

type of network → LAN → admin group + max distance between devices / authn , policy devices
 WAN → admin group $\text{area} = \text{area}$

สาย UTP → straight through → อุปกรณ์เหมือนกัน

cross-over cable → $\text{เชื่อมต่อต่างกัน (เหมือนกัน)} : (\text{switch, hub}), (\text{com, router})$

สาย LAN UTP → A → $\underline{1} \quad \underline{2} \quad \underline{3} \quad \underline{4} \quad \underline{5} \quad \underline{6} \quad \underline{7} \quad \underline{8}$ } $\text{ตรงๆ เชื่อม, cross ก็ทำได้}$
 B → $\underline{3} \quad \underline{6} \quad \underline{1} \quad \underline{4} \quad \underline{5} \quad \underline{2} \quad \underline{7} \quad \underline{8}$

WAN → DCE, DTE

package → uni

→ broadcast → mac $F \times 12$ บิต, ip $\text{สำหรับทั้ง network}$

→ multicast → 0100SE, สีแดง

command → name> user mode

name# privileged mode

name(config)# global config

name(config-if)# other config

> enable
ping [ip]

configure terminal

show ip route

show ip interface brief

static routing

↳ (config)# ip route [des net] [sub] [nexthop-ip, exit-if] #standard
 0.0.0.0 0.0.0.0 #default route

(config)# interface [name] [port]

hostname [name]

enable password [password]

(config-if)# ip address [ip address] [subnet]

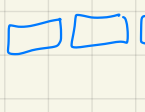
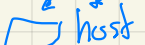
no shutdown

clock rate 56000

routing more classless interchen domain route (CIDR)

↳ ip summarization

$\left. \begin{matrix} \text{ip1} \\ \text{ip2} \\ \text{ip3} \\ \text{ip4} \end{matrix} \right\} \text{การรวมกัน} \rightarrow \text{ip}_{\text{new}} / \text{bitที่เหลือ}$

network %  host (VLSM)
 host

static route → $\text{การกำหนด route ให้ router}$
 network s-er
 router-router

↓
 router pins pc
 การเชื่อมต่อ
 routing table

converger → $\text{การที่ network หนึ่งขึ้นหรือลง}$
 down

distance vector

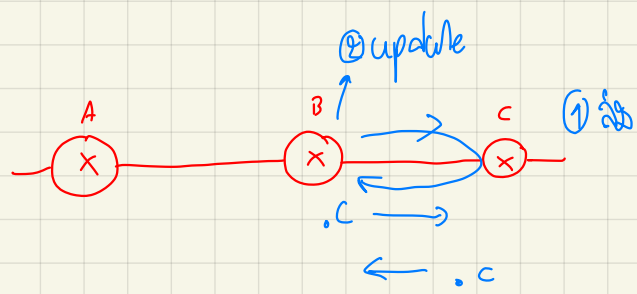
full update

Networks

- ↳ distance vector, link state
- ↳ classless → subnet update
- ↳ classfull → full subnet update
- ↳ RIP → metric "hop"
- ↳ periodic update

- ① initial → basic config
- ② full update → send to all neighbors

router → routing loop →



router network → send to all neighbors
C send, B update →
router interface missing

- ↳ split horizon → don't send info back to source, + hop count
- ↳ route poison → down → advertise infinity
- ↳ TTL

hop count to infinity
hop → 16 → unreachable
→ infinity

rip → classfull → ① basic config →
(config)#router rip
(config-router)#network [ip network]
#debug ip rip

→ ② full update → split horizon

④ no auto update → (config-router)#passive-interface [interface] [port]

Boundary router → router routing → boundary network →
→ boundary interface → boundary network

router routing → boundary network →
classful