

# **SSH Port Forwarding on Mac OS X**

A Secure Shell (SSH) tunnel consists of an encrypted tunnel created through an SSH protocol connection. SSH tunnels are used to transfer unencrypted traffic over a network through an encrypted channel. SSH tunnels provide a means to bypass firewalls that prohibit certain Internet services and can be used to create SSH Socks proxy which are highly secure and also provide a very fast connection. Compared to standard Socks 5 proxies, SSH Socks in addition to providing you full anonymity also encrypts your connection with strong encryption. SSH Tunnel can also serve as an alternative for OpenVPN but with higher throughput and speed. Although from an encryption standpoint, SSH Tunnel and OpenVPN are similar, traffic has to be directed over the SSH tunnel via Port Forwarding using a suitable client such as Putty for Windows and iSSH for MAC.

Port Forwarding or Tunneling is a process that allows you to open a port on your local machine, which is forwarded via SSH to the required port on the remote machine. The beauty of SSH tunneling is that provided the remote SSH server is configured on ports such as 443 (https) and 80 (Http), you will be able to punch a hole through any firewall in your work, home or school.

To connect to an SSH server for MAC, we will use a simple and powerful application called iSSH available from <http://macserve.org.uk/projects/iss/>. iSSH is a front-end application to the command line application "ssh". It provides a quick and easy way to start an SSH connection to a remote computer. Our goal by using iSSH is to create a SSH Socks proxy which has the same encryption and anonymity capabilities as the OpenVPN but offering greater flexibility and ease of setup.

## How to Setup:

The screenshot shows the iSSH application window with the following configuration:

- Remote Address:** example.com
- Port:** 22
- User Name and Password:** Fields for User Name and Password.
- Local Port:** 5900
- Remote Port:** 5900
- SOCKS Proxy (-D):** Selected, with a Local Port of 8080.

Buttons at the bottom include: Load Settings, Save Settings, Connect, Disconnect, Quit and Disconnect, and Just Quit.

1. Download the iSSH program from this link: <http://macserve.org.uk/downloads/iss/>
2. Start the application and Simply enter the remote SSH server IP address and Port
3. Select the "SOCKS Proxy (-D)" option and enter any desired port such as 8080
4. Click on save settings (optional) if you want to save your connection credentials
5. Click connect

## Using the SOCKS Proxy

The SSH Socks proxy information you have created in the steps above using port 8080 for example will be as follows:

Host Address: localhost

Port: 8080

You can then configure your network adapter you're using in System Preferences to use the address 'localhost' and port '8080' or configure your individual applications or browser that supports Socks proxy.