INTRODUCING SSH

The SSH protocol allows one computer running an SSH client to securely connect to another running an SSH server. In other words, SSH is a client-server protocol. The computer initiating the connection is referred to as the client, and the computer being connected to as the server.

SSH operates over TCP, and while SSH servers can listen on any TCP port, by default SSH servers listen on port 22. As its name suggests, security is integral to the Secure Shell, and all SSH traffic is encrypted by default.

SSH is often described as the secure replacement for the older insecure Telnet protocol. It’s certainly true that SSH provides a secure replacement for Telnet, but it’s much more than that, providing additional features Telnet never did.

The first version of SSH dates back to 1995, which sounds old in IT terms, but bear in mind that Telnet dates back to 1968! The first version of the SSH protocol had some security shortcomings, so a new version of the protocol, SSH 2, was released in 2006, and this is what we use today.

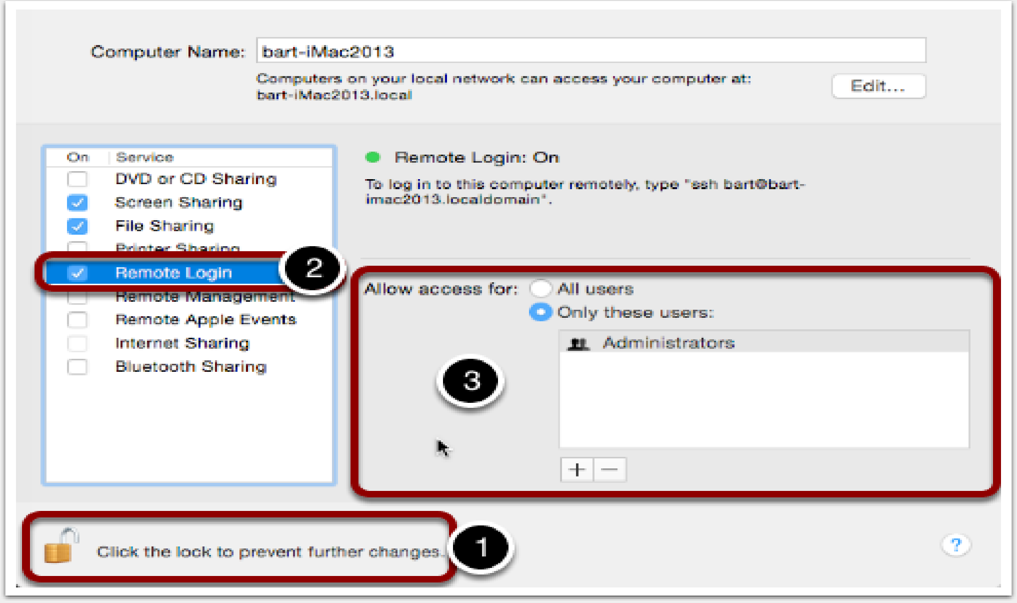
Some Preliminaries

To play along with this segment you’ll need two computers with SSH installed the SSH service enabled on at least one of those computers, and TCP/IP network connectivity between them.

The two computers can be a mix of OS X, Linux, and Unix.

OS X comes with SSH installed by default, but remote logins over SSH are disabled by default, i.e. the SSH service is not running by default. This means that a Mac can always act as an SSH client, but can only act as an SSH server it has been configured to do so.

To enable the SSH service on a Mac, open the Sharing preference pane and enable the ‘Remote Login’ option. This interface will allow you to limit SSH access to just some of the user accounts on your Mac, or to allow all users connect to your Mac over SSH.



Computer Name: bart-iMac2013

Computers on your local network can access your computer at: bart-iMac2013.local

On	Service
□	DVD or CD Sharing
☑	Screen Sharing
☑	File Sharing
□	Printer Sharing
☑	Remote Login
□	Remote Management
□	Remote Apple Events
□	Internet Sharing
□	Bluetooth Sharing

● Remote Login: On

To log in to this computer remotely, type "ssh bart@bart-imac2013.localdomain".

Allow access for: ○ All users ● Only these users:

Administrators

Click the lock to prevent further changes.

Linux machines usually have SSH installed and enabled by default. Instructions for installation and activation vary from one Linux distribution to the next, so I’ll have to leave it as an exercise for the reader to find instructions for specific Linux distros as needed.

With SSH installed and enabled on two computers, pick one to be the client, and one the server, i.e. one to connect from, and one to connect to. You’ll need to know the IP address (or DNS name) of the one you choose to act as the server. In the examples below I’ll be connecting to my file server, a Linux server on my LAN with the private IP address **192.168.10.20**.

Source: https://www.bartbusschots.ie/s/2015/02/14/taming-the-terminal-part-29-of-n-intro-to-ssh/