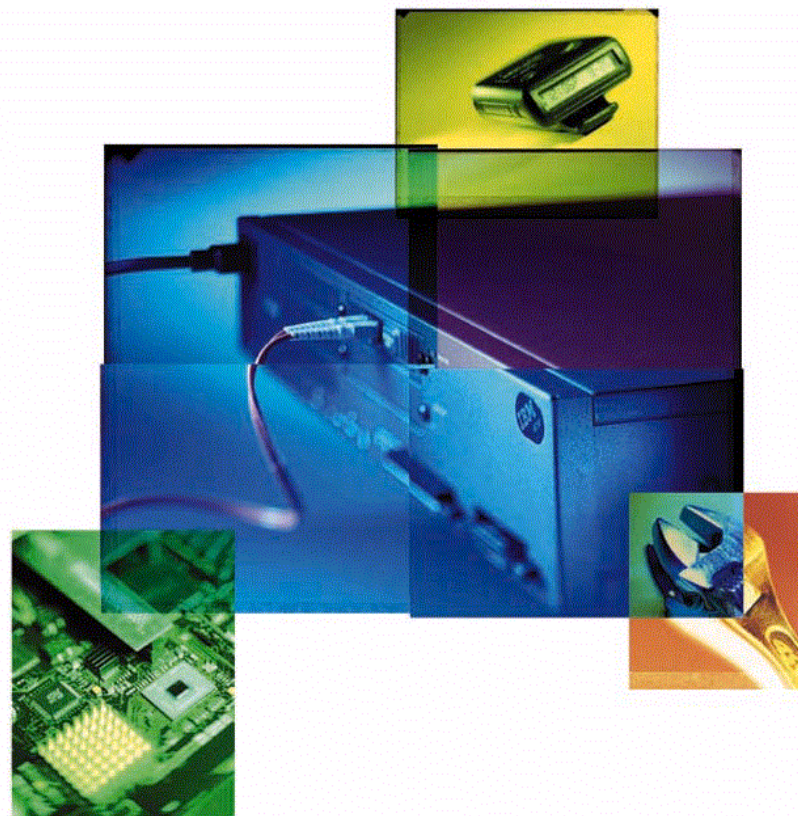


# IBM 3745 IBM 3746 Expansion Unit Model 900

September 9, 1997  
(Revision 3)



## NCP V7R5 Support

# NCP V7R5 - June 25, 1996 Announcements



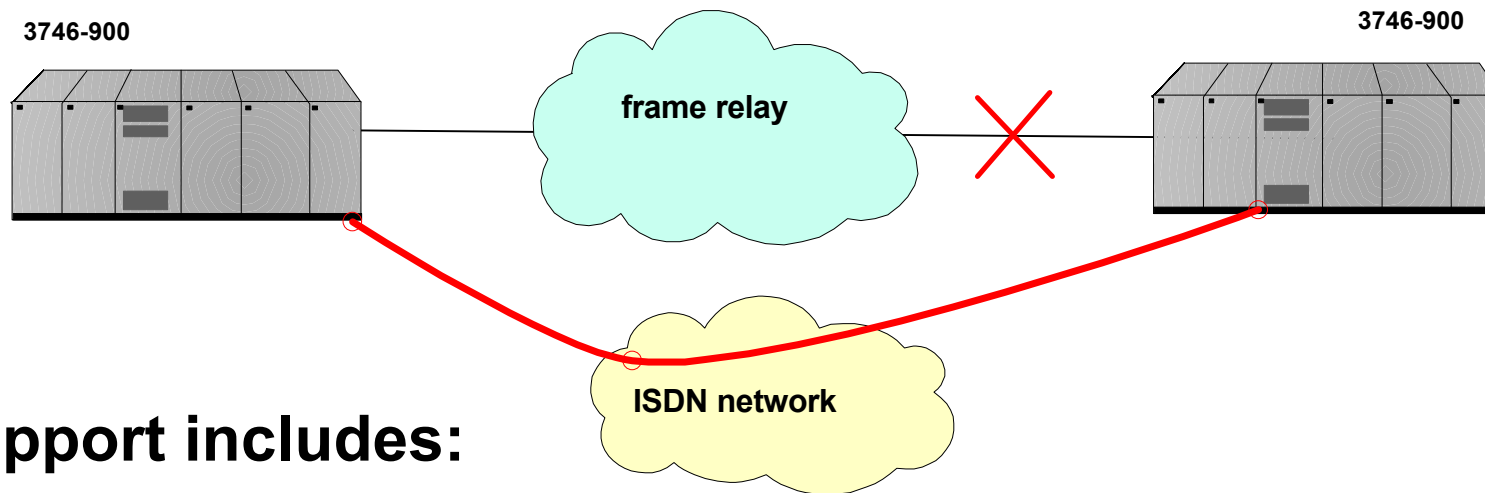
- **ACF/NCP Version 7 Release 5**
  - MVS, VM, VSE
- **ACF/SSP Version 4 Release 5**
  - MVS, VM, VSE
- **NTuneMON Version 2 Release 3**
  - MVS, VM

# NCP V7R5 - Currencies



- SSP V4R5
- NRF V1R9
- NPSI V3R8
- X.21 SH/MPS V2R3.1
- NTuneMON V2R3
- XI V2R4.2
- EP V1R12
- ALCI Feature
- NTO V1R10

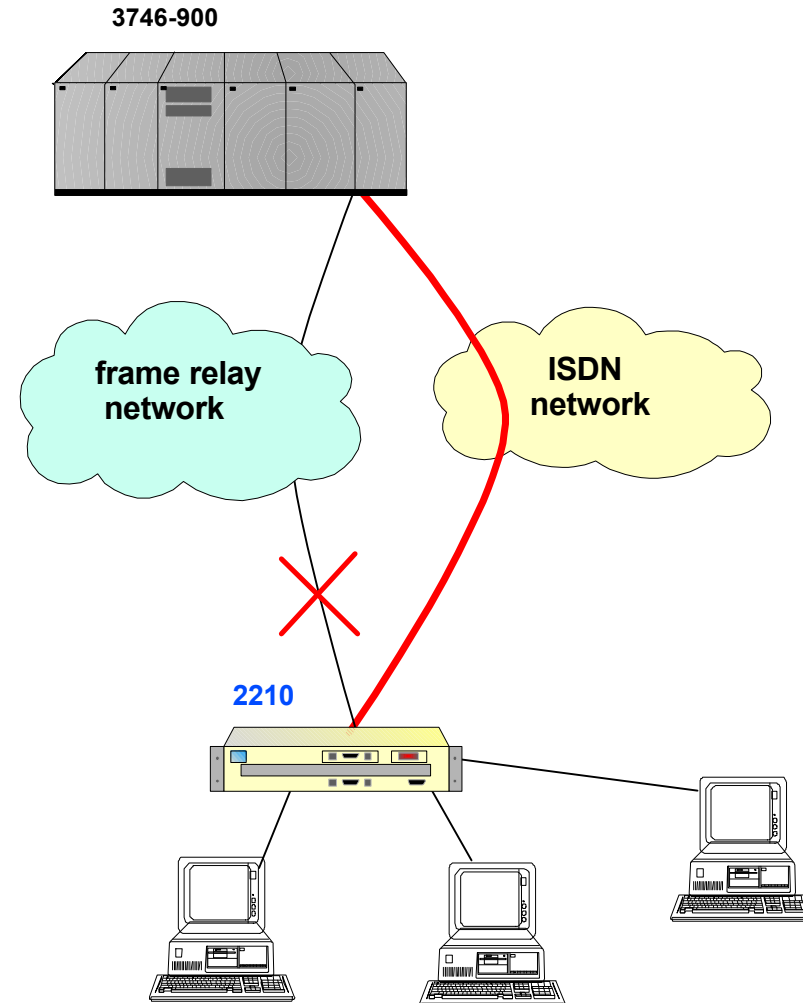
# Primary Rate Interface ISDN Adapter for the 3746-900 (1/2)



## ISDN Support includes:

- Euro-ISDN conformance
- E1 speed capabilities
  - 30 64kbs B-channels
  - 1 64kbs D-channel
- Dial on Demand
  - switched back-up for SNA connections
  - additional bandwidth with MLTGs

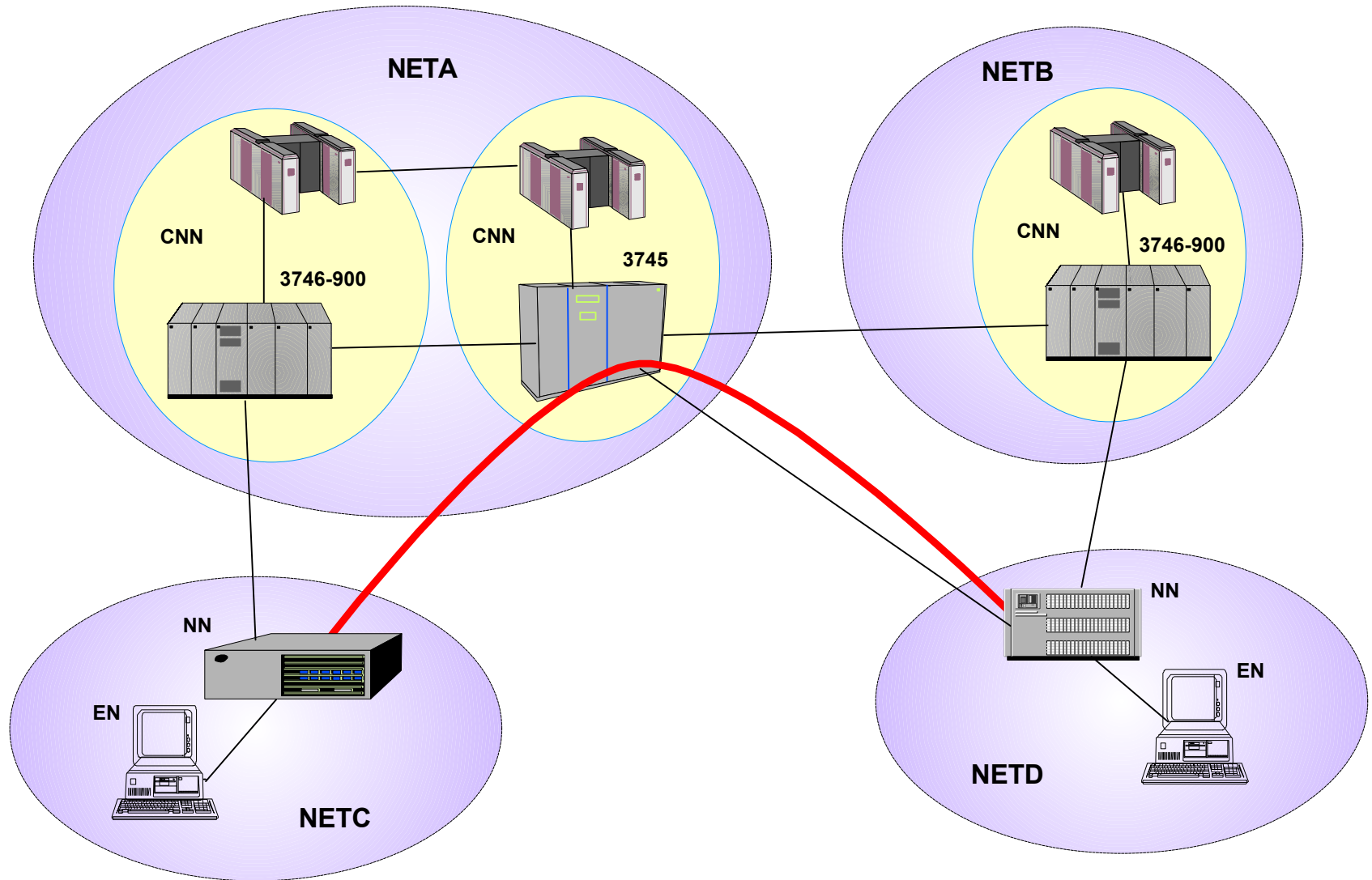
# Primary Rate Interface ISDN Adapter for the 3746-900 (2/2)



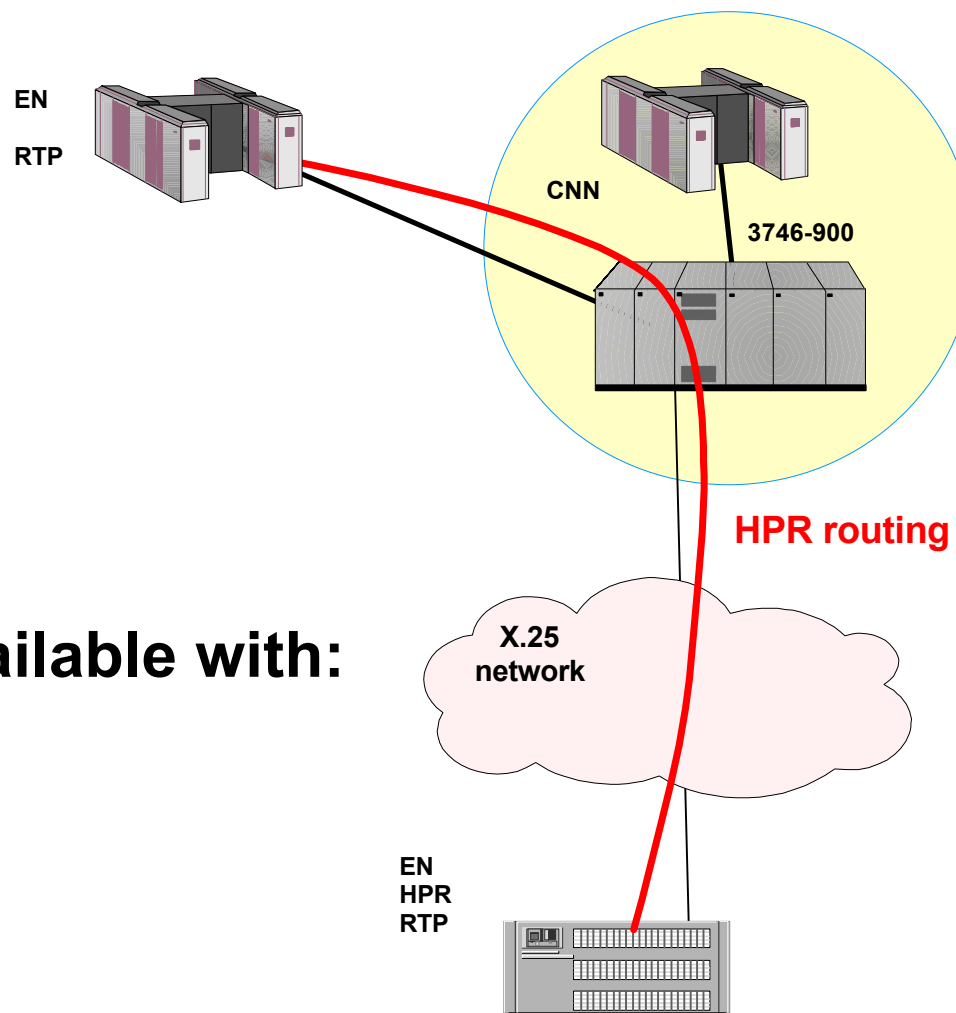
## ISDN Support includes:

- Euro-ISDN conformance
- E1 speed capabilities
  - 30 64kbs B-channels
  - 1 64kbs D-channel
- WAN Reroute
  - switched back-up for SNA connections

# APPN HPR over Internet Boundary Links



# APPN HPR over X.25 ODLC Function of 3746-900



## X.25 ODLC function available with:

- NCP V7R4 and V7R5
- No NPSI release required

# Additional NCP V7R5 Enhancements (1/3)



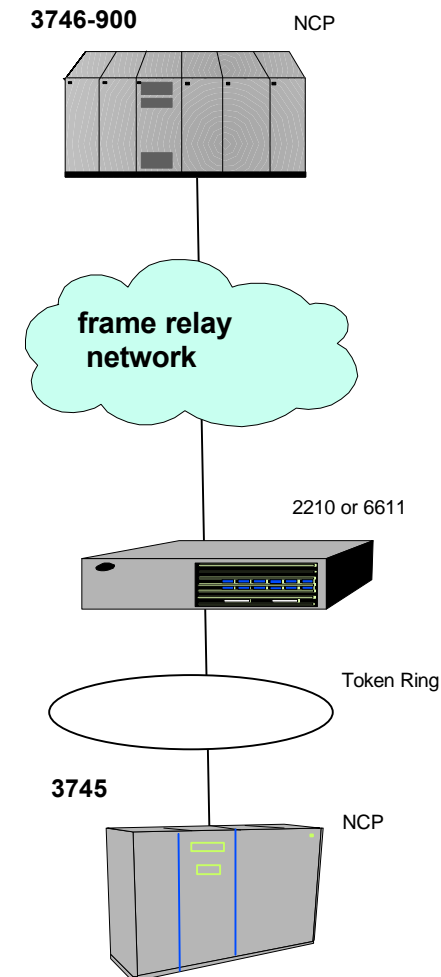
- **Duplicate addressing for Token ring Interface Couplers (TICs)**
  - Frame Relay Frame Handler (FRFH) logical line connectivity (TIC1, TIC2)
  - Subarea connectivity (TIC1, TIC2, TIC3)
  
- **'Hot Standby' support for MLTGs**
  - Ability to define a congestion threshold value for a standby station  
(Transmits data over this station if the transmission group is congested)
  - Runs simultaneously with other active stations
  - Avoids or alleviates congestion conditions



# Additional NCP V7R5 Enhancements (2/3)



- Frame Relay Boundary Access Node (BAN) for subarea links
  - Allows 3746-900 FR connections to a remote token-ring attached subarea through a BAN router
  - Supports Subarea (PU4) connections
  - Additional connection capabilities through 6611 and 2210
- Frame Relay Inoperative 'error count' management upgrades
  - Allows a configurable 'error count' parameter enabling greater network control
  - Allows user to configure the allowed number of consecutive errors before link is made inoperative



## Enhanced dynamic windowing algorithm for 3745 frame relay lines

- Avoids or alleviates network congestion
  - Implements a variable time delay between I-frames when network congestion exists
  - New configuration parameter is available
  
- Prevents over-reaction to mild congestion
  - Ignores subsequent BECNs for 100ms after initial BECN is received
  - New configuration parameter is available

# March 11, 1997 Announcements



- **NCP Service Level Updates (SUP) Enhancement**

- New Usage Tier Options for 3746 Model 900 Configurations
- Native IP channel backup configuration
- HPR flow control enhancements
- Additional ISDN support
- NCP Previews new release

# NCP V7R5 and SSP V4R5 MVS SUP (1/2)



- **What's a Service Level Update Package (SUP) tape?**
  - Replaces current MVS base product on the shelf
  - Includes all service available since product GA  
(November 1996 thru February 1997)
  - Improves quality of base product
  - Enhances customer's first impression on initial shipment
  
- **Why announce this issue of a SUP?**
  - Less costly than a new release
  - Vehicle for adding new function and enhancements
  - Vehicle to Preview the next release of NCP
  
- **How will you document new functions?**
  - In appendix of product program directory
  - in APAR cover letters

# NCP V7R5 and SSP V4R5 MVS SUP (2/2)



- **How do I order the SUP for MVS?**

- Current NCP V7R5 and SSP V4R5 MVS customers will be sent a program reorder form (PRF)
- New orders will automatically be shipped the SUP tape.

- **How do I order the SUP for VM or VSE?**

- The SUP process is not available for VM or VSE
- These new enhancements are available via MVS, VM and VSE APARs
- See NCP V7R5 (March 1997) announcement letter for VM and VSE apars information

# New Usage Tier Options for 3746-900 Users



<u>Usage Tier</u>	<u>Usage Limits</u>	<u>Previous MLC</u>	<u>New MLC</u>	<u>Savings</u>
1	0 LSS/HSS + 0 TRA/EA + 4 CA	961	415	57%
2	0 LSS/HSS + 0 TRA/EA + 6 CA	1173	620	47%
2.5	0 LSS/HSS + 0 TRA/EA + 8 CA	1173	961	18%
3	0 LSS/HSS + 0 TRA/EA + 16 CA	1796	1173	35%

Corequisites:

- NCP V7R5 Service Level SMC9710 or IR34014
- SSP V4R5 Service Level SMC9710 or IR34012 (MVS) or IR34063 (VM) or IR34064 (VSE)

**Lowers Networking costs**

# Previous Usage Tier Options for 3746-900 Users



<u>Usage Tier</u>	<u>Usage Limits</u>			<u>Current Price/ month</u>
1	1 LSS/HSS	+ 1 TRA/EA	+ 2 CA	415
2	2 LSS/HSS	+ 1 TRA/EA	+ 6 CA	620
2.5	6 LSS/HSS	+ 0 TRA/EA	+ 4 CA	961
	2 LSS/HSS	+ 2 TRA/EA	+ 4 CA	
3	8 LSS/HSS	+ 0 TRA/EA	+ 8 CA	1173
	4 LSS/HSS	+ 4 TRA/EA	+ 8 CA	
4	24 LSS/HSS	+ 0 TRA/EA	+ 16 CA	1796
	20 LSS/HSS	+ 4 TRA/EA	+ 16 CA	
	16 LSS/HSS	+ 8 TRA/EA	+ 16 CA	
5	32 LSS/HSS	+ 0 TRA/EA	+ 16 CA	2072
	28 LSS/HSS	+ 4 TRA/EA	+ 16 CA	
	24 LSS/HSS	+ 8 TRA/EA	+ 16 CA	

  Example customer configuration - follow to next page ---->

# New Usage Tier Options for 3746-900 Users



Customer moves all lines outboard to the 3746-900 and keeps Parallel Channels!

<u>Usage Tier</u>	<u>Usage Limits</u>	<u>Old Price</u>	<u>New Price</u>	<u>Savings</u>
1	0 LSS/HSS + 0 TRA/EA + 4 CA	961	415	57%
2	0 LSS/HSS + 0 TRA/EA + 6 CA	1173	620	47%
2.5	0 LSS/HSS + 0 TRA/EA + 8 CA	1173	961	18%
3	0 LSS/HSS + 0 TRA/EA + 16 CA	1796	1173	35%

Corequisites:

- NCP V7R5 Service Level SMC9710 or IR34014
- SSP V4R5 Service Level SMC9710 or IR34012 (MVS) or IR34063 (VM) or IR34064 (VSE)

**Lowers Networking costs**



# New Minimum Usage Tier value for 3746-900



## Lowered minimum Usage Tier requirement for Models 41A & 61A

- **Operating in Twin Dual or Twin Backup configurations**
  - Minimum Usage Tier requirement has been lowered from 3 to 2
  - Could lower NCP licensing fees as much as 47% per 3745 controller.

**Lowers Networking costs**

**Previous**

Usage Tier 3 = \$ 1173 per month

Usage Tier 2 = \$ 620 per month

### Corequisites:

- NCP V7R5 Service Level SMC9710 or IR34014
- SSP V4R5 Service Level SMC9710 or IR34012 (MVS) or IR34063 (VM) or IR34064 (VSE)

**NOW**

# Sample Configurations (1/2)



Customer "B" has the following configuration:

3745 Model 410 operating in Twin Dual/Backup Mode

Tier 3\*      2 LSS   + 1 TRA   + 2 CA      =   \$1173/month

\*Tier 3 minimum requirement

**OLD**

Customer "B" buys a 3746 Model 900, converts Model 410 to 41A and implements NEW NCP Usage Tier options

3745 Model 41A operating in Twin Dual/Backup Mode

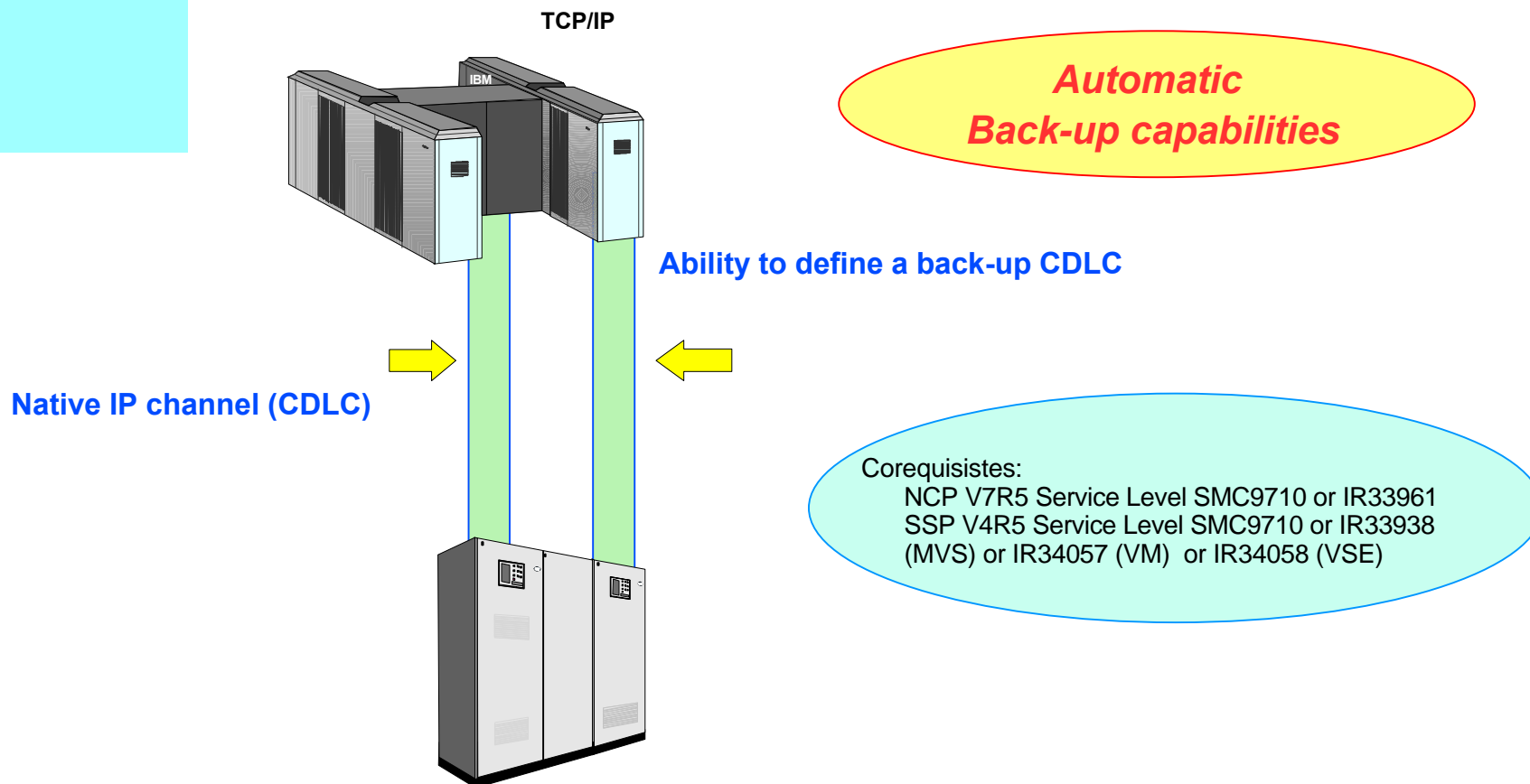
Tier 2\*      2 LSS   + 1 TRA   + 2 CA      =   \$620/month

\*Tier 2 minimum requirement

**NEW**  
47% savings



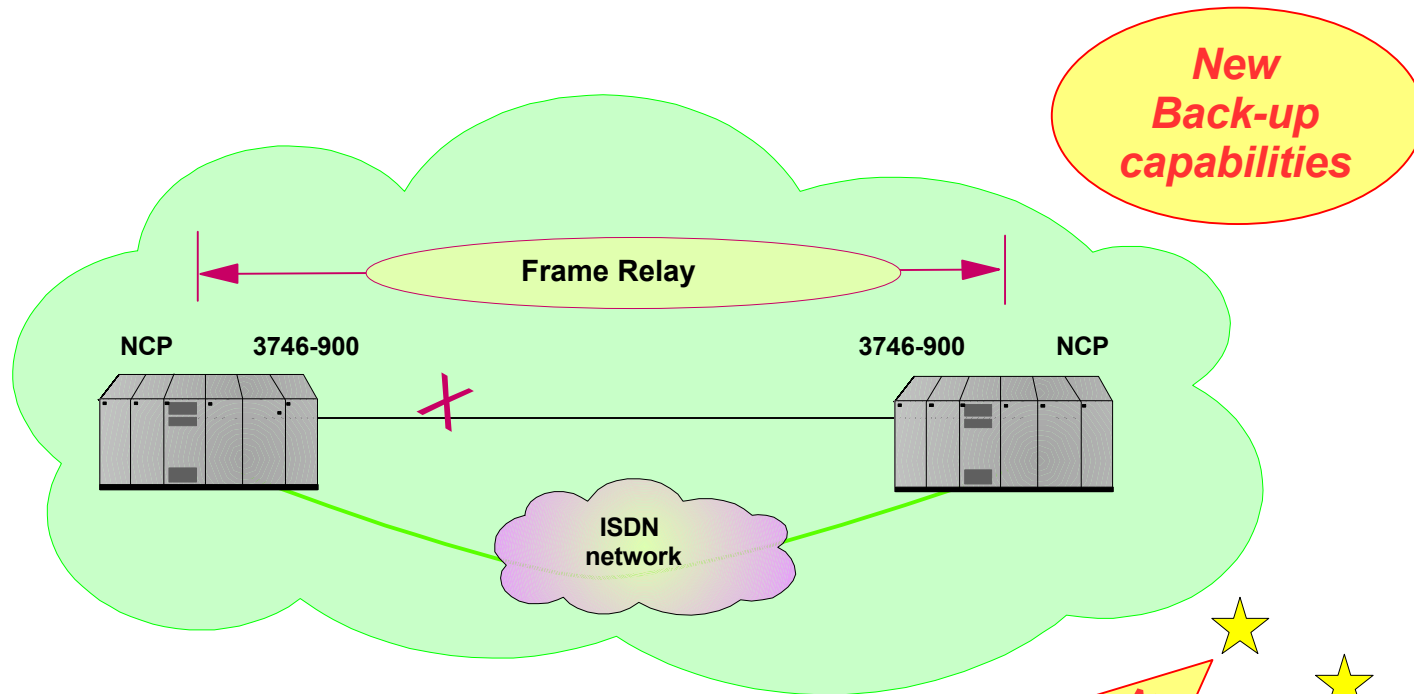
## Native IP channel backup configuration



# ISDN Enhancements (1 of 4)



- **Frame Relay Automatic Backup over Euro-ISDN lines**
  - Non disruptive Switch Back between 2 x 3746-900s

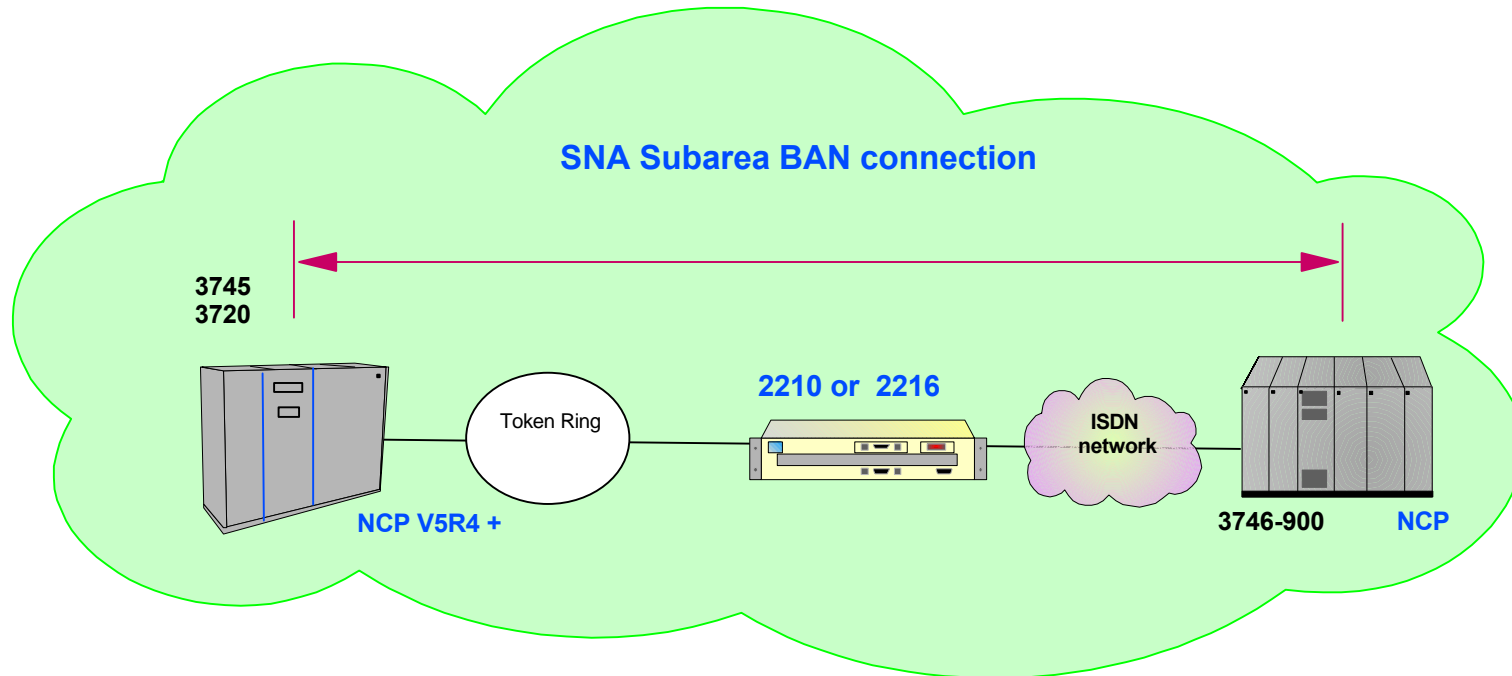


Corequisites:

- 3746-900 ECA 167 or EC D46130 microcode level



# ISDN Enhancements (2 of 4)

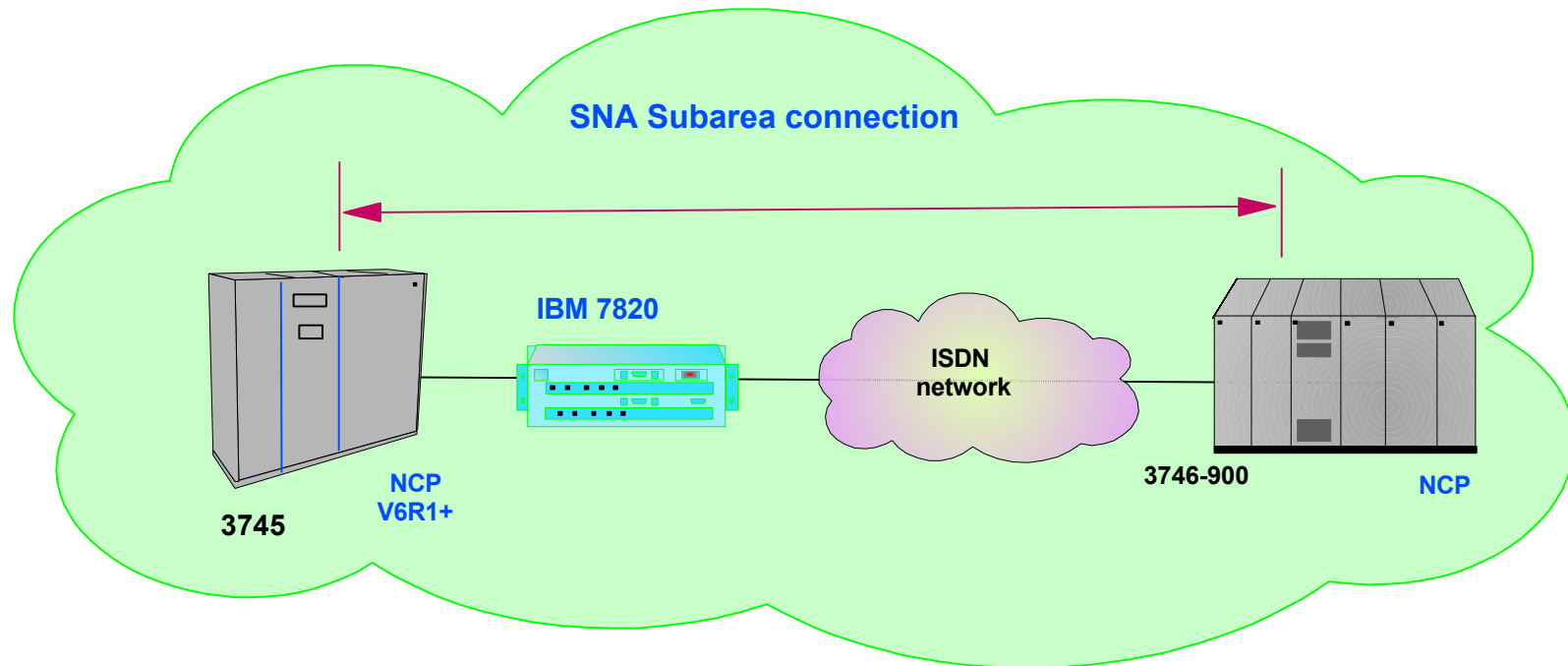


- **Additional configuration options**
- **Increased network flexibility**

#### Corequisites:

- NCP V7R5 Service Level SMC9710 or IR34013
- SSP V4R5 Service Level SMC9710 or IR34011 (MVS) or IR34061 (VM) or IR34062 (VSE)

# ISDN Enhancements (3 of 4)



- **Additional configuration options**
- **Increased network flexibility**

- Corequisites:
- NCP V7R5 Service Level SMC9710 or IR34013
  - SSP V4R5 Service Level SMC9710 or IR34011 (MVS) or IR34061 (VM) or IR34062 (VSE)

# ISDN Enhancements (4 of 4)



- **MAXDLCI keyword support for ISDN connections**
  - Defining MAXDLCI on a 3746 Model 900 will allow the Network Manager to limit the number of supported DLCIs per ISDN B-Channel.
  - Especially attractive in ISDN configurations where the 3746 Model 900 is not providing Local Management Interface (LMI) support.

Corequisites:

- NCP V7R5 Service Level SMC9710 or IR34013
- SSP V4R5 Service Level SMC9710 or IR34011 (MVS) or IR34061 (VM) or IR34062 (VSE)





# NCP Preview available 4Q97



IBM intends to offer a new release of ACF/NCP, ACF/SSP and NTuneMON that provides new capabilities and enhancements to the following areas:

- **Frame Relay:**
  - Provide multiprotocol performance enhancements for frame-relay line transporting both SNA and IP traffic
  - Provides additional traffic management capabilities by anticipating network congestion and reacting appropriately
- **Internet Protocol (IP)**
  - Provide internal routing capabilities between NCP and the 3746 Model 900 routers
- **Token Ring**
  - Provide increased load balancing capabilities for duplicate TIC environments
- **Advanced Peer-to-Peer Networking (APPN)**
  - Provide downstream terminals the ability to identify Physical Units (PU) and Logical Units (LU) name relationships to the host systems

**IBM's target availability date for this new release of ACF/NCP, ACP/SSP and NTuneMON is fourth quarter 1997.**

# NCP V7R5 - Multiprotocol Solutions Summary

- World Class Subarea Router
- Excellent APPN Support
- Solid IP Support
- Best of Class Frame Relay Switching

**A Robust Multiprotocol Platform**