

Security and Privacy

Lab Assignment Worksheet

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— Assignment #2: Anonymous/Private Communications

Anonymous Browsing

- 1 - Download/install Tor anonymous browser from <https://tor.eff.org>.
- 2 - After installing, access website <https://whatismyipaddress.com/> with your regular browser and with Tor.
- 3 - **Assignment #2:** Can you explain what is happening? Send your labs professor a signed e-mail message (with your public key in it) and with a brief explanation of what happened. The email message subject should be “*Anonymous Browsing Experiment*”. The email must be sent from your official UP student email account.

Virtual Private Networks

VPNs are the killer application of IPSec. They allow you to establish a protected connection to internal computers/servers over public networks, without exposing internal computers/servers to the Internet at large. They are also relevant for privacy by encrypting your traffic and hiding your online identity.

- 1 - Install an OpenVPN server into your group *server spXX* machine.
- 2 - Configure OpenVPN as a Linux service to start at system boot.
- 3 - Configure the OpenVPN server to accept connections from clients identified by a username and password.
- 4 - Configure a client to authenticate to the OpenVPN server with username and password. Try to connect to the server (establish a VPN tunnel).
- 5 - Configure the OpenVPN server to accept connections from clients identified by a X.509 certificate.
- 6 - Configure a client to authenticate with a X.509 certificate issued by you.
- 7 - **Assignment #2:** Items 1,2 and 3 is to be done within your working group as a group effort. Items 4,5 and 6 is to be done individually.

Send your labs class professor a signed e-mail message, with a small PDF report attached, explaining all the configuration parameters you had to tweak on the client and server side, to make your OpenVPN connection work as intended. If possible include into your report some screen shots of all the steps involved in the configuration. The email message subject should be “*OpenVPN configuration*”. The email must be sent from your official UP student email account.

ASSIGNMENT #2: Anonymous/Private Communications

DUE DATE: 23h59m 12/04/2024

GRADING: Assignment #2 is worth 1 point

TO BE DONE INDIVIDUALLY - Each group member has to send its own individual reports within individually signed email messages, sent from their own official UP student email account