



Symas OpenLDAP

How-To Guides

Basic Installation

Packages

Symas OpenLDAP packages are formatted for the standard software maintenance commands that are native to your operating system. The following steps will get you up and running quickly:

Install the Symas OpenLDAP Package desired

- Symas-OpenLDAP-Client contains only client libraries and commands. Use this on systems where access to Symas OpenLDAP is required, but where the server software is not required.
- Symas-OpenLDAP-Nonopt removes optimization flags from the standard server/client install. This reduces performance, but increases debugging and troubleshooting abilities.
- Symas-OpenLDAP (i.e. server installer) contains all client and server components required to stand up a fully functional LDAP directory.
- Symas-OpenLDAP-Devel can be installed if the purpose is to develop software based on libraries that are a part of Symas-OpenLDAP.

Install Commands



```
sudo yum --disablerepo=* install symas-openldap-gold-client*
sudo yum --disablerepo=* install symas-openldap-gold.x86_64_nonopt-*
sudo yum --disablerepo=* install symas-openldap-gold.x86_64-2*
sudo yum --disablerepo=* install symas-openldap-gold-devel*
```



```
sudo dpkg -i symas-openldap-gold-client*
sudo dpkg -i symas-openldap-gold.amd64_nonopt-*
sudo dpkg -i symas-openldap-gold.amd64_2*
sudo dpkg -i symas-openldap-gold-devel*
```



```
sudo zypper in symas-openldap-gold-client*
sudo zypper in symas-openldap-gold.x86_64-2*
sudo zypper in symas-openldap-gold-devel*
```



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```
sudo pkgadd -d symas-openldap-gold-client*.pkg
sudo pkgadd -d symas-openldap-gold.*.pkg
```





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```
sudo pkgadd -d symas-openldap-gold-auxlibs*.pkg  
sudo pkgadd -d symas-openldap-gold-devel*.pkg
```



```
pkg install -y symas-openldap-gold-client*.txz  
pkg install -y symas-openldap-gold.amd64-*.txz  
pkg install -y symas-openldap-gold.amd64_nonopt*.txz  
pkg install -y symas-openldap-gold-devel.amd64*.txz
```

File Locations

The following directories and files will be created:

Names ending with a '/' are directories. Names ending with '/...' are directories which have some files and directories in them, but they are not shown. Names in bold blue are executable.

```
/etc/init.d/  
  solserver          (symlink)  
/opt/symas/  
  lib64/... share/... bin/...  
  ssl/  
    openssl.cnf.default  
  etc/  
    solserver      krbserver      kpdserver      kadserver  
    heimdal/  
      symas-heimdal.conf.default      krb5.conf.default  
      exampldb-krb5.sh  
  
    openldap/  
      symas-openldap.conf.default      slapd.conf.default  
      exampldb.sh          DB_CONFIG.default  
      schema/...  
/var/symas/  
  openldap-data/...      openldap-logs/...      run/
```

Since Symas OpenLDAP is a fully self-contained system, we've moved some things around to avoid collisions with other versions of the same software that might have shipped with the operating system.

Reminder: In a production environment the best performance is obtained when the log file directory is on a separate disk from the database directory.

Files must be owned by the user that executes slapd

- Usually this is root
- ldap.conf should be public
- slapd.conf / slapd.d should be private (600)
- Database directory should be private
- Certificate files should be public





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- Private keys must be private (600)
- Unix sockets should be public

Description	In Symas OpenLDAP
Service/Process Files	/opt/symas/etc
Release Notes	/opt/symas/etc/Symas-OpenLDAP-RelNotes- <version>.txt, where <version> is the version of Symas OpenLDAP.
Licensing Information	/opt/symas/etc/Symas-OpenLDAP-Copyrights.txt
Package daemons and libraries	/opt/symas/<lib>, where <lib> is the location of the libraries for your particular OS.
Package tools and utilities	/opt/symas/bin
Package manual Pages	/opt/symas/share/man
OpenLDAP Configuration Files	/opt/symas/etc/openldap
OpenLDAP overlays and modules	/opt/symas/<lib>/openldap, where <lib> is the location of the libraries for your particular OS.
Default OpenLDAP server (slapd) configuration file	/opt/symas/etc/openldap/slapd.conf
System-wide OpenLDAP library configuration file	/opt/symas/etc/openldap/ldap.conf
Start/stop OpenLDAP server script	/opt/symas/etc/solserver /etc/init.d/solserver (may vary by OS)
OpenLDAP server startup configuration	/opt/symas/etc/openldap/symas-openldap.conf
OpenLDAP Schema files	/opt/symas/etc/openldap/schema
Heimdal Kerberos Configuration Files	/opt/symas/etc/heimdal
Kerberos Library and Daemon Configuration file	/opt/symas/etc/heimdal/krb5.conf
Start/stop Kerberos server script	/opt/symas/etc/krbserver /etc/init.d/krbserver (may vary by OS)
OpenSSL database, certificates, and keys	/opt/symas/ssl





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SASL authentication modules	<code>/opt/symas/<lib>/sas2</code> , where <i><lib></i> is the location of the libraries for your particular OS.
OpenLDAP server (slapd) SASL configuration file (sets SASL parameters for slapd)	<code>/opt/symas/<lib>/sas2/slapd.conf</code> , where <i><lib></i> is the location of the libraries for your particular OS.
SASL configuration files	<code>/opt/symas/<lib>/sas2</code> , where <i><lib></i> is the location of the libraries for your particular OS.

Rapid Deployment Scripts

ExampleDB.sh

Executing the `/opt/symas/etc/openldap/exampledb.sh` script will install an example database, create generic `slapd.conf` and `symas-openldap.conf` files and start the slapd process

All commands run from `/opt/symas/etc/openldap`

```
cd /opt/symas/etc/openldap
```

Add the path to the Symas `slap*` and `ldap*` commands to your path

```
export PATH=/opt/symas/bin:$PATH
```

Execute `exampledb.sh`, answer yes to all prompts

```
sudo ./exampledb.sh
```

Type **YES** in all CAPS when asked to do so

The `exampledb.sh` script will start the slapd daemon, make sure it is still running

```
sudo /opt/symas/etc/solserver status
```