Performance

Scanning performance is crucial, especially for extensive network scans or when dealing with limited network bandwidth. Nmap offers various options to control scan speed, packet frequency, timeouts, and retries.

Timeouts

Timeouts determine how long Nmap waits for a response after sending a packet. Setting optimal timeouts can significantly affect scan speed.

Default Scan:

```
sudo nmap 10.129.2.0/24 -F
```

Optimized RTT:

```
sudo nmap 10.129.2.0/24 -F --initial-rtt-timeout 50ms --max-rtt-timeout 100ms
```

Max Retries

Setting the maximum number of retries can affect scan speed and reliability.

Default Scan:

```
sudo nmap 10.129.2.0/24 -F | grep "/tcp" | wc -l
```

Reduced Retries:

```
sudo nmap 10.129.2.0/24 -F --max-retries 0 | grep "/tcp" | wc -l
```

Rates

Adjusting packet sending rates can significantly speed up scans, especially when network bandwidth is known.

Default Scan:

```
sudo nmap 10.129.2.0/24 -F -oN tnet.default
```

Optimized Scan:

```
sudo nmap 10.129.2.0/24 -F -oN tnet.minrate300 --min-rate 300
```

Timing

Nmap offers timing templates (-T <0-5>) to control scan aggressiveness.

Default Scan:

```
sudo nmap 10.129.2.0/24 -F -oN tnet.default
```

Insane Scan:

```
sudo nmap 10.129.2.0/24 -F -oN tnet.T5 -T 5
```

More information about scan performance can be found at Nmap Performance Guide.