

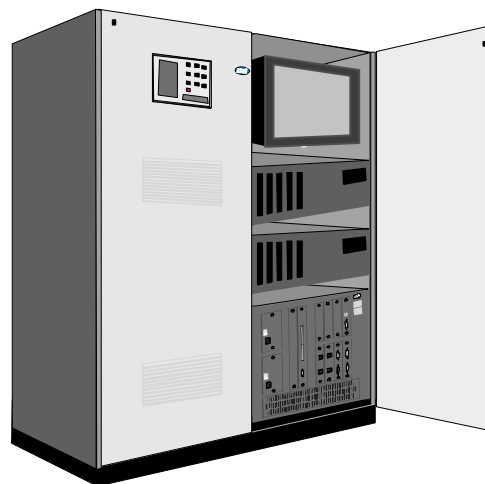
IBM 3746 Nways Multiprotocol Controllers Models 900 and 950

December 2, 1997
Announcement
(Revision 1)



Link your Servers and Critical Applications to your Network

December 2nd 1997 Announcement



**3746
Multiaccess
Enclosure**

06/12/98

- **Multiaccess Enclosure Enhancements**

- **Token-Ring or Direct attach configurations**

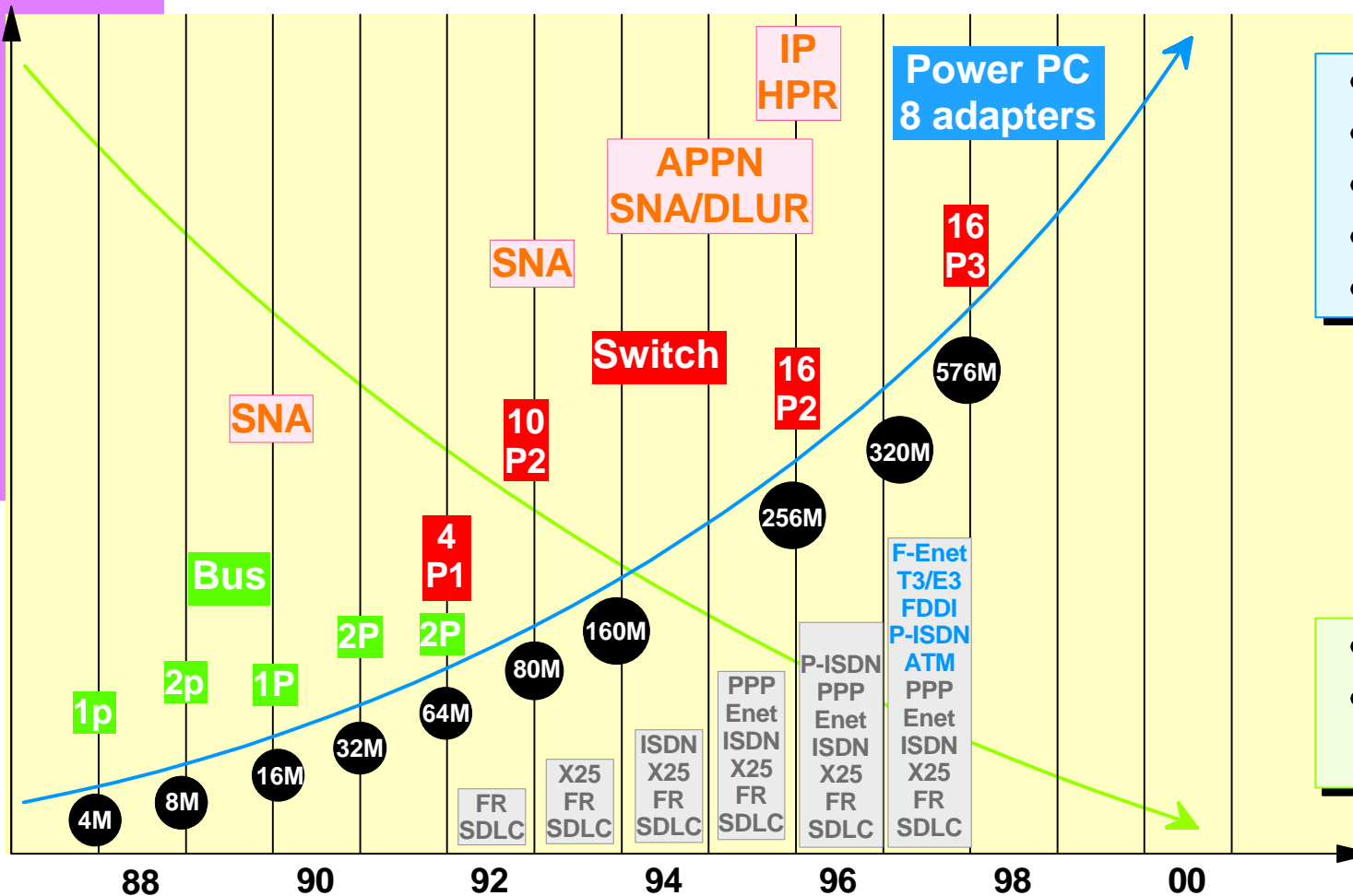
- **FDDI**
- **Ethernet 10/100 Mbps**
- **HSSI T3/E3 speed**
- **Channelized/Fractional T1/E1**
- **Enterprise Extender**
- **IP and UDP over MPC+**
- **TN3270e Server**

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- **Microcode/Documentation**

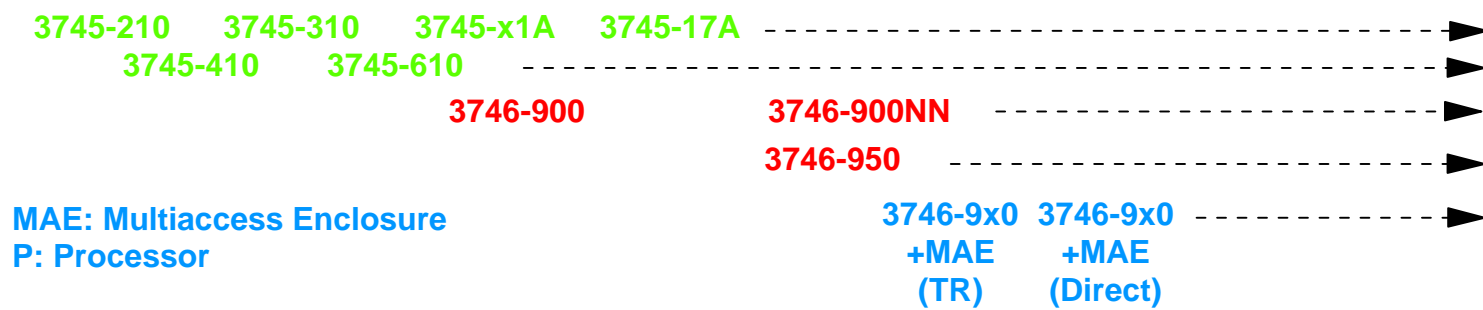
- **CD-ROM Delivery**

IBM 3745/3746 - Product Line Evolution



- Mips
- Memory
- Protocols
- DLCs sharing
- Connectivity

- Price/Port
- Configuration/Complexity



MAE: Multiaccess Enclosure
P: Processor

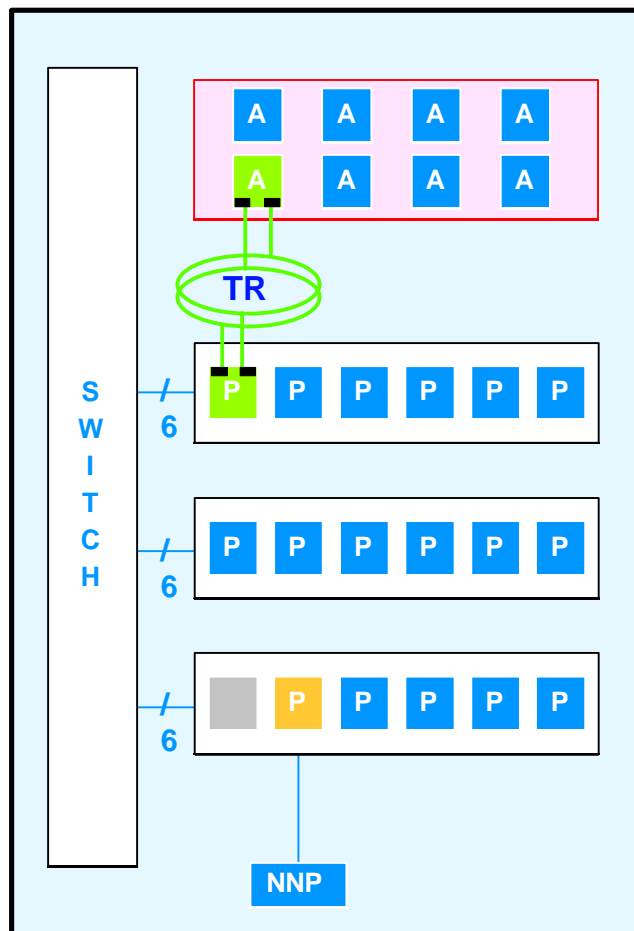
IBM 3746 Multiaccess Enclosure



Available

3746-9x0

Multiaccess Enclosure



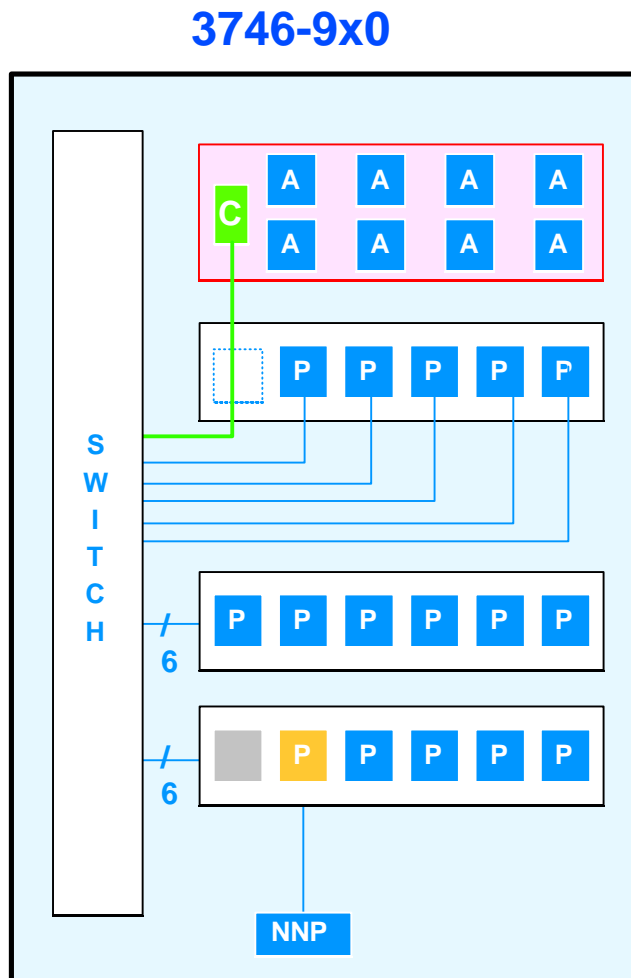
- First implementation is Token-Ring connected inside the 3746
 - No charge upgrade to future integrated platform
- Multiaccess Enclosure Feature #3000
 - Similar to 2216 base (Power PC, 8 PCI Adapters slots)
 - 7 slots for user traffic
 - 1 slot for internal Token-Ring connection
 - Includes Licensed Internal Code (IP, APPN/HPR..)
- IP Resources
 - Owned by MAE IP Control Point

IBM 3746 Multiaccess Enclosure

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Multiaccess Enclosure



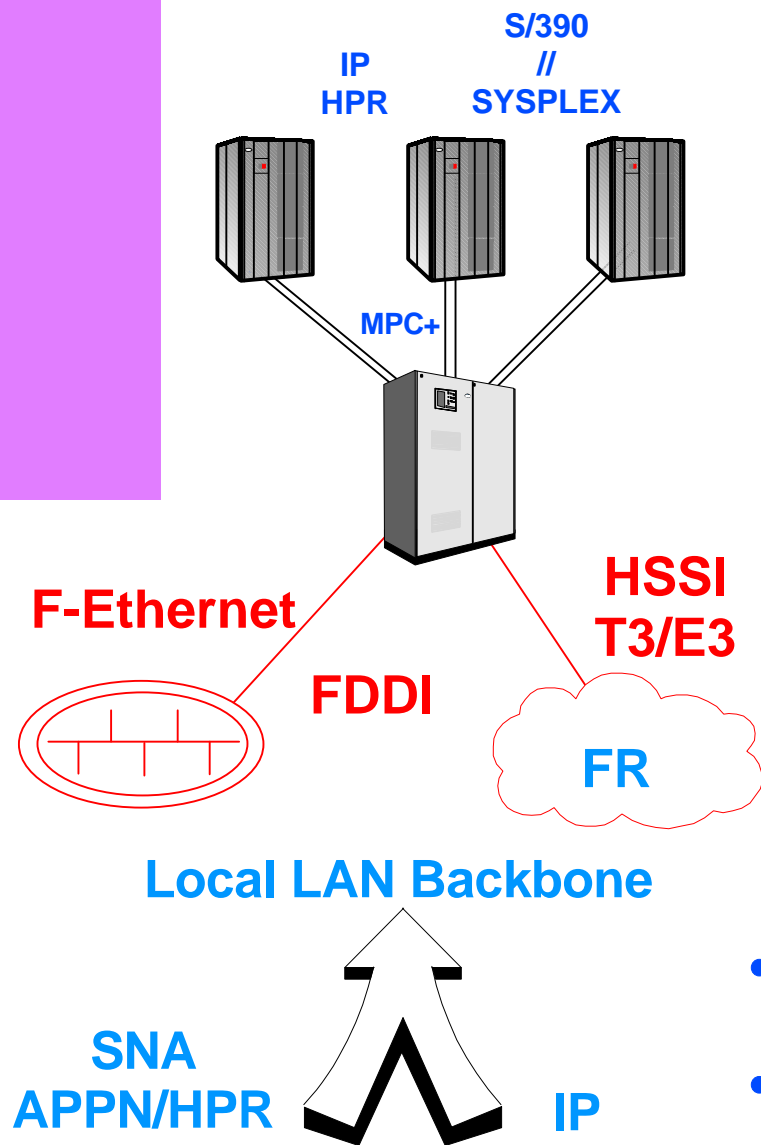
The Highway for High Speed Server Access

- **Hardware integration with 3746 connectivity switch (6/12/98) #3001**
 - IP support only in June
 - No charge upgrade from current implementation
 - Total of up to 23 integrated adapters
 - ★ 8 MAE adapters
 - ★ 15 3746 processors
- **IP resources**
 - Owned by 3746 IP Control Point
- **Integrated MAE management**
 - Configured from Service Processor
 - Single Router IP image
 - MAE maintained from Service Processor
- **PowerPC resources in MAE optimized for integrated 3746 performance**

IBM 3746 - New High Speed Adapters

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• New Connectivity Options

– 1 port FDDI multimode adapter

- High bandwidth access to campus backbones
- 100Mbps
- Either Dual Attach Station (DAS) or Single Attach Station (SAS) operation
- Multimode Fiber
- Hardware-based transparent bridge filtering
- Maximum 8 adapters per MAE *

– 1 port 10/100 Ethernet adapter

- High bandwidth access to campus backbones
- Operates at 10Mbps or 100Mbps or auto-negotiation
- Hardware-based transparent bridge filtering
- Maximum 8 adapters per MAE *

– 1 port High Speed Serial Interface (HSSI) adapter

- T3/E3 connectivity between sites, or consolidation of frame relay connections
- Speeds from 1.544Mbps up to 52Mbps
- DTE interface for network applications (connects to HSSI DCE)
- Maximum 8 adapters per MAE *

• Data Center interconnection, WAN consolidation and high speed LAN access

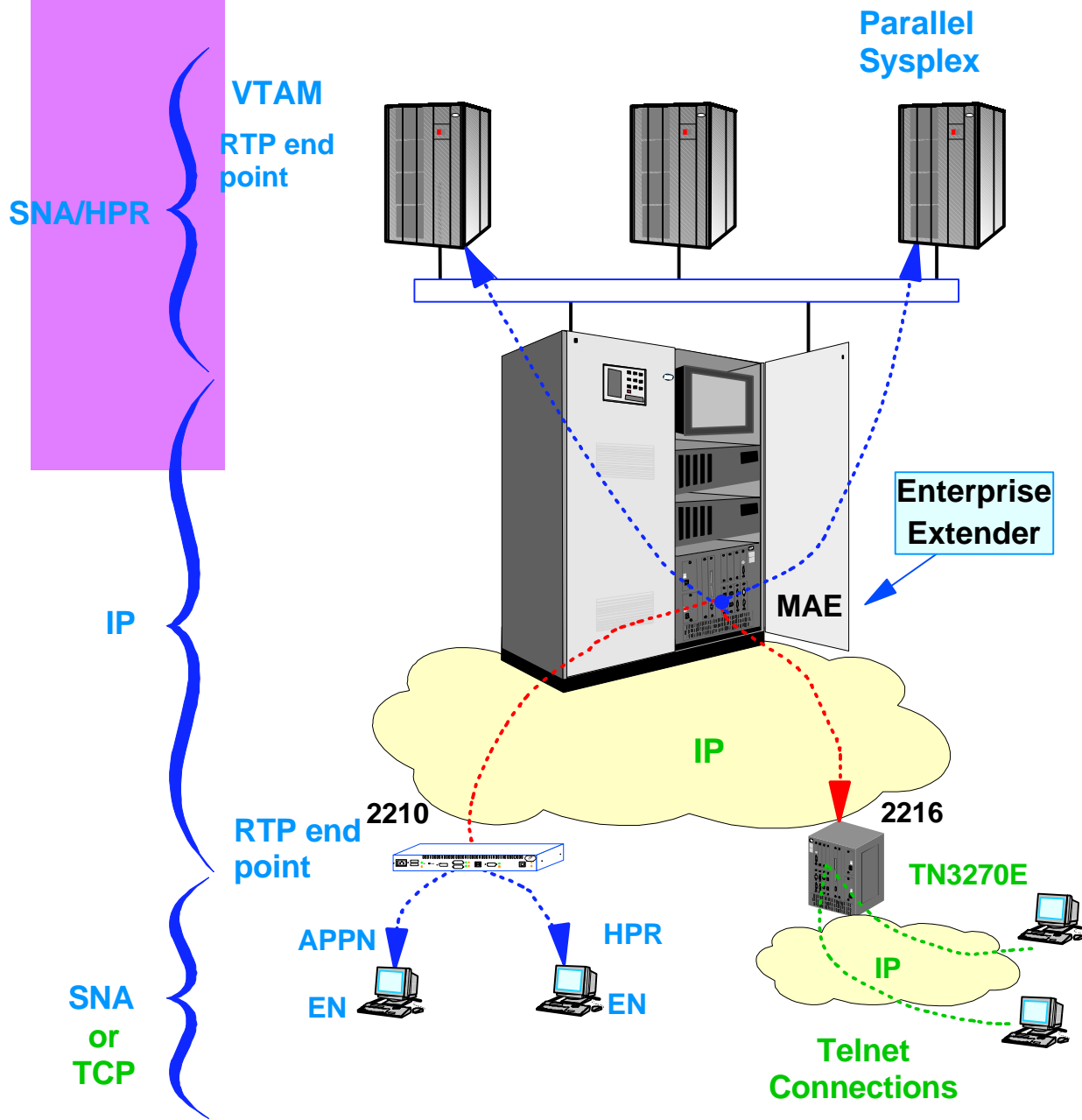
• Prerequisites:

- MAE #3000 or # 3001
- Extended Function #5805

* May configure with multiple adapters, but may not achieve full media throughput concurrently on all adapters

IBM 3746 - Enterprise Extender

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• Benefits of APPN/HPR over IP Network

- Non disruptive session rerouting in case of failure
- High performance congestion control mechanism
- Priority queuing using SNA COS
 - Priority mapped into UDP port

• Configurations

- SNA capable workstations
- Distributed TN3270e servers

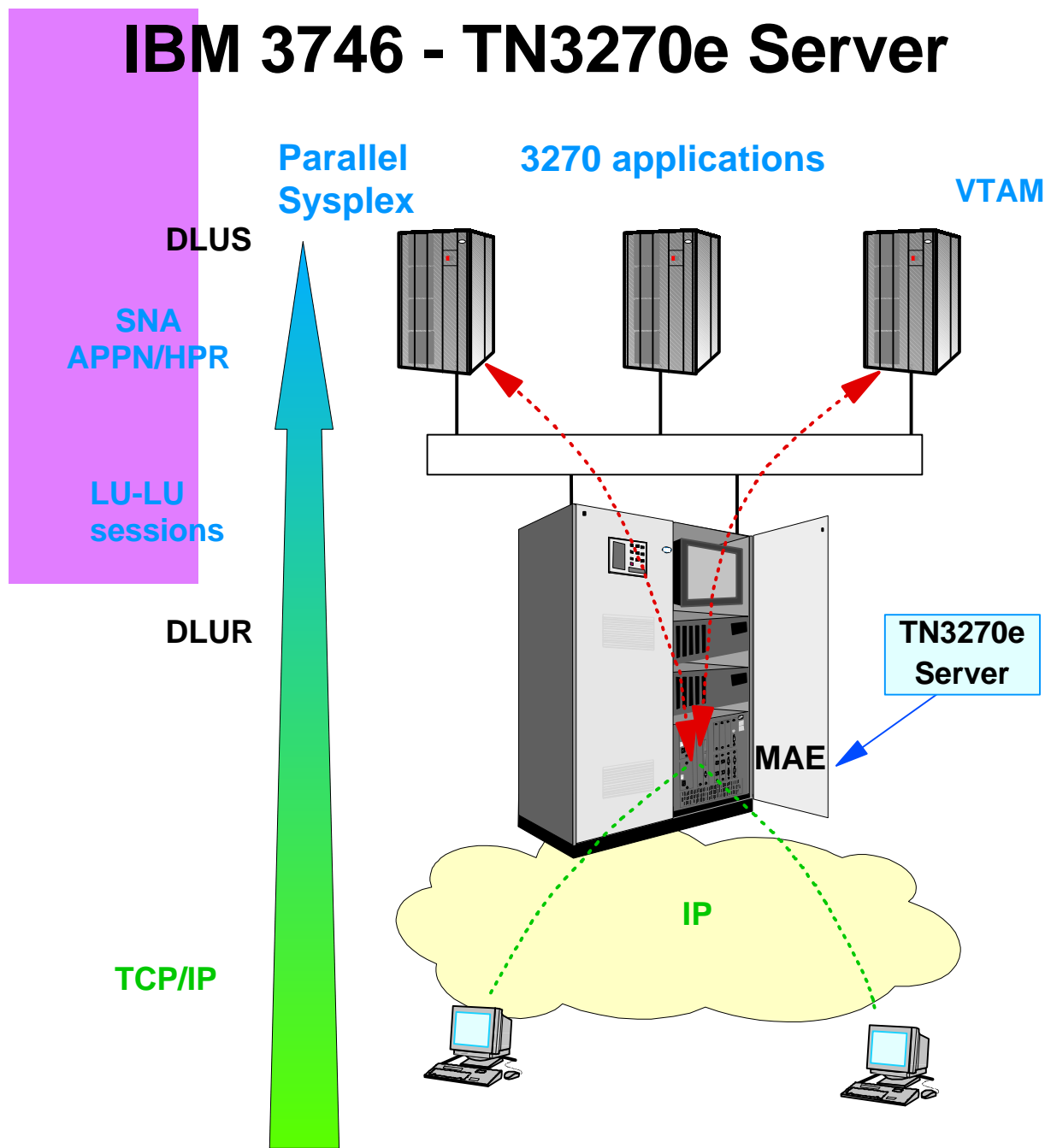
• Prerequisites:

- MAE #3000 or # 3001
- NNP + IP Routing
- Extended Function 2 #5805

IBM 3746 - TN3270e Server

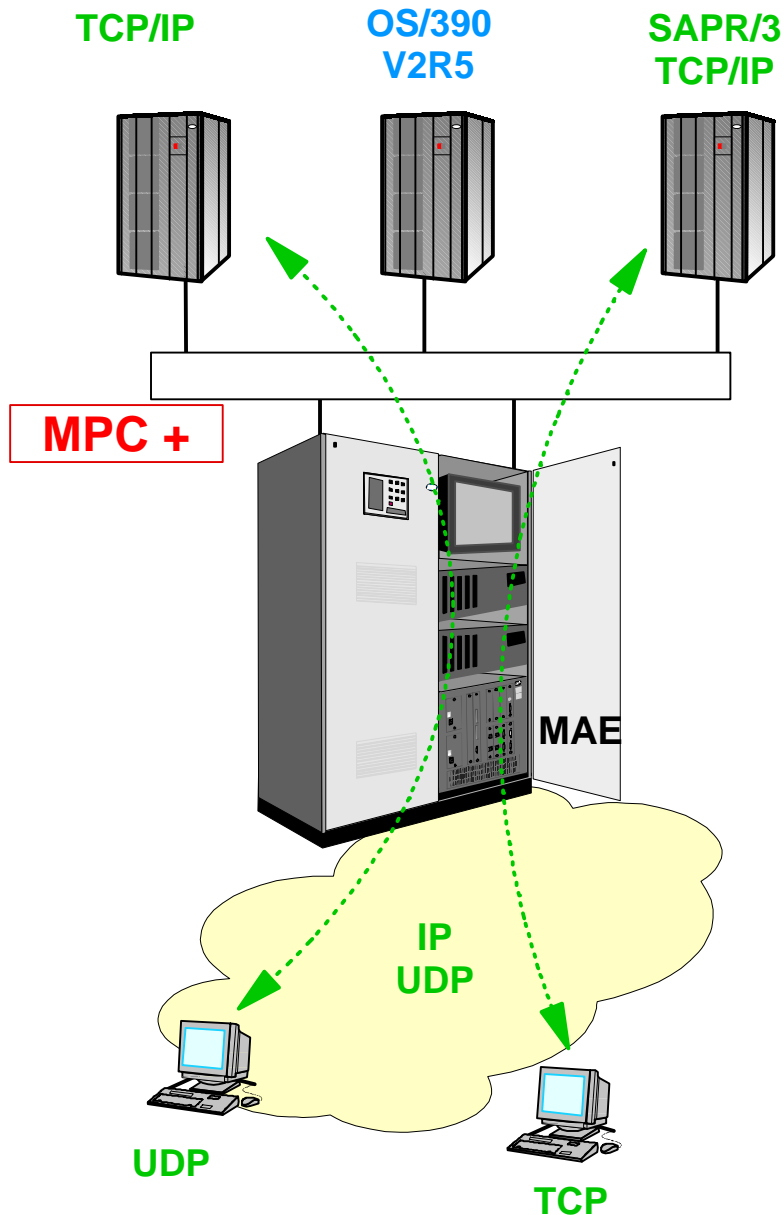


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- APPN/HPR benefits from TN3270e Server up to the application
- Support RFC 1576, 1646, 1647
- DLUR/APPN used for upstream session
- Server access over ESCON, ATM, LAN
- Prerequisites:
 - MAE #3000 or #3001
 - NNP + IP Routing
 - TN3270e Server #5806
 - VTAM V4R2 or higher for DLUS

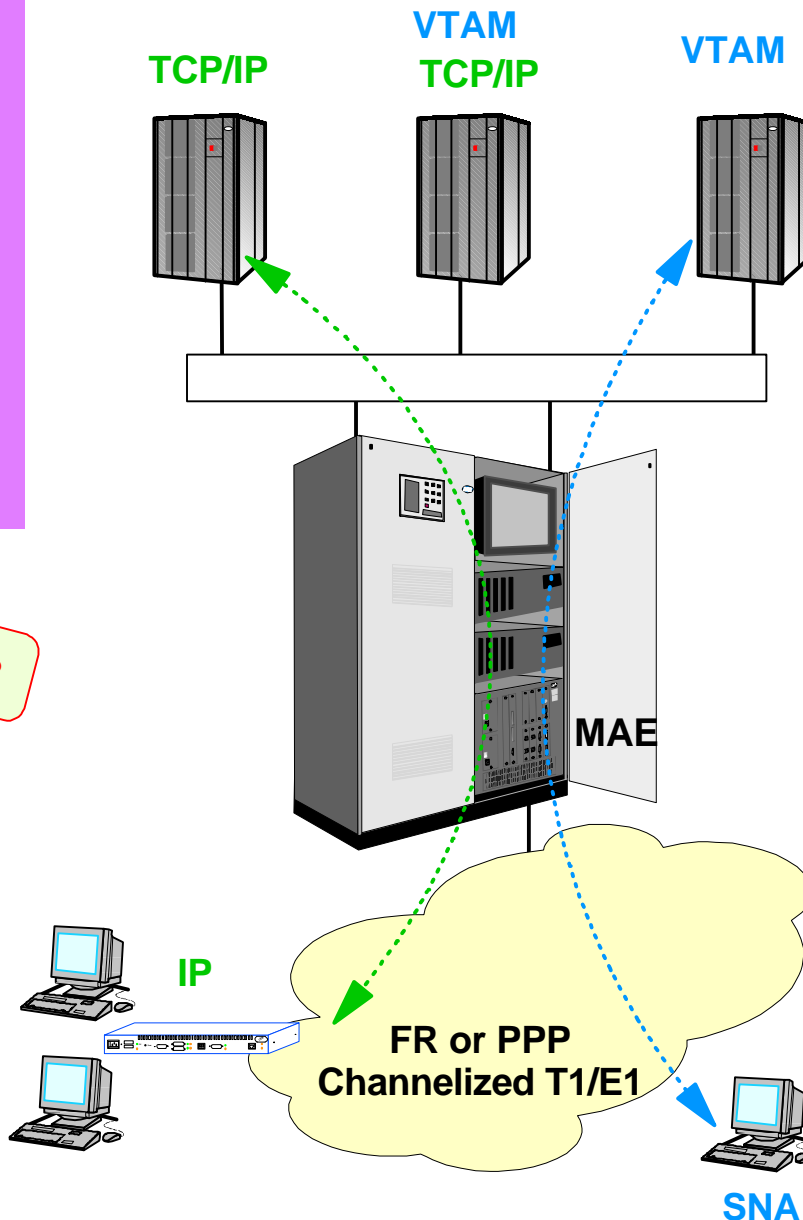
IBM 3746 - ESCON Protocols



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- **MPC+ support for UDP and IP**
 - Reduce S/390 cycles
 - More efficient transfer of data
- **HPDT support for UDP and TCP**
 - SAP R/3 applications
 - NFS, DCE UNIX applications
- **Prerequisites:**
 - MAE #3000 or #3001
 - OS/390 R5 (plus PTF for R4)
 - Extended Function 2 #5805

IBM 3746 - Channelized/Fractional T1/E1



• Channelized/Fractional T1/E1

– Uses ISDN adapters

- T1/J1:24 x 64 Kbps (LIC 283)
- E1:31 x 64 Kbps (LIC 292)

– Frame Relay and/or PPP supported

– One or more 56Kbps or 64Kbps channels per physical interface (up to max of 24 or 31)

– Channels may be bundled for higher bandwidth circuits (e.g. 6 channels providing a 384Kbps circuit)

– Can use for primary or alternate interface with WAN Reroute (but not WAN Restoral)

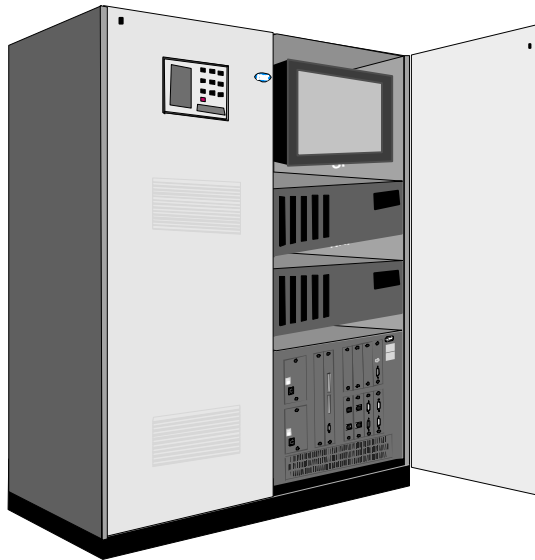
• Prerequisites:

- MAE #3000 or #3001
- Extended Function 2 #5805
- LIC 283 #3283 or LIC292 #3292

IBM 3746 - CD-ROM Requirements



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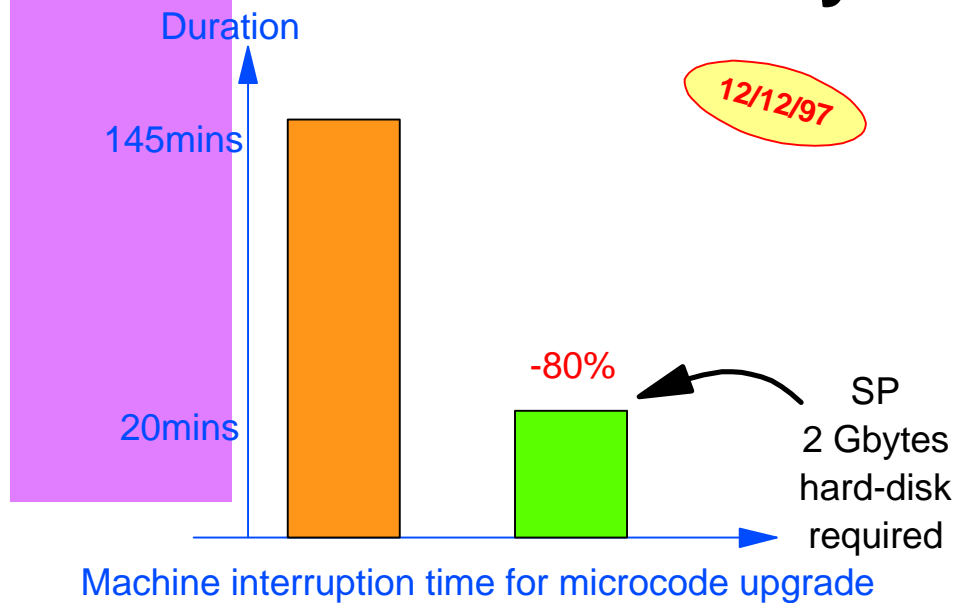
- **Microcode Delivery**
 - All new functions available after 12/12/97 will be shipped on CD-ROM only. Eg
 - #5805 (Enterprise Extender, high speed adapter support)
 - #5806 (TN3270e server)
 - #5804 (Network Dispatcher, RIP V2)
- **Prerequisites**
 - Either Service Processor Type 2 #5052
 - Or Service Processor Type 1 #5021 with appropriate upgrades
 - CD-ROM #5051
 - 64MB memory expansion #5028
 - 2GB hard disk #5026 (for SP Type 9585)

All microcode and publications will now be shipped on CD-ROM

3746 - Microcode upgrade Improvements -



Increase availability



- **Increase availability**
 - Reduce machine microcode upgrade time by 80%
 - Machine interruption equal to a general IML
 - Reduce maintenance window requirements
 - Application availability improved
- **Protect your production code level**
 - Upgrade done on non active level
 - Operator switching control
 - Easy switch back
- **Improve machine time efficiency**
 - Unused machine time can be used for testing
 - New level of code
 - New function
 - Production level not impacted
- **Prerequisites**
 - CD-ROM, 96MB storage and 2GB hard disk
 - SP #5052 (or SP #5021 with upgrades)

