LDAP Operations

1 Aims

After you've successfully completed this workshop activity you will be able to:

- Make simple searches of an LDAP directory, understanding the basic search parameters base, scope and attribute list;

- Understand how the LDAP bind operation works, and

- Be able to apply the bind operation to modifying your own directory entry;

- Modify your directory entry using correct LDIF together with the `ldapmodify` LDAP utility

- Begin to understand LDAP filters.

2 Procedure

1. First, let's set up `yum` to use local software rather than download updates from the United States. This will speed up `yum` many times.

   (a) Get a copy of the `yum.conf` file on our web site:

      ```
      $ cd /tmp
      $ unset http_proxy
      $ wget -nH -nd http://ictlab/snm/lab/yum.conf-rh9
      ```

      or just shift click on the link in the subject web site and save to the `/tmp` directory,

   (b) ... and copy it to the `/etc` directory:

      ```
      $ sudo cp /tmp/yum.conf-rh9 /etc/yum.conf
      ```

2. Now install the ldap utilities if they are not already installed:

   ```
   $ sudo yum -y install openldap\*
   ```

   While you're at it, it's a good idea to apply all the updates, and make sure your computer updates them itself in the future:
   ```
   $ sudo chkconfig yum on
   $ sudo yum -y update
   ```
   Leave that running in the background while you get on with the other activities.

3. Search for your entry in the local ldap server, `ldap.tyict.vtc.edu.hk`. Note that your Linux system should search this by default. You can do that with a command like:

```
$ ldapsearch -x '(uid=⟨user id⟩)'
```

Note that this is equivalent to:

```
$ ldapsearch -x -b 'dc=tyict,dc=vtc,dc=edu,dc=hk' '(uid=⟨user id⟩)'
```

4. What scope did you use in the last search? Now write a suitable command to search for your own entry using a:

   (a) base level scope

   (b) one level scope

   (c) subtree scope

5. Search for your LDAP entry in the VTC's LDAP server in Wood Road. The base for your search can be `dc=vtc.edu.hk`. The name of the server is `ldap.vtc.edu.hk`. Write down the `ldapsearch` command you used, and the DN of your entry:

6. Read slide §**??** in the lecture notes, and read `man ldapmodify`. Then *bind* to the LDAP server `vtc.edu.hk`, using your own distinguished name (found in question 5) and password. Of course, you will need to use the password for that directory (the one you access your email by).

   (a) First, add an attribute `description`. Write your `ldapmodify` command and the LDIF you used. I will be checking who has done this exercise!

   (b) Next, *modify* the attribute you just added, and change its value to some different text. Write the LDIF you used: