



Free Technology Workshop



Internet Privacy

Proxies, VPNs and Tor for private communications in
the public Internet

Organised by Steven Gordon
Room RS401

9am - 12noon Friday 20 June 2014

<http://ict.sit.tu.ac.th/moodle/>

Demos and Tasks

- Software that you may use:
 - Wireshark, OpenVPN, Tor Browser Bundle, PuTTY
- Local copies of most of these are at:
 - <http://ict.siit.tu.ac.th/software/>
- Windows: 32-bit or 64-bit
- OSX: Mavericks or earlier
- Linux: all (except Tor) available via package manager
 - E.g. `sudo apt-get install xxx`

Secrecy and Privacy when Browsing

- U -- WirelessRouter -- R -- R -- ... -- R -- S
- Capture packets on wireless router
 - `tcpdump -i eth0.1 -n -w /tmp/http1.cap`
- Visit website, e.g. <http://sandilands.info/>
- View capture packets in Wireshark
- Repeat, but using HTTPS

Web Proxies

Example Proxies:

<http://www.vpnbook.com/>

<http://webproxy.net/>

<http://newipnow.com/>

List of proxies:

<http://www.proxy4free.com/>

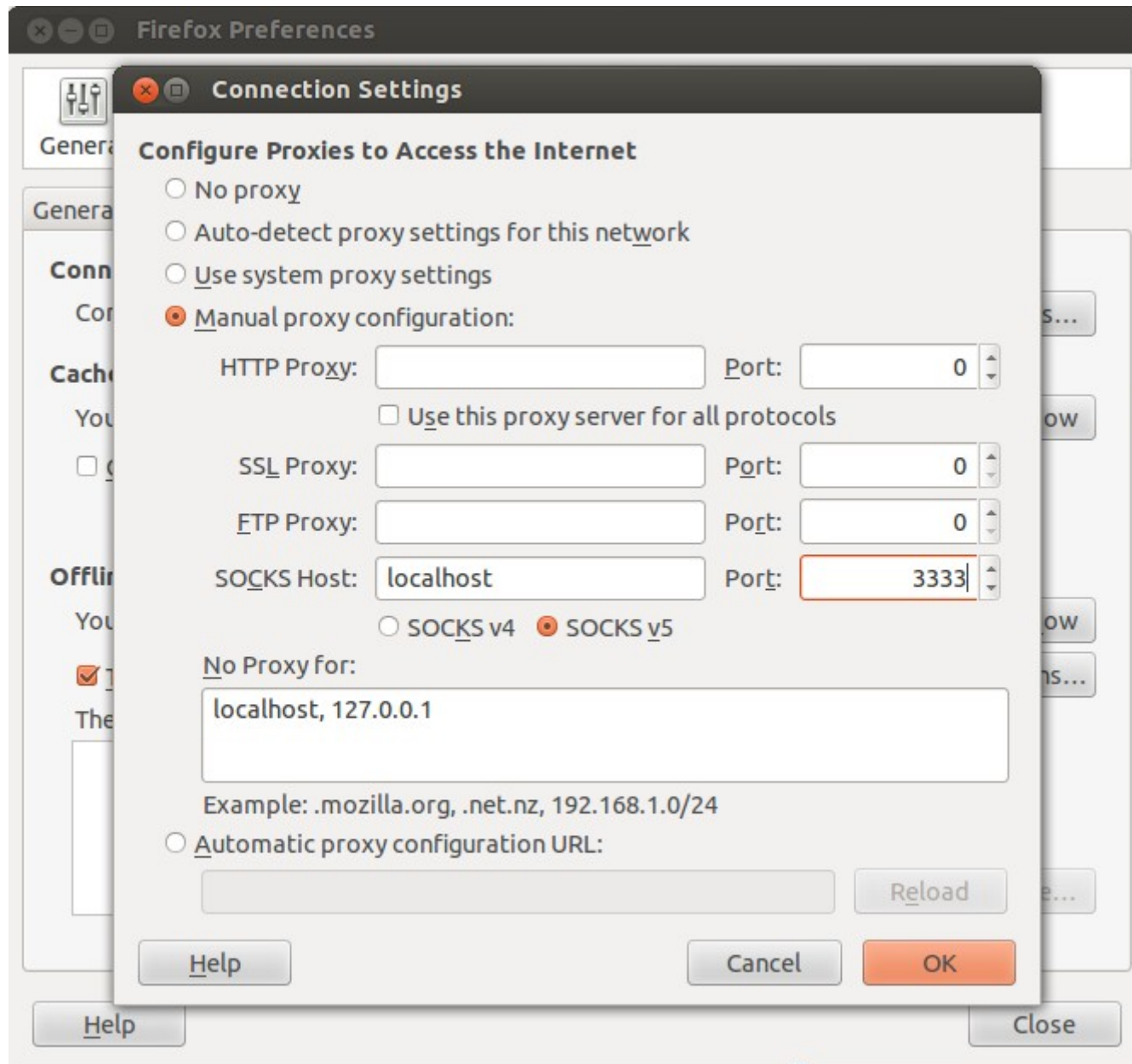
SSH and Tunnelling

- `ict.siit.tu.ac.th`
 - username: `u5412345678`
 - (Replace with your student ID)
 - Password has been provided to you
- Dynamic forwarding on command line, Linux/OSX:
 - `ssh -l u5412345678 -N -D 6666 ict.siit.tu.ac.th`
- In browser proxy settings:
 - SOCKS host: `localhost`
 - Port: `6666`

SSH on Windows with PuTTY

- PuTTY Configuration:
- Connection -> SSH -> Tunnels
 - Source Port: 6666
 - Destination: `ict.siit.tu.ac.th`
 - Select “Dynamic”

Example SOCKS Proxy in Firefox



OpenVPN and VPNBook

- <http://www.vpnbook.com/>
- See “How-to Setup”
 - Install OpenVPN client
 - Windows: 32bit (i686) or 64bit (x86_64)
 - OSX: Mavericks - Tunnelblick 3.4 beta; earlier 3.3.4
 - Ubuntu: `sudo apt-get install openvpn`
 - Download VPNBook OpenVPN profile
 - Select a location
 - 4 profiles to select from: try TCP 443
 - Start OpenVPN with profile
 - username: [vpnbook](#)
 - password: [see www.vpnbook.com](#)
 - Should see: **Initialization Sequence Completed**

PPTP

- <http://www.vpnbook.com/>
- Android, IOS
- SIIT blocks PPTP ?
- Try with your 3G connection

Tor

- Install Tor Browser Bundle
 - Windows, OSX, Linux
 - <https://www.torproject.org/projects/torbrowser.html>