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| Cybersecurity |
| Networking Challenge Submission File |

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## Networking Fundamentals: Rocking your Network

Make a copy of this document to work in. For each phase, add the solution below the prompt. Save and submit this completed file as your Challenge deliverable.

### Phase 1: *“I’d like to Teach the World to ping”*

1. Command(s) used to run ping against the IP ranges:

fping -g 161.35.96.20/32

1. Summarize the results of the ping command(s):

|  |
| --- |
| Out of 5 one ip connectio was setup properly |

1. List of IPs responding to echo requests:

|  |
| --- |
| 161.35.96.20 |

1. Explain which OSI layer(s) your findings involve:

|  |
| --- |
| Layer 3 network |

1. Mitigation recommendations (if needed):

|  |
| --- |
| To close the ip address that responded to the png |

### Phase 2: *“Some SYN for Nothin’”*

1. Which ports are open on the RockStar Corp server?

|  |
| --- |
| 22/tcp |

1. Which OSI layer do SYN scans run on?
   1. OSI layer:

|  |
| --- |
| Layer 4 transport |

* 1. Explain how you determined which layer:

|  |
| --- |
| Through research from notes |

1. Mitigation suggestions (if needed):

|  |
| --- |
| Not needed |

### Phase 3: *“I Feel a DNS Change Comin’ On”*

1. Summarize your findings about why access to rollingstone.com is not working as expected from the RockStar Corp Hollywood office:

|  |
| --- |
| ssh jimi@161.35.96.20 -p 22 |

1. Command used to query Domain Name System records:

|  |
| --- |
| Cd /etc  Ls  Cat hosts |

1. Domain name findings:

|  |
| --- |
| 98.137.246.8 |

1. Explain what OSI layer DNS runs on:

|  |
| --- |
| Application layer7 |

1. Mitigation suggestions (if needed):

|  |
| --- |
| To change the permission of host files |

### Phase 4: *“ShARP Dressed Man” day 2& day3*

1. Name of file containing packets:

|  |
| --- |
| packetcaptureinfo.txt |

1. ARP findings identifying the hacker’s MAC address:

|  |
| --- |
|  |

1. HTTP findings, including the message from the hacker:

|  |
| --- |
|  |

1. Explain the OSI layers for HTTP and ARP.
   1. Layer used for HTTP:

|  |
| --- |
| The application layer is used for HTTP since this layer is responsible for providing network services and protocols that enable user applications to communicate over a network |

* 1. Layer used for ARP:

|  |
| --- |
| Arp operates at the data link on layer 2 of the OSI model. The data link layer is responsible for the reliable transmission of data across a physical network. |

1. Mitigation suggestions (if needed):

|  |
| --- |
| The hacker has a mac address and is trying to do Arp spoofing and company should start an internal investigation with a similar mac address. |

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