Current Competitive View
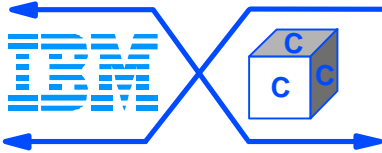## *Campus Product Line*
3Com
Bay Networks
Cisco
Xylan

Competitive Marketing Team
Network Hardware Division
RTP , N.C.

Graham Clarke
GCLARK at RALVM17
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Contents

- 3Com Corporation
  - Merger with US. Robotics
  - Current CoreBuilder product line
  - Small Office product strategy
  - Gigabit Ethernet announcement
- Bay Networks
  - Current BayStack product line
  - New Centillion switches
  - Switch Node
- Cisco
  - Current Catalyst product line
  - Catalyst 5500 knock-offs
  - Future ATM

3Com Corporation

- Merged with US. Robotics 2Q'97
- Largest Networking Business merger
- Expands product line / market presence
  - modem, access (80% USR revenues)
  - break into CONSUMER "storefront" market
  - small/office distribution channel
- New Corporation =
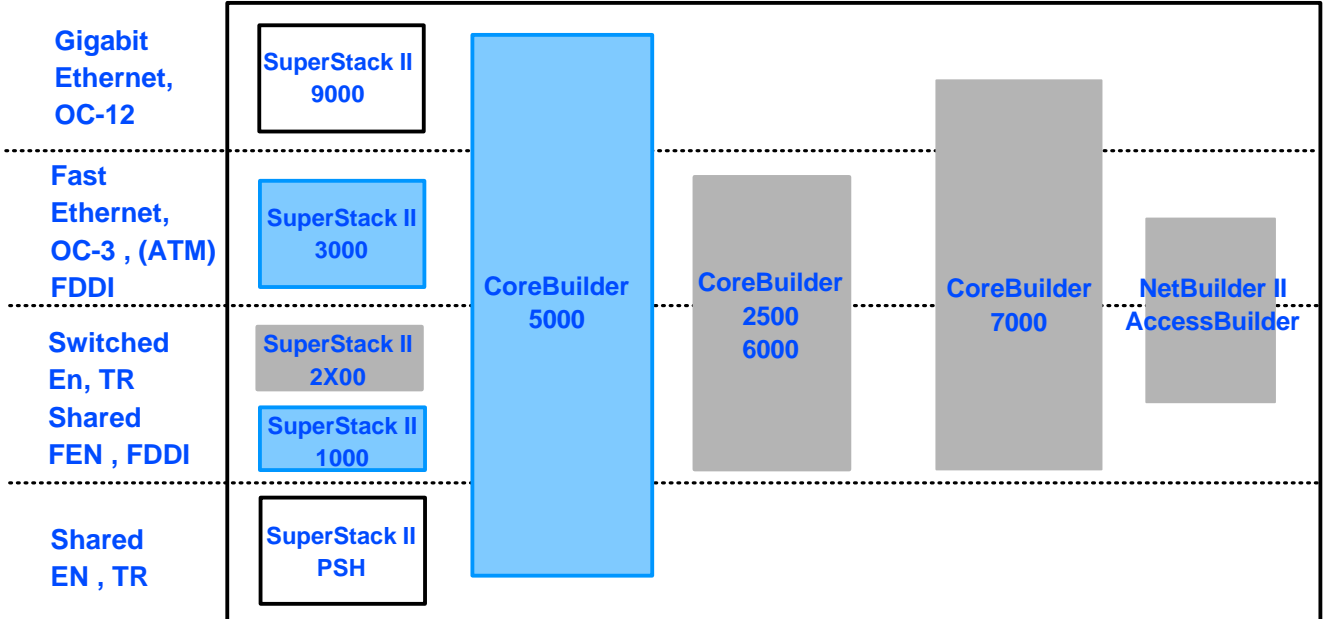 - $7 Billion (US.) (est. 1997)
  - 13,000 Worldwide employees

3Com LAN Internetworking Products

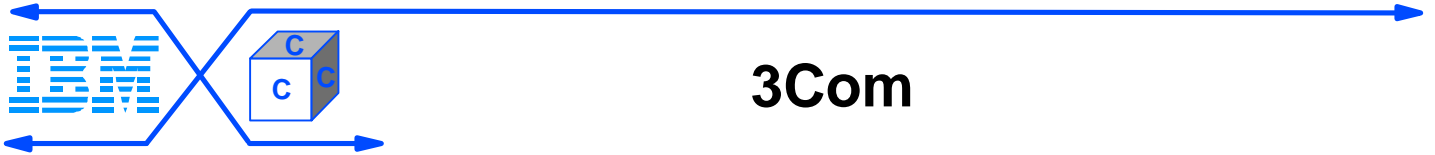**Stackables** **Chassis / Modular** **Routing, Access**

	Stackables	Chassis / Modular	Routing, Access
Gigabit Ethernet, OC-12	SuperStack II 9000		
Fast Ethernet, OC-3 , (ATM) FDDI	SuperStack II 3000	CoreBuilder 5000 / CoreBuilder 2500 6000	CoreBuilder 7000 / NetBuilder II AccessBuilder
Switched En, TR Shared FEN , FDDI	SuperStack II 2X00 / SuperStack II 1000		
Shared EN , TR	SuperStack II PSH		

Previous Names
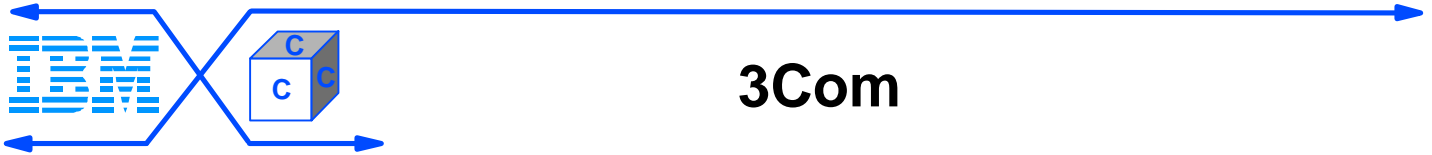LANplex 2500 Switch
LANplex 6000 Switch
ONCore
CELLplex 7000

New Names
CoreBuilder 2500
CoreBuilder 6000
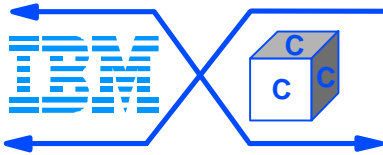CoreBuilder 5000
CoreBuilder 7000

3Com

CoreBuilder 2500

- Small modular (2) Ethernet Workgroup Switch
  - 16 Ethernet ports (TX, FL)
  - 2 uplinks (FDDI, FEN, ATM-OC3)
- 3Com definition of "Layer 3 Switch" =
  - "has router function bundled in chassis"...
    - *NOT*..."layer 3 function done in layer 2 switching"
  - 2500 has IP, IPX, AppleTalk routing code
- VLAN = port , MAC
- LANE / Classical IP support (i.e.. LE, ARP Client)
- Can have dual power supply (=$20K US)

3Com

CoreBuilder 6000

- Higher density modular (4 slot or 12 slot) switch
  - for Ethernet, Fast Ethernet, Token Ring, FDDI
- One management module required
  - 3 or 11 slots remaining for media
- Maximum port densities
  - EN   176 (TX, FL)
  - FEN   88 TX, 66 FX
  - FDDI   22
  - TR   88
- VLAN = port only
- ATM/LANE/Classic IP = " will be added in future"

IBM ✕ **C C C**   **3Com**

CoreBuilder 5000

▪ **CHIPCOM ONCore = IBM 8260 ......(not 8265)**

a recent TOLLY GROUP report (#7277 , June 1997)

www.tolly.com

Test Highlights   **(CoreBuilder 5000 vs. CISCO Catalyst 5000)**

- *CoreBuilder 5000 provides up to FIVE TIMES greater switching throughput than the Catalyst 5000*
- *CoreBuilder 5000 delivers wire-speed switching of up to 68 simultaneous Fast Ethernet ports for 64-byte frames*
- *CoreBuilder 5000 supports aggregate switching throughput of more than 5 million frames per second*

"CoreBuilder delivered higher aggregate throughput and LOWER FRAME LOSS in all test configurations , including wire-speed ZERO-LOSS throughput at all frame sizes......, the Catalyst 5000 delivered less than 50% of wire speed in several configurations , and less than 25% of wire speed when switching 25 concurrent streams of traffic."
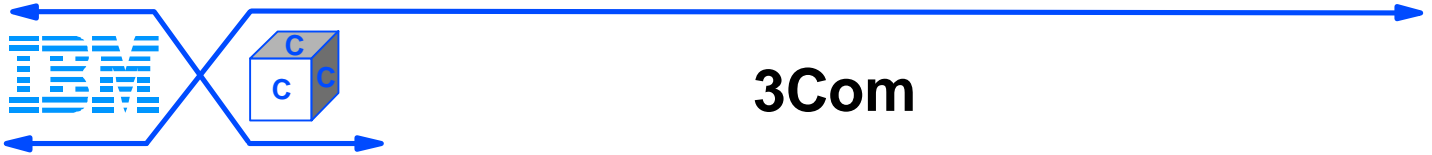
> **8260 vs. all ATM Campus BACKBONE SWITCHES Comparison Table.....**
> **Netwin ,1, NetField (2) , ATMSWCM2**
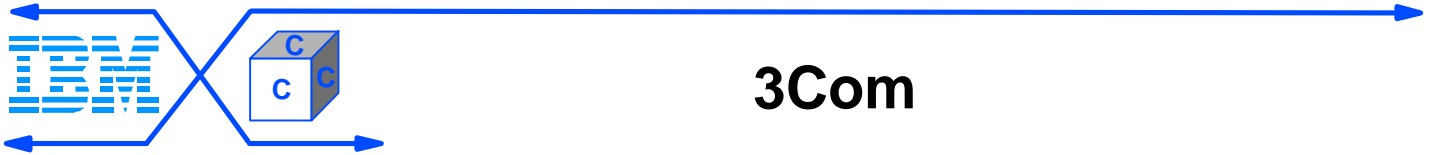
3Com

CoreBuilder 7000

- ATM backbone modular 4-slot switch
  - with Enet, FEN access
- Modules...
  - Ethernet TX - 36 per (x 4) = 144
  - Ethernet FL - 16 per (x 4) = 64
  - Fast Ethernet TX/FX - 16 per (x 4) = 64
  - ATM OC-3 (155 Mbps) - 32
  - ATM OC-12 (622 Mbps) - 8
  - Ethernet/ATM - 12 /1 per = 64/4 (for 7000 only)
- LANE (LES/BUS) for Ethernet (Token Ring = ?)
- 2.5 Gbps backplane
- Redundant LANE, switching, power, management
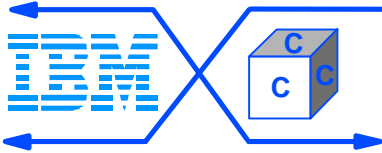- 7000HD = 5.0 Gbps backplane

3Com

Gigabit Ethernet

- **3Com Market Strategy**
  - Next Logical Step in High-Speed Campus...
    - and 3Com is Ethernet world leader
  - Faster, Simpler, Lower Cost
  - 10 x Enet = Fast Ethernet (100) and...
  - 10 x Fast Enet = Gigabit Ethernet (1000)
    - it's that *simple*!!!
  - Varying "length" limits all based on 802.3n specs
  - Market survey for GEN potential use...
    - switch - server = 69%
    - switch - switch = 63%
    - instead of ATM = 42%
    - supplement ATM = 58%
  - CoS vs. QoS
    - this CoS term is used greatly by 3Com to infer *service*
    - it is *prioritization* vs. *guarantee*

3Com

Gigabit Ethernet

- Gigabit Etherlink PCI Network Interface Card
  - full duplex into 64/32 bit PCI bus of SERVER
- SuperStack II Switch 9000 SX
  - 8 port unit in SS II family
- SuperStack II Switch Gigabit Ethernet SX Module
  - for SS II Switch 1000 , and 3000
- CoreBuilder 5000 Gigabit Ethernet SX Module
  - CB 5000 packet backplane
- 7800 Gigabit Ethernet Interface card
  - for CoreBuilder 7000/7000HD
  - 2 GEN ports / card

IBM ✕ **3Com**

Small Business Solutions
OfficeConnect Family

- Hubs
  - OfficeConnect Hub TP4
    - 4 RJ-45 10Base-T ports
  - OfficeConnect Hub TP4 Combo
    - TP4 plus one BNC/AUI port
  - OfficeConnect Hub 8/TPO
    - 8 RJ-45 10Base-T ports
  - OfficeConnect Hub 8/TPC
    - 8/TPO plus BNC port for 30 daisy chained on segment
  - OfficeConnect Hub 8/TPM
    - 8/TPC plus RMON
  - OfficeConnect Hub TP16C
    - 16 RJ-45 10Base-T ports
  - OfficeConnect Hub 8/TP100
    - 8 100Base-TX ports

- Switch
  - OfficeConnect Switch 140
    - 4 RJ-45 10Base-T, plus 1 x 100Base-TX

- Routers
  - OfficeConnect Remote Access Router 510
    - 1x ISDN, 2x Enet LAN
  - OfficeConnect Remote Access Router 520
    - 510 plus voice
  - OfficeConnect Remote Access Router 530
    - 520 plus leased line WAN
  - OfficeConnect Remote Access Server 1000
    - 2 port IP/IPX dial-in, Internet access
  - OfficeConnect Gateway 535
    - ISDN or WAN for IPX (1 IP address)