

Standard Operation Procedure

To Do LDAP Authentication on a Text-Based Web Browser in CLI Mode

LYNX is a text-based hypertext browser, which shows the result as plain text on the terminal. Lynx does not load images and multimedia contents; hence, it is fast as compared to other browsers. It is easy to install and easy to use and it does not require any additional interface to run or show the contents, it does so on the terminal.

Lynx does not come by default; it should be installed additionally using the command w.r.t. OS:

- 1) Install Lynx on **Debian** based Linux systems. (or) Install Lynx on **Red Hat** based Linux systems.

a) # *sudo apt-get install lynx*

```
# sudo yum -y install lynx
```

```
user@user-HP-240-G7-Notebook-PC:~$ sudo apt-get install lynx
[sudo] password for user:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
lynx-common
The following NEW packages will be installed:
lynx lynx-common
0 upgraded, 2 newly installed, 0 to remove and 276 not upgraded
Need to get 1,539 kB of archives.
After this operation, 5,481 kB of additional disk space will
be required.
Do you want to continue? [Y/n] Y
Get:1 http://archive.ubuntu.com/ubuntu focal/universe amd64 lynx-common 2.9.0dev.5-1_amd64.deb
Get:2 http://archive.ubuntu.com/ubuntu focal/universe amd64 lynx 2.9.0dev.5-1_amd64.deb
Fetched 1,539 kB in 6s (275 kB/s)
Selecting previously unselected package lynx-common.
(Reading database ... 164959 files and directories currently
Preparing to unpack .../lynx-common_2.9.0dev.5-1_all.deb ...
Unpacking lynx-common (2.9.0dev.5-1) ...
Selecting previously unselected package lynx.
Preparing to unpack .../lynx_2.9.0dev.5-1_amd64.deb ...
Unpacking lynx (2.9.0dev.5-1) ...
Setting up lynx-common (2.9.0dev.5-1) ...
Setting up lynx (2.9.0dev.5-1) ...
update-alternatives: using /usr/bin/lynx to provide /usr/bin/
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for mime-support (3.64ubuntu1) ...
user@user-HP-240-G7-Notebook-PC:~$
```

The package index of corresponding OSs should be updated before cited installations.

```
# sudo apt-get update
```

(On Ubuntu/Debian systems)

```
# sudo yum makecache -refresh
```

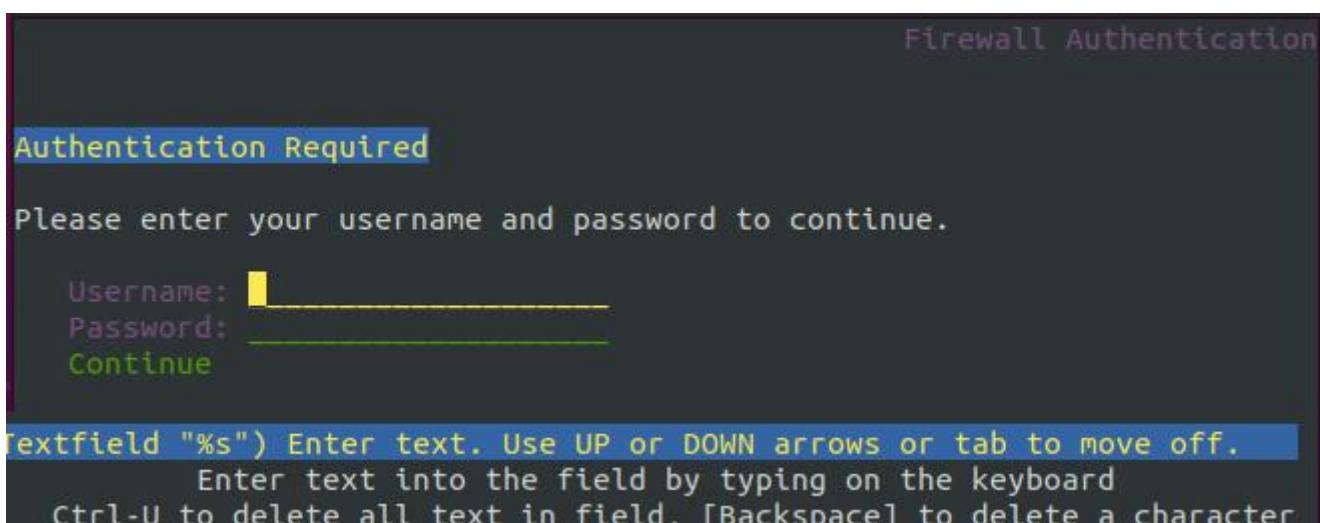
(On RHEL/CentOS/Fedora systems)

- b) The same package can be installed from its offline setups. User has to download and make it available inside any of the Machine directory, before executing installation command by getting into the same directory.

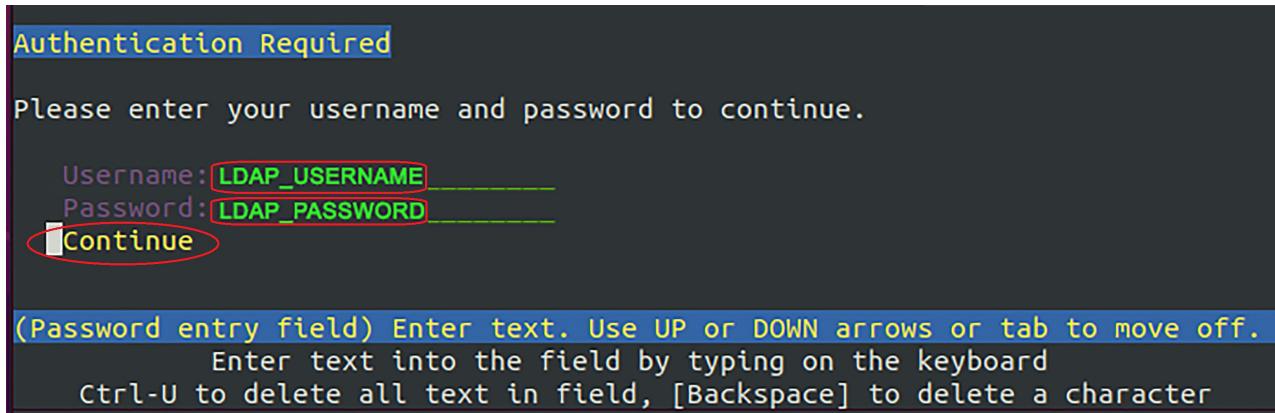
```
# sudo dpkg -i lynx_2.8.9-dev_5-1_arm64.deb # sudo rpm -i lynx-2.8.9-2.el8.x86_64.rpm
```

- 2) After installing the package successfully, user can open proposed ***LDAP Authentication*** webpage by executing the below given command.
`# lynx https://internet.iitdh.ac.in:1000/login? (# lynx <URL>)`
 - 3) There may be “***SSL Certificate Prompt***”, do proceed by pressing **y**, in order to load the webpage smoothly.

User will get the webpage output similar to below given screenshot



- 4) • Toggle to credential fields and input them respectively by using **Tab** key.
 • Select “**Continue**” button and press → or **Enter** key to continue.



Authentication Required

Please enter your username and password to continue.

Username: **LDAP_USERNAME**
 Password: **LDAP_PASSWORD**

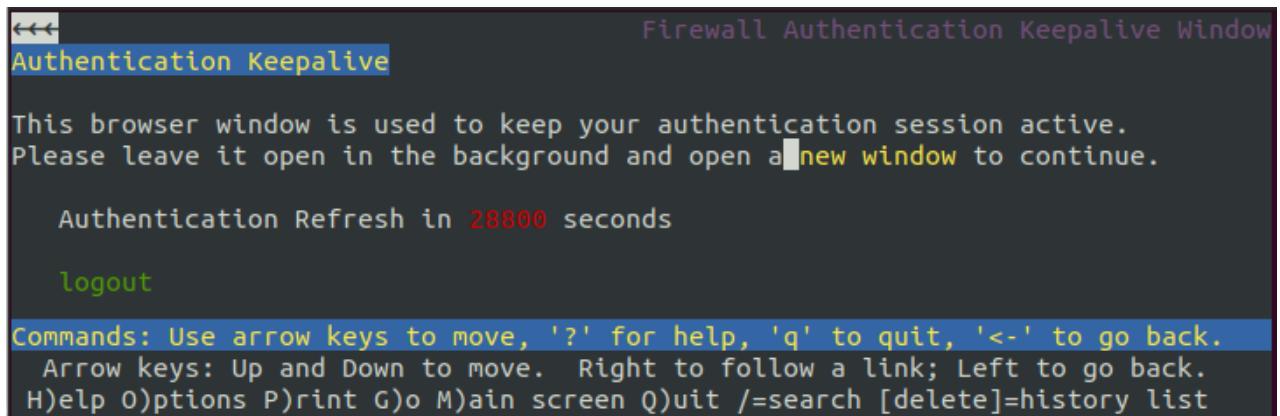
Continue

(Password entry field) Enter text. Use UP or DOWN arrows or tab to move off.
 Enter text into the field by typing on the keyboard
 Ctrl-U to delete all text in field, [Backspace] to delete a character

- 5) User may get “**SSL Certificate Prompt**” again, do proceed here also by pressing **y**, in order to load the webpage without any further glitches.

SSL error: The certificate is NOT trusted. The certificate is....-Continue? (n)

On submission of above inputs correctly, the user may be able to access internet on this machine. A webpage as similar to below given screenshot, may be displayed (If and only if **LDAP Authentication** has been done successfully by the user).



- 6) From this same webpage, user can either **logout** the current active session or select **new window** (if the session interrupts unexpectedly) by making use of **Tab** key toggling and do **LDAP Authentication** as per requirements.
- 7) Since **Lynx** doesn't offer any option to minimize its live tabs within opened terminal, user has to open a new **Terminal** Tab/Window without closing the initially opened one (*In which Lynx web browser is keeping an active LDAP Authentication session*). If any regular command need to be executed in further with Internet Access.

NB:- In case of Availing Internet Access via CLI mode for a Remote PC, User may have to establish SSH connection at wisely.

- i. Open a new Tab/Window on available **Terminal** utility on user-end gadget and establish a SSH Connection to Remote machine.
- ii. Do follow Steps 1) To 5) with respect to Remote machine OS.
- iii. Keep the **LDAP Authentication** Tab/Window as active (Without closing from the user-end Desktop).
- iv. Open a separate **Terminal** Tab/Window on user-end gadget itself and establish a new SSH Connection to the same Remote machine.
- v. Now the Remote machine will have Internet Access, user can execute any desired command (via CLI mode) on it.

The End