Jong Park CS 312 – System Architecture HW 5 – Networking May 08, 2019

NorthRouter

• Default Gateway: 192.168.4.1/32

• X1

Network: <u>192.168</u>.5.0/24IP Address: 192.168.5.1/32

o DHCP Server

Network: 192.168.5.0/24
 Starting IP Address: 192.168.5.10/32

Ending IP Address: 192.168.<u>5</u>.100/32

• X2

Network: 192.168.4.0/24IP Address: 192.168.4.20/<u>32</u>

SouthRouter

• Default Gateway: 192.168.3.<u>1</u>/32

• X1

0 Network: 192.168.4.0/240 IP Address: 192.168.4.1/32

• X2

Network: 192.168.3.124/30IP Address: 192.168.3.126/32

BorderRouter

• Default Gateway: 10.0.0.1/32

X1

o Network: 192.168.3.0/30o IP Address: 192.168.3.125/32

X2

Network: 10.0.0.0/24IP Address: 10.0.0.2/<u>32</u>

X3

Network: <u>192.168.2.0/24</u>IP Address: <u>192.168.2.1/32</u>

WAPRouter

Default Gateway: 192.168.2.1/32

• X1

Network: 192.168.2.0/24IP Address: 192.168.2.2/32

• X2

Network: <u>192.168.0.0/24</u>IP Address: 192.168.0.1/32

o DHCP Server

Network: <u>192.168.0.0/16</u>
 Starting IP Address: 192.168.0.10/32
 Ending IP Address: <u>192.168.255.254/32</u>

WAP1

Network: <u>192.168.0.0/16</u>
IP Address: 192.168.0.2/32

WAP2

Network: <u>192.168.0.0/16</u>
IP Address: 192.168.0.3/32

PC1

Network: <u>192.168.5.0/24</u>
 IP Address: 192.168.5.10/32
 Default Gateway: 192.168.5.1/32

PC2

Network: <u>192.168.5.0/24</u>
IP Address: 192.168.5.101/32
Default Gateway: 192.168.5.1/32

PC3

Network: <u>192.168.4.0/24</u>
 IP Address: 192.168.4.10/32
 Default Gateway: 192.168.4.1/32

PC4

Network: <u>192.168.4.0/24</u>
 IP Address: 192.168.4.11/32
 Default Gateway: <u>192.168.4.1/32</u>

PC5

Network: <u>192.168.0.0/16</u>
 IP Address: 192.168.0.10/32
 Default Gateway: 192.168.0.1/32

PC6

Network: <u>192.168.2.0/24</u>
 IP Address: 192.168.2.10/32
 Default Gateway: 192.168.2.1/32

Route1

Stored in Router: <u>WAPRouter</u>
Targets Network: 192.168.0.0/<u>24</u>
Gateway IP Address: 192.168.<u>2.2</u>/32

Route2

Stored in Router: <u>SouthRouter</u>
Targets Network: 192.168.5.0/24
Gateway IP Address: 192.168.3.126/32

Route3

Stored in Router: NorthRouter
Targets Network: 192.168.5.0/24
Gateway IP Address: 192.168.4.20/32

VPN Endpoint IP Address 1: 192.168.4.20/32

VPN Endpoint IP Address 2: 192.168.2.2/32

A packet just arrived at BorderRouter, destined for 192.168.0.10/32. Out of which interface will it leave BorderRouter: X3

One of these PCs DEFINITELY has a **statistically assigned IP address**. Some of them MAY have a DHCP-assigned addresss. Which one PC DEFINITELY has a statically assigned IP address: PC2