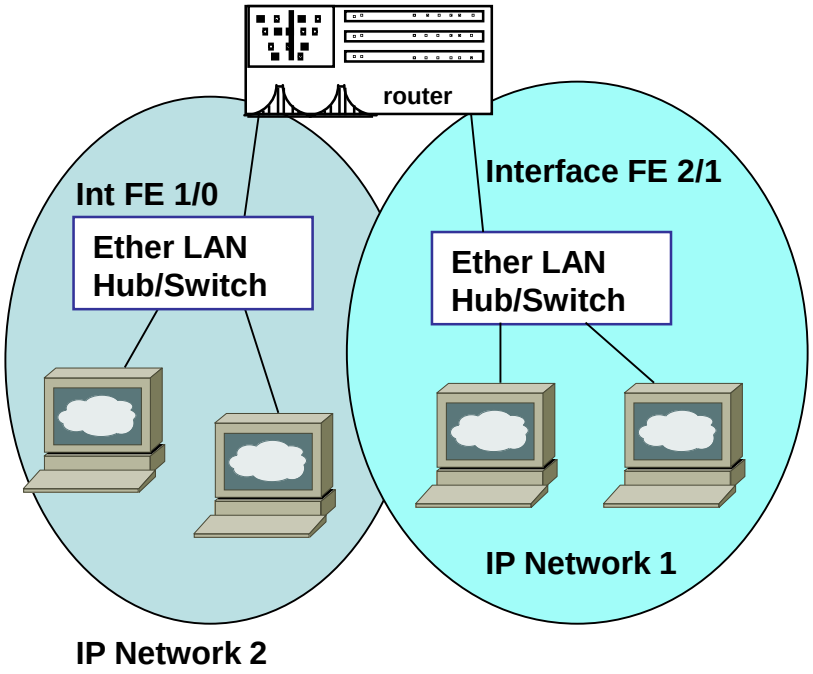
I341 - TCP/IP Addressing Exercise

For each subnet you will need to address the following elements/parameters:

IP Address
Subnet Mask
IP Broadcast Address

•On each subnet you will need to address the router interface (for that subnet) and at least 2 devices on that subnet – with the aforementioned TCP/IP parameters



Example (based on illustration)

Router
interface FastEthernet 1/0
IP Address 192.168.200.1 subnet mask 255.255.255.0
IP broadcast-add 192.168.200.255

PC #1 (network 1)
IP Address 192.168.200.11 subnet mask 255.255.255.0
IP broadcast-add 192.168.200.255
Default gateway/router 192.168.200.1

PC #2 (network 1)
IP Address 192.168.200.12 subnet mask 255.255.255.0
IP broadcast-add 192.168.200.255
Default gateway/router 192.168.200.1

For the attached illustrations – please use the following TCP/IP address allocations:

Scenario 1 - Class Cs allocated to class by ARIN:

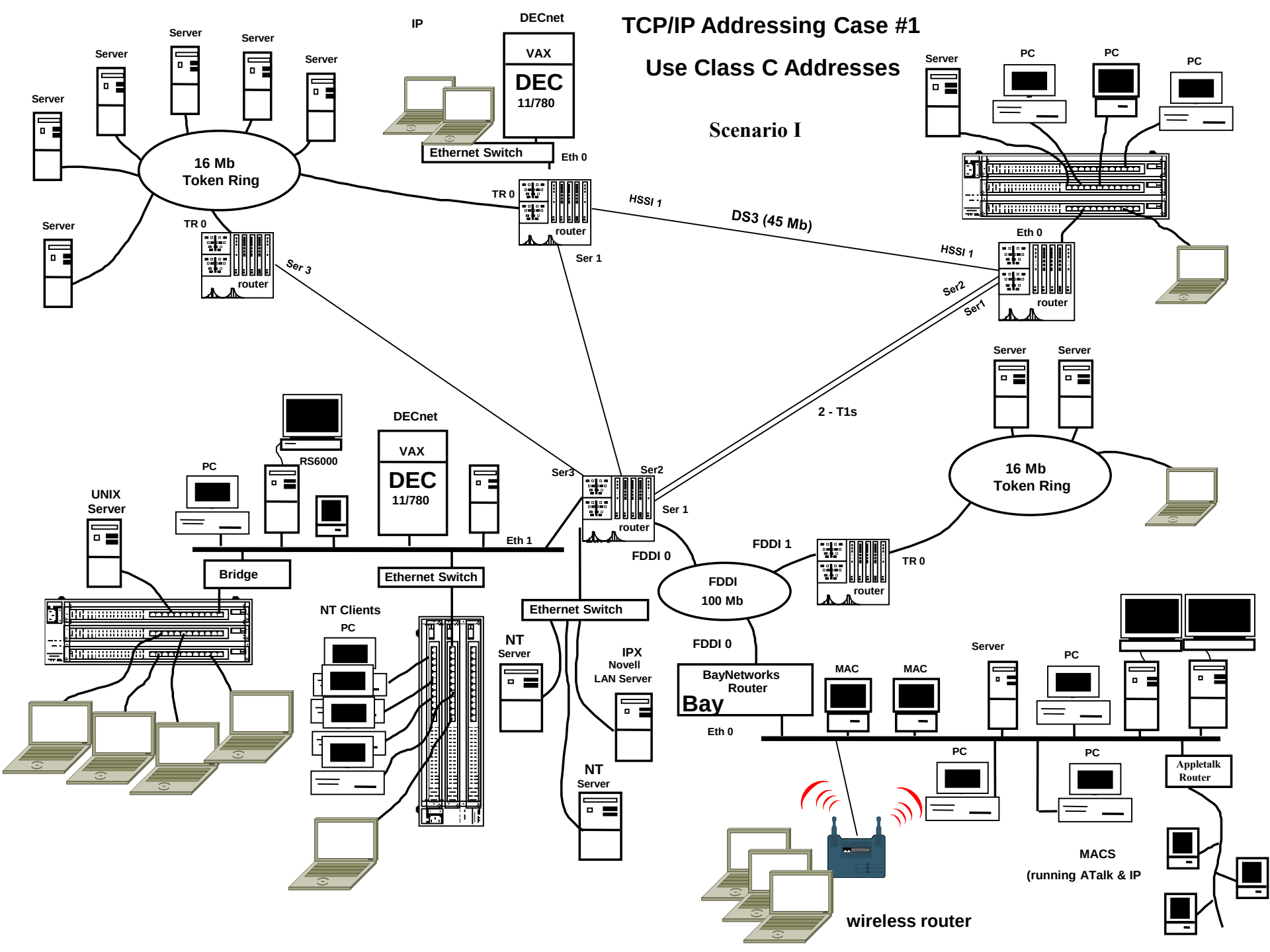
193.76.200.0	**193.77.204.0**	**193.78.210.0**	**193.76.204.0**
193.78.201.0	**193.76.206.0**	**193.76.211.0**	**193.76.209.0**
193.76.202.0	**193.77.206.0**	**193.76.212.0**	**193.76.214.0**
193.87.200.0	**193.78.208.0**	**193.78.213.0**	**193.75.214.0**
193.22.222.0	**193.22.223.0**	**193.22.292.0**	**193.44.1.0**

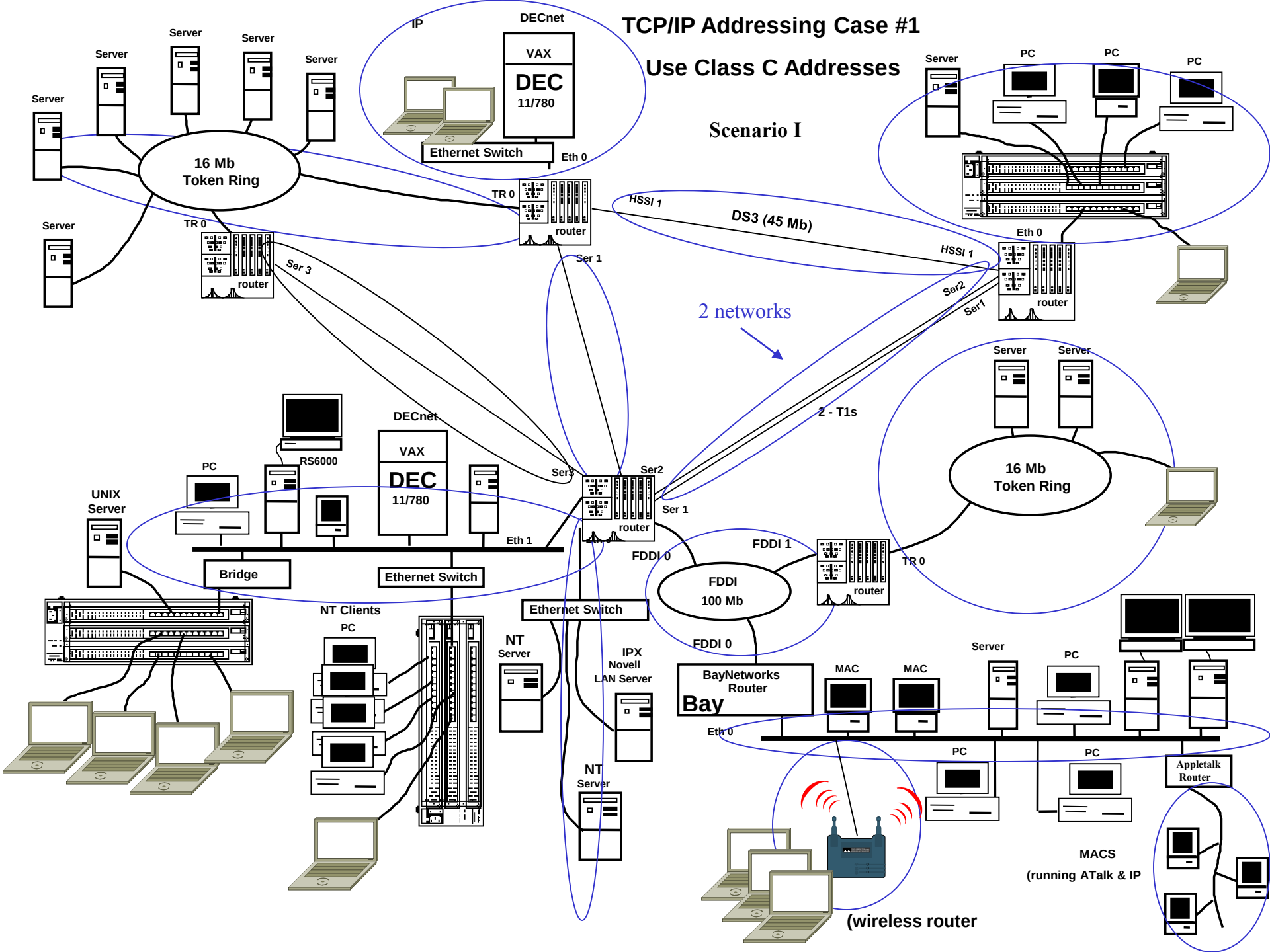
Scenario 2 - Class B's allocated to class by ARIN:

155.244.0.0
138.135.0.0
162.16.0.0
130.1.0.0

Scenario 3 – MUST use only 1 Class C (for entire infrastructure):

192.76.210.0


TCP/IP Addressing Case #1
Use Class C Addresses
Scenario I
IP
DECnet
VAX
DEC
11/780
Ethernet Switch
Eth 0
16 Mb
Token Ring
Server
TR 0
router
HSSI 1
DS3 (45 Mb)
Ser 1
Ser 3
PC
Eth 0
Ser2
Ser1
2 - T1s
RS6000
Ser3
Ser 1
FDDI 0
FDDI 1
FDDI
100 Mb
UNIX
Server
Bridge
Eth 1
NT Clients
NT
Server
IPX
Novell
LAN Server
BayNetworks
Router
Bay
MAC
MACS
(running ATalk & IP
Appletalk
Router
wireless router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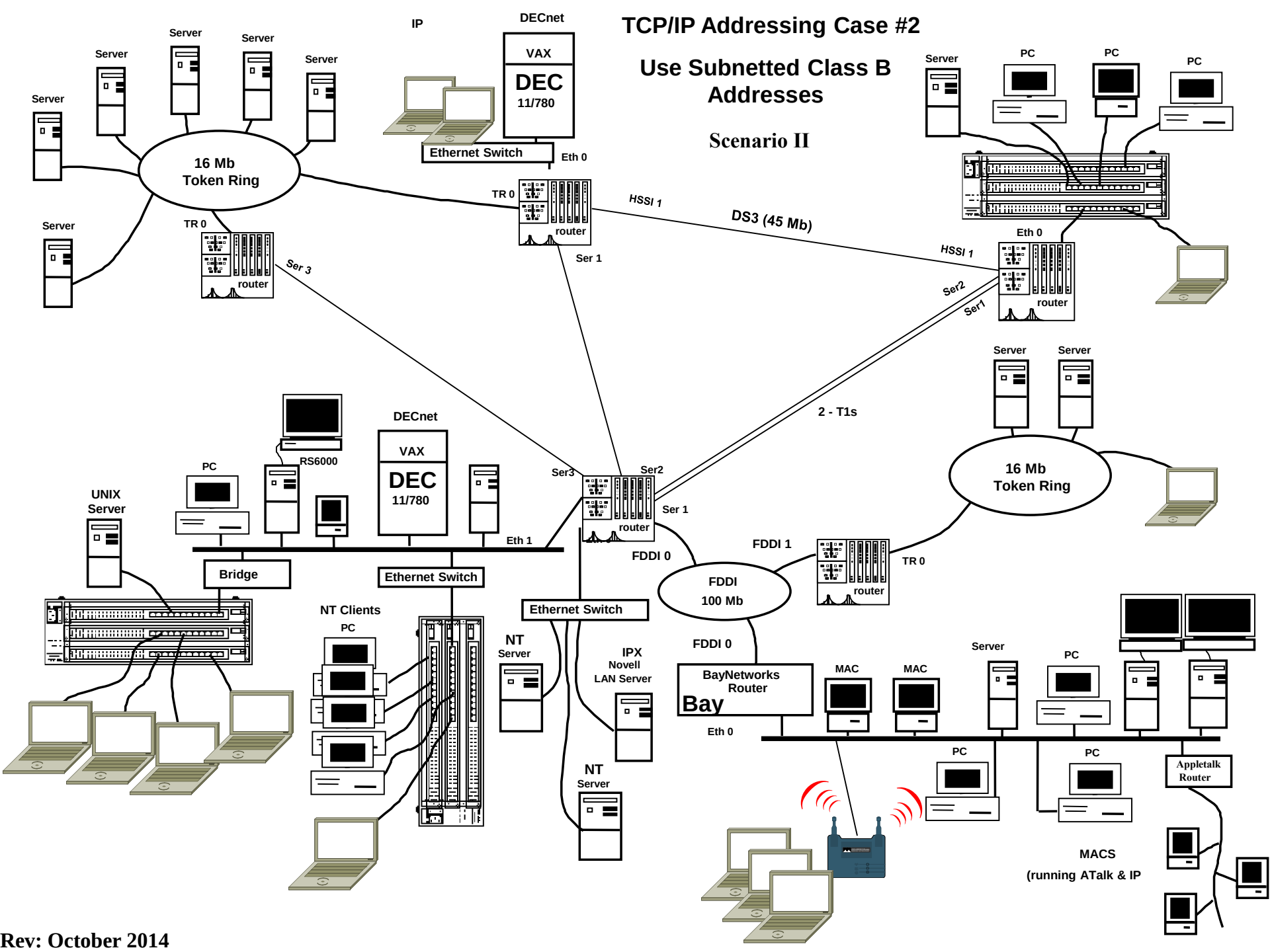

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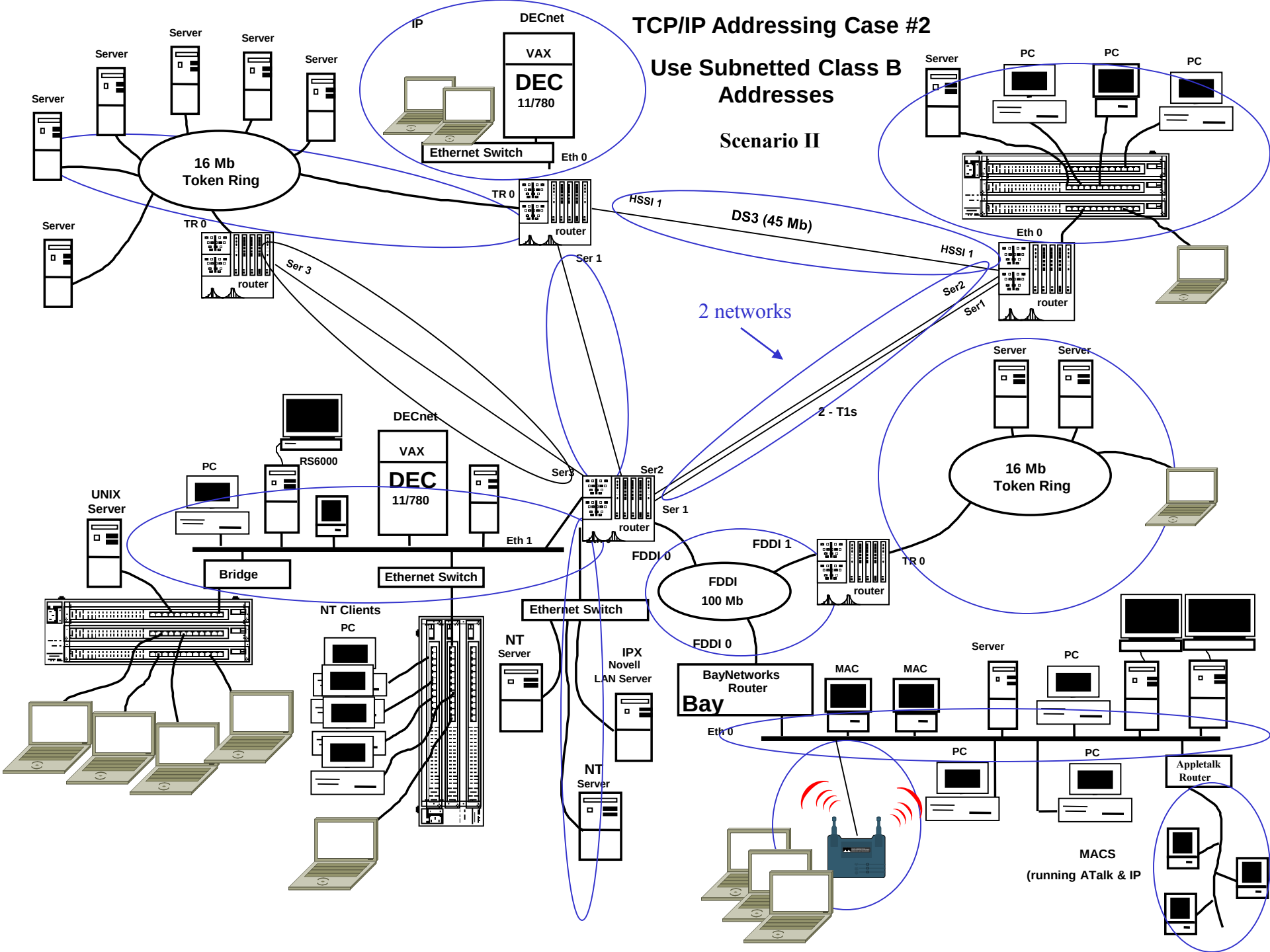
TCP/IP Addressing Case #2
Use Subnetted Class B Addresses
Scenario II
IP
DECnet
VAX
DEC
11/780
Ethernet Switch
Eth 0
16 Mb
Token Ring
Server
TR 0
router
Ser 1
HSSI 1
DS3 (45 Mb)
PC
Ser 3
Ser2
2 networks
2 - T1s
RS6000
UNIX
Server
Bridge
Eth 1
Ser3
Ser 1
FDDI 0
FDDI 1
FDDI
100 Mb
TR 0
NT Clients
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Server
IPX
Novell
LAN Server
BayNetworks
Router
Bay
MAC
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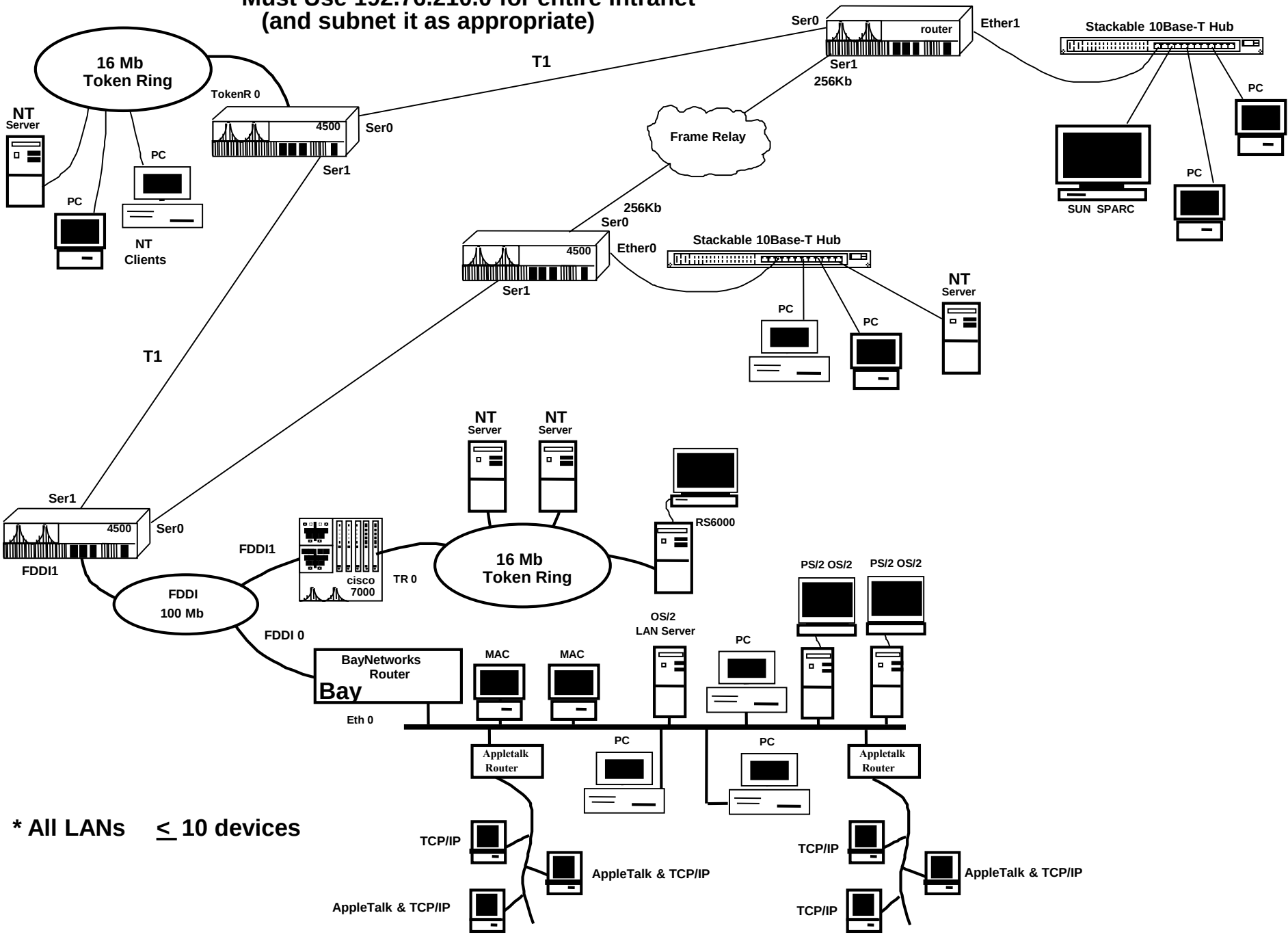
UW TCP/IP Case Study (Extra Credit) Scenario III

Must Use 192.76.210.0 for entire Intranet (and subnet it as appropriate)

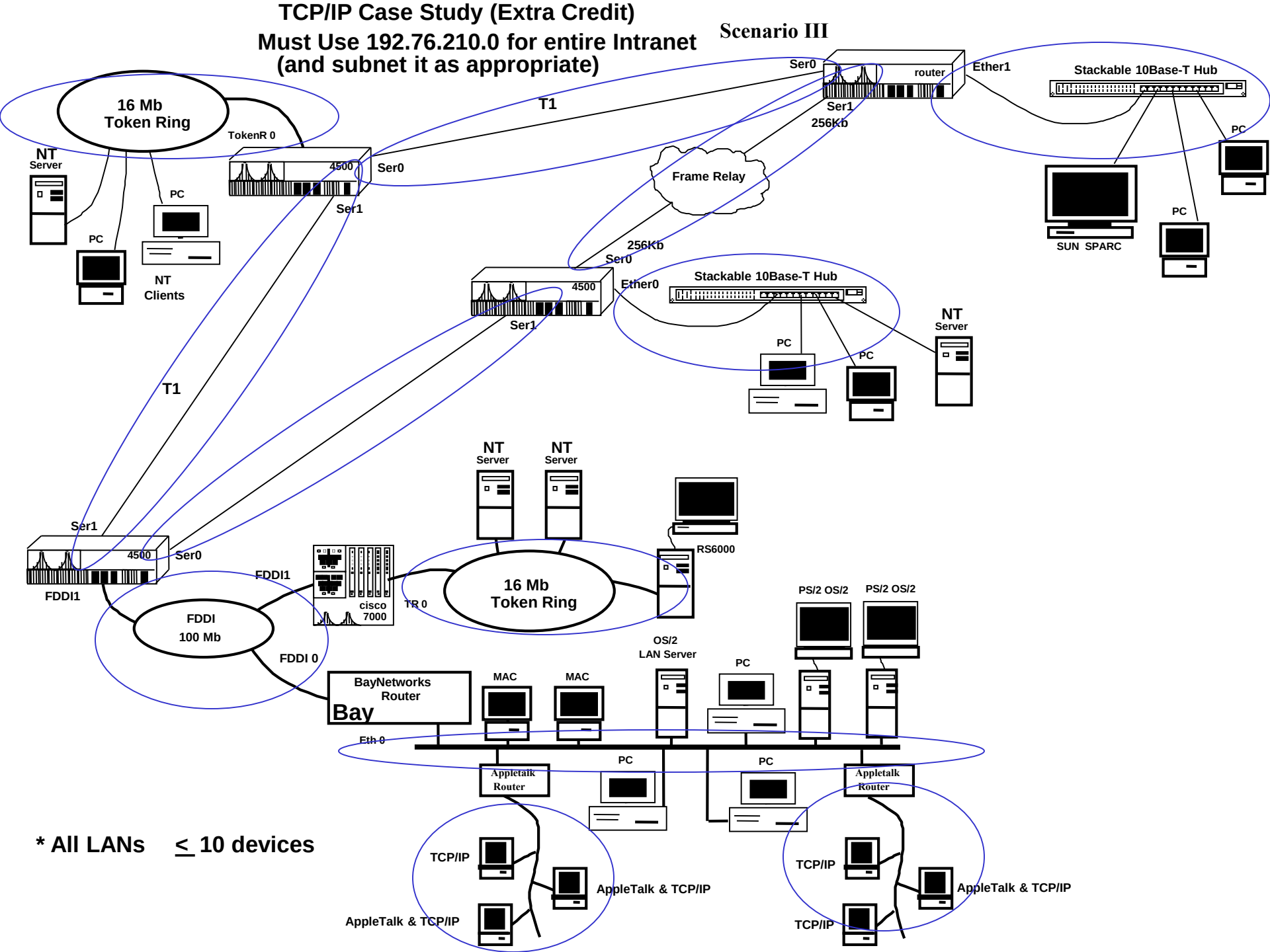


*** All LANs ≤ 10 devices**

TCP/IP Case Study (Extra Credit)

Must Use 192.76.210.0 for entire Intranet (and subnet it as appropriate)

Scenario III



*** All LANs ≤ 10 devices**