

## The nmap-ssh lab

This lab was developed for the Labtainer framework by the Naval Postgraduate School, Center for Cybersecurity and Cyber Operations under National Science Foundation Award No. 1438893. This work is in the public domain, and cannot be copyrighted.

### Overview

This labtainer exercise uses nmap and skills exercised in previous labtainer labs to identify and exploit a weakness in a system.

You are performing ad-hoc security testing for a client who believes their internal SSH server is relatively secure, but you would like to confirm the validity of this. Your goal is to attempt to remotely access that SSH server and disclose the content of a selected file.

### Performing the lab

The lab is started from the labtainer working directory on your Linux host, e.g., a Linux VM. From there, issue the command:

```
labtainer nmap-ssh
```

The resulting virtual terminal will include a bash shell on a computer called “MyComputer”. The nmap utility is pre-installed on that computer. You will also have a virtual terminal connected to a “router”, and a bash shell there. You have been told that the router sits between the organization’s client workstations and the servers.

### Tasks

You have been told the target SSH server IP address is 172.25.0.2 and the SSH port number changes frequently within the range of 2000-3000. you have been given an account, “analysis” on the client computer and on the router.

Client computers <==> [Router]<==> servers

your goal is to successfully SSH from “MyComputer” into the “ubuntu” account on the SSH server.

Hints:

- nmap is installed on mycomputer.
- tshark and tcpdump are installed on the router
- What other password protected network services are being used on the network? And by who?

### Stop the labtainer

When the lab is completed, or you'd like to stop working for a while, run:

```
stoplab
```

from the host labtainer working directory. You can always restart the labtainer to continue your work. When the labtainer is stopped, a zip file is created and copied to a location displayed by the stoplab command. When the lab is completed send that zip file to the instructor.