

**Oracle® Communications
Diameter Signaling Router
Licensing Information User Manual
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ORACLE®

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Introduction

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Licensing Information

Description of Product Editions and Permitted Features

Prerequisite Products

Entitled Products and Restricted Use Licenses

Product	Subproduct	Licensing Description
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Product	Subproduct	Licensing Description
Oracle Communications Diameter Signaling Router	Oracle Communications Diameter Signaling Router (base fee)- per Server	<p>This product provides the following base Diameter Signaling Router functionality:</p> <p>OAM – Operations, administration, measurements functionality: SNMP, event logs, security logs, configuration, topology, user/group management and reports.</p> <p>Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.</p> <p>Congestion Management – Ingress and egress, local and remote Diameter congestion control.</p> <p>Connection Management – TCP, SCTP uni- and multi-homing, IPv4-IPv6 interworking, IPSec, load balancing and capabilities exchange.</p> <p>Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.</p> <p>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.</p> <p>Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.</p> <p>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.</p> <p>Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.</p> <p>High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.</p> <p>Included Products:</p> <ul style="list-style-type: none"> MySQL Enterprise Edition <p>Restriction:</p> <p>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).</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router (capacity) – per 100 Network-wide Messages per Second	<p>Description: Determines the maximum number of network-wide Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:</p> <ol style="list-style-type: none"> 1. 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. 2. 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. <p>Messages excluded from this measure are:</p> <ul style="list-style-type: none"> • 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 <p>Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in 100 MPS increments.</p> <p>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:</p> <ul style="list-style-type: none"> DSR Initial Content per server DSR RMS Initial Content per server DSR 5 Content Bundle per server DSR 5 Initial Content per server DSR Diameter MPS per network DSR Core Routing per server DSR Core Routing per blade <p>is a prerequisite to license and use Oracle Communications Diameter Signaling Router (capacity)</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router Roaming Proxy - per Server	<p>Description: This sub-product adds the roaming proxy features listed below to the Oracle Communications Diameter Signaling Router. MME Topology Hiding HSS Topology Hiding Path Topology Hiding</p> <p>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:</p> <ul style="list-style-type: none"> 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 <p>is a prerequisite to license and use Oracle Communications Diameter Signaling Router Roaming Proxy.</p>
	Oracle Communications Diameter Signaling Router Full Address Resolution – per Server	<p>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:</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> DSR Initial Content per server DSR Core Routing per server DSR Core Routing per blade DSR Policy Proxy per blade <p>is a prerequisite to license and use Oracle Communications Diameter Signaling Router Full Address Resolution.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router Full Address Resolution – per 25k Subscribers	<p>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. Orderable in 25k subscriber increments.</p> <p>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:</p> <ul style="list-style-type: none"> 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 <p>is a prerequisite to license and use Oracle Communications Diameter Signaling Router Full Address Resolution per 25k subscribers.</p> <p>.</p>
	Oracle Communications Diameter Signaling Router Policy Proxy – per Server	<p>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. This sub- product: <ul style="list-style-type: none"> 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. <p>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:</p> <ul style="list-style-type: none"> DSR Initial Content per server DSR Core Routing per server DSR Core Routing per blade <p>is a prerequisite to license and use Oracle Communications Diameter Signaling Router Policy Proxy.</p> </p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router Policy Proxy – per 5K Network-wide Concurrent Sessions	<p>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.</p> <p>Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in 5k session increments.</p> <p>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:</p> <ul style="list-style-type: none"> DSR Policy Proxy 1 per server DSR 5 Content Bundle per server DSR 5 Initial Content per server DSR Policy Concurrent Sessions per network <p>is a prerequisite to license and use Oracle Communications Diameter Signaling Router Policy Proxy per 5k Network-wide Concurrent Sessions.</p>
	Oracle Communications Diameter Signaling Router Online Charging Proxy – per 5K Network-wide Concurrent Sessions	<p>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.</p> <p>Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in 5k session increments.</p> <p>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 Network-wide Concurrent Sessions or a license to one of the following legacy products:</p> <ul style="list-style-type: none"> DSR Charging Proxy OCS Per Server DSR Charging Concurrent Sessions per network <p>is a prerequisite to license and use Oracle Communications Diameter Signaling Router, Online Charging Proxy per 5k Network-wide Concurrent Sessions.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router, Policy Proxy II – per Server	<p>Description: This sub-product adds policy proxy features to the Oracle Communications Diameter Signaling Router Policy Proxy.</p> <p>This sub-product adds::</p> <ul style="list-style-type: none"> • 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 <p>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.</p>
	Oracle Communications Diameter Signaling Router Translation Agent Base – per Server	<p>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.</p> <p>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 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.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router, Core Routing I – per Server	<p>Description: This sub-product adds Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router.</p> <p>The following features are added with this sub-product:</p> <ul style="list-style-type: none"> • Active/Standby Peer Node Support • Mediation Enhancements: <ul style="list-style-type: none"> ○ 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 <p>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 DSR 5 Initial Content per server is a prerequisite to license and use Oracle Communications Diameter Signaling Router Core Routing I.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router, Core Routing II – Per Server	<p>Description: This sub-product adds Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router.</p> <p>The following features are added with this sub-product:</p> <ul style="list-style-type: none"> • IPFE Enhancements: <ul style="list-style-type: none"> ○ Peer Node Group aware least load distribution algorithm ○ IPFE initiator support: DSR 'initiator only' connections • Mediation Enhancements: <ul style="list-style-type: none"> ○ Mediation support for Re-routed requestsSupport 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 <p>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.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router, Core Routing III – Per Server	<p>Description: This sub-product adds Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router.</p> <p>The following features are added with this sub-product:</p> <ul style="list-style-type: none"> IPFE Enhancements: <ul style="list-style-type: none"> IPFE Initiator + Responder Support Mediation Enhancements: <ul style="list-style-type: none"> 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 <p>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.</p>
	Oracle Communications Diameter Signaling Router, Core Routing IV – Per Server	<p>Description: This sub-product adds Active/Standby Peer Node Support and mediation enhancement features to the Oracle Communications Diameter Signaling Router.</p> <p>The following features are added with this sub-product:</p> <ul style="list-style-type: none"> Mediation Enhancements: <ul style="list-style-type: none"> 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 <p>Prerequisites: A license to Oracle Communications Diameter Signaling Router Core Routing III is a prerequisite to license and use Oracle Communications Diameter Signaling Router Core Routing IV.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router, Core Routing V – Per Server	<p>Description: This sub-product adds Active/Standby Peer Node Support enhancement features to the Oracle Communications Diameter Signaling Router.</p> <p>The following features are added with this sub-product:</p> <ul style="list-style-type: none"> • 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). <ul style="list-style-type: none"> ◦ 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 Interface is 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 shall be assigned the highest priority of Priority four (P4). <p>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.</p> <p>Prerequisites: A license to Oracle Communications Diameter Signaling Router Core Routing IV is a prerequisite to license and use Oracle Communications Diameter Signaling Router Core Routing V.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling, Roaming Proxy II – Per Server	<p>Description: This sub-product adds the roaming proxy features listed below to the Oracle Communications Diameter Signaling Router.</p> <p>S9 PCRF Topology Hiding S9 AF/pCSCF Topology Hiding S6a/S6d HSS Topology Hiding with multiple pseudo hosts names</p> <p>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.</p>
	Oracle Communications Diameter Signaling Router, Online Charging Proxy – Per Server	<p>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).</p> <p>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</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router Translation Agent RADIUS- per Server	<p>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 WiFi 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.</p> <p>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.</p>

Product	Subproduct	Licensing Description
Oracle Communications Integrated Diameter Intelligence Hub	Oracle Communications Integrated Diameter Intelligence Hub – per Server	<p>Description: This product provides a troubleshooting tool for the Oracle Communications Diameter Signaling Router. This product:</p> <ul style="list-style-type: none"> • Integrates the configuration of trace filters directly into DSR • 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 <p>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.</p> <p>Included Products:</p> <ul style="list-style-type: none"> • MySQL Enterprise Edition <p>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.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Network Integrated Diameter Intelligence Hub – per Server	<p>Description: This sub-product provides network-wide Integrated Diameter Intelligence Hub (DIH) which enables correlation of trace data across a network of Integrated DIH instances. This sub-product:</p> <ul style="list-style-type: none"> • Provides the ability to correlate trace data across a network of Integrated DIH instances. • Retrieves and correlates trace data that has been captured 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 node/server in the network to enable a network view. <p>Prerequisites: A license to Oracle Communications Integrated Diameter Intelligence Hub is a prerequisite to license and use Oracle Communications Network Integrated Diameter Intelligence Hub.</p>

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.

Prerequisite Products

Entitled Products and Restricted Use Licenses

Product	Subproduct	Licensing Description
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Product	Subproduct	Licensing Description
Oracle Communications Diameter Signaling Router	Oracle Communications Diameter Signaling Router Network Function Edition - per Network-wide Messages per Second Perpetual	<p>Description: This product provides the following base Diameter Signaling Router functionality on a network-wide basis.</p> <p>OAM – Operations, administration, measurements functionality:</p> <p>SNMP, event logs, security logs, configuration, topology, user/group management and reports.</p> <p>Congestion Management – Ingress and egress, local and remote Diameter congestion control.</p> <p>Connection Management – TCP, SCTP uni- and multi-homing, IPv4-IPv6 interworking, IPSec, load balancing and capabilities exchange.</p> <p>Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve inter-operability issues.</p> <p>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.</p> <p>Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.</p> <p>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.</p> <p>Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.</p> <p>High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.</p> <p>Core Routing – All core routing and process functionality which includes specific handling of real-time Diameter messages</p> <p>Active/Standby Peer Node Support, and mediation enhancement features to the Oracle Communications Diameter Signaling Router</p> <p>Roaming Proxy – All roaming proxy functionality for the Oracle Communication Diameter Signaling Router.</p> <p>Translation Agent – All Diameter Interworking functionality for the Oracle Communication Diameter Signaling Router.</p> <p>Included Products:</p> <ul style="list-style-type: none"> • MySQL Enterprise Edition <p>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.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Diameter Signaling Router Network Function Edition for Database Applications - per 25k Subscribers Perpetual	<p>Description: This product provides subscriber application Diameter Signaling Router functionality, such as Full Address Based Resolution, on a network-wide basis.</p> <p>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.</p>
	Oracle Communications Diameter Signaling Router Network Function Edition for Stateful Applications - per 5k Network-wide Concurrent Sessions Perpetual	<p>Description: This product provides stateful session application Diameter Signaling Router functionality, such as PolicyProxy and Online Charging Proxy, on a network-wide basis.</p> <p>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.</p>

Product	Subproduct	Licensing Description
	Oracle Communications Integrated Diameter Intelligence Hub Network Function Edition - per Server Perpetual	<p>Description: This product provides a troubleshooting tool for the Oracle Communications Diameter Signaling Router Network Function Edition.</p> <p>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.</p> <p>Included Products:</p> <ul style="list-style-type: none"> MySQL Enterprise Edition <p>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.</p>

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.

Prerequisite Products

Entitled Products and Restricted Use Licenses

<p>Oracle Communications Common Signaling</p>	<p>Oracle Communications Common Signaling – per Signaling Unit</p>	<p>Description: This product provides the following base Diameter Signaling Router functionality on a network-wide basis.</p> <p>OAM – Operations, administration, measurements functionality: SNMP, event logs, security logs, configuration, topology, user/group management and reports.</p> <p>Congestion Management – Ingress and egress, local and remote Diameter congestion control.</p> <p>Connection Management – TCP, SCTP uni- and multi-homing, IPv4-IPv6 interworking, IPSec, load balancing and capabilities exchange.</p> <p>Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve inter-operability issues.</p> <p>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.</p> <p>Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.</p> <p>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.</p> <p>Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.</p> <p>High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.</p> <p>Core Routing – All core routing and process functionality which includes specific handling of real-time Diameter messages</p> <p>Active/Standby Peer Node Support, and mediation enhancement features to the Oracle Communications Diameter Signaling Router</p> <p>Roaming Proxy – All roaming proxy functionality for the Oracle Communication Diameter Signaling Router.</p> <p>Translation Agent – All Diameter Interworking functionality for the Oracle Communication Diameter Signaling Router.</p> <p>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.</p> <p>Included Products:</p> <ul style="list-style-type: none"> • MySQL Enterprise Edition <p>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.</p>
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	<p>Oracle Communications Common Signaling for Database Applications - per 25k Subscribers Perpetual</p>	<p>Description: This product provides subscriber application Diameter Signaling Router functionality, such as Full Address Based Resolution, on a network-wide basis.</p> <p>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.</p> <p>Prerequisites: A license to Oracle Communications Common Signaling is a prerequisite to license and use Oracle Communications Common Signaling for Database Applications.</p>
	<p>Oracle Communications Common Signaling for Stateful Applications - per 5k Network-wide Concurrent Sessions Perpetual</p>	<p>Description: This product provides stateful session application Diameter Signaling Router functionality, such as PolicyProxy and Online Charging Proxy, on a network-wide basis.</p> <p>Prerequisites: A license to Oracle Communications Common Signaling is a prerequisite to license and use Oracle Communications Common Signaling for Stateful Applications.</p>

Oracle Communications Diameter Signaling Router – Licensing Notes – Legacy

Product	Subproduct	Licensing Description
Oracle Communications Diameter Signaling Router	EXG DSR MPS Per Node	<p>Determines the maximum number of nodal Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:</p> <ol style="list-style-type: none"> 1. 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. 2. 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. <p>Messages excluded from this measure are:</p> <ul style="list-style-type: none"> • 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 <p>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 operations, alarms and measurements server pair.</p> <p>Orderable in MPS increments that match MPS capacity product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	EXG DSR IPSEC MPS Per Node	<p>Determines the maximum number of nodal Messages per Second (MPS) using IPSec encryption allowed by Oracle Communications Diameter Signaling Router.</p> <p>Orderable in MPS increments that match IPSec MPS capacity product description.</p> <p>Prerequisites:</p> <p>A license to Oracle Communications Diameter Signaling Router EXG DSR MPS Per Node is a prerequisite to license and use Oracle Communications Diameter Signaling Router EXG DSR IPSEC Per Node.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR Connections per Node	<p>Determines the number of connections allowed by Oracle Communications Diameter Signaling Router.</p> <p>A connection is defined as an SCTP association or a TCP/IP connection.</p> <p>Orderable in increments that match product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR ADDL Routing Pkg 1	<p>Enables the capability per node of the Oracle Communications Diameter Signaling Router to route based on Command Code and Origin Realm.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	EXG DSR ADDL Routing Entries per Node	<p>Determines the number of routing entries allowed by Oracle Communications Diameter Signaling Router.</p> <p>A routing entry is defined as an entry in the DSR routing table.</p> <p>Orderable in increments that match product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR NPA Splits Per Node	<p>This sub-product enables the Oracle Communications Diameter Signaling Router Subscriber Database Server to automatically create temporary duplicate MSISDN records during Numbering Plan Area (NPA) split process.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR LTE Address Resolution	<p>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:</p> <p>Subscriber Database Server – Provides provisioning and storage of database information for full address resolution. Supports querying, reports and audits.</p> <p>Database Processor – Provides real-time access to the subscriber database at the signaling node.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	EXG DSR IMS Address Resolution	<p>This sub-product adds full address resolution features per node to the Oracle Communications Diameter Signaling Router for the IMSHSS. 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:</p> <p>Subscriber Database Server – Provides provisioning and storage of large amounts of database information for full address resolution. Supports querying, reports and audits.</p> <p>Database Processor – Provides real-time access to the subscriber database at the signaling node.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR IMS Range Address Resolution	<p>This sub-product adds range based address resolution features per node to the Oracle Communications Diameter Signaling Router for IMS.</p> <p>This sub-product adds the following functionality to the Oracle Communications Diameter Signaling Router:</p> <ul style="list-style-type: none"> • Routing based on appl-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. <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	EXG DSR LTE Range Address Resolution	<p>This sub-product adds range based address resolution features per node to the Oracle Communications Diameter Signaling Router for LTE.</p> <p>This sub-product adds the following functionality to the Oracle Communications Diameter Signaling Router:</p> <ul style="list-style-type: none"> • Routing based on appl-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. <p>Restrictions: fg</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR SLF	<p>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:</p> <p>Subscriber Database Server – Provides provisioning and storage of database information for full address resolution. Supports querying, reports and audits.</p> <p>Database Processor – Provides real-time access to the subscriber database at the signaling node.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	EXG DSR Subscribers	<p>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.</p> <p>Orderable in subscriber increments that match product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	SDS Software Kernel	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	SDS Query Server	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR Message Throttling	<p>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:</p> <ul style="list-style-type: none"> • Per-connection Ingress MPS control • Per-connection Egress Message throttling • Remote BUSY congestion control • Remote Transport congestion control <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	EXG DSR Mediation Rules Per Node	<p>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 inter-operability 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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR OFCS Topology Hiding Per Node	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR Concurrent Sessions	<p>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.</p> <p>Nodal concurrent sessions are calculated as the peak 5-minute interval of the signaling node managed by a single system operations, administration and maintenance server pair.</p> <p>Orderable in session increments that match session capacity product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	EXG DSR IPFE GB/S	<p>Determines the bandwidth per node of the IP Front End allowed by Oracle Communications Diameter Signaling Router.</p> <p>Orderable in bandwidth increments that match product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR Policy Topology Hiding Per Node	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR Remote Congestion Control Per Node	<p>This sub-product enables the following remote congestion control features in the Oracle Communications Diameter Signaling Router:</p> <ul style="list-style-type: none"> • Remote BUSY congestion control • Remote Transport congestion control <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR Per Connection TPS Controls Per Node	<p>This sub-product enables the following per connection message control features in the Oracle Communications Diameter Signaling Router:</p> <ul style="list-style-type: none"> • Per-connection Ingress MPS control • Per-connection Egress Message throttling <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	EXG DSR Policy DRA Per Node	<p>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</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR Policy Correlation Per Node	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	<p>DSR 5K MPS Per Network</p>	<p>Determines the maximum number of network-wide Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:</p> <ol style="list-style-type: none"> 1. 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. 2. 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. <p>Messages excluded from this measure are:</p> <ul style="list-style-type: none"> • 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 <p>Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in increments that match product description.</p> <p>Restrictions:</p> <p>This license is for specific legacy customer applications only.</p>
	<p>DSR 5M Concurrent Sessions Per Network</p>	<p>Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router for policy proxy.</p> <p>Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in increments that match product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Concurrent Sessions per 5M Per Network	<p>Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router for policy proxy.</p> <p>Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in increments that match product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	SDS XML to PDBI Conversion Per Network	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	<p>DSR MPS Per 100K Per Network</p>	<p>Determines the maximum number of network-wide Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:</p> <ol style="list-style-type: none"> 1. 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. 2. 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. <p>Messages excluded from this measure are:</p> <ul style="list-style-type: none"> • 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 <p>Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in increments that match product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Core Routing Per Blade	<p>This sub-product provides the following base Oracle Communications Diameter Signaling Router functionality:</p> <p>OAM – Operations, administration, measurements functionality including SNMP, event logs, security logs, configuration, topology, user/group management and reports.</p> <p>Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.</p> <p>Congestion Management – Ingress and egress, local and remote Diameter congestion control.</p> <p>Connection Management – TCP, SCTP uni- and multi-homing, IPv4-IPv6 interworking, IPSec, load balancing and capabilities exchange.</p> <p>Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.</p> <p>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.</p> <p>Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.</p> <p>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.</p> <p>Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.</p> <p>High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.</p> <p>Orderable in increments that product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Policy Proxy Per Blade	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>Orderable in increments that product description.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Diameter MPS Per Network	<p>Determines the maximum number of network-wide Messages per Second (MPS) allowed by Oracle Communications Diameter Signaling Router. An MPS is defined as:</p> <ol style="list-style-type: none"> 1. 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. 2. 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. <p>Messages excluded from this measure are:</p> <ul style="list-style-type: none"> • 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 <p>Network-wide MPS is calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in single MPS increments.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Policy Concurrent Sessions Per Network	<p>Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router for policy proxy.</p> <p>Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in single session increments.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Subscribers - Per Network	<p>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.</p> <p>Orderable in single subscriber increments.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Core Routing Per Server	<p>This sub-product provides the following base Oracle Communications Diameter Signaling Router functionality</p> <p>OAM – Operations, administration, measurements functionality including SNMP, event logs, security logs, configuration, topology, user/group management and reports.</p> <p>Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.</p> <p>Congestion Management – Ingress and egress, local and remote Diameter congestion control.</p> <p>Connection Management – TCP, SCTP uni- and multi-homing, IPv4-IPv6 interworking, IPSec, load balancing and capabilities exchange.</p> <p>Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.</p> <p>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.</p> <p>Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.</p> <p>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.</p> <p>Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.</p> <p>High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Policy Proxy Per Server	<p>This sub-product adds policy proxy to the Oracle Communications Diameter Signaling Router. Policy Proxy enables dynamic routing of subscriber sessions to PCRFs.</p> <p>Policy Proxy supports the following capabilities:</p> <ul style="list-style-type: none"> • 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. <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Charging Proxy OFCS Per Server	<p>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:</p> <ul style="list-style-type: none"> • Session/Subscriber Binding Repository • Charging Topology Hiding <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Address Resolution Proxy Per Server	<p>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 app-id, Command Code, Routing Entity type and Individual Routing Entity. The following features are provided with this sub-product:</p> <ul style="list-style-type: none"> • 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 <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Roaming Proxy Per Server	<p>This sub-product adds roaming proxy to the Oracle Communications Diameter Signaling Router. The following features are provided with this sub-product:</p> <ul style="list-style-type: none"> • MME Topology Hiding • HSS Topology Hiding • Path Topology Hiding <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Software Per lab	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	<p>DSR Diameter MPS Per Node</p>	<p>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.</p> <p>The base functionality consists of:</p> <ul style="list-style-type: none"> • 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 <p>An MPS is defined as:</p> <ol style="list-style-type: none"> 1. 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. 2. 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. <p>Messages excluded from this measure are:</p> <ul style="list-style-type: none"> • 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 <p>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 operations, alarms and measurements server pair.</p> <p>Orderable in single MPS increments.</p> <p>Restrictions:</p> <p>This license is for specific legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Initial Content Per Server	<p>This sub-product provides the base Oracle Communications Diameter Signaling Router functionality as follows:</p> <p>OAM – Operations, administration, measurements functionality including SNMP, event logs, security logs, configuration, topology, user/group management and reports.</p> <p>Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.</p> <p>Congestion Management – Ingress and egress, local and remote Diameter congestion control.</p> <p>Connection Management – TCP, SCTP uni- and multi-homing, IPv4-IPv6 interworking, IPSec, load balancing and capabilities exchange.</p> <p>Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.</p> <p>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.</p> <p>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.</p> <p>Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.</p> <p>High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR 5 Initial Content Per Server	<p>This sub-product provides Oracle Communications Diameter Signaling Router functionality as follows:</p> <p>OAM – Operations, administration, measurements functionality including SNMP, event logs, security logs, configuration, topology, user/group management and reports.</p> <p>Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.</p> <p>Congestion Management – Ingress and egress, local and remote Diameter congestion control.</p> <p>Connection Management – TCP, SCTP uni- and multi-homing, IPv4-IPv6 interworking, IPSec, load balancing and capabilities exchange.</p> <p>Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.</p> <p>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.</p> <p>Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.</p> <p>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.</p> <p>Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.</p> <p>High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.</p> <p>Policy Proxy</p> <p>Off-Line Charging Proxy</p> <p>Roaming Proxy</p> <p>Message Copy</p> <p>Full Address Resolution Proxy</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR 5 Content Bundle Per Server	<p>This sub-product adds all DSR 5.0 content to the Oracle Communications Diameter Signaling Router:</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR RMS Initial Content Per Server	<p>This sub-product provides Oracle Communications Diameter Signaling Router functionality as follows:</p> <p>OAM – Operations, administration, measurements functionality including SNMP, event logs, security logs, configuration, topology, user/group management and reports.</p> <p>Core Routing – Core routing and processing functionality that provides application specific handling of real-time Diameter messages.</p> <p>Congestion Management – Ingress and egress, local and remote Diameter congestion control.</p> <p>Connection Management – TCP, SCTP uni- and multi-homing, IPv4-IPv6 interworking, IPSec, load balancing and capabilities exchange.</p> <p>Diameter Mediation – GUI-based Diameter mediation framework used to build mediation rules to resolve interoperability issues.</p> <p>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.</p> <p>Message Copy – Ability to copy certain Diameter Requests or Requests and Answers that transit the Diameter Signaling Router.</p> <p>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.</p> <p>Geo-redundant – The Diameter Signaling Router can be deployed with or without geo-redundancy.</p> <p>High Availability – All message processing critical components are engineered with high levels of redundancy to ensure high availability.</p> <p>Roaming Proxy</p> <p>Message Copy</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Policy Proxy I Per Server	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>Prerequisites:</p> <p>A license to DSR Initial Content Per Server is a prerequisite to license and use DSR Policy Proxy I Per Server.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Full Address Resolution I Per Server	<p>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:</p> <ul style="list-style-type: none"> • 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 <p>Prerequisites:</p> <p>A license to DSR Initial Content Per Server is a prerequisite to license and use DSR Full Address Resolution I Per Server</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR Message Copy Per Node	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	EXG DSR HSS Topology Hiding Per Node	<p>This sub-product adds HSS Topology Hiding to the Oracle Communications Diameter Signaling Router.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR MME Topology Hiding Per Node	<p>This sub-product adds MME Topology Hiding to the Oracle Communications Diameter Signaling Router.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	EXG DSR Path Topology Hiding Per Node	<p>This sub-product adds Path Topology Hiding to the Oracle Communications Diameter Signaling Router.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Blacklisting Per Node	<p>This sub-product adds Blacklisting support to the Oracle Communications Diameter Signaling Router.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR User Config MSG Priority Per Node	<p>This sub-product adds user configurable message priority to the Oracle Communications Diameter Signaling Router.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Message Copy Per Server	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR RMS Message Copy Per Server	<p>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.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR IPFE II Per Server	<p>This sub-product adds IPFE features to the Oracle Communications Diameter Signaling Router. The IPFE features added by this sub-product are:</p> <ul style="list-style-type: none"> • SCTP Multi-Homing for IPFE • Enhanced load balancing <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR RMS IPFE II Per Server	<p>This sub-product adds IPFE features to the rack-mount Oracle Communications Diameter Signaling Router. The IPFE features added by this sub-product are:</p> <ul style="list-style-type: none"> • SCTP Multi-Homing for IPFE • Enhanced load balancing <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Core Routing III Per Server	<p>This sub-product adds core routing features to the Oracle Communications Diameter Signaling Router. The core routing features added by this sub-product are:</p> <ul style="list-style-type: none"> • Maximum message size of 30k bytes • Route group entries up to 160 • Enhanced pending answer timer configurations <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR RMS Core Routing III Per Server	<p>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:</p> <ul style="list-style-type: none"> • Maximum message size of 30k bytes • Route group entries up to 160 • Enhanced pending answer timer configurations <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Roaming Proxy Topology Hiding I Per Server	<p>This sub-product adds roaming proxy features to the Oracle Communications Diameter Signaling Router. The following features are added with this sub-product:</p> <ul style="list-style-type: none"> • MME Topology Hiding • HSS Topology Hiding • Path Topology Hiding <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR RMS Roaming Proxy Topology Hiding I Per Server	<p>This sub-product adds roaming proxy features to the rack-mount Oracle Communications Diameter Signaling Router. The following features are added with this sub-product:</p> <ul style="list-style-type: none"> • MME Topology Hiding • HSS Topology Hiding • Path Topology Hiding <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Product	Subproduct	Licensing Description
	DSR Full Address Resolution II Per Server	<p>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:</p> <ul style="list-style-type: none"> • Blacklisting support • Ability to activate range and full address resolution on the same message <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Charging Concurrent Sessions Per Network	<p>Determines the number of concurrent Diameter sessions allowed by Oracle Communications Diameter Signaling Router for Online Charging Proxy (OCS).</p> <p>Network-wide concurrent sessions are calculated as the peak 5-minute interval of the sum of all signaling nodes managed by a single network operations, administration and maintenance node.</p> <p>Orderable in single session increments.</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>
	DSR Charging Proxy OCS Proxy Per Server	<p>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).</p> <p>Restrictions:</p> <p>This product SKU is for legacy customer applications only.</p>

Third-Party Commercial and Open Source Software

Commercial Software

Commercial software used in Oracle Communications Diameter Signaling Router is identified in the following table with the following license notes, restrictions, and disclaimers.

Vendor	Product(s) and Version(s)	Functionality	Licensing Description/Disclaimer

Open Source Disclosure

Open Source Disclosure

Open source software used in Oracle Communications Diameter Signaling Router is identified in the following table with the following license notes, restrictions, and disclaimers. Additional open source software notices and licenses may be found in the Documentation or readme files of the products making up the individual components.

Vendor	Product(s) and Version(s)	Functionality	Licensing Description
Dmitry Zenovich	php-pecl-runkit-1.0.2-1	Modify constants and user-defined classes and functions	Licensed under the The FreeBSD Project and you may not use this file except in compliance with the License. The FreeBSD Project- See APPENDIX I Copyright © 1995-2013 The FreeBSD Project. All Rights reserved. The php-pecl-runkit-1.0.21 software and sample code developed by Dmitry Zenovich licensed under The FreeBSD Project. This software consists of voluntary contributions made by many individuals on behalf of The FreeBSD Project. For more information on the The FreeBSD Project, please see < http://www.freebsd.org/ >

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QOS.ch	SLF4J-1.7.12	Simple Logging Façade For java	<p>Licensed under The MIT License (MIT) and you may not use this file except in compliance with the License.</p> <p>The MIT License (MIT)- See APPENDIX J</p> <p>This software and sample code developed by QOS.ch and licensed under The MIT License (MIT).</p> <p>For more information on The MIT License (MIT), please see <https://opensource.org/licenses/MIT></p>
Google Inc.	Google-GWT-2.7.0	Google Development and Tools Library	<p>Licensed under The FreeBSD Project and you may not use this file except in compliance with the License.</p>
	SmartGWT-5.0p	Google Development and Tools Library	<p>The FreeBSD Project- See APPENDIX I</p> <p>Copyright © 1995-2013 The FreeBSD Project</p> <p>This software and sample code developed by The FreeBSD Project licensed under The FreeBSD Project</p> <p>This software consists of voluntary contributions made by many individuals on behalf of The FreeBSD Project. For more information on the The FreeBSD Project, please see <http://www.freebsd.org/></p>

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Chris Leonello	Jqplot-1.0.8	Plotting and charting plugin for the jQuery Javascript framework	<p>The jqPlot software is an open source project dual licensed under and under GNU General Public License, version 2 (GPL-2.0) and under The MIT License (MIT). You are free to choose the license that best suits your project. Oracle Communications Diameter Signaling Router has elected to use jQuery Javascript under GNU General Public License, version 2 (GPL-2.0).</p> <p>Licensed under GNU General Public License, version 2 and you may not use this file except in compliance with the License.</p> <p>This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version (GPL-2.0)- See APPENDIX A</p> <p>The Jqplot-1.0.8 sample code developed by Chris Leonello is licensed under the General Public License 2.0.</p> <p>For more information on GNU General Public License, version 2, please see <http://www.gnu.org/licenses/old-licenses/gpl-2.0.en.html></p> <p>Licensed under The MIT License (MIT) and you may not use this file except in compliance with the License.</p> <p>The MIT License (MIT)- See APPENDIX J</p> <p>This software and sample code developed by Dmitry Baranovskiy and licensed under The MIT License (MIT).</p> <p>For more information on The MIT License (MIT), please see <https://opensource.org/licenses/MIT></p>

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iReasoning	iReasoning SNMP Libraries-5.0.40	Java SNMP Library	<p>Licensed under iReasoning Networks and you may not use this file except in compliance with the License.</p> <p>iReasoning Networks- See APPENDIX L</p> <p>Copyright © 2002-2016 iDeskCentric Inc. All rights reserved. All brands, logos, and trademarks are the properties of their respective holders.</p> <p>For more information on the The iReasoning Networks, please see <http://www.ireasoning.com/download1license.shtml></p>
Dmitry Baranovskiy	Raphael-2.1.4	Javascript Library	<p>Licensed under The MIT License (MIT) and you may not use this file except in compliance with the License.</p> <p>The MIT License (MIT)- See APPENDIX J</p> <p>This software and sample code developed by Dmitry Baranovskiy and licensed under The MIT License (MIT).</p> <p>For more information on The MIT License (MIT), please see <https://opensource.org/licenses/MIT></p>
jQuery Foundation	jQuery-2.1.4	JavaScript library	<p>Licensed under The MIT License (MIT) and you may not use this file except in compliance with the License.</p> <p>The MIT License (MIT)- See APPENDIX J</p> <p>This software and sample code developed by jQuery Foundation and licensed under The MIT License (MIT).</p> <p>For more information on The MIT License (MIT), please see <https://opensource.org/licenses/MIT></p>
Lee Thomason, Yves Berquin, Andrew Ellerton	TinyXML2-3.0.0	C++ XML parser	<p>Licensed under the Zlib License and you may not use this file except in compliance with the License.</p> <p>Zlib License- See APPENDIX K</p> <p>Copyright © 1995-2013 Zlib Software</p> <p>This software and sample code developed by Lee Thomason, Yves Berquin, and Andrew Ellerton and licensed under Zlib License.</p> <p>For more information on Zlib License please see <http://www.zlib.net/index.html></p>

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Ant-The Apache Software Foundation version 2.0	xerces-java v.2.11.0	XML Parsing Utility	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see http://www.apache.org/.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>
	Xerces-c v.3.1.1	C++ XML Parsing Utility	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see http://www.apache.org/.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>
	Apache Log4j v.1.2.17	Logging service	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see http://www.apache.org/.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>

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	Jasypt-1.9.2	Java library which allows the developer to add basic encryption capabilities	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>
	Apache Camel v.2.15.3	Routing/mediation engine	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>
	CXF-3.1.2	Open source services framework	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>

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	Apache Commons Beanutils v.1.9.2	Wrappers around the Java reflection and introspection APIs	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>
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	Apache Commons Logging v.1.2	Wrapper for logging APIs	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>
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	JDOM-2.0.6	Tool for accessing, manipulating, and outputting XML data from Java code	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>
	POI-3.12	Java API for Microsoft Documents	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>

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	MyFaces Trinidad-2.0.1	JSF framework	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>
	Ant-1.9.6	Build Utility	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>
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	ActiveMQ	messaging and Integration Patterns server	<p>Licensed under the Apache License v. 2.0, and you may not use this file except in compliance with the License.</p> <p>APACHE 2.0- See APPENDIX H</p> <p>Copyright © 2004 The Apache Software Foundation. All rights reserved.</p> <p>This software consists of voluntary contributions made by many individuals on behalf of the Apache Software Foundation. For more information on the Apache Software Foundation, please see <http://www.apache.org/>.</p> <p>Portions of this software are based upon public domain software originally written at the National Center for Supercomputing Applications, University of Illinois, Urbana-Champaign.</p>

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In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

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- b)** Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1

and 2 above on a medium customarily used for software interchange; or,
c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

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. 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.

Although the Lesser General Public License is less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to

run.

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The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- **a)** The modified work must itself be a software library.
- **b)** You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- **c)** You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- **d)** If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License. However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- **a)** Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under

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- **b)** Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- **c)** Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- **d)** If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- **e)** Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

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An “Application” is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library.

A “Combined Work” is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the “Linked Version”.

The “Minimal Corresponding Source” for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The “Corresponding Application Code” for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

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- a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or
- b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files.

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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- b) Accompany the object code with a copy of the GNU GPL and this license document.

4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following:

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- c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document.
- d) Do one of the following:
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 - 1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version.
- e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

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