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| Physical Address of host | 40-9F-38-85-EA-77 |
| IP Address of host | 192.168.0.20 |
| IP Address of default gateway | 192.168.0.1 |
| Physical address of default gateway | fe80::6677:7dff:fe6a:122 |

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| FIN ACK Packet Analysis | |
| What is the source MAC address of this packet? (should be the default gateway physical address) | 64:77:7d:6a:01:22 |
| What is the destination address of this packet? (should be the host physical address) | 40:9f:38:85:ea:77 |
| What is the source IP address of this packet? (should be the matrix server IP address) | 142.204.165.128 |
| What is the destination IP address of this packet? (should be the host IP address) | 192.168.0.20 |
| What is the destination port of this packet? (should be a local dynamic port created for this connection) | 58749 |
| What is the source port of this packet? (should be port 80) | 80 |

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| ACK Packet Analysis | |
| What is the source MAC address of this packet? (should be the host physical address) | 40:9f:38:85:ea:77 |
| What is the destination address of this packet? (should be the default gateway physical address) | 64:77:7d:6a:01:22 |
| What is the source IP address of this packet? (should be the host IP address) | 192.168.0.20 |
| What is the destination IP address of this packet? (should be matrix server IP address) | 142.204.165.128 |
| What is the destination port of this packet? (should be a port 80) | 80 |
| What is the source port of this packet? (should be the local dynamic port) | 58748 |

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| ARP Request Packet | |
| What type of ARP packet is this? | 0x0806 |
| What is the destination physical address of the ARP packet? | 40:9f:38:85:ea:77 |
| What type of casting is this address? | Unicast |
| What is the source physical address of the ARP packet? | 64:77:7d:6a:01:22 |
| What is the sender’s IP address? | 192.168.0.1 |
| What is the target’s IP address? | 192.168.0.20 |

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| ARP Reply Packet | |
| What type of ARP packet is this? | 0x0806 |
| What is the destination physical address of the ARP packet? | 64:77:7d:6a:01:22 |
| What type of casting is this address? | Unicast |
| What is the source physical address of the ARP packet? | 40:9f:38:85:ea:77 |
| What is the sender’s IP address? | 192.168.0.20 |
| What is the target’s IP address? | 192.168.0.1 |

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| **Protocol** | **Description** |
| UDP | UDP is a protocol that functions like TCP however, it does not recover packets if they are dropped (Mitchell, 2018). |
| TLS | This protocol allows for a secure connection between a client and a host and prevents interceptions while request are being made (Kerravala, 2018). |
| IGMP | This protocol allows host to communicate to a group of computing devices connected to a router (Juniper Networks, 2019). |
| ICMP | This protocol provides diagnostic messages for the client when they failed to send a request to a server (Sharpened Productions, 2019). |

**References**

Bradley Mitchell. (2018). *User Datagram Protocol.* Retrieved Jan 22, 2018, from <https://www.lifewire.com/user-datagram-protocol-817976>

Zeus Kerravala. (2018). *What is Transport Layer Security.* Retrieved Jan 22, 2018, from <https://www.networkworld.com/article/2303073/lan-wan/lan-wan-what-is-transport-layer-security-protocol.html>

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