

Cluster System Administration Class
Bloominglabs
Networking Lecture

1. OSI Model

1. Physical Layer
 1. Ethernet
 2. Wi-Fi
2. Data Link Layer
 1. Media Access Control (MAC) addresses
3. Network Layer
 1. Internet Protocol (IP)
 1. Address
 2. Netmask
 1. Subnetting
 2. Network address
 3. Broadcast address
 3. Gateway

SETUP INTERNAL NETWORKING ON MGMT

2. Address Resolution Protocol (ARP)

2. Networking Hardware

1. Layer 1 – hub
2. Layer 2 – switch
3. Layer 3 – router

3. Domain Name Service (DNS)

1. Hostname
2. DNS forwarding

SETUP DNS SERVER

1. Config file: /etc/named.conf
2. Config file: /var/named/named.cluster (forward lookup)
3. Config file: /var/named/named.192.168.2 (reverse lookup)

4. Dynamic Host Configuration Protocol (DHCP)

1. Dynamic vs. Static assignments

SETUP DHCP SERVER

1. Config file: /etc/dhcp/dhcpd.conf

5. TEST