Oracle® Communications Convergent Charging Controller

Licensing Information User Manual

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ORACLE®

Contents

Introduction

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Licensing Information

Product	Subproduct	Licensing Description
Oracle Communications Convergent Charging Controller	Oracle Communications Convergent Charging Controller – All Core Options	Service control and online mediation for voice, data, and value-added services, and voucher management For any deployment of Oracle Communications Convergent Charging Controller, the customer first has to purchase one of the following core options: • Oracle Communications Convergent Charging Controller • Oracle Communications Voucher Management Server All of the core options have the same pre-requisites. Each core option is restricted to particular services. **Prerequisites:** • Oracle Database Enterprise Edition, Oracle Database Standard Edition, Standard Edition One or Standard Edition 2 for the Service Logic Controllers and Voucher and Wallet Servers. • Oracle Database Enterprise Edition for the Service Management System • Oracle Database EE Option: Partitioning for the Service Management System • Oracle Database EE Option: Real Application Clusters if RAC clustering is required for the Service Management System
	Oracle Communications Convergent Charging Controller	Oracle Communications Convergent Charging Controller for charging session control only and for all communications sessions (prepaid and postpaid, voice, SMS and IP). **Restrictions:** Does not include the right to use Oracle Communications Convergent Charging Controller for rating, charging or balance management. **Prerequisites:** See Oracle Communications Convergent Charging Controller – All Core Options. Additionally, the following license must also be purchased: • Oracle Communications Control Plan Editor **Inclusions:** A license to Oracle Communications Convergent Charging Controller includes restricted-use licenses to Oracle Communications Open Service Development, Oracle Communications Subscriber Self Care, Oracle Communications Data Control Agents, Oracle Communications Voice Control Agents and Oracle Communications Message Control Agents. Use of Oracle Communications Open Service Development, Oracle Communications Subscriber Self Care, Oracle Communications Data Control Agents, Oracle Communications Voice Control Agents and Oracle Communications Message Control Agents is restricted to control of network sessions that are to be managed by Oracle Communications Convergent Charging Controller.
	Oracle Communications Voucher Management Server	Oracle Communications Convergent Charging Controller for use only for the management and redemption of Vouchers.

Product	Subproduct	Licensing Description
		Restrictions:
		Does not include the right to use Oracle Communications Convergent Charging Controller for rating, charging or balance management.
		Prerequisites:
		See Oracle Communications Convergent Charging Controller – All Core Options.
		Additionally, if Automatic Voucher Deletion functionality is to be used on the Service Management Server the following Database option is required:
		• Oracle Database EE Option: Partitioning
		Inclusions:
		A license to Oracle Communications Voucher Management Server includes restricted-use licenses to Oracle Communications Recharge and Voucher Management, Oracle Communications Open Service Development, Oracle Communications Subscriber Self Care, Oracle Communications Control Plan Editor, Oracle Communications Voice Control Agents and Oracle Communications Message Control Agents.
		Use of Oracle Communications Recharge and Voucher Management, Oracle Communications Open Service Development, Oracle Communications Subscriber Self Care, Oracle Communications Control Plan Editor, Oracle Communications Voice Control Agents and Oracle Communications Message Control Agents is restricted to redemption of vouchers.
	Option: Oracle Communications Notification Gateway	Consume Oracle Communications Advanced Billing and Revenue Management internal notifications to send SMS, USSD or Email notifications to subscribers.
		Prerequisites:
		One of the following core options must be purchased in order to license Oracle Communications Notification Gateway
		• Oracle Communications Convergent Charging Controller
		• Oracle Communications Voucher Management Server
	Option: Oracle Communications Recharge and Voucher Management	Management and redemption of vouchers, including definition and use of voucher types for voucher-less recharging.
		Prerequisites:
		One of the following core options must be purchased in order to license Oracle Communications Recharge and Voucher Management:
		• Oracle Communications Convergent Charging Controller
		If Automatic Voucher Deletion functionality is to be used on the Service Management Server the following Database option is required:
		• Oracle Database EE Option: Partitioning
	Option: Oracle Communications Subscriber Self Care	Text based self-care, allowing subscribers to submit self-care requests via SMS, USSD, SIP, or any other text-based self-care channel.
		This license is included as a restricted use license with Oracle Communications Convergent Charging Controller and Oracle Communications Voucher Management Server and is listed here for informational purposes.

Product	Subproduct	Licensing Description
Oracle Communications Messaging Manager	Oracle Communications Messaging Manager – All Core Options	IN-based messaging applications (e.g., prepaid messaging, First Delivery Attempt SMS, anti-spam). For any deployment of Oracle Communications Messaging Manager, the customer first has to purchase one of the following core options: • Oracle Communications Messaging Manager • Oracle Communications Express Delivery Routing All the core options have the same inclusions and pre-requisites. **Prerequisites:** • Oracle Database Enterprise Edition, Oracle Database Standard Edition, Standard Edition One or Standard Edition 2 for the Service Logic Controllers. • Oracle Database Enterprise Edition for the Service Management System • Oracle Database EE Option: Partitioning for the Service Management System • Oracle Database EE Option: Real Application Clusters if RAC clustering is required for the Service Management System Additionally, the following license must also be purchased: • Oracle Communications Control Plan Editor • Oracle Communications Messaging Control Agents
	Oracle Communications Messaging Manager	Originating, Terminating and ASP messaging, Home Routing, Protocol Conversion, Anti-Fraud, Personal Message exchange, **Prerequisites:** See Oracle Communications Messaging Manager – All Core Options.
	Oracle Communications Express Delivery Routing	Delivery of SMS notifications to the subscriber's mobile device via the MSC and allowing fall back to a SMSC for store and retry if the message cannot be delivered. **Prerequisites:** See Oracle Communications Messaging Manager – All Core Options.
Oracle Communications Number Services Manager	Oracle Communications Number Services Manager – All Core Options	IN-based number routing applications (e.g., Number Portability, Least Cost Routing, VPN). For any deployment of Oracle Communications Number Services Manager, the customer first has to purchase one of the following core options: • Oracle Communications Advanced Control Services Gateway • Oracle Communications Number Portability for Charging All the core options have the same inclusions and pre-requisites. Each is restricted to particular services. **Prerequisites:** • Oracle Database Enterprise Edition, Oracle Database Standard Edition, Standard Edition One or Standard Edition 2 for the Service Logic Controllers. • Oracle Database Enterprise Edition for the Service Management System

Product	Subproduct	Licensing Description
		• Oracle Database EE Option: Partitioning for the Service Management System • Oracle Database EE Option: Real Application Clusters if RAC clustering is required for the Service Management System Additionally, the following licenses must also be purchased: • Oracle Communications Control Plan Editor • Oracle Communications Voice Control Agents if Voice based services are to be offered • Oracle Communications Messaging Control Agents if Message based services are to be offered.
	Oracle Communications Advanced Control Services Gateway	Terminating and originating number routing services, such as Freephone, Premium Line, Least Cost Routing and Virtual Private Network services. **Prerequisites:** See Oracle Communications Number Services Manager – All Core Options.
	Oracle Communications Number Portability for Charging	Number Portability services for fixed and mobile devices, including ENUM database and lookup. **Prerequisites:** See Oracle Communications Number Services Manager – All Core Options.
Oracle Communications Control Plan Editor	Oracle Communications Control Plan Editor	Graphical configuration of Session and Event service logic for all Oracle Communications Convergent Charging Controller based services. **Prerequisites:** One of the following core options must be purchased in order to license Oracle Communications Control Plan Editor: • Oracle Communications Convergent Charging Controller • Oracle Communications Messaging Manager • Oracle Communications Express Delivery Routing • Oracle Communications Advanced Control Services Gateway • Oracle Communications Number Portability for Charging
Oracle Communications Network Connectivity Agents	Oracle Communications Network Connectivity Agents – All Options	**Prerequisites:** These agents can be purchased with any of the core products of the following three applications: **Oracle Communications Convergent Charging Controller** These licenses are included as restricted use licenses with Oracle Communications Convergent Charging Controller and Oracle Communications Voucher Management Server. **Oracle Communications Messaging Manager** • Oracle Communications Messaging Manager • Oracle Communications Express Delivery Routing

Product	Subproduct	Licensing Description
		Oracle Communications Number Services Manager • Oracle Communications Advanced Control Services Gateway • Oracle Communications Number Portability for Charging
	Oracle Communications Voice Control Agents	Use of Oracle Communications Network Connectivity Agents to control Voice based sessions, using protocols such as CAP, INAP, SIP, ISUP, IS-41 and IS-826 **Prerequisites:** See Oracle Communications Network Connectivity Agents – All Options
	Oracle Communications Messaging Control Agents	Use of Oracle Communications Network Connectivity Agents to control Text Message based sessions, using protocols such as MAP, CAP, SIP, IS-41, SMPP, UCP, and SMTP. **Prerequisites:** See Oracle Communications Network Connectivity Agents – All Options
	Oracle Communications Data Control Agents	Use of Oracle Communications Network Connectivity Agents to control Data sessions, using protocols such as DIAMETER, RADIUS, and CAP **Prerequisites:** See Oracle Communications Network Connectivity Agents – All Options
	Oracle Communications Open Service Development	Use of Oracle Communications Network Connectivity Agents for SOAP based interactions, with Oracle Communications Convergent Charging Controller acting as either a client or a server. **Prerequisites:** See Oracle Communications Network Connectivity Agents – All Options

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   2. http://www.cs.wustl.edu/~schmidt/TAO.html
   3. http://www.dre.vanderbilt.edu/CIAO/
   4. http://www.dre.vanderbilt.edu/cosmic/
   5. http://www.dre.vanderbilt.edu/~schmidt/
   6. http://www.cs.wustl.edu/~schmidt/ACE-members.html
   7. http://www.wustl.edu/
   8. http://www.uci.edu/
   9. http://www.vanderbilt.edu/
  10. mailto:doc_group@cs.wustl.edu
  11. http://www.cs.wustl.edu/~schmidt/ACE-users.html
  12. http://www.cs.wustl.edu/~schmidt/ACE.html
  13. http://www.cs.wustl.edu/~schmidt/TAO.html
  14. http://www.dre.vanderbilt.edu/CIAO/
  15. http://www.dre.vanderbilt.edu/~schmidt/DOC_ROOT/DAnCE/
  16. http://www.dre.vanderbilt.edu/cosmic/
  17. http://www.dre.vanderbilt.edu/
  18. http://www.isis.vanderbilt.edu/
  19. http://www.cs.wustl.edu/~schmidt/doc-center.html
  20. http://www.cs.wustl.edu/~schmidt/commercial-support.html
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-        Jackson 2.12.0

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Jackson is a high-performance, Free/Open Source JSON processing library. It was originally written by
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-        Snakeyaml 1.26

snakeyaml NOTICE

The art of simplicity is a puzzle of complexity.

Overview
[YAML](http://yaml.org) is a data serialization format designed for human readability and interaction with scripting languages.

SnakeYAML is a YAML processor for the Java Virtual Machine.

SnakeYAML features

* a **complete** [YAML 1.1 processor](http://yaml.org/spec/1.1/current.html). In particular, SnakeYAML can parse all examples from the specification.

* Unicode support including UTF-8/UTF-16 input/output.
* high-level API for serializing and deserializing native Java objects.
* support for all types from the [YAML types repository](http://yaml.org/type/index.html).
* relatively sensible error messages.

Info
 * [Changes](https://bitbucket.org/asomov/snakeyaml/wiki/Changes)
 * [Documentation](https://bitbucket.org/asomov/snakeyaml/wiki/Documentation)

Contribute
* Mercurial DVCS is used to dance with the [source code](https://bitbucket.org/asomov/snakeyaml/src).
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* You may discuss SnakeYAML at
[the mailing list](http://groups.google.com/group/snakeyaml-core).

-        t-digest 3.2

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The code for the t-digest was originally authored by Ted Dunning. A number of small but very helpful
changes have been contributed by Adrien Grand (https://github.com/jpountz)

-        Netty 4.1.49

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-           HdrHistogram 2.1.9

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Log4J

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