

# LDAP Authentication on SLS Beamline Workstations

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## The Server Installation

The following documentation describes setting up LDAP and Samba on the SLS Beamline Servers. It is written in a “cook book” form and the work should be done in the sequence of the book.

### The base installation

The following installation and configuration instruction will only work on a proper *SLS fileserver installation*<sup>1</sup>

### Pre cleanup

Before we start the installation, we remove any existing LDAP packages

```
root# rpm -e nss_ldap openldap openldap-devel openldap-servers
```

### OpenLDAP 2.0.27

Compilation and installation

```
root# tar xzf openldap-stable-20021018.tgz
root# cd openldap-2.0.27/
root# ./configure --prefix=/usr
root# make depend
root# make
root# make test
root# make install
```

OpenLDAP postsetup

```
root# cd /etc
root# \rm -rf openldap
root# ln -s /usr/etc/openldap .
root# cd -
root# groupadd -g 55 ldap
root# mkdir /usr/var/openldap-ldbm
root# chmod 700 /usr/var/openldap-ldbm
root# useradd -c "LDAP User" -d /usr/var/openldap-ldbm -u 55 -g 55 -
s /bin/false -M ldap
root# chown ldap:root /usr/var/openldap-ldbm
root# install -m 755 -o root -g root ldap /etc/rc.d/init.d/
root# chkconfig --add ldap
root# chkconfig ldap on
root# install -m 640 -o root -g ldap slapd.conf.master /etc/openldap/
```

### NSS\_LDAP

Build and install nss\_ldap-202

```
root# tar xzf nss_ldap.tgz
root# cd nss_ldap-202
root# ./configure --prefix=/usr
root# make
root# make check
```

```
root# make install
```

## Customizing Samba with LDAP support

Install samba RPM

```
root# rpm -e ntmount
```

We either installed a pre-built version, that has ldap support built in

```
root# rpm -Uvh samba-2.2.5-1.i386.rpm --nodeps
```

(step to 4.5)

or we use the original source and apply the necessary changes our self

```
root# rpm -Uvh samba-2.2.5-1.src.rpm
```

Enable LDAP (--with-ldapsam)

```
root# install -m 644 -o root -g root samba.spec /usr/src/redhat/SPECS/samba.spec
```

Build binary

```
root# rpm -bb /usr/src/redhat/SPECS/samba.spec
```

Install binaries

```
root# rpm -Uvh /usr/src/redhat/RPMS/i386/samba-2.2.5-1.i386.rpm
```

Install our own customized config files

```
root# cp smb.conf /etc/samba/smb.conf
```

Customize /etc/samba/smb.conf

### Example 1. smb.conf

```
netbios name = SLSFS03
netbios alias = X06SMB
server string = SLS X06 Samba Server
comment = SLS X06
```

## Install pam modules and config files

Build and install

```
root# tar xzf pam_ldap.tgz
root# cd ./pam_ldap-156
root# ./configure
root# make
```

```
root# make check
root# make install
```

Install customized PAM files

```
root# cp -f pam.d/* /etc/pam.d/
root# cd ..
root# install -m 644 -o root -g root system-auth /etc/pam.d/system-
auth
root# install -m 644 -o root -g root samba /etc/pam.d/samba
```

## Misc

Install modified Name Service Switch config file

```
root# install -m 644 -o root -g root nsswitch.conf /etc/nsswitch.conf
root# install -m 644 -o root -g root /usr/doc/samba-2.2.5/examples/LDAP/samba.schem
```

You also have to configure the system-wide ldap configuration file `/etc/ldap.conf`

Let syslog to the slapd logging

### Example 2. smb.conf

```
# LDAP log
local4.*                               /var/log/ldap.log
```

Install `ldapchpasswd`

```
root# install -m 755 -o root -g root ldapchpasswd /usr/local/bin/ldapchpasswd
root# install -m 755 -o root -g root mkntpwd /usr/local/sbin/mkntpwd
```

Install logrotate

```
root# install -m 644 -o root -g root ldap.logrotate /etc/logrotate.d/ldap
```

## Lets startup everything

LDAP

```
root# service ldap start
```

Samba

```
root# service smb start
```

Apply Samba password for `ldapadmin`

```
root# smbpasswd -w <password> cn=ldapadmin,dc=sls,dc=psi,dc=ch
```

## Testing

Loading data

```
root# ldapadd -x -w test -D cn=ldapadmin,dc=sls,dc=psi,dc=ch -f dum-  
all.ldif
```

Unix login

```
root# ssh e10026@slsfs08
```

```
root# smbclient -L slsfs08 -U e10026
```

## The Client Installation

Follow these instructions to setup LDAP authentication on a Linux client

### RedHat 6.2

```
root# rpm -Uvh openldap-1.2.12-3.i386.rpm nscd-2.1.3-27.i386.rpm nss_ldap-  
189-1.6.2.1.i386.rpm
```

Configure `/etc/ldap.conf` and `/etc/nsswitch`

```
root# cp -f /usr/doc/nss_ldap-189/pam.d/* /etc/pam.d/  
root# service ybind stop  
root# chkconfig ybind off  
root# init 3  
root# init 5
```

### RedHat 7.3

```
root# authconfig  
root# cp /usr/share/doc/nss_ldap-189/pam.d/* /etc/pam.d/  
root# cp /etc/pam.d/ssh /etc/pam.d/sshd
```

Make sure `pam_console.so` is able to set device file perms  
session required `/lib/security/pam_ldap.so`

```
root# service sshd restart  
root# init 3  
root# init 5
```

## **Remaining details**

### **How to find out what LDAP related packages are installed**

The following command will list all ldap packages currently installed

```
root# rpm -q -a | grep ldap
```

## **Notes**

1. <http://www.sls.psi.ch/controls/intranet/howto/fileserver-howto.txt>

