

DarkNet - TOR

TOR stands for “The Onion Router” and it is called so because it uses the “Onion routing protocol” to hide information about user activity, allows users to browse the Web anonymously.



TOR is the most common anonymizer service and an entry point to what is called ‘the dark net’ or ‘deep web’. In addition to its privacy-enhancing features, TOR is also widely used for malicious and criminal activities such as black market trading, child pornography and to operate a Botnet...

DarkNet – Another use case

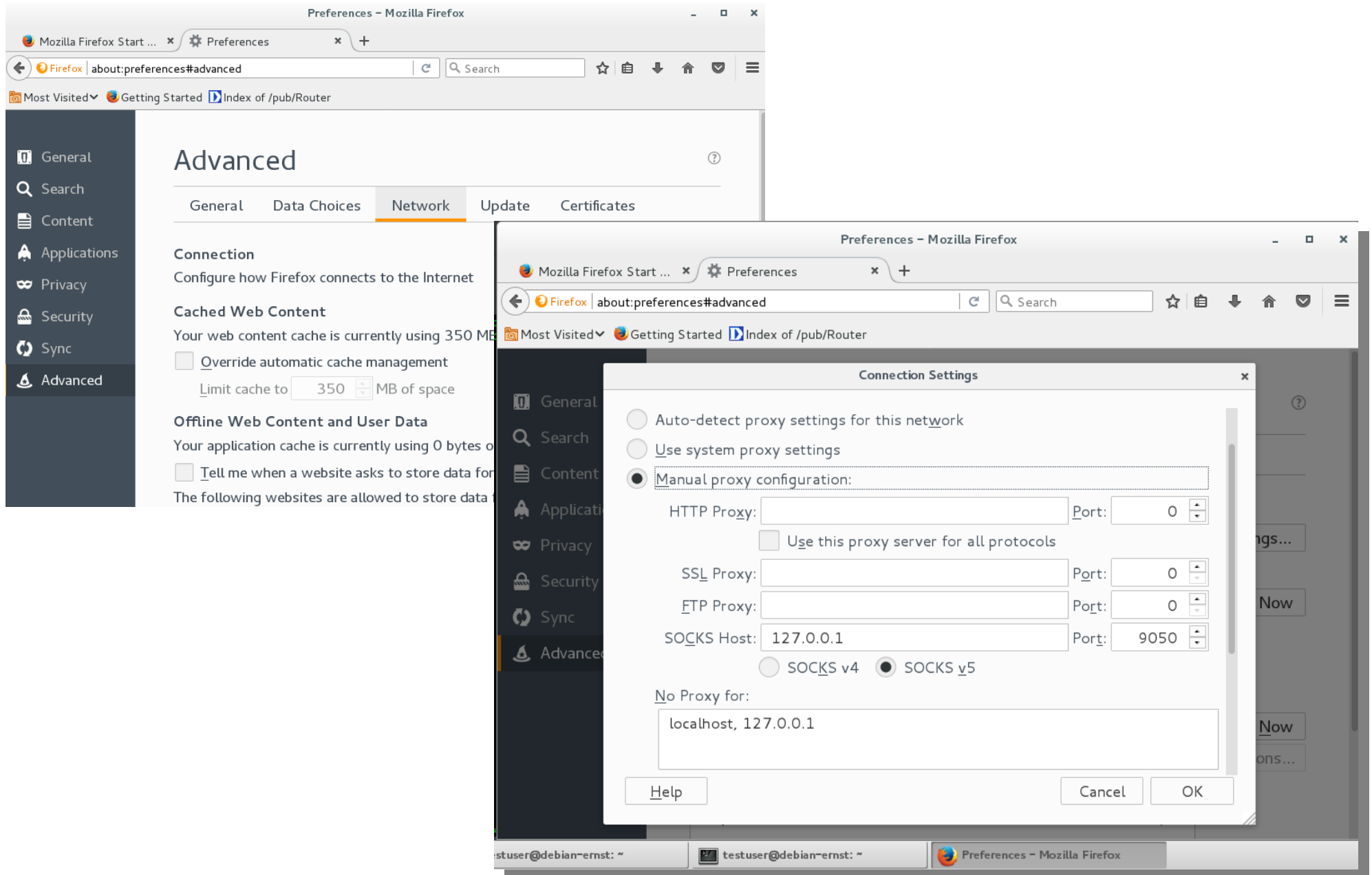
Get tor client

The image shows a screenshot of a web browser displaying the Tor Project's download page. The browser's address bar shows the URL `https://www.torproject.org/download/download.html.en`. The page features the Tor logo (a purple onion) and navigation links: Home, About Tor, Documentation, Press, Blog, Newsletter, Contact, and español. There are buttons for Download, Volunteer, and Donate. A yellow warning box states: "Want Tor to really work? You need to change some of your habits, as some things won't work exactly as you are used to. Please read the [full list of warnings](#) for details." Below this, there are links for downloading Tor on various operating systems: Microsoft Windows, Apple OS X, Linux, and Android. A large yellow "DONATE" button is also visible.

Overlaid on the bottom of the browser window is a terminal window titled "testuser@debian-ernst: ~". The terminal shows the output of the `ip address` command, displaying network configuration for the loopback interface `lo` and the ethernet interface `eth0`. The output for `lo` shows the IP address `127.0.0.1` and the loopback address `::1`. The output for `eth0` shows the IP address `10.11.11.129` and the MAC address `52:54:00:99:6e:23`. The terminal prompt is `testuser@debian-ernst:~$`, and the command `systemctl start tor` is entered.

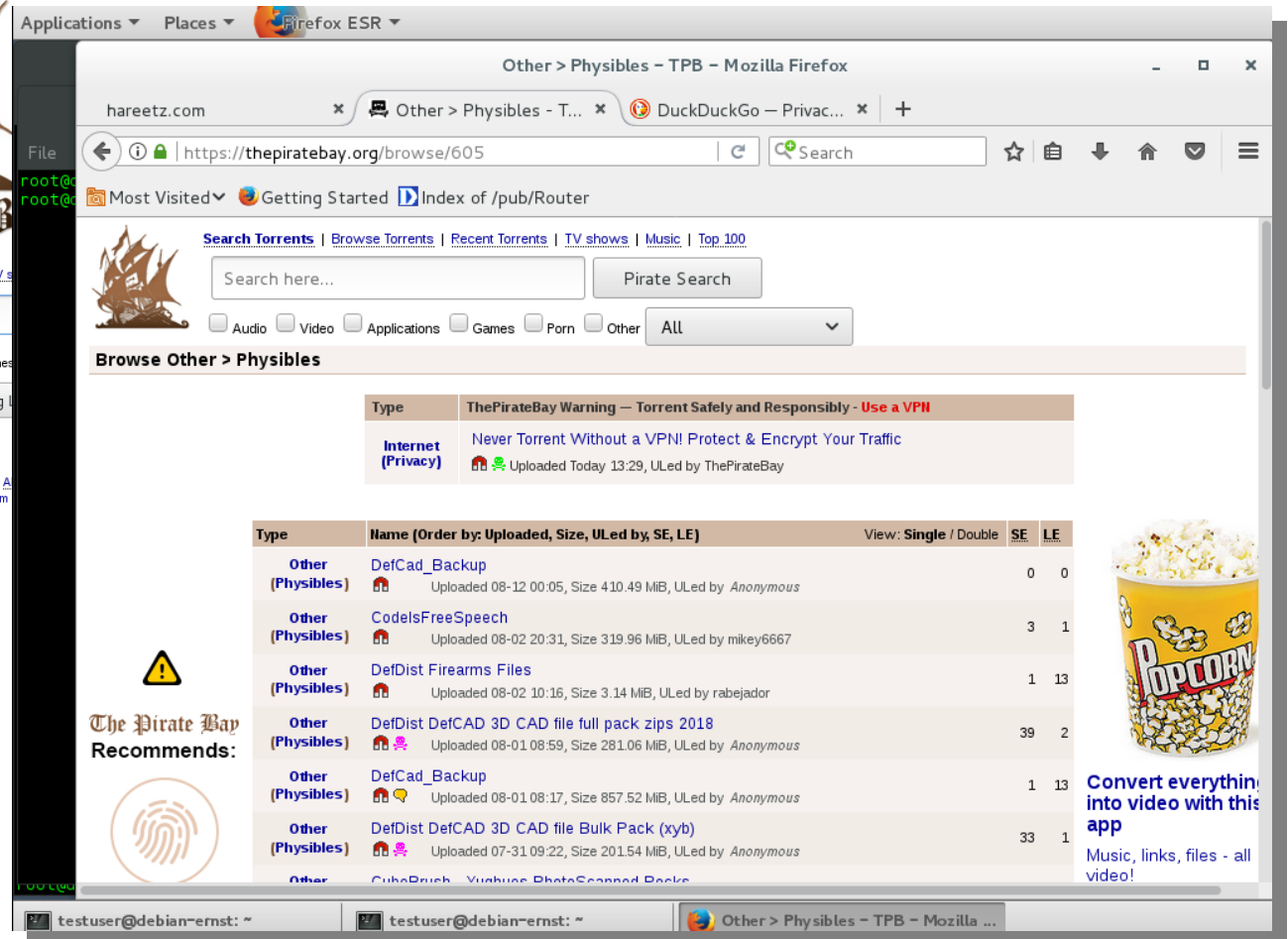
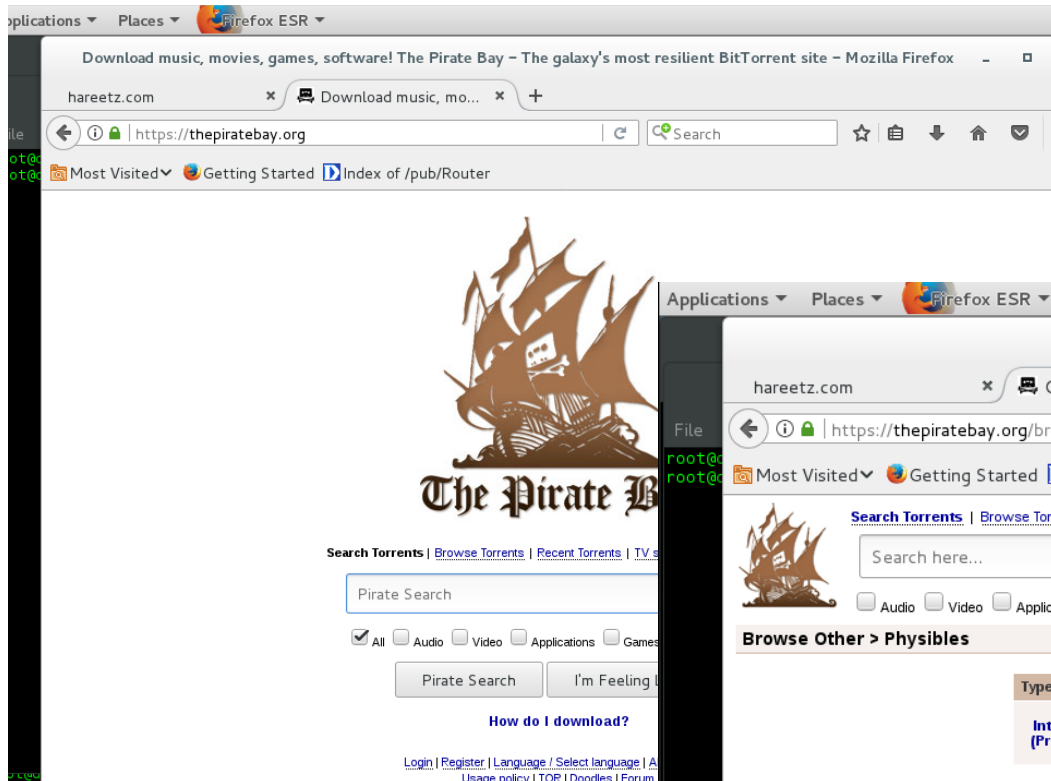
DarkNet – Another use case

Lets, move all my browser traffic over TOR :)



DarkNet – Another use case

It works!, from now on all browser traffic is hidden.



DarkNet – Detection

The way to detect tor, is by catching the certificates exchanged, those will use same CN, starting with www. , and the host running tor will generate several ssl connections, being all them using diferents certificates but with the same CN pattern.

W/BRO and the x509 analyzer can accomplish this task.