

NASA hw3

B04902045

April 13, 2017

Network Administration 1

1

1. Look up the MAC address of 140.112.31.254 with ARP table of the core switch.
2. Pseudo-code

```
switch = core switch
while True:
    look up MAC address table on the current switch,
    and decide which interface leads to the obtained MAC address
    if the interface connects to the end user:
        return FOUND
    else
        let switch = the switch that the interface connects to
```

2

View my work at B04902045_NA1/B04902045.pka

3

a

Yes, they are both under vlan 20.

b

1. Connect switch to router and configure the router
The router here could be higher level applications like pfsense.(The pfsense machine will be the default gateway of different VLANs at the same time in this situation. Switches can be omitted.)

2. Configure interVLAN routing on layer 3 switches.(Enable routing on the switch with ip routing command)

c

MayIeatEat?

User passwords and most other passwords (not enable secrets) in Cisco IOS configuration files are encrypted using a scheme that is very weak by modern cryptographic standards. the following papers specifies the required step to break a cisco ios type 7 password: <http://pen-testing.sans.org/resources/papers/gcjh/cisco-ios-type-7-password-vulnerability-100566>