

for Staples

บทที่ 1 Straight A-A, B-B  
Crossover A-B

1A WGGWOBWBOWBrBr

1B WOOWGBWBGBWBrBr

Logical Addresses: IP address (IPv4)

Byte1		Byte2		Byte3	Byte4
Version	IP Header Length	Differentiated Services		Total Length	
		DSCP	ECN		
Identification				Flag	Fragment Offset
Time To live		Protocol		Header Checksum	
Source IP Address					
Destination IP Address					
Options(Optional)					Padding

2 IPv4 Header

Version	Traffic Class	Flow Label
Payload Length	Next Header	Hop Limit
Source Address		
Destination Address		

for Staples

Unicast 2 from single to single

Broadcast Many network protocols such as DHCP and ARP

Multicast Multicast addresses allow a source device to send to group of devices

Accessing a Cisco IOS device

- Console port
- Telnet
- Secure Shell (SSH)
- Aux Port

Getting Basic / Basic Config

- 1) hostnames
- 2) limiting access
- 3) addressing
- 4) verify
- 5) saving config

Boot Sequence

- 1) POST (power on self test)
  - check memory (RAM, ROM) → OK
- 2) boot loader SW like BIOS
- 3) Low-level
- 4) flash file system (OS) → RAM

routing in router

1. static → setting fix IP / Address, manual non IP
  2. dynamic → IP setting โดยอัตโนมัติ, ใช้ DHCP non IP
- Packet forwarding method
- 1) process switching → slow non standard Interface all
  - 2) fast switching → fast packet forwarding router behavior
  - 3) Cisco express forwarding (CEF)

Path Determination

- lowest metric / cost (optimal protocol)
- 1) RIP → ใช้วิธี hop (จำนวนครั้ง)
- 2) OSPF → ใช้ BW
- load balancing → ใช้ cost ที่ต่างกัน
- router → มี 2 ways

for Staples

- AD (Admin Distance) → ใช้วัดถึง trustworthiness
- connected 0
- static 1
- internal EIGRP 90
- OSPF 110
- RIP 120

