-product enables per node the Oracle Communications Diameter Signaling Router Subscriber Database Server (SDS) for an offline version of the address resolution database on a query server. This function is used for IMS or LTE Full Address Resolution or SLF.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Message Throttling	Description : This sub-product enables per node message throttling in the Oracle Communications Diameter Signaling Router. This sub-product adds the following functionality to the Oracle Communications Diameter Signaling Router:
		Per-connection Ingress MPS control
		Per-connection Egress Message throttling
		Remote BUSY congestion control
		Remote Transport congestion control

Product	Subproduct	Licensing Information
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Mediation Rules Per Node	Description : This sub-product adds Diameter Mediation to the Oracle Communications Diameter Signaling Router. Diameter Mediation is a GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues. A mediation rule is defined as a rules template, which contains multiple conditions and actions associated with the mediation function. Orderable in increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR OFCS Topology Hiding Per Node	Description : This sub-product adds Off-Line Charging topology hiding to the Oracle Communications Diameter Signaling Router. This sub-product provides topology hiding to and from Charging Trigger Functions and Charging Data Functions.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Concurrent Sessions	Description : Determines the number of concurrent Diameter sessions allowed per node by Oracle Communications Diameter Signaling Router for policy proxy or off-line charging proxy. Licensing for concurrent sessions is provided on a per node basis.
		Nodal concurrent sessions are calculated as the peak 5-minute interval of the signaling node managed by a single system operation, administration, and maintenance server pair.
		Orderable in session increments that match session capacity product description.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR IPFE GB/S	Determines the bandwidth per node of the IP Front End allowed by Oracle Communications Diameter Signaling Router.
		Orderable in bandwidth increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Policy Topology Hiding Per Node	Description : This sub-product adds policy topology hiding to the Oracle Communications Diameter Signaling Router. This feature hides the identities PCRFs from other elements in the network.
		Restrictions : This product SKU is for legacy customer applications only.

Product	Subproduct	Licensing Information
	EXG DSR Remote Congestion Control Per Node	Description : This sub-product enables the following remote congestion control features in the Oracle Communications Diameter Signaling Router:
		Remote BUSY congestion control
		Remote Transport congestion control
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Per Connection TPS Controls Per Node	Description : This sub-product enables the following per connection message control features in the Oracle Communications Diameter Signaling Router:
		Per-connection Ingress MPS control
		Per-connection Egress Message throttling
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Policy DRA Per Node	Description : This sub-product adds Policy DRA to the Oracle Communications Diameter Signaling Router. Policy DRA enables dynamic routing of subscriber sessions to PCRFs, distributes Gx/Gxx/S9/Rx sessions across PCRFs and provides network-wide subscriber session binding
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Policy Correlation Per Node	Description : This sub-product adds policy proxy correlation to the Oracle Communications Diameter Signaling Router. Policy correlation provides session correlation across interfaces, such as Gx and Rx, and across mated DSR pairs.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR 5K MPS Per Network	Description : Determines the maximum number of networkwide Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:
		Processing of an ingress Diameter message and either transmitting a single outgoing message or discarding the ingress message. The outgoing message may be a variant of, or a response to, the ingress message.
		Transmission of any Diameter message that is associated with incremental actions/events associated with #1 above. For example, the re-routing of a Request upon connection failure or the copying of a Request.
		Messages excluded from this measure are:
		Diameter peer-to-peer messages: CER/CEA, DWR/DWA, and DPR/DPA
		Ingress Diameter messages discarded by the DSR due to Overload controls

Product	Subproduct	Licensing Information
		Answers received in response to Message Copy
		Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in increments that match product description.
		Restrictions : This license is for specific legacy customer applications only.
	DSR 5M Concurrent Sessions Per	Description : Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router for policy proxy.
	Network	Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Concurrent Sessions per 5M Per Network	Description : Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router for policy proxy.
		Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	SDS XML to PDBI Conversion Per Network	Description : This sub-product adds an XML to PDBI conversion capability to the Oracle Communications Diameter Signaling Router Subscriber Database Server. This interface conversion allows for interoperability between the Subscriber Database Server and legacy PDBI network elements.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR MPS Per 100K Per Network	Description : Determines the maximum number of networkwide Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:
		Processing of an ingress Diameter message and either transmitting a single outgoing message or discarding the ingress message. The outgoing message may be a variant of, or a response to, the ingress message.
		Transmission of any Diameter message that is associated with incremental actions/events associated with #1 above. For example, the re-routing of a Request upon connection

Product	Subproduct	Licensing Information
		failure or the copying of a Request.
		Messages excluded from this measure are:
		Diameter peer-to-peer messages: CER/CEA, DWR/DWA, and DPR/DPA
		Ingress Diameter messages discarded by the DSR due to Overload controls
		Answers received in response to Message Copy
		Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Core Routing Per Blade	This sub-product provides the following base Oracle Communications Diameter Signaling Router functionality:
		OAM – Operations, administration, measurements functionality including:
		SNMP, event logs, security logs, configuration, topology, user/group management, and reports.
		Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.
		Congestion Management – Ingress and egress, local and remote Diameter congestion control.
		Connection Management – TCP, SCTP uni- and multi- homing, IPv4-IPv6 interworking, IPsec, load balancing and capabilities exchange.
		Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.
		Range Based Address Resolution – Stateless diameter proxy routing application that routes Diameter end-to-end transactions based on application ID, command code, routing entity type and routing entity address ranges.
		Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.
		IP Front End –TCP/SCTP connection based ingress load balancing which enables Diameter clients to access multiple Diameter Signaling Router servers via one or more virtual IP addresses.
		Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.
		High Availability – All message processing critical

Product	Subproduct	Licensing Information
		components are engineered with high levels of redundancy to ensure high availability.
		Orderable in increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Policy Proxy Per Blade	Description : This sub-product adds policy proxy to the Oracle Communications Diameter Signaling Router. The policy proxy enables dynamic routing of subscriber sessions to PCRFs and supports the following capabilities:
		Distributes Gx/Gxx/S9/Rx sessions across PCRFs
		Provides network-wide subscriber session binding
		Provides session correlation across mated pairs
		Performs topology hiding to hide the identities of the PCRFs from other elements in the network.
		Orderable in increments that match product description.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Diameter MPS Per Network	Description : Determines the maximum number of networkwide Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:
		Processing of an ingress Diameter message and either transmitting a single outgoing message or discarding the ingress message. The outgoing message may be a variant of, or a response to, the ingress message.
		Transmission of any Diameter message that is associated with incremental actions/events associated with #1 above. For example, the re-routing of a Request upon connection failure or the copying of a Request.
		Messages excluded from this measure are:
		Diameter peer-to-peer messages: CER/CEA, DWR/DWA, and DPR/DPA
		Ingress Diameter messages discarded by the DSR due to Overload controls
		Answers received in response to Message Copy
		Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in single MPS increments.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Policy Concurrent	Description : Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter

Product	Subproduct	Licensing Information
	Sessions Per	Signaling Router for policy proxy.
	Network	Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in single session increments.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Subscribers – Per Network	Description : Determines the number of subscribers or entities allowed by Oracle Communications Diameter Signaling Router for full address resolution. Each entry (entity) in the provisioned subscriber database server (SDS) counts as one subscriber.
		Orderable in single subscriber increments.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Core Routing Per Server	Description : This sub-product provides the following base Oracle Communications Diameter Signaling Router functionality:
		OAM – Operations, administration, measurements functionality including:
		SNMP, event logs, security logs, configuration, topology, user/group management, and reports.
		Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.
		Congestion Management – Ingress and egress, local and remote Diameter congestion control.
		Connection Management – TCP, SCTP uni- and multi- homing, IPv4-IPv6 interworking, IPSec, load balancing, and capabilities exchange.
		Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.
		Range Based Address Resolution – Stateless diameter proxy routing application that routes Diameter end-to-end transactions based on application ID, command code, routing entity type, and routing entity address ranges.
		Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.
		IP Front End – TCP/SCTP connection based ingress load balancing which enables Diameter clients to access multiple Diameter Signaling Router servers via one or more virtual IP addresses.

Product	Subproduct	Licensing Information
		Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.
		High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Policy Proxy Per Server	Description : This sub-product adds policy proxy to the Oracle Communications Diameter Signaling Router. Policy Proxy enables dynamic routing of subscriber sessions to PCRFs.
		Policy Proxy supports the following capabilities:
		Distributes Gx/Gxx/S9/Rx sessions across PCRFs
		Provides network-wide subscriber session binding
		Provides session correlation across mated pairs
		Performs topology hiding to hide the identities of the PCRFs from other elements in the network.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Charging Proxy OFCS Per Server	Description : This sub-product adds off-line charging server proxy to the Oracle Communications Diameter Signaling Router. The off-line charging proxy supports a Diameter proxy agent over the Rf interface between multiple Charging Trigger Function (CTF) clients such as PGWs, SGWs, GGSNs, CSFCs, and multiple Charging Data Function (CDF) servers. The following features are provided with this sub-product:
		Session/Subscriber Binding Repository
		Charging Topology Hiding
		Restrictions:
		This product SKU is for legacy customer applications only.
	DSR Address Resolution Proxy Per Server	Description : This sub-product adds full address resolution to the Oracle Communications Diameter Signaling Router. Full address resolution is an enhanced proxy routing application that routes end-to-end Diameter transactions based on application, Command Code, Routing Entity type, and Individual Routing Entity. The following features are provided with this sub-product:
		Subscriber Database Server – Provides provisioning and storage of large amounts of database information for full address resolution. Supports querying, reports and audits.
		Database Processor – Provides real-time access to the subscriber database at the signaling node.
		IMS HSS Address Resolution

Product	Subproduct	Licensing Information
		LTE HSS Address Resolution
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Roaming Proxy Per Server	Description : This sub-product adds roaming proxy to the Oracle Communications Diameter Signaling Router. The following features are provided with this sub-product:
		MME Topology Hiding
		HSS Topology Hiding
		Path Topology Hiding
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Software Per lab	Description : This sub-product provides access to all functionality in the Oracle Communications Diameter Signaling Router and all sub-products for non-production lab or test environments.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Diameter MPS Per Node	Description : This sub-product includes base functionality of the Oracle Communications Diameter Signaling Router and determines the maximum number of nodal Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router.
		The base functionality consists of:
		Connections
		Routes
		Additional routing package
		IPsec MPS
		Diameter Mediation rules
		Message copy
		Message throttling
		Remote Congestion control
		 LTE and IMS Range based address resolution
		Per connection TPS controls
		An MPS is defined as:
		 Processing of an ingress Diameter message and either transmitting a single outgoing message or discarding the ingress message. The outgoing message may be a variant of, or a response to, the ingress message.
		Transmission of any Diameter message that is associated with incremental actions/events associated

Product	Subproduct	Licensing Information
		with #1 above. For example, the re-routing of a Request upon connection failure or the copying of a Request.
		Messages excluded from this measure are:
		 Diameter peer-to-peer messages: CER/CEA, DWR/DWA, and DPR/DPA
		 Ingress Diameter messages discarded by the DSR due to Overload controls
		Answers received in response to Message Copy
		Nodal MPS is calculated as the peak 5-minute interval of the signaling node. A node is defined as a network element that is managed by a single system operation, alarms, and measurements server pair.
		Orderable in single MPS increments.
		Restrictions : This license is for specific legacy customer applications only.
	DSR Initial Content Per Server	Description : This sub-product provides the base Oracle Communications Diameter Signaling Router functionality as follows:
		OAM – Operations, administration, measurements functionality including:
		SNMP, event logs, security logs, configuration, topology, user/group management, and reports.
		Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.
		Congestion Management – Ingress and egress, local and remote Diameter congestion control.
		Connection Management – TCP, SCTP uni- and multi- homing, IPv4-IPv6 interworking, IPsec, load balancing and capabilities exchange.
		Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.
		Range Based Address Resolution – Stateless diameter proxy routing application that routes Diameter end-to-end transactions based on application ID, command code, routing entity type and routing entity address ranges.
		IP Front End – TCP/SCTP connection based ingress load balancing which enables Diameter clients to access multiple Diameter Signaling Router servers via one or more virtual IP addresses.
		Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.
		High Availability – All message processing critical

Product	Subproduct	Licensing Information
		components are engineered with high levels of redundancy to ensure high availability.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR 5 Initial Content Per Server	Description : This sub-product provides Oracle Communications Diameter Signaling Router functionality as follows:
		OAM – Operations, administration, measurements functionality including:
		SNMP, event logs, security logs, configuration, topology, user/group management, and reports.
		Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.
		Congestion Management – Ingress and egress, local and remote Diameter congestion control.
		Connection Management – TCP, SCTP uni- and multi- homing, IPv4-IPv6 interworking, IPsec, load balancing and capabilities exchange.
		Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.
		Range Based Address Resolution – Stateless diameter proxy routing application that routes Diameter end-to-end transactions based on application ID, command code, routing entity type and routing entity address ranges.
		Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.
		IP Front End –TCP/SCTP connection based ingress load balancing which enables Diameter clients to access multiple Diameter Signaling Router servers via one or more virtual IP addresses.
		Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.
		High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.
		Policy Proxy
		Off-Line Charging Proxy
		Roaming Proxy
		Message Copy
		Full Address Resolution Proxy
		Restrictions: This product SKU is for legacy customer

Product	Subproduct	Licensing Information
		applications only.
	DSR 5 Content Bundle Per Server	Description : This sub-product adds all DSR 5.0 content to the Oracle Communications Diameter Signaling Router:
		Restrictions : This product SKU is for legacy customer applications only.
	DSR RMS Initial Content Per Server	Description : This sub-product provides Oracle Communications Diameter Signaling Router functionality as follows:
		OAM – Operations, administration, measurements functionality including:
		SNMP, event logs, security logs, configuration, topology, user/group management, and reports.
		Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.
		Congestion Management – Ingress and egress, local and remote Diameter congestion control.
		Connection Management – TCP, SCTP uni- and multi- homing, IPv4-IPv6 interworking, IPsec, load balancing and capabilities exchange.
		Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.
		Range Based Address Resolution – Stateless diameter proxy routing application that routes Diameter end-to-end transactions based on application ID, command code, routing entity type and routing entity address ranges.
		Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.
		IP Front End – TCP/SCTP connection based ingress load balancing which enables Diameter clients to access multiple Diameter Signaling Router servers via one or more virtual IP addresses.
		Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.
		High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.
		Roaming Proxy
		Message Copy
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Policy Proxy	Description: This sub-product adds policy proxy to the

Product	Subproduct	Licensing Information
	I Per Server	Oracle Communications Diameter Signaling Router. The policy proxy enables dynamic routing of subscriber sessions to PCRFs and supports the following capabilities:
		Distributes Gx/Gxx/S9/Rx sessions across PCRFs
		Provides network-wide subscriber session binding
		Provides session correlation across mated pairs
		Performs topology hiding to hide the identities of the PCRFs from other elements in the network.
		Prerequisites : A license to DSR Initial Content Per Server is a prerequisite to license and use DSR Policy Proxy I Per Server
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Full Address Resolution I Per Server	Description : This sub-product adds full address resolution features to the Oracle Communications Diameter Signaling Router. Full address resolution is an enhanced proxy routing application that routes end-to-end Diameter transactions based on app-ID, Command Code, Routing Entity type, and Individual Routing Entity. The following features are provided with this sub-product:
		Subscriber Database Server – Provides provisioning and storage of large amounts of database information for full address resolution. Supports querying, reports and audits.
		Database Processor – Provides real-time access to the subscriber database at the signaling node.
		IMS HSS Address Resolution
		LTE HSS Address Resolution
		Prerequisites : A license to DSR Initial Content Per Server is a prerequisite to license and use DSR Full Address Resolution I Per Server.
		Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Message Copy Per Node	Description : This sub-product adds message copy capability to the Oracle Communications Diameter Signaling Router. Message Copy is the ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.
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	EXG DSR HSS Topology Hiding	Description : This sub-product adds HSS Topology Hiding to the Oracle Communications Diameter Signaling Router.
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	EXG DSR MME	Description : This sub-product adds MME Topology Hiding to

Product	Subproduct	Licensing Information
	Topology Hiding	the Oracle Communications Diameter Signaling Router.
	Per Node	Restrictions : This product SKU is for legacy customer applications only.
	EXG DSR Path Topology Hiding	Description : This sub-product adds Path Topology Hiding to the Oracle Communications Diameter Signaling Router.
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	DSR Blacklisting Per Node	Description : This sub-product adds Blacklisting support to the Oracle Communications Diameter Signaling Router.
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	DSR User Config MSG Priority Per Node	Description : This sub-product adds user configurable message priority to the Oracle Communications Diameter Signaling Router.
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	DSR Message Copy Per Server	Description : This sub-product adds message copy capability to the Oracle Communications Diameter Signaling Router. Message Copy is the ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.
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	DSR RMS Message Copy Per Server	Description : This sub-product adds message copy capability to the rack-mount Oracle Communications Diameter Signaling Router. Message Copy is the ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.
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	DSR IPFE II Per Server	Description : This sub-product adds IPFE features to the Oracle Communications Diameter Signaling Router. The IPFE features added by this sub-product are:
		SCTP Multi-Homing for IPFE
		Enhanced load balancing
		Restrictions : This product SKU is for legacy customer applications only.
	DSR RMS IPFE II Per Server	Description : This sub-product adds IPFE features to the rack-mount Oracle Communications Diameter Signaling Router. The IPFE features added by this sub-product are:
		SCTP Multi-Homing for IPFE
		Enhanced load balancing

Product	Subproduct	Licensing Information
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	DSR Core Routing III Per Server	Description : This sub-product adds core routing features to the Oracle Communications Diameter Signaling Router. The core routing features added by this sub-product are:
		 Maximum message size of 30k bytes
		 Route group entries up to 160
		 Enhanced pending answer timer configurations
		Restrictions : This product SKU is for legacy customer applications only.
	DSR RMS Core Routing III Per Server	Description : This sub-product adds core routing features to the rack-mount Oracle Communications Diameter Signaling Router. The core routing features added by this sub-product are:
		 Maximum message size of 30k bytes
		 Route group entries up to 160
		 Enhanced pending answer timer configurations
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Roaming Proxy Topology Hiding I Per Server	Description : This sub-product adds roaming proxy features to the Oracle Communications Diameter Signaling Router. The following features are added to this sub-product:
		MME Topology Hiding
		HSS Topology Hiding
		Path Topology Hiding
		Restrictions : This product SKU is for legacy customer applications only.
	DSR RMS Roaming Proxy Topology Hiding I	Description : This sub-product adds roaming proxy features to the rack-mount Oracle Communications Diameter Signaling Router. The following features are added to this sub-product:
	Per Server	MME Topology Hiding
		HSS Topology Hiding
		Path Topology Hiding
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Full Address Resolution II Per Server	Description : This sub-product adds full address resolution features to the Oracle Communications Diameter Signaling Router Full Address Resolution I license. The full address resolution features added by this sub-product are:
		Blacklisting support

Product	Subproduct	Licensing Information
		Ability to activate range and full address resolution on the same message
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	DSR Charging Concurrent Sessions Per	Description : Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router for Online Charging Proxy (OCS).
	Network	Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operation, administration, and maintenance node.
		Orderable in single session increments.
		Restrictions : This product SKU is for legacy customer applications only.
	DSR Charging Proxy OCS Proxy Per Server	Description : This sub-product adds online charging server proxy features to the Oracle Communications Diameter Signaling Router. The online charging proxy supports a stateful Diameter proxy agent over the Gy interface between multiple charging clients such as LTE PGWs, 3G GGSNs, IMS AFs, and multiple online charging servers (OCS).
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Ryan Heaton	Enunciate 2.10.1	For a copy of the license, see Appendix D.
Tatu Saloranta,	Jackson 2.9.4	# Jackson JSON processor
FasterXML	000.000.1 2.01.1	Jackson is a high-performance, Free/Open Sourc JSON processing library.
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		Special exception for LZMA compression module
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		For the following XML Schemas for Java EE Deployment Descriptors:
		- javaee_5.xsd
		- javaee_web_services_1_2.xsd

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		- javaee_web_services_client_1_2.xsd
		- javaee_6.xsd
		- javaee_web_services_1_3.xsd
		- javaee_web_services_client_1_3.xsd
		- jsp_2_2.xsd
		- web-app_3_0.xsd
		- web-common_3_0.xsd
		- web-fragment_3_0.xsd
		- javaee_7.xsd
		- javaee_web_services_1_4.xsd
		- javaee_web_services_client_1_4.xsd
		- jsp_2_3.xsd
		- web-app_3_1.xsd
		- web-common_3_1.xsd
		- web-fragment_3_1.xsd
		- javaee_8.xsd
		- web-app_4_0.xsd
		- web-common_4_0.xsd
		- web-fragment_4_0.xsd
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		# Jackson JSON processor
		Jackson is a high-performance, Free/Open Source JSON processing library.
		It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has been in development since 2007.
		It is currently developed by a community of developers, as well as supported commercially by FasterXML.com.
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SnakeYAML.	snakeyaml 1.23	Copyright (c) 2008, http://www.snakeyaml.org
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FasterXML,	jackson-jaxrs-json-	Copyright (c) 2007- Tatu Saloranta, tatu.saloranta@iki.fi
LLC	provider 2.9.8	Copyright (c) Fasterxml
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		4 th -parth dependencies:
		com.fasterxml.jackson.jaxrs » jackson-jaxrs-base 2.9.8
		com.fasterxml.jackson.module » jackson-module-jaxb-annotations 2.9.8
		com.fasterxml.jackson.core » jackson-core 2.9.8

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		com.fasterxml.jackson.core » jackson-databind 2.9.8
		com.fasterxml.jackson.core » jackson-annotations 2.9.8 (upgrade from 2.9.0)
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	hibernate-validator 6.0.14.Final	Copyright (C) 2004, 2006 The Linux Foundation and its contributors.
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		4 th -party dependencies:
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		org.jboss.logging » jboss-logging 3.3.2.Final
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		-
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jackson-datatype- joda 2.9.6	APACHE 2.0 – See Appendix E
	4th party dependencies:
	jackson-annotations 2.9.0, Apache 2.0
	jackson-core 2.9.6, Apache 2.0
	jackson-databind 2.9.6, Apache 2.0
	joda-time 2.7, Apache 2.0
	APACHE 2.0 – See Appendix E
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		4 th -party dependency: opentracing-web-servlet-filter v0.1.0

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opentracing- contrib	OpenTracing Spring Jaeger Starter 0.1.4	APACHE 2.0 – See Appendix E
		4 th -party dependencies:
		jaeger-core v0.27.0
		opentracing-api v0.31.0
		opentracing-spring-tracer-configuration-starter v0.1.0
		spring-boot-autoconfigure (optional) v1.5.12.RELEASE
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opentracing- contrib	opentracing- spring-jaeger- cloud-starter 1.0.2	APACHE 2.0 – See Appendix E
	oloud starter 1.0.2	4 th -party dependencies:
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We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License does. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

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The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

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Appendix D. Apache License, Version 1.1 (Apache 1.1)

The Apache Software License, Version 1.1

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==== File 12 of 38: ext/gd/libgd/README

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==== File 29 of 38: sapi/cli/php http parser.c

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==== File 34 of 38: win32/flock.c

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==== File 38 of 38: Zend/zend_strtod.c

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* http://jqueryui.com
* Includes: core.js, widget.js, mouse.js, position.js, draggable.js, sortable.js
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* jQuery JavaScript Library v2.2.3
* http://jquery.com/
* Includes Sizzle.js
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Version 2.1, February 1999

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