# Oracle® Communications

# LSMS Licensing Information User Manual



Release 14.1
G63355-01
October 2026



Oracle Communications LSMS Licensing Information User Manual, Release 14.1

G63355-01

Copyright © 2000, 2026, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, MySQL, and NetSuite are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Oracle customer access to and use of Oracle support services will be pursuant to the terms and conditions specified in their Oracle order for the applicable services.

# Contents


1 Introduction

2 Licensing Information

3 Oracle Communications LSMS – Licensing Notes

4 Third-Party Notices and/or Licenses

4.1 Commercial Software 1

5 Written Offer for Source Code

6 Open Source Software

A The ACE License

B Artistic License 1.0

C Artistic License 2.0

D Apache License 2.0




Copyright © 2000, 2026, Oracle and/or its affiliates.

# My Oracle Support (MOS)

My Oracle Support (MOS) is your initial point of contact for any of the following requirements:

- **Product Support**:
  The generic product related information and resolution of product related queries.
- **Critical Situations**
  A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:
  - A total system failure that results in loss of all transaction processing capability
  - Significant reduction in system capacity or traffic handling capability
  - Loss of the system's ability to perform automatic system reconfiguration
  - Inability to restart a processor or the system
  - Corruption of system databases that requires service affecting corrective actions
  - Loss of access for maintenance or recovery operations
  - Loss of the system ability to provide any required critical or major trouble notification

  Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.
- **Training Need**
  Oracle University offers training for service providers and enterprises.

A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at Oracle Support Contacts. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

When calling, make the selections in the sequence shown below on the Support telephone menu:

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

You will be connected to a live agent who can assist you with registration and opening a support ticket.

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


Copyright © 2000, 2026, Oracle and/or its affiliates.

# What's New in This Guide

This section introduces the documentation updates for Release 14.1 in Oracle Communications LSMS Licensing Information User Manual.

**Release 14.1 - G63355-01, October 2026**

- Updated components under the Open Source Software with the latest version.
- Updated the copyright years for The OpenSSL Project in the The ACE License section.


Copyright © 2000, 2026, Oracle and/or its affiliates.

1

# Introduction

This Licensing Information document is a part of the product or program documentation under the terms of your Oracle license agreement and is intended to help you understand the program editions, entitlements, restrictions, prerequisites, and/or separately licensed third party technology terms associated with the Oracle software program(s) covered by this document (the “Program(s)”).

Entitled or restricted use products or components identified in this document that are not provided with the particular Program may be obtained from the Oracle Software Delivery Cloud website (https://edelivery.oracle.com) or from media Oracle may provide.

If you have a question about your license rights and obligations, please contact your Oracle sales representative, review the information provided in Oracle’s Software Investment Guide (http://www.oracle.com/us/corporate/pricing/software-investment-guide/index.html), and/or contact the applicable Oracle License Management Services representative listed on http://www.oracle.com/us/corporate/license-management-services/index.html.


Copyright © 2000, 2026, Oracle and/or its affiliates.

2

# Licensing Information

Description of Product Editions and Permitted Features

Prerequisite Products

Entitled Products and Restricted Use Licenses


Copyright © 2000, 2026, Oracle and/or its affiliates.

# 3


Copyright © 2000, 2026, Oracle and/or its affiliates.

# Oracle Communications LSMS – Licensing Notes

| Product | Subproduct | Licensing Information |
|---|---|---|
| | Oracle Communications LSMS 64 bit– per Card Metric | **Product Editions and Permitted Features**<br>The Oracle Communications LSMS provides the interface between the Number Portability Administration Center (NPAC) Service Management System (SMS) and the Oracle Communications EAGLE LNP Application Processor. It supports provisioning of the Oracle Communications EAGLE with NPAC data as well as locally administered service provider specific data.<br>Oracle Communications LSMS is composed of hardware and software components that interact to create a secure and reliable Local Number Portability (LNP) system.<br>**Note**: **Oracle Communications LSMS 64 bit - Integrated Software Option – per Card Metric** holds good for both Canada and US Regions.<br>The LNP data administered by the Oracle Communications LSMS includes:<br>• Subscription data<br>• Number Pool Block data<br>• Service provider data<br>• Network data<br>• NPA-NXX Default GTT data<br>• LRN Override GTT data<br>• NPA Split data<br>The LSMS provides these functions:<br>• Receiving LNP data from NPAC SMS<br>• Distributing data to the Oracle Communications EAGLE LNP Application Processor.<br>• Administering internal Service Provider LNP data to support the final global title translation for various services (LIDB, CNAM, CLASS, ISVM, WSMSC)<br>• Storing NPAC LNP data and service provider LNP data on a persistent local database<br>• Supporting data audit function between NPAC SMS and LSMS. The audit is initiated by NPAC SMS. |


Copyright © 2000, 2026, Oracle and/or its affiliates.

| Product | Subproduct | Licensing Information |
|---|---|---|
| | | • Initiating audits and reconciliation between LSMS and the Oracle Communications EAGLE<br>• Supporting connection management for NPAC and Oracle Communications EAGLE communication<br>• Handling local failures, NPAC communication failures, and Oracle Communications EAGLE communication failures and recovery<br>• Event Logging<br>• Providing internal data security using one-way encrypted passwords<br>• Providing a secure interface to NPAC SMS using key list management<br>• Reporting event notifications and alarms<br>• Data backup capability. Oracle Communications LSMS will create a backup of the system logs, application logs, and databases. The backup will be stored on a separate Oracle Communications EAGLE Application B card.<br>• Providing default connectivity to Neustar<br>Oracle Communications LSMS is hosted on the Oracle Communications EAGLE Application B card.<br>**Prerequisite Products**<br>None<br>**Entitled Products and Restricted Use Licenses**<br>A license to Oracle Communications LSMS – Integrated Software Option – Per Card Metric includes a restricted-use license to MySQL Enterprise Edition. MySQL Enterprise Edition may be used solely to deploy and run Oracle Communications LSMS – Integrated Software Option – Per Card Metric. |


Copyright © 2000, 2026, Oracle and/or its affiliates.

| Product | Subproduct | Licensing Information |
|---|---|---|
| | Oracle Communications LSMS NPAC Interface for iconectiv | **Product Editions and Permitted Features**<br>Supports LSMS inter-operability with iconectiv, which is the Local Number Portability Administrator (LNPA) for the seven U.S. Number Portability Administration Center (NPAC) regions.<br>**Prerequisite Products**<br>Oracle Communications LSMS 64 bit<br>**Entitled Products and Restricted Use Licenses**<br>None |
| | Oracle Communications LSMS Simultaneous NPAC Connection for Neustar and for iconectiv | **Product Editions and Permitted Features**<br>LSMS simultaneous connection to iconectiv and Neustar Local Number Portability Administrators<br>**Note**: **Oracle Communications LSMS Simultaneous NPAC Connection for Neustar and iconectiv - Integrated Software Option - per Card Metric** will not be required in the Canada Region due to the absence of iconectiv interface to NPAC.<br>**Prerequisite Products**<br>Oracle Communications LSMS NPAC Interface for iconectiv<br>**Entitled Products and Restricted Use Licenses**<br>None |

**Note**

- The NPAC Interface for iconectiv is not applicable for Canada region.
- There are no SKUs available for the NPAC interface to Neustar.


Copyright © 2000, 2026, Oracle and/or its affiliates.

4

# Third-Party Notices and/or Licenses

## 4.1 Commercial Software

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

| Provider | Components(s) | Licensing Information |
|---|---|---|
| NE Technologies | CMIP OSI Stack v. 3.3a | Copyright by NE Technologies Inc. |
| NE Technologies | TMN Toolkit Runtime v. 6.0.1 | Copyright (C) 1991-2015, by NE Technologies Inc. |


Copyright © 2000, 2026, Oracle and/or its affiliates.

5

# Written Offer for Source Code

For third party technology that you receive from Oracle in binary form which is licensed under an open source license that gives you the right to receive the source code for that binary, you can obtain a copy of the applicable source code from this page. If the source code for the technology was not provided to you with the binary, you can also receive a copy of the source code on physical media by submitting a written request to:

- Oracle America, Inc.
- Attn: Associate General Counsel
- Development and Engineering Legal
- 500 Oracle Parkway, 10th Floor
- Redwood Shores, CA 94065

Or, you may send an email to Oracle using this form. Your request should include:

- The name of the component or binary file(s) for which you are requesting the source code
- The name and version number of the Oracle product
- The date you received the Oracle product
- Your name
- Your company name (if applicable)
- Your return mailing address and email
- A telephone number in the event we need to reach you.

We may charge you a fee to cover the cost of physical media and processing. Your request must be sent (i) within three (3) years of the date you received the Oracle product that included the component or binary file(s) that are the subject of your request, or (ii) in the case of code licensed under the GPL v3, for as long as Oracle offers spare parts or customer support for that product model.


Copyright © 2000, 2026, Oracle and/or its affiliates.

6

# Open Source Software

Required notices for open source software products or components distributed in Oracle Communications LSMS are identified in the following tables along with the applicable licensing information. Additional notices and/or licenses may be found in the included documentation or readme files of the individual third party open source software.

| Provider | Components(s) | Licensing Information | LSMS Release |
|---|---|---|---|
| Douglas C. Schmidt | ace v. 8.0.5 | A copy of the ACE license appears below. | 14.1 |


Copyright © 2000, 2026, Oracle and/or its affiliates.

| Provider | Components(s) | Licensing Information | LSMS Release |
|---|---|---|---|
| Patrick Galbraith, Michiel Beijen | perl-DBD-MySQL v. 5.013 | This software is copyright (c) 2015 by Patrick Galbraith, Michiel Beijen and all other contributors.<br>This module is<br>Large Portions Copyright (c) 2004-2013 Patrick Galbraith<br>Large Portions Copyright (c) 2004-2006 Alexey Stroganov<br>Large Portions Copyright (c) 2003-2005 Rudolf Lippan<br>Large Portions Copyright (c) 1997-2003 Jochen Wiedmann, with code portions<br>Copyright (c)1994-1997 their original authors<br>TOP-LEVEL license for DBD::mysql<br>---Perl Licensing----<br>Perl5 is Copyright (C) 1993-2005, by Larry Wall and others.<br>It is free software; you can redistribute it and/or modify it under the terms of either:<br>a) the GNU General Public License as published by the Free Software Foundation; either version 1, or (at your option) any later version, or<br>b) the "Artistic License".<br>For those of you that choose to use the GNU General Public License, my interpretation of the GNU General Public License is that no Perl script falls under the terms of the GPL unless you explicitly put said script under the terms of the GPL yourself.<br>Furthermore, any object code linked with perl does not automatically fall under the terms of the GPL, provided such | 14.1 |


Copyright © 2000, 2026, Oracle and/or its affiliates.

| Provider | Components(s) | Licensing Information | LSMS Release |
|---|---|---|---|
| | | object code only adds definitions of subroutines and variables, and does not otherwise impair the resulting interpreter from executing any standard Perl script. I consider linking in C subroutines in this manner to be the moral equivalent of defining subroutines in the Perl language itself. You may sell such an object file as proprietary provided that you provide or offer to provide the Perl source, as specified by the GNU General Public License. (This is merely an alternate way of specifying input to the program.) You may also sell a binary produced by the dumping of a running Perl script that belongs to you, provided that you provide or offer to provide the Perl source as specified by the GPL. (The fact that a Perl interpreter and your code are in the same binary file is, in this case, a form of mere aggregation.)<br>This is my interpretation of the GPL. If you still have concerns or difficulties understanding my intent, feel free to contact me. Of course, the Artistic License spells all this out for your protection, so you may prefer to use that.<br>-- Larry Wall<br>---end of Perl Licensing---<br>Oracle elects to license this file available under the Artistic License as expressly permitted by the Perl licensing terms. | |


Copyright © 2000, 2026, Oracle and/or its affiliates.

| Provider | Components(s) | Licensing Information | LSMS Release |
|---|---|---|---|
| | | A copy of the Artistic License 1.0 appears below.<br>FOURTH-PARTY DEPENDENCY #1 DBI<br>== License Type<br>Perl<br>== Copyright Notices<br>The DBI module is Copyright (c) 1994-2024 Tim Bunce. Ireland. The DBI developer group (2024-2024) All rights reserved. | |
| Audrey Tang | perl-Module-ScanDeps v. 1.37 | Copyright 2002-2008 by Audrey Tang <autrijus@autrijus.org>;<br>2005-2009 by Steffen Mueller <smueller@cpan.org>.<br>Portions of this program use perl-Module-ScanDeps. The open source version is made available by Audrey Tang under the terms of the below version of the Artistic License. As such, Oracle is required to provide the following notices. Note, however, that the Oracle program license that accompanied this program determines your right to use the Oracle program, including perl-Module-ScanDeps, and the terms contained in the following notices do not change those rights.<br>Oracle elects to license this file available under the Artistic License as expressly permitted by the Perl licensing terms.<br>A copy of the Artistic License 1.0 appears below. | 14.1 |


Copyright © 2000, 2026, Oracle and/or its affiliates.

| Provider | Components(s) | Licensing Information | LSMS Release |
|---|---|---|---|
| Audrey Tang | perl-PAR v. 1.021 | Copyright 2002-2010 by Audrey Tang.<br>Copyright 2006-2010 by Steffen Mueller.<br>All rights reserved. You can redistribute and/or modify this bundle under the same terms as Perl itself.<br>A copy of the Artistic License 1.0 appears below. | 14.1 |
| Audrey Tang | perl-PAR-Packer v. 1.064 | Copyright 2002-2010 by Audrey Tang <cpan@audreyt.org>.<br>This is free software; you can redistribute it and/or modify it under<br>the same terms as the Perl 5 programming language system itself.<br>Terms of the Perl programming language system itself<br>a) the GNU General Public License as published by the Free<br>Software Foundation; either version 1, or (at your option) any<br>later version, or<br>b) the "Artistic License"<br>Oracle elects to license this file available under the Artistic License as<br>expressly permitted by the Perl licensing terms.<br>A copy of the Artistic License 1.0 appears below. | 14.1 |


Copyright © 2000, 2026, Oracle and/or its affiliates.

# A
# The ACE License

ACE(TM), TAO(TM), CIAO(TM), DAnCE>(TM), and CoSMIC(TM) (henceforth referred to as "DOC software") are copyrighted by Douglas C. Schmidt and his research group at Washington University, University of California, Irvine, and Vanderbilt University, Copyright (c) 1993-2019, all rights reserved.

Copyright and Licensing Information for ACE(TM), TAO(TM), CIAO(TM), DAnCE(TM), and CoSMIC(TM)

ACE(TM), TAO(TM), CIAO(TM), DAnCE>(TM), and CoSMIC(TM) (henceforth referred to as "DOC software") are copyrighted by Douglas C. Schmidt and his research group at Washington University, University of California, Irvine, and Vanderbilt University, Copyright (c) 1993-2019, all rights reserved. Since DOC software is open-source, freely available software, you are free to use, modify, copy, and distribute--perpetually and irrevocably--the DOC software source code and object code produced from the source, as well as copy and distribute modified versions of this software. You must, however, include this copyright statement along with any code built using DOC software that you release. No copyright statement needs to be provided if you just ship binary executables of your software products.

You can use DOC software in commercial and/or binary software releases and are under no obligation to redistribute any of your source code that is built using DOC software. Note, however, that you may not misappropriate the DOC software code, such as copyrighting it yourself or claiming authorship of the DOC software code, in a way that will prevent DOC software from being distributed freely using an open-source development model. You needn't inform anyone that you're using DOC software in your software, though we encourage you to let us know so we can promote your project in the DOC software success stories.

The ACE, TAO, CIAO, DAnCE, and CoSMIC web sites are maintained by the DOC Group at the Institute for Software Integrated Systems (ISIS) and the Center for Distributed Object Computing of Washington University, St. Louis for the development of open-source software as part of the open-source software community. Submissions are provided by the submitter ``as is'' with no warranties whatsoever, including any warranty of merchantability, noninfringement of third party intellectual property, or fitness for any particular purpose. In no event shall the submitter be liable for any direct, indirect, special, exemplary, punitive, or consequential damages, including without limitation, lost profits, even if advised of the possibility of such damages. Likewise, DOC software is provided as is with no warranties of any kind, including the warranties of design, merchantability, and fitness for a particular purpose, noninfringement, or arising from a course of dealing, usage or trade practice. Washington University, UC Irvine, Vanderbilt University, their employees, and students shall have no liability with respect to the infringement of copyrights, trade secrets or any patents by DOC software or any part thereof. Moreover, in no event will Washington University, UC Irvine, or Vanderbilt University, their employees, or students be liable for any lost revenue or profits or other special, indirect and consequential damages.

DOC software is provided with no support and without any obligation on the part of Washington University, UC Irvine, Vanderbilt University, their employees, or students to assist in its use, correction, modification, or enhancement. A number of companies around the world provide commercial support for DOC software, however. DOC software is Y2K-compliant, as long as the underlying OS platform is Y2K-compliant. Likewise, DOC software is compliant with the new US daylight savings rule passed by Congress as "The Energy Policy Act of 2005," which established new daylight savings times (DST) rules for the United States that expand DST as


Copyright © 2000, 2026, Oracle and/or its affiliates.

of March 2007. Since DOC software obtains time/date and calendaring information from operating systems users will not be affected by the new DST rules as long as they upgrade their operating systems accordingly.

The names ACE(TM), TAO(TM), CIAO(TM), DAnCE(TM), CoSMIC(TM), Washington University, UC Irvine, and Vanderbilt University, may not be used to endorse or promote products or services derived from this source without express written permission from Washington University, UC Irvine, or Vanderbilt University. This license grants no permission to call products or services derived from this source ACE(TM), TAO(TM), CIAO(TM), DAnCE(TM), or CoSMIC(TM), nor does it grant permission for the name Washington University, UC Irvine, or Vanderbilt University to appear in their names.

If you have any suggestions, additions, comments, or questions, please let me know.

Douglas C. Schmidt

[FOURTH-PARTY DEPENDENCY #01] ACE uses OpenSSL, license text taken from https://www.openssl.org/source/license.txt

---------- Separator ----------

[FOURTH-PARTY DEPENDENCY #01] OpenSSL

LICENSE ISSUES

==========

The OpenSSL toolkit stays under a double license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit.

See below for the actual license texts.

OpenSSL License

---

==========

Copyright (c) 1998-2024 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. All advertising materials mentioning features or use of this software must display the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)"
4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.
5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.
6. Redistributions of any form whatsoever must retain the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)"


Copyright © 2000, 2026, Oracle and/or its affiliates.

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

==========

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

Original SSLeay License

---

Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)

All rights reserved.

This package is an SSL implementation written by Eric Young (eay@cryptsoft.com).

The implementation was written so as to conform with Netscape’s SSL.

This library is free for commercial and non-commercial use as long as the following conditions are adhered to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed. If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used. This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. All advertising materials mentioning features or use of this software must display the following acknowledgement: "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)" The word 'cryptographic' can be left out if the routines from the library being used are not cryptographic related.
4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement: "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES


Copyright © 2000, 2026, Oracle and/or its affiliates.

(INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION). HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The license and distribution terms for any publicly available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution license [including the GNU Public License.]


Copyright © 2000, 2026, Oracle and/or its affiliates.

# B

# Artistic License 1.0

The Artistic License

Preamble

The intent of this document is to state the conditions under which a Package may be copied, such that the Copyright Holder maintains some semblance of artistic control over the development of the package, while giving the users of the package the right to use and distribute the Package in a more-or-less customary fashion, plus the right to make reasonable modifications.

Definitions:

- "Package" refers to the collection of files distributed by the Copyright Holder, and derivatives of that collection of files created through textual modification.
- "Standard Version" refers to such a Package if it has not been modified, or has been modified in accordance with the wishes of the Copyright Holder.
- "Copyright Holder" is whoever is named in the copyright or copyrights for the package.
- "You" is you, if you're thinking about copying or distributing this Package.
- "Reasonable copying fee" is whatever you can justify on the basis of media cost, duplication charges, time of people involved, and so on. (You will not be required to justify it to the Copyright Holder, but only to the computing community at large as a market that must bear the fee.)
- "Freely Available" means that no fee is charged for the item itself, though there may be fees involved in handling the item. It also means that recipients of the item may redistribute it under the same conditions they received it.

1. You may make and give away verbatim copies of the source form of the Standard Version of this Package without restriction, provided that you duplicate all of the original copyright notices and associated disclaimers.
2. You may apply bug fixes, portability fixes and other modifications derived from the Public Domain or from the Copyright Holder. A Package modified in such a way shall still be considered the Standard Version.
3. You may otherwise modify your copy of this Package in any way, provided that you insert a prominent notice in each changed file stating how and when you changed that file, and provided that you do at least ONE of the following:
    a. place your modifications in the Public Domain or otherwise make them Freely Available, such as by posting said modifications to Usenet or an equivalent medium, or placing the modifications on a major archive site such as ftp.uu.net, or by allowing the Copyright Holder to include your modifications in the Standard Version of the Package.
    b. use the modified Package only within your corporation or organization.
    c. rename any non-standard executables so the names do not conflict with standard executables, which must also be provided, and provide a separate manual page for each non-standard executable that clearly documents how it differs from the Standard Version.
    d. make other distribution arrangements with the Copyright Holder.


Copyright © 2000, 2026, Oracle and/or its affiliates.

4. You may distribute the programs of this Package in object code or executable form, provided that you do at least ONE of the following:
    a. distribute a Standard Version of the executables and library files, together with instructions (in the manual page or equivalent) on where to get the Standard Version.
    b. accompany the distribution with the machine-readable source of the Package with your modifications.
    c. accompany any non-standard executables with their corresponding Standard Version executables, giving the non-standard executables non-standard names, and clearly documenting the differences in manual pages (or equivalent), together with instructions on where to get the Standard Version.
    d. make other distribution arrangements with the Copyright Holder.
5. You may charge a reasonable copying fee for any distribution of this Package. You may charge any fee you choose for support of this Package. You may not charge a fee for this Package itself. However, you may distribute this Package in aggregate with other (possibly commercial) programs as part of a larger (possibly commercial) software distribution provided that you do not advertise this Package as a product of your own.
6. The scripts and library files supplied as input to or produced as output from the programs of this Package do not automatically fall under the copyright of this Package, but belong to whomever generated them, and may be sold commercially, and may be aggregated with this Package.
7. C or perl subroutines supplied by you and linked into this Package shall not be considered part of this Package.
8. The name of the Copyright Holder may not be used to endorse or promote products derived from this software without specific prior written permission.
9. THIS PACKAGE IS PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE.


Copyright © 2000, 2026, Oracle and/or its affiliates.

C

# Artistic License 2.0

Artistic License 2.0

Copyright (c) 2000-2006, The Perl Foundation.

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

This license establishes the terms under which a given free software Package may be copied, modified, distributed, and/or redistributed. The intent is that the Copyright Holder maintains some artistic control over the development of that Package while still keeping the Package available as open source and free software.

You are always permitted to make arrangements wholly outside of this license directly with the Copyright Holder of a given Package. If the terms of this license do not permit the full use that you propose to make of the Package, you should contact the Copyright Holder and seek a different licensing arrangement.

Definitions

"Copyright Holder" means the individual(s) or organization(s) named in the copyright notice for the entire Package.

"Contributor" means any party that has contributed code or other material to the Package, in accordance with the Copyright Holder's procedures.

"You" and "your" means any person who would like to copy, distribute, or modify the Package.

"Package" means the collection of files distributed by the Copyright Holder, and derivatives of that collection and/or of those files. A given Package may consist of either the Standard Version, or a Modified Version.

"Distribute" means providing a copy of the Package or making it accessible to anyone else, or in the case of a company or organization, to others outside of your company or organization.

"Distributor Fee" means any fee that you charge for Distributing this Package or providing support for this Package to another party. It does not mean licensing fees.

"Standard Version" refers to the Package if it has not been modified, or has been modified only in ways explicitly requested by the Copyright Holder.

"Modified Version" means the Package, if it has been changed, and such changes were not explicitly requested by the Copyright Holder.

"Original License" means this Artistic License as Distributed with the Standard Version of the Package, in its current version or as it may be modified by The Perl Foundation in the future.

"Source" form means the source code, documentation source, and configuration files for the Package.

"Compiled" form means the compiled bytecode, object code, binary, or any other form resulting from mechanical transformation or translation of the Source form.


Copyright © 2000, 2026, Oracle and/or its affiliates.

Permission for Use and Modification Without Distribution

1. You are permitted to use the Standard Version and create and use Modified Versions for any purpose without restriction, provided that you do not Distribute the Modified Version.
Permissions for Redistribution of the Standard Version
2. You may Distribute verbatim copies of the Source form of the Standard Version of this Package in any medium without restriction, either gratis or for a Distributor Fee, provided that you duplicate all of the original copyright notices and associated disclaimers. At your discretion, such verbatim copies may or may not include a Compiled form of the Package.
3. You may apply any bug fixes, portability changes, and other modifications made available from the Copyright Holder. The resulting Package will still be considered the Standard Version, and as such will be subject to the Original License.
Distribution of Modified Versions of the Package as Source
4. You may Distribute your Modified Version as Source (either gratis or for a Distributor Fee, and with or without a Compiled form of the Modified Version) provided that you clearly document how it differs from the Standard Version, including, but not limited to, documenting any non-standard features, executables, or modules, and provided that you do at least ONE of the following:
    a. make the Modified Version available to the Copyright Holder of the Standard Version, under the Original License, so that the Copyright Holder may include your modifications in the Standard Version.
    b. ensure that installation of your Modified Version does not prevent the user installing or running the Standard Version. In addition, the Modified Version must bear a name that is different from the name of the Standard Version.
    c. allow anyone who receives a copy of the Modified Version to make the Source form of the Modified Version available to others under
        i. the Original License or
        ii. a license that permits the licensee to freely copy, modify and redistribute the Modified Version using the same licensing terms that apply to the copy that the licensee received, and requires that the Source form of the Modified Version, and of any works derived from it, be made freely available in that license fees are prohibited but Distributor Fees are allowed.
        Distribution of Compiled Forms of the Standard Version or Modified Versions without the Source
5. You may Distribute Compiled forms of the Standard Version without the Source, provided that you include complete instructions on how to get the Source of the Standard Version. Such instructions must be valid at the time of your distribution. If these instructions, at any time while you are carrying out such distribution, become invalid, you must provide new instructions on demand or cease further distribution. If you provide valid instructions or cease distribution within thirty days after you become aware that the instructions are invalid, then you do not forfeit any of your rights under this license.
6. You may Distribute a Modified Version in Compiled form without the Source, provided that you comply with Section 4 with respect to the Source of the Modified Version.
Aggregating or Linking the Package
7. You may aggregate the Package (either the Standard Version or Modified Version) with other packages and Distribute the resulting aggregation provided that you do not charge a licensing fee for the Package. Distributor Fees are permitted, and licensing fees for other components in the aggregation are permitted. The terms of this license apply to the use and Distribution of the Standard or Modified Versions as included in the aggregation.


Copyright © 2000, 2026, Oracle and/or its affiliates.

8. You are permitted to link Modified and Standard Versions with other works, to embed the Package in a larger work of your own, or to build stand-alone binary or bytecode versions of applications that include the Package, and Distribute the result without restriction, provided the result does not expose a direct interface to the Package.
Items That are Not Considered Part of a Modified Version
9. Works (including, but not limited to, modules and scripts) that merely extend or make use of the Package, do not, by themselves, cause the Package to be a Modified Version. In addition, such works are not considered parts of the Package itself, and are not subject to the terms of this license.
General Provisions
10. Any use, modification, and distribution of the Standard or Modified Versions is governed by this Artistic License. By using, modifying or distributing the Package, you accept this license. Do not use, modify, or distribute the Package, if you do not accept this license.
11. If your Modified Version has been derived from a Modified Version made by someone other than you, you are nevertheless required to ensure that your Modified Version complies with the requirements of this license.
12. This license does not grant you the right to use any trademark, service mark, tradename, or logo of the Copyright Holder.
13. This license includes the non-exclusive, worldwide, free-of-charge patent license to make, have made, use, offer to sell, sell, import and otherwise transfer the Package with respect to any patent claims licensable by the Copyright Holder that are necessarily infringed by the Package. If you institute patent litigation (including a cross-claim or counterclaim) against any party alleging that the Package constitutes direct or contributory patent infringement, then this Artistic License to you shall terminate on the date that such litigation is filed.
14. Disclaimer of Warranty: THE PACKAGE IS PROVIDED BY THE COPYRIGHT HOLDER AND CONTRIBUTORS "AS IS' AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES. THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT ARE DISCLAIMED TO THE EXTENT PERMITTED BY YOUR LOCAL LAW. UNLESS REQUIRED BY LAW, NO COPYRIGHT HOLDER OR CONTRIBUTOR WILL BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING IN ANY WAY OUT OF THE USE OF THE PACKAGE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.


Copyright © 2000, 2026, Oracle and/or its affiliates.

# D
# Apache License 2.0

Apache License

Version 2.0, January 2004

http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions
"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."


Copyright © 2000, 2026, Oracle and/or its affiliates.

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
    a. You must give any other recipients of the Work or Derivative Works a copy of this License; and
    b. You must cause any modified files to carry prominent notices stating that You changed the files; and
    c. You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
    d. If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.
    You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.
5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.


Copyright © 2000, 2026, Oracle and/or its affiliates.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at http://www.apache.org/licenses/LICENSE-2.0.

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.


Copyright © 2000, 2026, Oracle and/or its affiliates.