VLSM **Report**

WIDE

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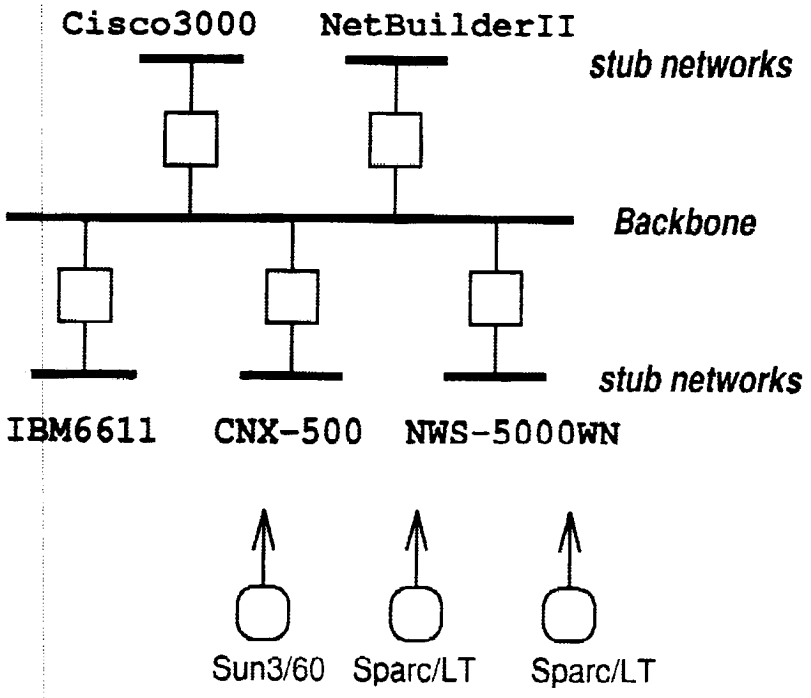
Subnet WS

- Goal: to know "VLSM is ready or not"
- Held in 24-25 Nov 93
- Participated routes:
  - IBM 6611/140, mpnp.1.1.1.2
  - Proteon CNX-500, V14.0a[Z1]
  - Cisco 3000, 9.1.8
  - 3Com NetBuilder II, XW6.2.0.10
  - Sony NWS-5000WN, NEWS-OS 6.0
- No exact product name appears in report (due to aggreement with distributers)

Configuration

- Routing Protocol: OSPF
- Default routes in Hosts



All–0 Subnet

- Violates "Host Requirements"
- Configuration:

BB	192.244.224.0/24
Stub:	192.244.225.0/28
	192.244.226.0/28
	192.244.227.0/28
	192.244.228.0/28
	192.244.229.0/28

- **Result:**
  - x Routing process aborted
  - x Ignored the routing info
  - O 3 routers worked

All–1 Subnet

- Violates "Host Requirements"
- Configuration:

BB: 192.244.224.0/24

Stub: 192.244.225.240/28
192.244.226.240/28
192.244.227.240/28
192.244.228.240/28
192.244.229.240/28

- Result:

X No such configuration allowed
O 4 routers worked

Partitioned Subnets

- Each subnet is connected via another network
- Configuration:

BB:	192.244.224.0/24
Stub:	192.244.225.16/28
	192.244.225.32/28
	192.244 225.48/28 ffi
	192.244.225.64/28
	192.244.225.80/28

- Result:
  - Allrouters worked well

(inclusive)VLSM

- VLSM with acidress space overwrapped
- Host location is defined by "Best Match" rule
- Usoful in smooth migration from bridge based environment
- Configuration:

BB: 192.244.224.0/24
Stub: 192.244.224.68/30
192.244.224.72/30
192.244.224.76/30
192.244.224.80/30
192.244.224.84/30

- Result:

X Configuration error
O 4 routers worked well
— Proxy ARP is still usefull

(Excusive)VLSM

- VLSM with disjoint address space
  (Address spaces are not overwrapped)
- Configuration:

  BB: 192.244.224.128/26
  Stub: 192.244.224.68/30
  192 244.224.72/30
  192.244.224.76/30
  192.244.224.80/30
  192.244.224.84/30

- Result:
  - Allrouters worked well
  - Proxy ARP helps communication between BB and stubs

Supernet

- > 254 hosts
- Configuration:

  BB: 192.244.224.0/22
  Stub: shutdown

- Result:

  X Configuration error

  X Configuration error

  X Configuration error

  X Incorrect routing

  O Only 1 router worked

Summary

All-0 Subnet:	O	O	O	X	X
All-1 Subuet;	O	O	O	O	X
Partitioned Subnets:	O	O	O	O	O
Exclusive VLSM:	O	O	O	O	O
Inclusive VLSM:	O	O	O	O	X
Supernet:	O	X	X	X	X

- VLSM is *ALMOST* ready
- To be checked:
  - — Broadcasting
  - — Non-OSPF routers
  - — New versions of software
  - — Invite other routers (including Japanese ones)