Using NMAP

- **Host discovery (ping based)**

```
$ nmap -sP 10.0.1.0-255
```

- **OS detection**

```
$ nmap -O 10.0.1.101
```

- **Full TCP port scanning**

```
$ nmap -p0-65535 10.0.1.101
```

- **Version detection**

```
$ nmap -sV 10.0.1.101
```

- **Export a full scan to a file**

```
$ nmap -O —sV -p0-65535 10.0.1.101 -oN target.nmap
```

Other features

- UDP scan
- Stealth scan (to go through firewalls)
- Slow scan (to avoid detection)
- Scripting engine (to exploit vulnerabilities)