

YumaPro Legal Notices

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Summary of Licenses Use:

(NOTE: this summary includes the licenses for the source code used directly by YumaPro. The source code may also include code with additional licenses that are not part of this document).

Section 1) Original yuma source code

Software	Section	Licensee	License Type
Original yuma source code	1)	Andy Bierman	BSD License

Section 2) Open Source Source Code contained with YumaPro Source Code distributions and/or derived libraries that are included in YumaPro Binary distributions

Software	Section	Licensee	License Type
libdict library	2a)	Farooq Mela	BSD 2-Clause "Simplified" License
libtecla library	2b)	Martin C. Shepherd	permissive non-copyleft “ free software license ”
libcoap library	2c)	Olaf Bergmann and others	simplified BSD license
snmplib library ¹	2d)	multiple	BSD
The base64 content transfer encoding functions in ncx/b64.c	2e)	Bob Trower	MIT license
The bobhash function in ncx/bobhash.c	2f)	IETF Trust	IETF Trust Legal Provisions (TLP)
Call Home functionality	2g)	Juniper Networks, Inc.	NOTE: a patent by Juniper Networks may apply to this code (see: https://datatracker.ietf.org/ipr/2445/)
libcbor library	2h)	Pavel Kalvoda	MIT license

¹ source code for snmplib (Net-SNMP) is not included in YumaPro Source Code distributions. Please see yumapro-ypsnmp-manual.pdf for details.

Section 3) Open Source libraries that YumaPro links to dynamically

Software	Section	Licensee	License Type
libxml2 library	3a)	xmlsoft.org	MIT License
libssh2 library	3b)	multiple	Modified BSD
libcurl library	3c)	Daniel Stenberg	MIT/X derivative license
ncurses library	3d)	multiple	MIT-style
FastCGI library	3e)	Open Market, Inc	Open Market License
libcrypto, libcrypt and libssl libraries	3f)		
libdl, libgcc, libicudata, libicuuc, liblzma, libstdc++, and libz libraries	3g)		
libm library	3h)		
ld-linux, libc, libpthread, and linux-vdso libraries	3i)		
libbrotlicommon, libbrotlidec, libcom_err, libffi, libgmp, libgnutls, libgssapi_krb5, libhogweed, libtasn1, libidn2, liblber-2.4, libldap_r-2.4, libnettle, libnghttp2, libp11-kit, libpsl, librtmp, libsasl2 and libunistring libraries	3j)		
libcom_err, libgssapi_krb5, libk5crypto, libkeyutils, libkrb5, libkrb5support and libresolv libraries	3k)		
libtinfo library	3l)		
libzmq library	3m)	iMatix	Mozilla Public License 2.0
libbsd, libmd, libnorm, libpgm and libsodium libraries	3n)		

Section 4) YumaPro gRPC and gNMI Implementation

Software	Section	Licensee	License Type
YumaPro gRPC and gNMI implementation	4	-	Apache License Version 2.0

Section 5) YumaPro YP-WEB Implementation

Software	Section	Licensee	License Type
YP-WEB-Core: websockets, pyzmq, bcrypt, lxml and yangson	5	-	See Section 5 below
YP-WEB: axios, mitt, pinia, pinia-plugin- persistedstate, primevue, quasar, @quasar/extras, unocss, vue and vue-router	5	-	See Section 5 below

Section 6) Other licenses

Software	Section	Licensee	License Type
NETCONF	6a)	Huawei Technologies Co., Ltd	NOTE: a patent by Huawei may apply to this code (see: https://datatracker.ietf.org/ipr/1800/)

Section 7) Notice to U.S. Government End Users

Licenses Use Description

1) Original yuma source code:

The original **yuma** source code is licensed from Andy Bierman under the BSD License.

Yuma: Copyright 2008 - 2012, Andy Bierman ALL RIGHTS RESERVED.

It is linked into the following programs:

- combo-app
- db-api-app
- netconfd-pro
- restconf
- sil-sa-app
- support-save-app
- yangcli-gw
- yangcli-pro
- yangdiff-pro
- yangdump-pro
- yp-ha-app
- yp-controller
- yp-shell
- yang-api
- yp-client (C++ libraries)

2) Open Source Source Code contained with YumaPro Source Code distributions and derived libraries that are included in YumaPro Binary distributions:

a. The **libdict** library is licensed from <https://github.com/fmela/libdict> under the license found at <https://github.com/fmela/libdict/blob/master/LICENSE>.

It is linked into the following programs:

- combo-app
- db-api-app
- restconf

- sil-sa-app
 - yangcli-gw
 - yangcli-pro
 - yangdump-pro
 - yangdiff-pro
 - netconfd-pro
 - yp-controller
 - yp-shell
 - yang-api
 - yp-client (C++ libraries)
 - yp-watcher
-

b. The **libtecla** library is licensed from <http://www.astro.caltech.edu/~mcs/tecla/> under the license found at <http://www.astro.caltech.edu/~mcs/tecla/LICENSE.TERMS>.

It is linked into the following programs:

- yangcli-gw
 - yangcli-pro
 - yp-shell
-

c. The **libcoap** library is licensed from <https://libcoap.net> under the license found at <https://github.com/obgm/libcoap/blob/develop/LICENSE>.

It is linked into the following programs, only if the WITH_COAP=1 compiler flag is used to build the code. It is not enabled in any binary distribution. This option is obsolete and not supported.

- netconfd-pro
 - sil-sa-app
 - yangcli-gw
 - yangcli-pro
 - yp-ha-app
 - yp-shell
-

d. The **snmplib** library is licensed from <http://www.net-snmp.org> under the BSD License (<http://www.net-snmp.org/about/license.html>).

It is linked into the following programs, if the WITH_SNMP=1 compiler flag is used to build the code. It is included in the yumapro-snmp and yumapro-snmp-eval binary packages.

- netconfd-pro
 - sil-sa-app
-

e. The base64 content transfer encoding functions in **ncx/b64.c** are by Bob Trower, under the MIT license.

It is linked into the following programs:

- db-api-app
- netconfd-pro
- netconf-subsystem-pro
- restconf
- sil-sa-app
- yang-api
- yangcli-gw
- yangcli-pro
- yangdiff-pro
- yangdump-pro
- yp-ha-app
- yp-shell
- yppwatcher

MODULE NAME: b64.c

AUTHOR: Bob Trower 08/04/01

PROJECT: Crypt Data Packaging

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f. The bobhash function in **ncx/bobhash.c** implements the BOB hash algorithm that is described in the Sampling and Filtering Techniques for IP Packet Selection (RFC 5475, March 2009).

It is linked into the following programs:

- db-api-app
- netconfd-pro
- netconf-subsystem-pro
- restconf
- sil-sa-app
- yang-api
- yangcli-gw
- yangcli-pro

- yangdiff-pro
- yangdump-pro
- yp-ha-app
- yp-shell
- yppwatcher

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g. The **Call Home** functionality is implemented in **agt/agt_callhome.c**, **agt/agt_ncchd.c**, and **mgr_callhome.cpp**. These files implement the NETCONF Call Home and RESTCONF Call Home (RFC 8071, February 2017). There is a patent by Juniper Networks that may apply to this code.

It is linked into the following programs, if the `WITH_CALLHOME=1` compiler flag is used to build the code. Most YumaPro binary packages contain this code.

- netconfd-pro
- yangcli-gw
- yangcli-pro

Patent consideration of this function can be found at: <https://datatracker.ietf.org/ipr/2445/>

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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.

h. The libcbor library is used in '**ncx/cbor_wr.c**' and '**ncx/cbor_parse.c**' to help implement the is described in Encoding of Data Modeled with YANG in the Concise Binary Object Representation (CBOR) (RFC 9254, July 2022 and RFC 8949, December 2020)

This library is not included in source form.

It is statically linked into the following programs if the WITH_YANG_CBOR=1 make flag is used.

It is only present in most programs because it is used in libncx.

It is used in netconfd-pro and yangcli-pro.

- combo-app
- db-api-app
- netconfd-pro
- sil-sa-app
- support-save-app
- yangcli-gw
- yangcli-pro
- yangdiff-pro
- yangdump-pro
- yp-ha-app
- yp-shell
- ypwatcher

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THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

3) Open Source libraries that YumaPro links to dynamically:

a. The **libxml2** library is licensed from <http://xmlsoft.org/> under the MIT License. It is linked into the following programs:

- combo-app
- db-api-app
- netconfd-pro
- sil-sa-app
- support-save-app
- yangcli-gw
- yangcli-pro
- yangdiff-pro
- yangdump-pro
- yp-ha-app
- yp-shell
- ywatcheryangcli-gw

b. The **libssh2** library is licensed from <http://www.libssh2.org/> under the New BSD License

(http://www.ohloh.net/licenses/bsd_ish).

It is linked into the following programs:

- yangcli-gw
 - yangcli-pro
 - yp-shell
-

c. The **libcurl** library is licensed from <https://curl.haxx.se/> under a MIT/X derivate license

(<https://curl.haxx.se/docs/copyright.html>).

It is linked into the following program:

- combo-app
 - netconfd-pro
 - sil-sa-app
-

d. The **ncurses** library is licensed from <http://www.gnu.org/software/ncurses/> under an MIT like license.

It is linked into the following programs:

- yangcli-pro
 - yp-shell
-

e. The **FastCGI** library is licensed from Open Market under the license found at:

https://htmlpreview.github.io/?https://github.com/FastCGI-Archives/FastCGI.com/blob/master/docs/Licence%20_%20FastCGI%20-.html

It is linked into the following programs:

- restconf
 - yang-api
-

f. libcrypto, libcrypt, libssl and libgnutls:

Are linked into the following programs:

- combo-app
 - netconfd-pro
 - sil-sa-app
 - yangcli-gw
 - yangcli-pro
 - yp-shell
-

g. libdl, libgcc, libicudata, libicuuc, liblzma, libstdc++, and libz:

Are linked into the following programs:

- combo-app
 - db-api-app
 - netconfd-pro
 - sil-sa-app
 - support-save-app
 - yangcli-gw
 - yangcli-pro
 - yangdiff-pro
 - yangdump-pro
 - yp-ha-app
 - yp-shell
 - ypwatcher
-

h. libm:

Is linked into the following programs:

- combo-app
- db-api-app
- netconfd-pro
- restconf

- sil-sa-app
 - support-save-app
 - yangcli-gw
 - yangcli-pro
 - yangdiff-pro
 - yangdump-pro
 - yp-ha-app
 - yp-shell
 - ypwatcher
-

i. ld-linux, libc, libpthread, and linux-vdso:

Are linked into the following programs:

- combo-app
 - db-api-app
 - netconf-subsystem-pro
 - netconfd-pro
 - restconf
 - sil-sa-app
 - support-save-app
 - yangcli-gw
 - yangcli-pro
 - yangdiff-pro
 - yangdump-pro
 - yp-ha-app
 - yp-shell
 - ypgnmi-app
 - ypgrpc-go-app
 - ypwatcher
-

j. libbrotlicommon, libbrotlidec, libffi, libgmp, libhogweed, libtasn1, libidn2, liblber-2.4, libldap_r-2.4, libnettle, libnghttp2, libp11-kit, libpsl, librtmp, libsasl2, and libunistring:

Are linked into the following programs:

- combo-app
 - netconfd-pro
 - sil-sa-app
-

k. libcom_err, libgssapi_krb5, libk5crypto, libkeyutils, libkrb5, libkrb5support and libresolv:

Are linked into the following programs:

- combo-app
 - netconfd-pro
 - sil-sa-app
 - yangcli-gw
 - yangcli-pro
 - yp-shell
-

l. libtinfo:

Is linked into the following programs:

- yangcli-gw
 - yangcli-pro
 - yp-shell
-

m. libzmq:

The libzmq library is licensed under the Mozilla Public License Version 2.0 [MPL 2.0](#)

Is linked into the following programs:

- yangcli-gw
- yangcli-pro
- yp-shell
- combo-app

- netconfd-pro
- sil-sa-app

n. libbsd, libmd, libnorm, libpgm and libsodium:

Are linked into the following programs:

- yangcli-gw
 - yangcli-pro
 - yp-shell
-

4) YumaPro gRPC and gNMI Implementation:

The server supports the gRPC and gNMI protocols using a subsystem written in golang. It is called ypgnmi-app and usually installed in the /usr/bin directory. This program, and the server instrumentation support within the main server are built if the WITH_GNMI=1, WITH_RESTCONF=1, and WITH_YCONTROL=1 compiler flags are used to build the code. This program is included in the yumapro-gnmi, yumapro-eval, and yumapro-pthreads-eval binary packages.

The ypgnmi-app application imports the following packages but do not modify them. They have to be installed on the machine running ypgnmi-app. Otherwise the application cannot be run.

github.com/aws/aws-sdk-go/aws
github.com/clbanning/mxj
github.com/davecgh/go-spew/spew
github.com/golang/glog
github.com/golang/protobuf
github.com/openconfig/gnmi
github.com/openconfig/ygot
github.com/openconfig/goyang
google.golang.org/genproto
google.golang.org/grpc

The following files have been adapted from **gNXI Tool** and modified:

gXNI File	ypgnmi-app Location
credentials.go	: /netconf/src/ypgnmi/src/ypgnmi
server.go	: /netconf/src/ypgnmi/src/ypgnmi
model.go	: /netconf/src/ypgnmi/src/ypgnmi
path.go	: /netconf/src/ypgnmi/src/ypgnmi
xpath.go	: /netconf/src/ypgnmi/src/ypgnmi

The gNXI ToolLICENSE file from the github:
<https://github.com/grpc/grpc-go/blob/master/LICENSE>

It follows all the rules from Apache 2.0 license:
<http://www.apache.org/licenses/LICENSE-2.0>

The official name and location for the files:

<https://github.com/google/gnxi/blob/master/gnmi/server.go>
<https://github.com/google/gnxi/blob/master/gnmi/model.go>
<https://github.com/google/gnxi/blob/master/utls/credentials/credentials.go>
<https://github.com/google/gnxi/blob/master/utls/xpath/path.go>
<https://github.com/google/gnxi/blob/master/utls/xpath/xpath.go>

5) YumaPro YP-WEB Implementation:

The server supports a Web interface, YP-WEB. This program is built with WITH_YP_WEB=1.

a. **YP-WEB-Core** requires the following programs:

Program	License
websockets	BSD License (BSD 3-Clause License)
pyzmq	BSD License (BSD 3-Clause License)
bcrypt	Apache License Version 2.0
lxml	BSD license
yangson	GNU Lesser General Public License (LGPL) version 3 or later

b. **YP-WEB** requires the following programs:

Program	License
axios	MIT License
mitt	MIT License
pinia	MIT License
pinia-plugin-persistedstate	MIT License

primevue	MIT License
quasar	MIT License
@quasar/extras	MIT License
unocss	MIT License
vue	MIT License
vue-router	MIT License

6) Other licenses

a. NETCONF - there is a patent by Huawei Technologies Co., Ltd that may apply to this code. Most YumaPro binary packages contain this code.

- netconfd-pro
- yangcli-pro

Patent consideration of this function can be found at: <https://datatracker.ietf.org/ipr/1800/>

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