

# **IBM vs Cisco**

## **Competitive Analysis - 2210/2216**

### **Part 2**

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**05/97**

# 2210 Nways Multiprotocol Router

## Price / performance leadership for Remote Access

### Streamlined Design

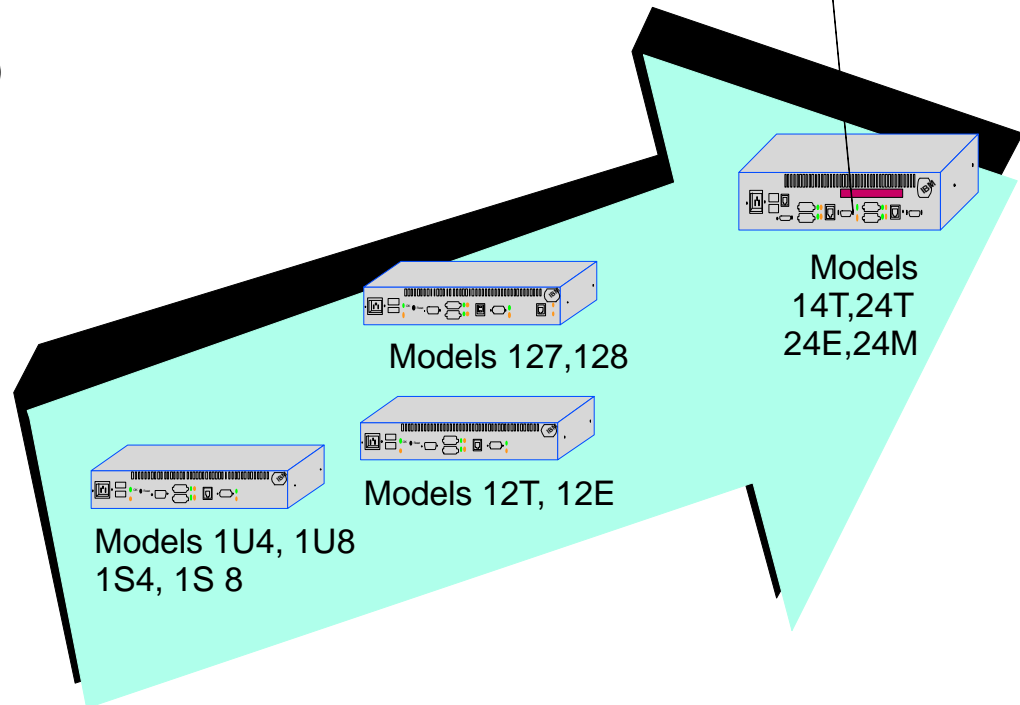
- Single Logic Planar (25 - 33 MHz)
- Universal Power Supply
- Rack Mountable
- Adapter slot on larger models

### Packaging Options

- Plug & Play with EasyStart
- Flexible Memory Choices
- Preloaded Software

### Feature Rich

- All Serial Ports support
  - EIA 232/V.24 (4.8Kbps - 19.2Kbps)
  - V.35, V.36 (9.6Kbps - 2.048Mbps)
  - X.21 (2.4Kbps - 2.048Mbps)
  - SDLC
  - Frame Relay, PPP, X.25
  - V.25bis Dial Capabilities
- LAN Port (Ethernet and Token Ring) is Model Dependent
- ISDN BRI (2B+D) provides dial-on-demand and dial backup



## Great Performance

### *Two Data Communications Magazine Top Performers: 2210 (\$5,500) and Cisco 4700 (\$21,000)*

- “The IBM 2210 ...approached the 3,000 DLSw session mark...offers excellent value for money”
- “The 2210 really shines, handling data-center loads at a branch-office price.”
- “The 2210 also turned in nearly flawless pcores in our prioritization tests, coming closer than any other router to hitting our target bandwidth utilization levels.”

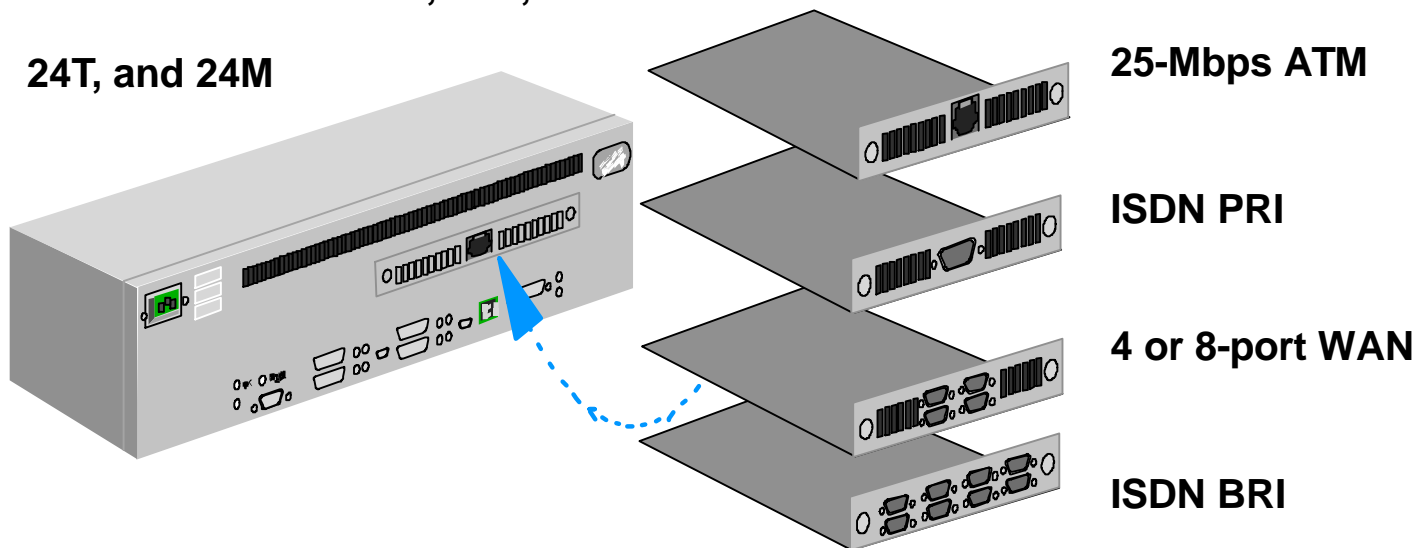
### *2210 also better performer than Cisco 2500*

- 15,000 pps vs. 8,000 pps
- 25 MHz and 33 Mhz processors vs. 20 MHz



## Flexible growth options

IBM 2210 Models 14T, 24E,  
24T, and 24M

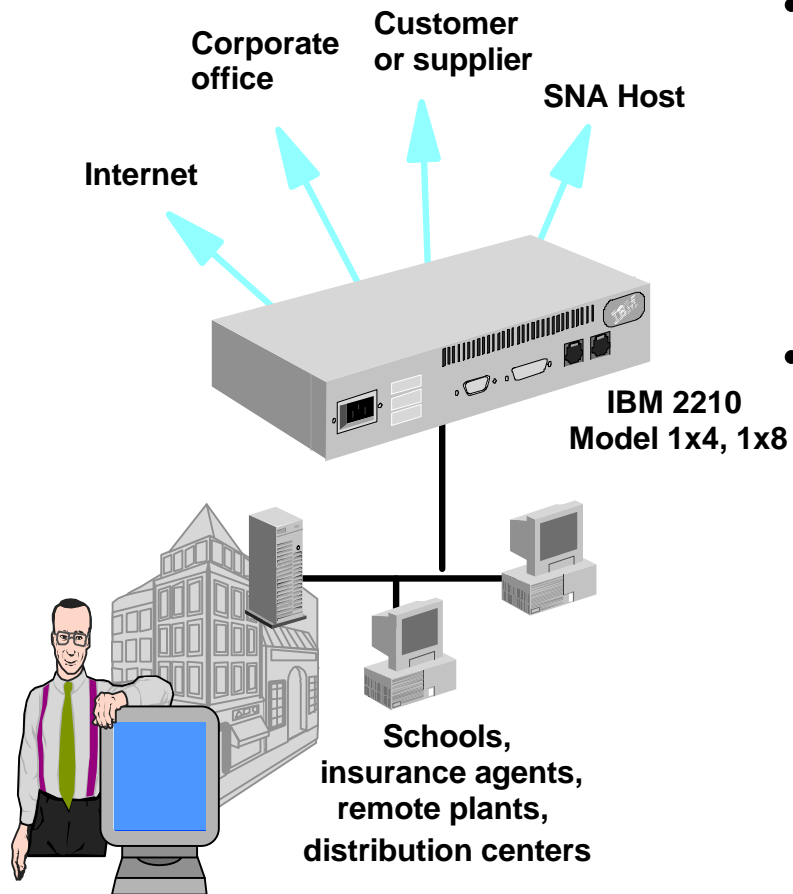


***Only Primary ISDN at low 2210 price***

***Only wide area connections for 25-Mbps ATM workgroups***

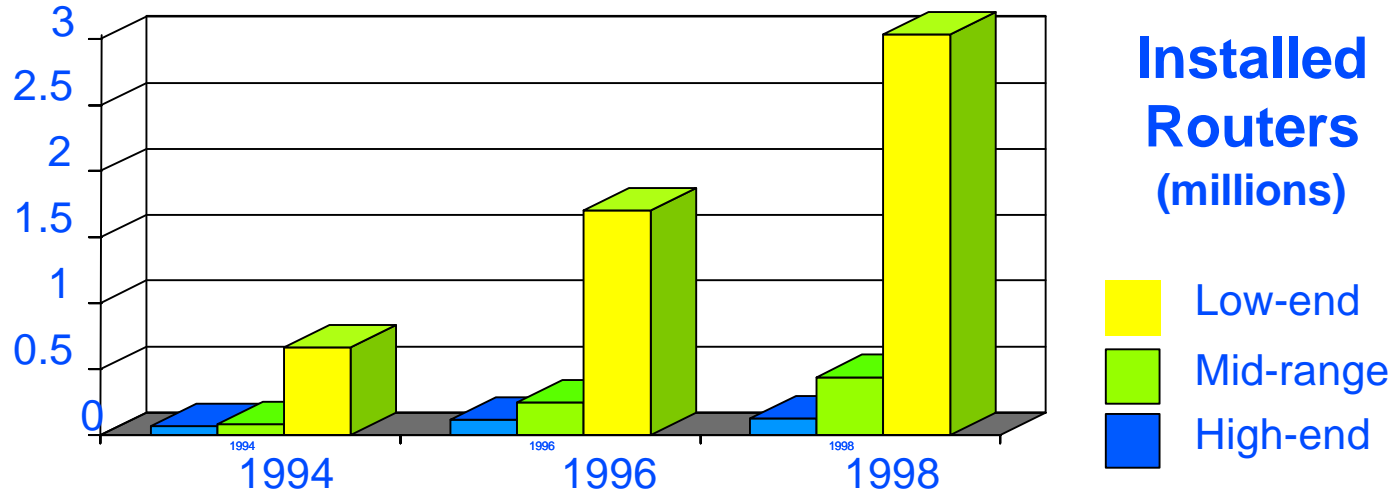
***Meet future requirements by changing adapters***

## New 2210 entry point models



- **Compact solution for small locations**
  - **Half the price of routers with similar function**
  - **Proven 2210 hardware and software**
  - **Only 1 LAN +1 WAN router to support DLSw**
- **Wide range of software-configurable WAN connections**
  - **1 Enet + 1 WAN/ISDN connection**
  - **ISDN-ready**
    - Models 1U4 & 1U8 have integrated NT1 (North America)
    - Models 1S4 & 1S8 are ISDN-ready
  - **Frame relay, leased line, X.25, V.25bis, or ISDN connections**

# IBM--Fast Growing Vendor in a Hot Market



**1996 Low-end router market share**

**Bay**



**3Com**



**Digital**



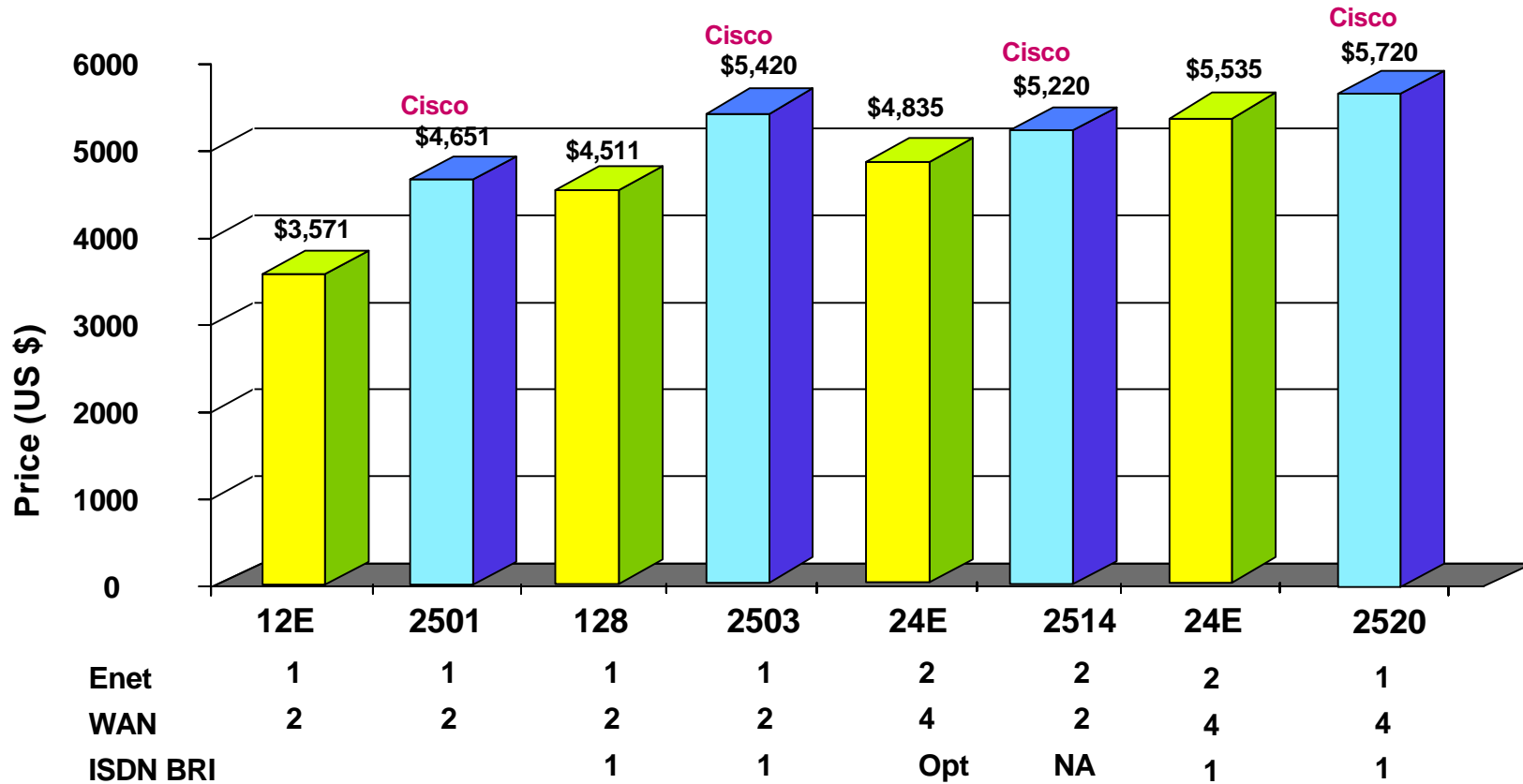
**IBM**



**Cisco**

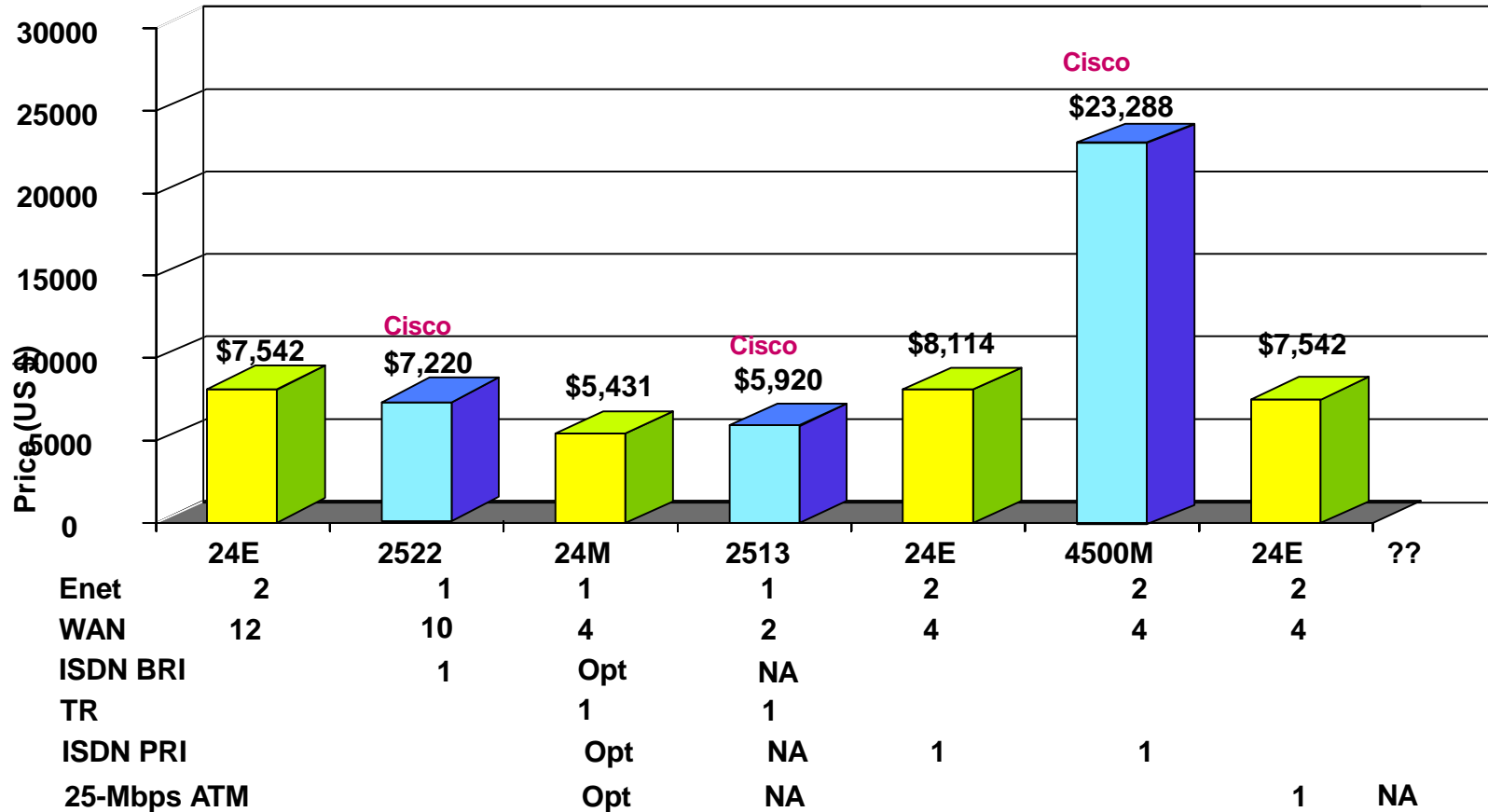
Sources: IDC 1996 Forecast  
Dell'Oro Group

# Branch & Regional Office Comparison



List prices include additional 4MB DRAM (IBM) and 4 MB flash (cisco); Base+Additional (2210), Desktop (cisco); 3 years maintenance allowing for warranty. CISCO prices as of 2/1997.

## Branch & Regional Office Comparison .....

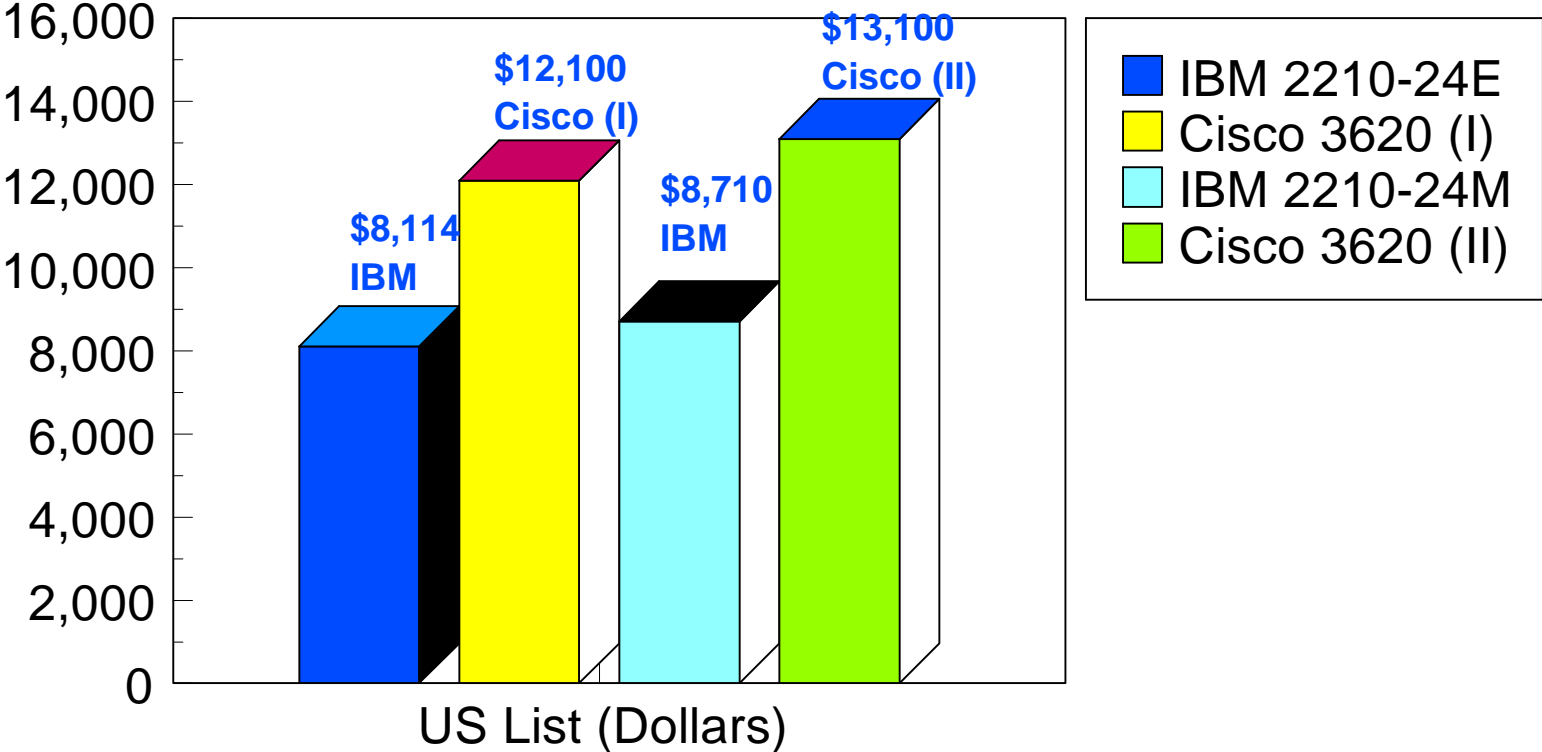


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# Price comparison of IBM 2210 vs Cisco 3600

US List Price ( Dollars )



WAN	4	2	4	2
Enet	2	2	1	1
TR			1	1
ISDN PRI	1	1	1	1

Note : Prices include 3 Year maintenance; Cisco prices as of February 1997

## Small Office Comparison

Model	761	762	2210 1U4 1S4	2210 1U8 1S8	1005	1601	1603	1604	1003	2503I	2501LF	1004
Enet	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
WAN	-	-	Y	Y	Y	Y	Opt	Opt	-	-	Y (2)	-
ISDN BRI	Y	Y	Y	Y	-	Opt	Y	Y	Y	Y	-	Y
NT1	-	Y	Y(U)	Y(U)	-	Opt	-	Y	-	-	-	Y
IP,IPX, SNA DLSw,	-	-	Y	Y	-	-	-	-	-	-	Y	-
IP, IPX, Bridge	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
X.25	-	-	Y	Y	Y	Y	Y	Y	-	-	-	-
FR	-	-	Y	Y	Y	Y	Y	Y	-	-	Y	-
PPP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Price (US \$)		\$1,197		\$2,090	\$2,176		\$2,376		\$2,745			\$2,839
	\$1,147		\$1,690	\$2,139		\$2,176		\$2,639		\$2,814		

List prices include 3 years maintenance allowing for warranty. CISCO prices as of 2/1997

## Best price / performance

### *Money-saving features*

- **Bandwidth management lowers connection cost**
- **Installation/configuration tools reduce staffing**
- **Includes functions that others charge for**
  - **Advanced APPN/HPR software included**
  - **Saves \$1,900 compared with Cisco 2500**
- **One-year warranty, not 3 months**

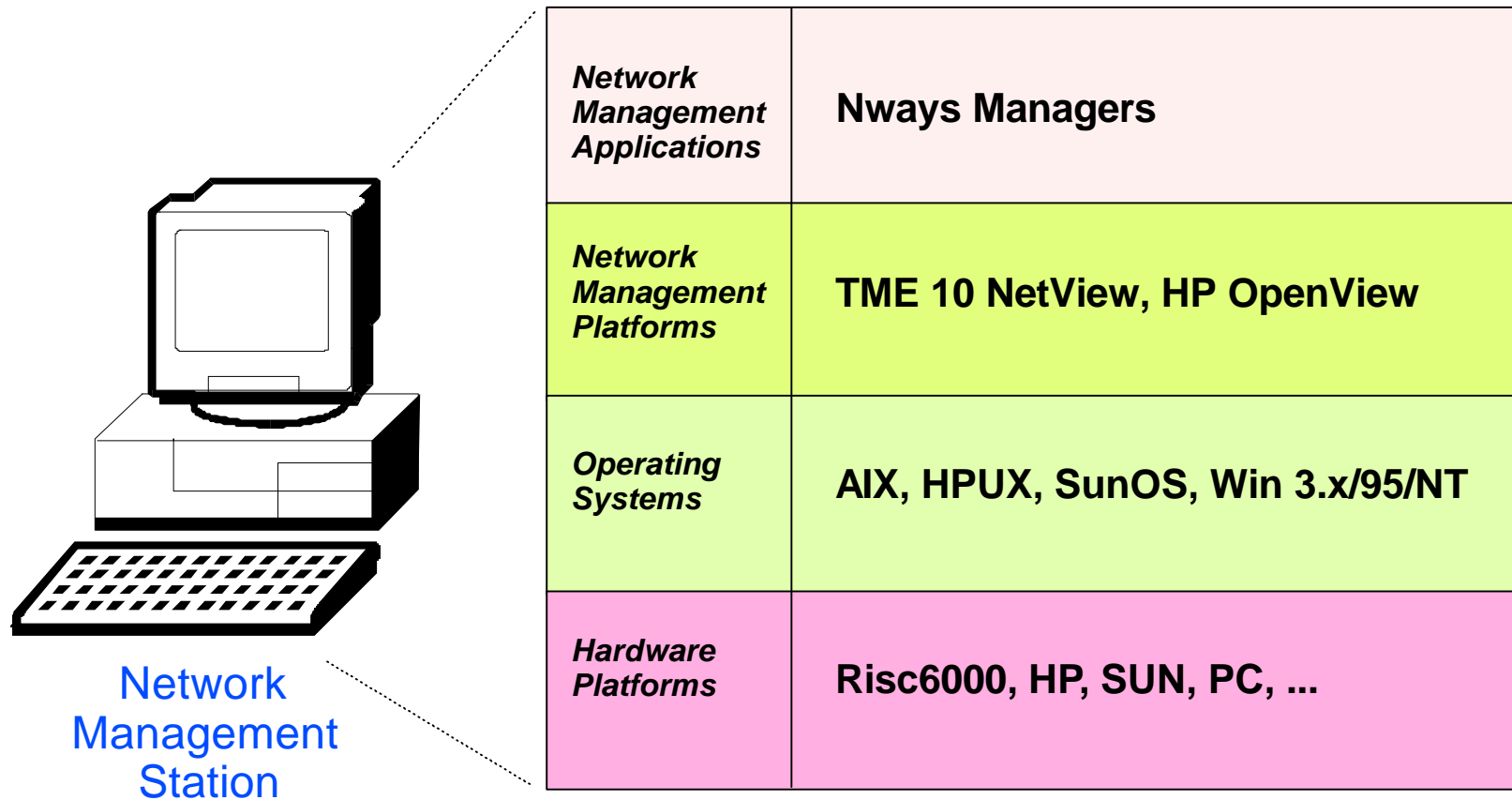
*“Future-proof” models preserve customer investment*

*No release-to-release price increases*

*Aggressive pricing for full-function solution*

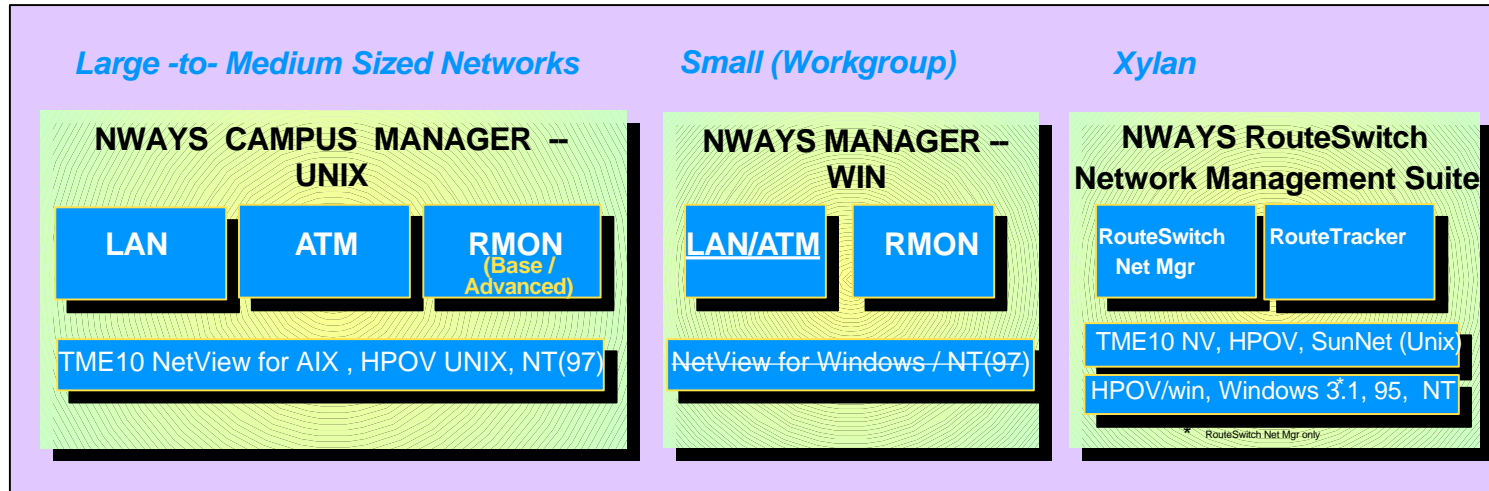
- **Attractive price--entry through high-end**

# Nways Manager Product Positioning

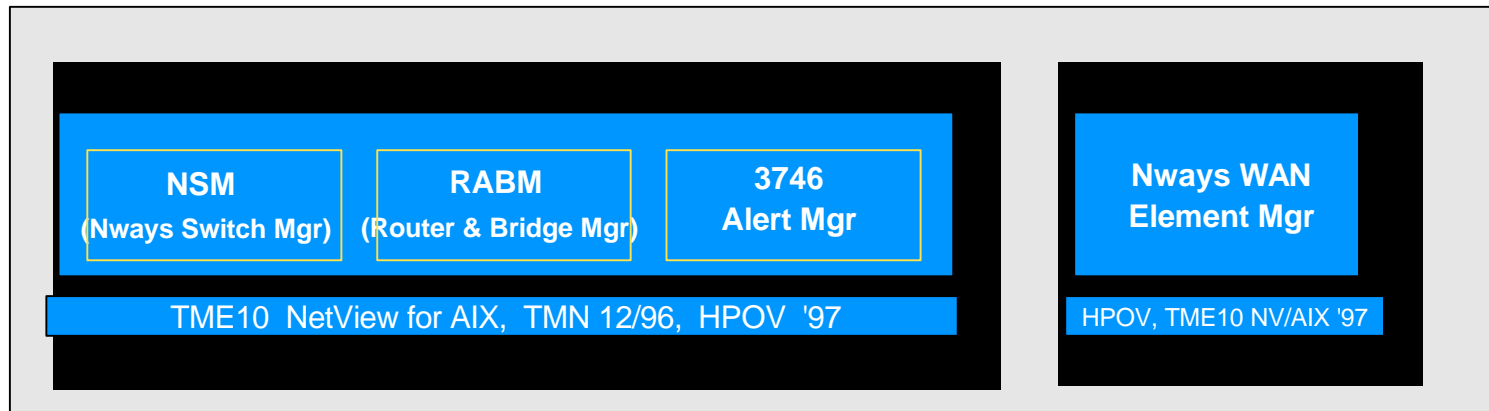


# Network Management Products

CAMPUS

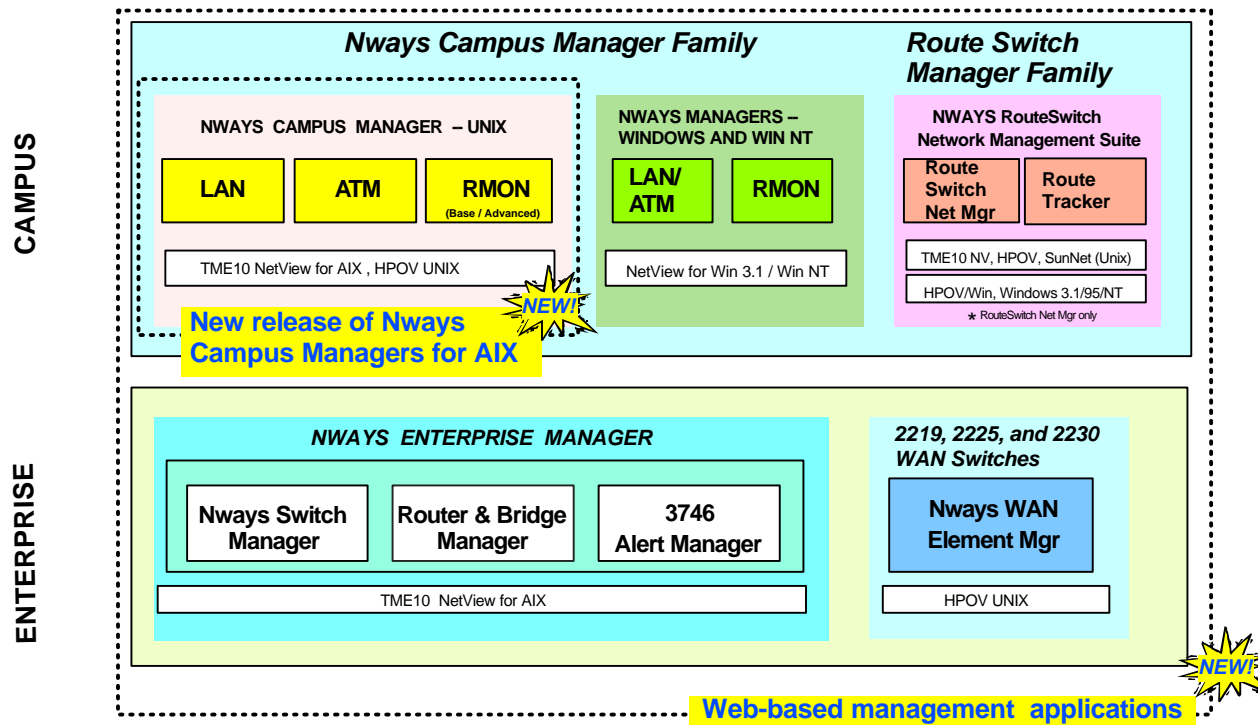


ENTERPRISE

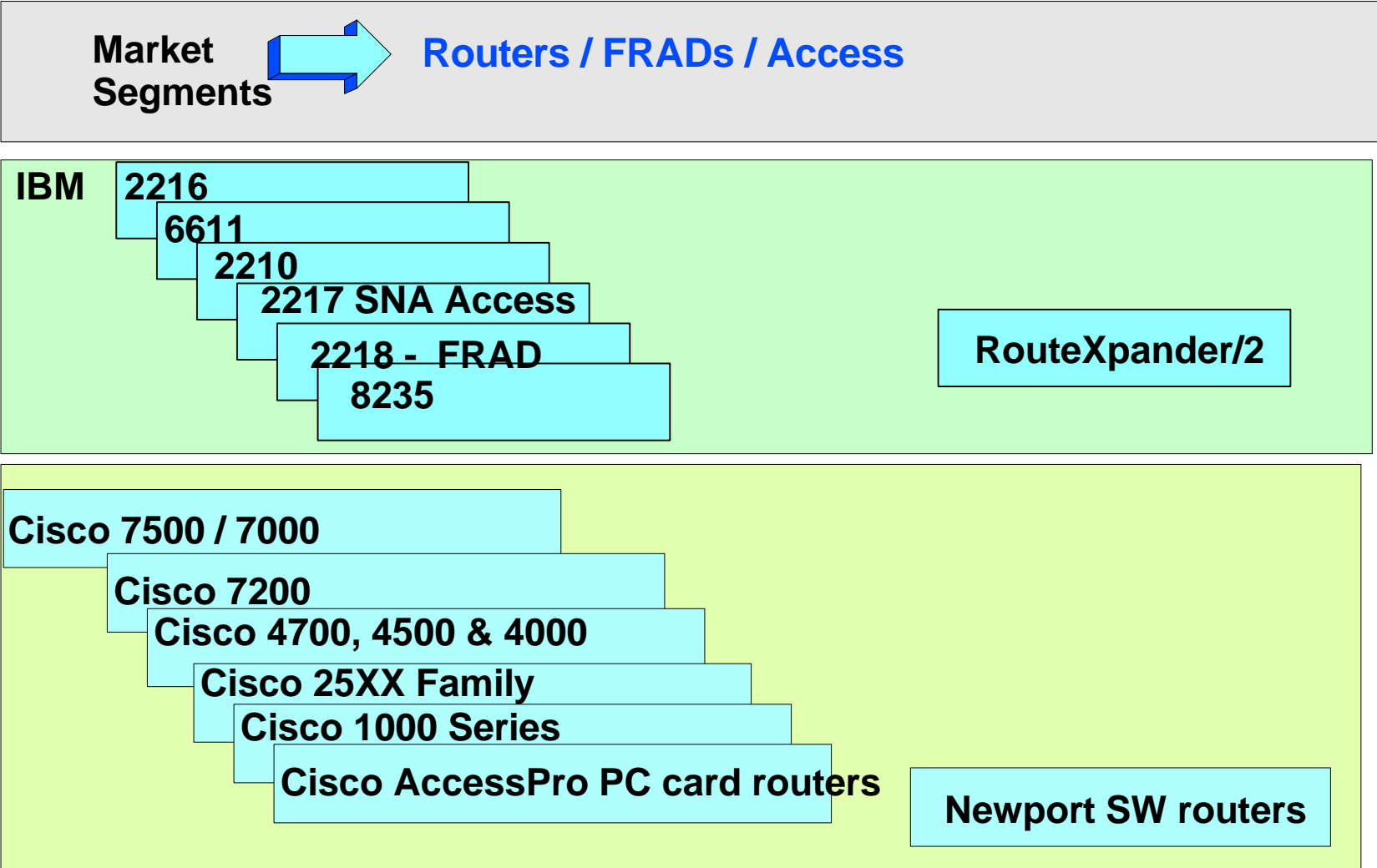


# Nways Manager Previews

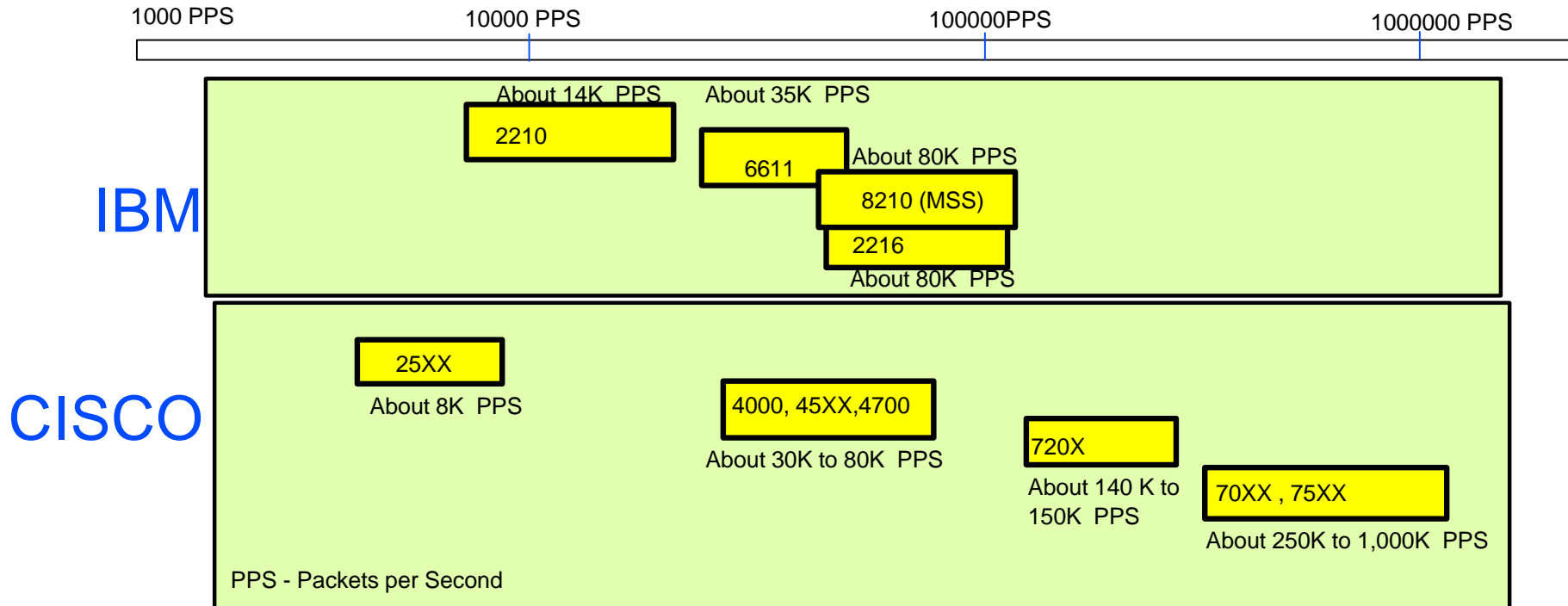
- Advanced traffic monitoring will let you make decisions based on a total view of the network and applications
- Web-based management will turn every authorized browser into a management console



# Product / Market Coverage - Core & Access



# Market positioning of Cisco & IBM router products



## Key Observations:

- ➔ In general, PPS comparisons are of little value real customer networks
- ➔ These are simplistic measurements of box throughput and when network services like filtering, encryption ... ( required in most networks), these numbers drop considerably.
- ➔ With the networking industry trending towards a switching infrastructure for high performance requirements, the need for large routers is extensively diminished
- ➔ IBM can provide very effective routing and switching solutions for most of our Customer needs with our switching products and award winning Multi-protocol Switched Services (MSS)



# Solutions to meet customer networking requirements

