Testing performance of tools for online anonymity

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1 Aims and Objectives

1.1 Types of Anonymity

The two types of anonymity that I will be considering are:
- hide identify for web hosts including your locations, IP address, browsing habits, MAC address, facebook username etc.. - hide browsing from man-in-the-middle dispute use of unsecure Wi-Fi e.g. in cafes

1.2 Difference between Anonymity and Security

1.3 Evaluation Criteria for Anonymity Tools

I will evaluate a range of tools for online anonymity aganist the following criteria: 1. Ease of install 2. Impact on network performance 3. Degree to which aims are achieved 4. Useability 5. Side Effects (positive + negative)

2 Scope

- Consider a range of tools from simple tools such as broswer plugins to more complex solution such as VPN's
- Only consider open source tools that are avaliable on linux or andriod (don't need to consider mac or windows)
- Only use hardware set out below
- Only use the networks set out below

3 Hardware

3.1 Laptop (typically as a client) running Ubuntu 12.04

3.2 Desktop (typically as a server) running Ubuntu 12.04

3.3 Raspberry pi

3.4 Andriod Phone

4 Avaliable Networks

4.1 College ethenet (possible issues with the firewall/NAT) (typically for the server)

4.2 wgb Wi-Fi (typically for the client)

4.3 Lapwing (typically for the client)

4.4 Eduroam (typically for the cleint)

4.5 3G (possiblity for the android phone)

5 Software/ Unix Command line Tools

5.1 Tor browser bundle (for qualative analysis)

5.2 Tor in commond line (for quantative analysis)

5.3 Firefox browser + plugins

5.4 Traceroute ??

5.5 Wireshark ??

5.6 iperf

5.7 openVPN

5.8 Privoxy

5.9 dig / host

5.10 Octave (to analysis quantative results)

5.11 Hamachi

5.12 Freedom Box

5.13 Orbot (Tor for andoid)

5.14 CyanogenMod

6 Tools to Test

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6.1 Tor

6.2 Privoxy

6.3 FreedomBox

6.4 Firefox Addons

etc..

7 Qualative Results

- Description on tools against the evalation criteria
- Description of install process via command line
- Reasearch into the level of anonymity provided

8 Quantative Results

- Data on network performance of tools includes features such as bandwidth, latency, packet loss and jitter