

# Optimization Framework

OPTF/HAS: <https://git.onap.org/optf/has/tree/pom.xml>

OPTF/OSDF: <https://git.onap.org/optf/osdf/tree/pom.xml>

The python dependencies are documented below:

## Open Source Code

Open Source Code Name	Version	License Type	Description	Link toward of License Info	Notes (including reasons for non using Apache Version 2 License)

## Open Source Library

Open Source Library Name	Version	License Type	Description	Link to License Info	Notes (including reasons for non using Apache Version 2 License)
cotyledon	1.6.7	Apache-2.0		<a href="https://github.com/sileht/cotyledon/blob/master/LICENSE">https://github.com/sileht/cotyledon/blob/master/LICENSE</a>	
futurist	0.11.0	Apache-2.0		<a href="https://github.com/openstack/futurist/blob/master/LICENSE">https://github.com/openstack/futurist/blob/master/LICENSE</a>	
lxml	2.3, 4.2.5	BSD		<a href="https://github.com/lxml/lxml/blob/master/LICENSES.txt">https://github.com/lxml/lxml/blob/master/LICENSES.txt</a>	
oslo.config	3.9.0	Apache-2.0		<a href="https://github.com/openstack/oslo.config/blob/master/LICENSE">https://github.com/openstack/oslo.config/blob/master/LICENSE</a>	
oslo.i18n	2.1.0	Apache-2.0		<a href="https://github.com/openstack/oslo.i18n/blob/master/LICENSE">https://github.com/openstack/oslo.i18n/blob/master/LICENSE</a>	
oslo.log	1.14.0	Apache-2.0		<a href="https://github.com/openstack/oslo.log/blob/master/LICENSE">https://github.com/openstack/oslo.log/blob/master/LICENSE</a>	
oslo.reports	0.6.0	Apache-2.0		<a href="https://github.com/openstack/oslo.reports/blob/master/LICENSE">https://github.com/openstack/oslo.reports/blob/master/LICENSE</a>	
PasteDeploy	1.5.0	MIT			
pbr	1.6	Apache-2.0		<a href="http://git.openstack.org/cgit/openstack-dev/pbr/tree/LICENSE">http://git.openstack.org/cgit/openstack-dev/pbr/tree/LICENSE</a>	
pecan	1.1.1	BSD		<a href="https://github.com/pecan/pecan/blob/master/LICENSE">https://github.com/pecan/pecan/blob/master/LICENSE</a>	
pecan-notario	0.0.3	BSD 3 Clause		<a href="https://github.com/alfredodeza/pecan-notario/blob/master/LICENSE">https://github.com/alfredodeza/pecan-notario/blob/master/LICENSE</a>	
oslo.messaging	5.2.0	Apache-2.0		<a href="https://github.com/openstack/oslo.messaging/blob/master/LICENSE">https://github.com/openstack/oslo.messaging/blob/master/LICENSE</a>	
oslo.middleware	3.0.0	Apache-2.0		<a href="https://github.com/openstack/oslo.middleware/blob/master/LICENSE">https://github.com/openstack/oslo.middleware/blob/master/LICENSE</a>	
python-daemon	2.1.1	Apache-2.0			
pyOpenSSL	0.14	Apache-2.0		<a href="https://github.com/pyca/pyopenssl/blob/master/LICENSE">https://github.com/pyca/pyopenssl/blob/master/LICENSE</a>	
PyYAML	5.1.2	MIT		<a href="https://github.com/yaml/pyyaml/blob/master/LICENSE">https://github.com/yaml/pyyaml/blob/master/LICENSE</a>	
six	1.12.0	MIT			
stevedore	1.9.0	Apache-2.0		<a href="https://github.com/openstack/stevedore/blob/master/LICENSE">https://github.com/openstack/stevedore/blob/master/LICENSE</a>	
WebOb	1.2.3	MIT		<a href="https://github.com/Pylons/webob">https://github.com/Pylons/webob</a>	
docopt	0.6.2	MIT		<a href="https://github.com/docopt/docopt/blob/master/LICENSE-MIT">https://github.com/docopt/docopt/blob/master/LICENSE-MIT</a>	

Flask	1.02	BSD		<a href="https://github.com/pallets/flask/blob/master/LICENSE">https://github.com/pallets/flask/blob/master/LICENSE</a>	
Flask-HTTPAuth	3.2.4	MIT		<a href="https://github.com/miguelgrinberg/Flask-HTTPAuth/blob/master/LICENSE">https://github.com/miguelgrinberg/Flask-HTTPAuth/blob/master/LICENSE</a>	
nose2	1.3.7	BSD		<a href="https://github.com/nose-devs/nose2/blob/master/license.txt">https://github.com/nose-devs/nose2/blob/master/license.txt</a>	
coverage	4.2	Apache2.0		<a href="https://github.com/nedbat/coveragepy/blob/master/LICENSE.txt">https://github.com/nedbat/coveragepy/blob/master/LICENSE.txt</a>	
python-dateutil	2.5.3	BSD		<a href="https://pypi.python.org/pypi/python-dateutil/2.5.3">https://pypi.python.org/pypi/python-dateutil/2.5.3</a>	
requests	2.22.0	Apache-2.0		<a href="https://github.com/requests/requests/blob/master/LICENSE">https://github.com/requests/requests/blob/master/LICENSE</a>	
schematics	2.0.1	BSD	Request validation via API models	<a href="https://github.com/schematics/schematics/blob/master/LICENSE">https://github.com/schematics/schematics/blob/master/LICENSE</a>	
holidays	0.9.11	MIT		<a href="https://github.com/holidays/holidays/blob/master/LICENSE">https://github.com/holidays/holidays/blob/master/LICENSE</a>	
intervaltree	3.0.2	Apache-2.0		<a href="https://github.com/chaimleib/intervaltree/blob/master/LICENSE.txt">https://github.com/chaimleib/intervaltree/blob/master/LICENSE.txt</a>	
intervals	0.8.1	BSD		<a href="https://github.com/ekmett/intervals/blob/master/LICENSE">https://github.com/ekmett/intervals/blob/master/LICENSE</a>	
pandas	0.25.1	BSD		<a href="https://github.com/pandas-dev/pandas/blob/master/LICENSE">https://github.com/pandas-dev/pandas/blob/master/LICENSE</a>	
SQLAlchemy	1.3.8	MIT		<a href="https://github.com/zzzeek/sqlalchemy/blob/master/LICENSE">https://github.com/zzzeek/sqlalchemy/blob/master/LICENSE</a>	
pydevd	1.4.0	EPL		<a href="https://github.com/fabioz/PyDev.Debugger/blob/master/LICENSE">https://github.com/fabioz/PyDev.Debugger/blob/master/LICENSE</a>	
MiniZinc	2.4.2	MPL 2.0	MiniZinc language & tool chain (includes g12 solvers)	<a href="https://github.com/MiniZinc/libminizinc/blob/master/LICENSE.txt">https://github.com/MiniZinc/libminizinc/blob/master/LICENSE.txt</a>	
Gecode	5.1	MIT	Constraint Solver	<a href="http://www.gecode.org/license.html">http://www.gecode.org/license.html</a>	
Coin-OR CBC	2.9.8	EPL	MIP Solver	<a href="https://projects.coin-or.org/Cbc/browser/trunk/Cbc/LICENSE">https://projects.coin-or.org/Cbc/browser/trunk/Cbc/LICENSE</a>	
pymzn	0.18.3	MIT	python library for minizinc	<a href="https://github.com/paolodragone/pymzn/blob/master/LICENSE">https://github.com/paolodragone/pymzn/blob/master/LICENSE</a>	
pycryptodome	3.9.7	BSD	Python package of low-level cryptographic primitives.	<a href="https://pycryptodome.readthedocs.io/en/latest/src/license.html">https://pycryptodome.readthedocs.io/en/latest/src/license.html</a>	
jsonschema	3.2.0	MIT	Python library for JSON schema validation	<a href="https://github.com/Julian/jsonschema/blob/master/COPYING">https://github.com/Julian/jsonschema/blob/master/COPYING</a>	
python-consul	1.1.0	MIT	python library for consul	<a href="https://github.com/cablehead/python-consul/blob/master/LICENSE">https://github.com/cablehead/python-consul/blob/master/LICENSE</a>	
tornado	6.1	Apache-2.0	web framework and asynchronous networking library	<a href="https://github.com/tornadoweb/tornado/blob/master/LICENSE">https://github.com/tornadoweb/tornado/blob/master/LICENSE</a>	
toscaparser	2.2.0	Apache-2.0	Tosca parser for parsing CSAR files	<a href="https://github.com/openstack/tosca-parser/blob/master/LICENSE">https://github.com/openstack/tosca-parser/blob/master/LICENSE</a>	
etcd3	0.12.0	Apache-2.0	Python client for etcd3	<a href="https://github.com/kragin/python-etcd3/blob/master/LICENSE">https://github.com/kragin/python-etcd3/blob/master/LICENSE</a>	

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