**Scapy Programming Project Final Report with Foscam IP Cameras**

**Data Set Used: For this dataset I used** **Foscam IP Cameras**

Of the 197 IP addresses given 187 of them were unique.

**PART A: How many ICMP requests are responsive: 95/186**

51.08%

Of the 186 unique Ip addresses in the dataset 95 were responsive to ICMP echo requested

**PART B: constant: 21/186 incremental: 39/186 random: 35/186**

11.3% of the addresses are constant

20.97% of the addresses are incremental

18.82% of the addresses are random

**PART C: How many TCP requests are responsive: 39/186**

20.97% of the addresses were responsive to TCP requests

**PART D: constant: 33/186 incremental: 4/186 random: 2/186**

17.74% of the addresses were deploying constant IP-ID values for TCP SYN requests

2.15% of the addresses were deploying incremental IP-ID values for TCP SYN requests

1.08% of the addresses were deploying random IP-ID values for TCP SYN requests

**PART E: no cookies: 13/186 yes cookies: 24/186 no longer working: 0/186**

6.99% of the addresses are not deploying syn cookies(they sent multiple SYN ACK’s back)

12.9% of the addresses are deploying syn cookies(they only on SYN ACK back)

**PART F: Likely OS system deployed on the device [Linux/Windows]:**

|  |  |  |
| --- | --- | --- |
| **TTL** | **WINDOW SIZE** | **POSSIBLE OS:** |
| 55 | 8192 | PROBABLY LINUX |
| 50 | 8192 | PROBABLY LINUX |
| 49 | 8192 | PROBABLY LINUX |
| 54 | 8192 | PROBABLY LINUX |
| 45 | 64240 | PROBABLY LINUX |
| 55 | 8192 | PROBABLY LINUX |
| 52 | 0 | PROBABLY LINUX |
| 43 | 1460 | PROBABLY LINUX |
| 55 | 59120 | PROBABLY LINUX |
| 55 | 8192 | PROBABLY LINUX |
| 54 | 8192 | PROBABLY LINUX |
| 39 | 28280 | PROBABLY LINUX |
| 43 | 0 | PROBABLY LINUX |
| 49 | 8192 | PROBABLY LINUX |
| 52 | 1460 | PROBABLY LINUX |
| 50 | 1460 | PROBABLY LINUX |
| 242 | 8192 | SOLARIS or CISCO |
| 53 | 8192 | PROBABLY LINUX |
| 50 | 8192 | PROBABLY LINUX |
| 50 | 8192 | PROBABLY LINUX |
| 54 | 8192 | PROBABLY LINUX |
| 241 | 0 | SOLARIS or CISCO |
| 55 | 8192 | PROBABLY LINUX |
| 44 | 64240 | PROBABLY LINUX |
| 50 | 8192 | PROBABLY LINUX |
| 54 | 0 | PROBABLY LINUX |
| 43 | 28280 | PROBABLY LINUX |
| 54 | 8192 | PROBABLY LINUX |
| 49 | 1460 | PROBABLY LINUX |
| 51 | 1460 | PROBABLY LINUX |
| 48 | 0 | PROBABLY LINUX |
| 52 | 8192 | PROBABLY LINUX |
| 45 | 64240 | PROBABLY LINUX |
| 44 | 1460 | PROBABLY LINUX |
| 54 | 8192 | PROBABLY LINUX |
| 45 | 64240 | PROBABLY LINUX |
| 49 | 0 | PROBABLY LINUX |

**WHERE ONLY TTL VALUES WERE GIVEN:**

FOR TTL VALUE 255: 1/186 --- 0.54% (CISCO or SOLARIS)

FOR TTL VALUE 128: 0/186 --- 0% (WINDOWS)

FOR TTL VALUE 64: 56/186 --- 30.11% (LINUX)

**WHERE TTL AND WINDOW VALUES WERE GIVEN:**

FOR TTL VALUE 64: 35/186 --- 30.11% (LINUX)

FOR TTL VALUE 255: 2/186 --- 0.54% (CISCO or SOLARIS)

**ALL PARTS TOGTHER STATISTICS:**

FOR TTL VALUE 255: 3/186 --- 1.61% (CISCO or SOLARIS)

FOR TTL VALUE 128: 0/186 --- 0% (WINDOWS)

FOR TTL VALUE 64: 91/186 --- 48.92% (LINUX)