

INM 3745 IBM 3746 Nways Multiprotocol Controllers Models 900 and 950

**December 2, 1997
(Revision 4)**

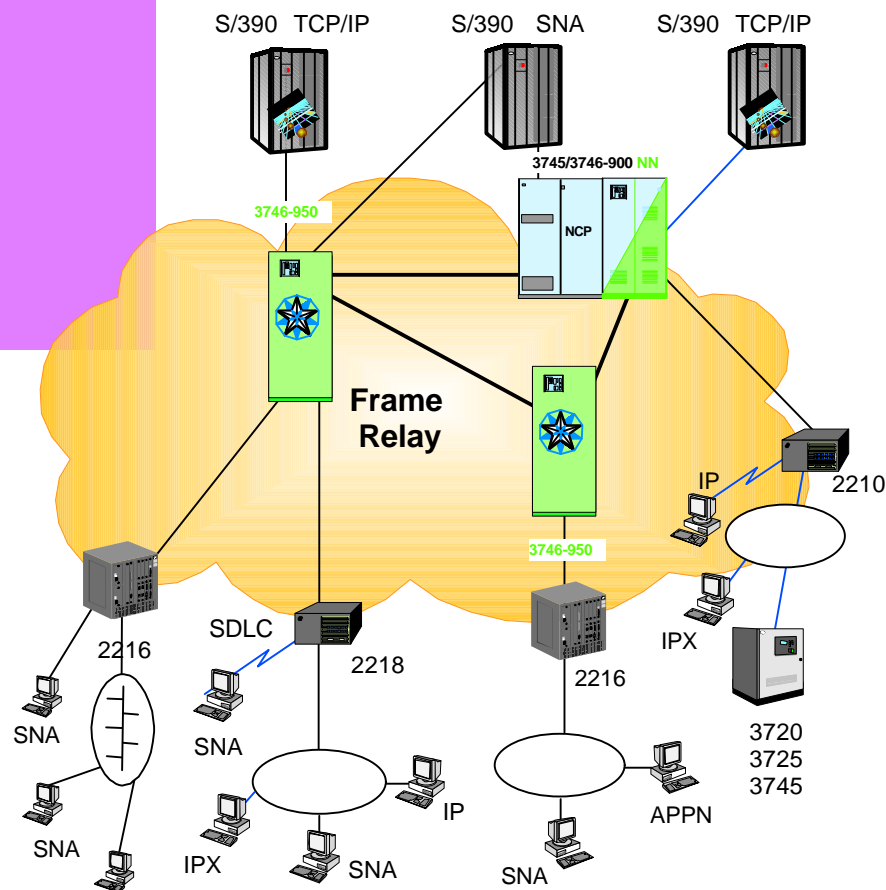


Frame Relay Support FR-INN, FR-BNN, FR-BAN, FR-FH

IBM 3746 - Frame Relay Multiprotocol Support



Available

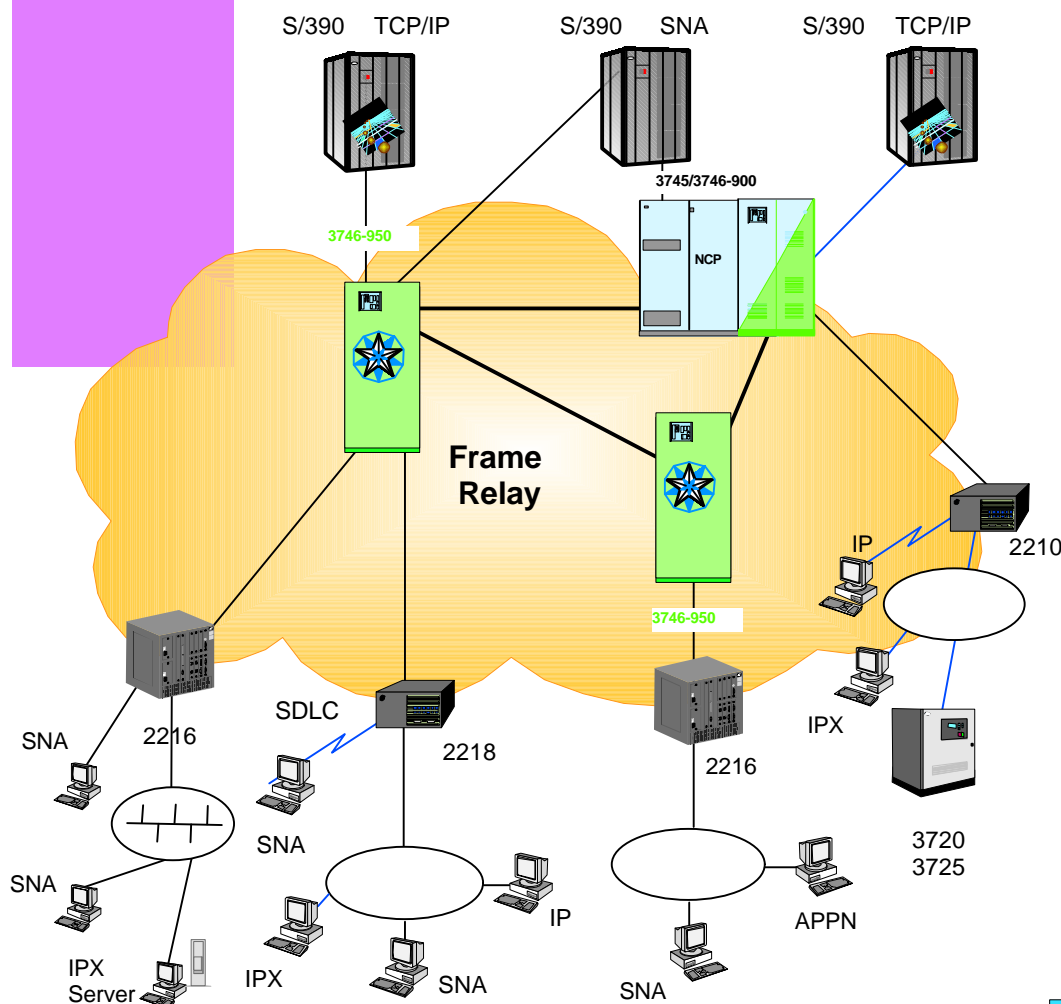


- **Frame Relay Terminating Equipment**
 - Connectivity to public/private network
 - One single network infrastructure
- **RFC 1490 compliant**
 - SNA/DLUR, APPN, IP, HPR
 - Multiple downstream PUs per DLCI
 - Single or multiple protocols per DLCI
 - FR-BAN for 2210, 2218, 2216
 - FR-BNN for 2217, 3174, 2216
 - FR-BAN for remote 37xx (INN)
- **FR Sharing**
 - Port level (NCP, NN, IP)
 - DLCI level (NCP, NN, IP)
- **First class bandwidth management**
 - BRS (IP), Comrate, CIR+
- **Frame Relay Frame Handler**
 - Multiprotocol transparent transport
 - High switching rate

3. IBM 3746 - Frame Relay Frame Handler



Available



- Build your own Frame Relay Switch Network
- Powerfull Bandwidth management (CIR+)
 - Committed Information Rate
 - Bandwidth Reservation System per DLCI (APPN, HPR and IP)
- Migrate your leased lines (SDLC, ..) infrastructure to Frame Relay protocol
- High performance switching rate
- Migration path to SVN
 - Switching in the backbone (protocol transparent)
 - Routing at the periphery

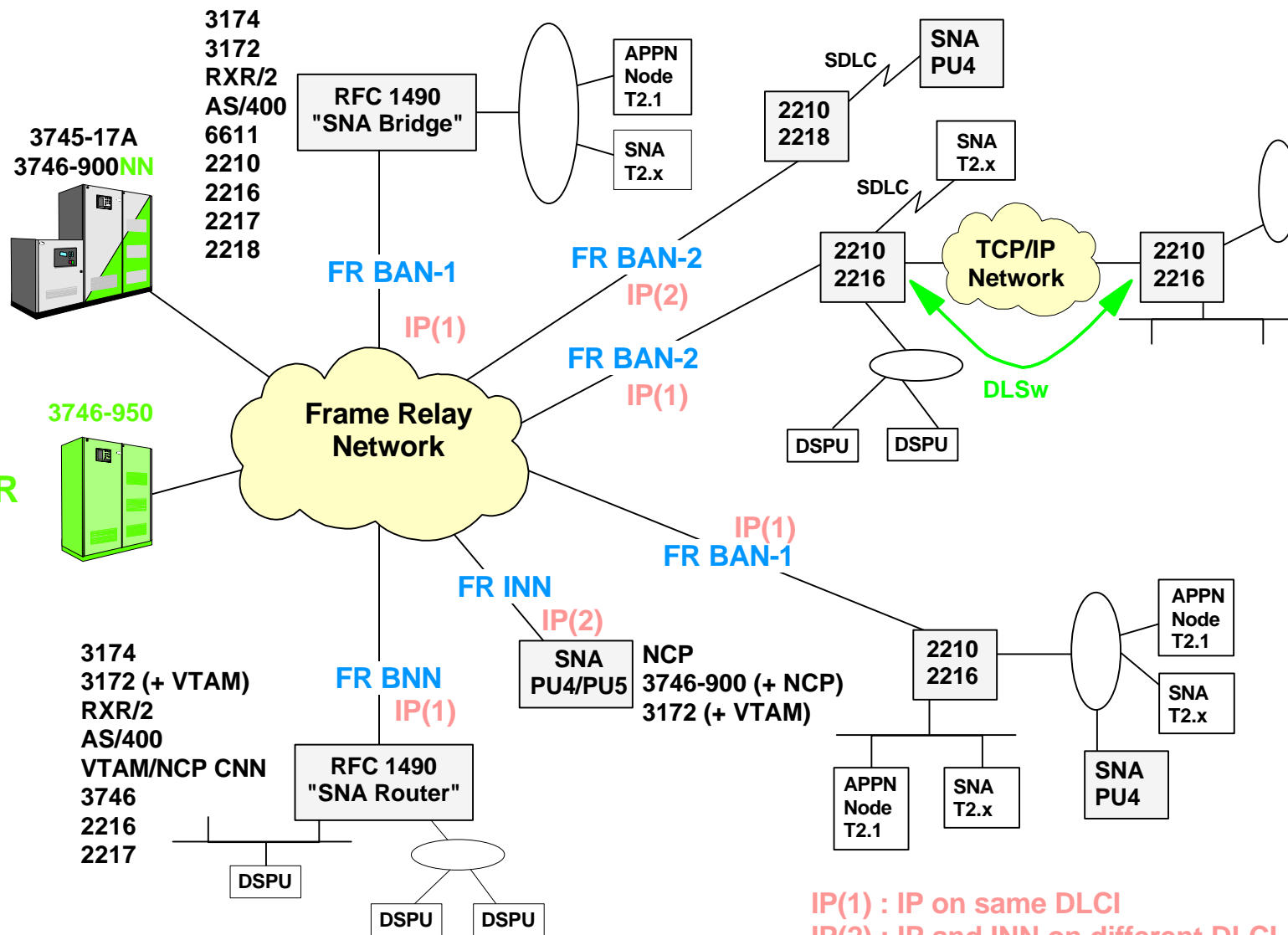
Multiprotocol Path Switch

IBM 3746 - FRTE Connectivity



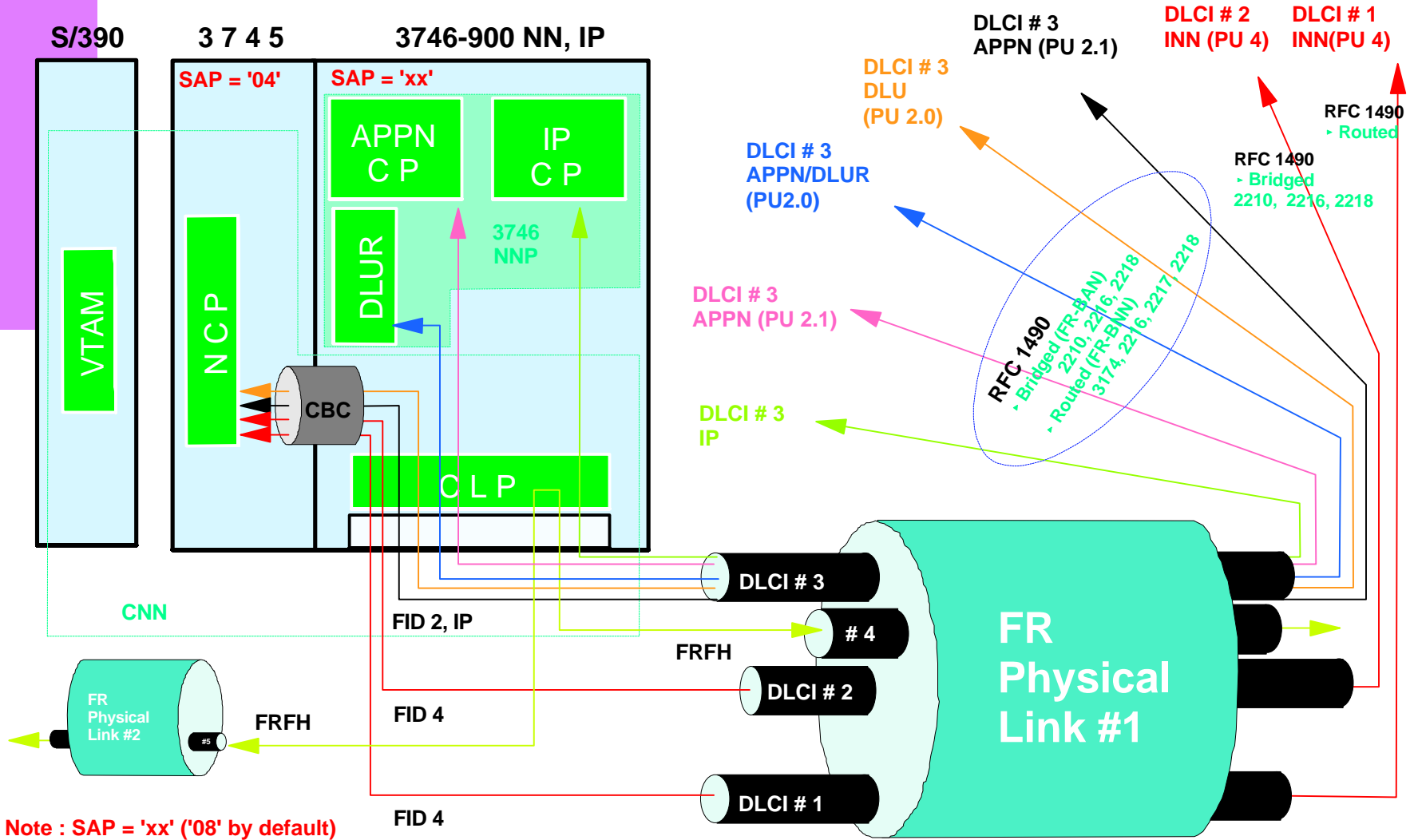
SNA
SNA/DLUR
APPN
HPR

IP



IP(1) : IP on same DLCI
IP(2) : IP and INN on different DLCI

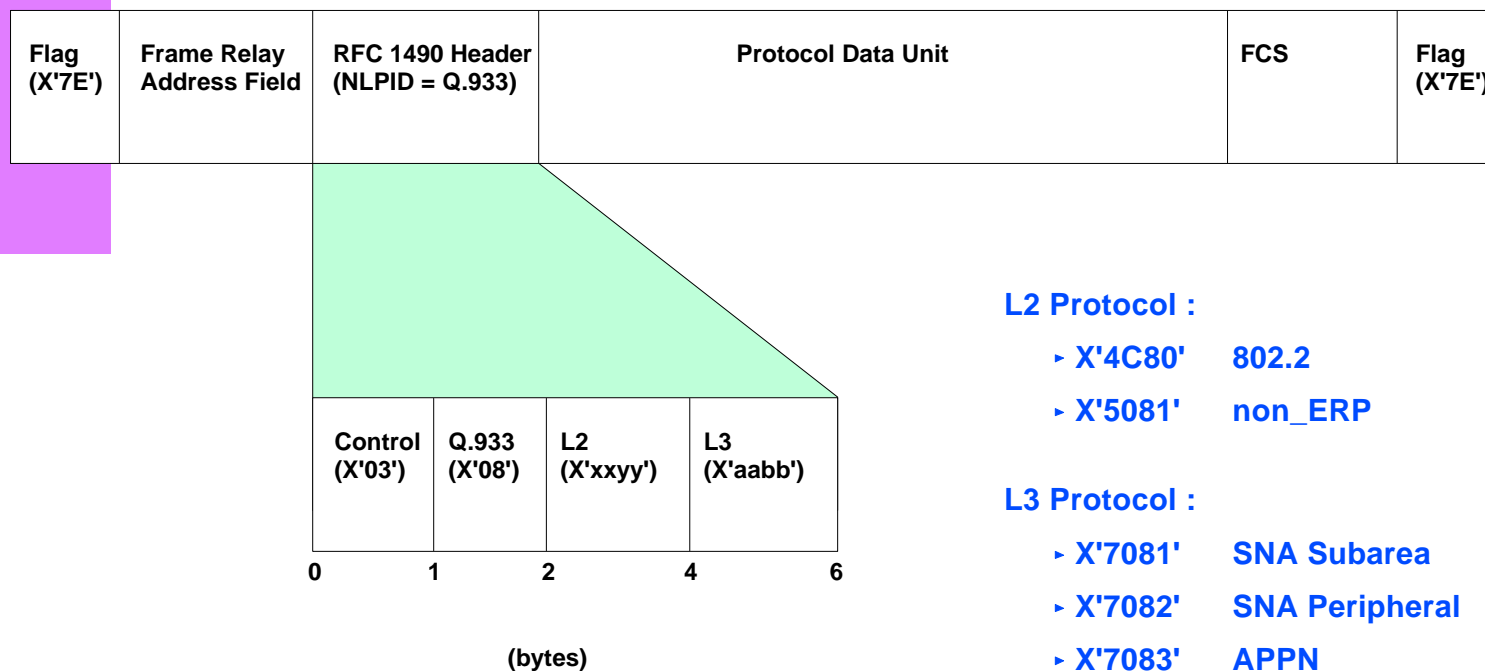
IBM 3746 - Frame Relay Sharing (RFC 1490)



Frame Relay - RFC 1490 Support



ROUTED Frame format - RFC 1490 Encapsulation



L2 Protocol :

- X'4C80' 802.2
- X'5081' non_ERP

L3 Protocol :

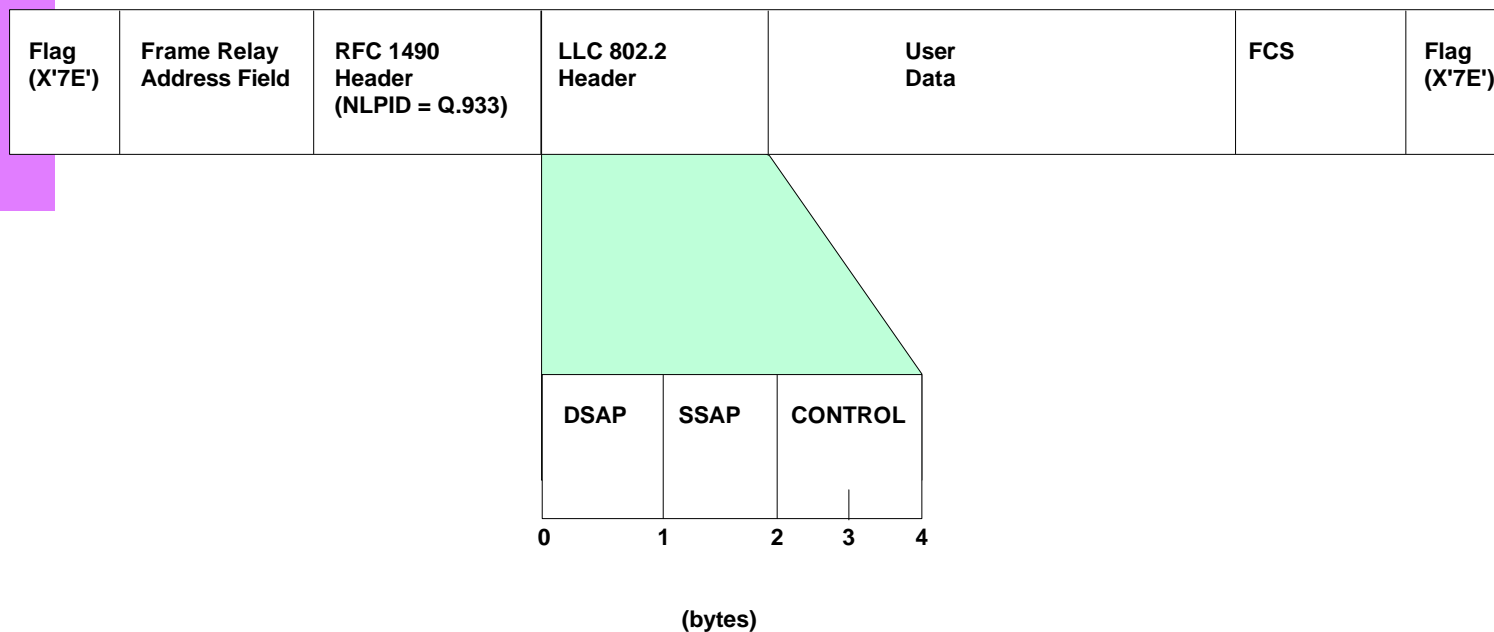
- X'7081' SNA Subarea
- X'7082' SNA Peripheral
- X'7083' APPN
- X'7084' Netbios
- X'7085' HPR

For SNA Peripheral FID2 Frames
RFC1490 Header Q.933 : 6 bytes

Frame Relay - RFC 1490 Support



ROUTED Frame Format (FRTE BNN / INN)

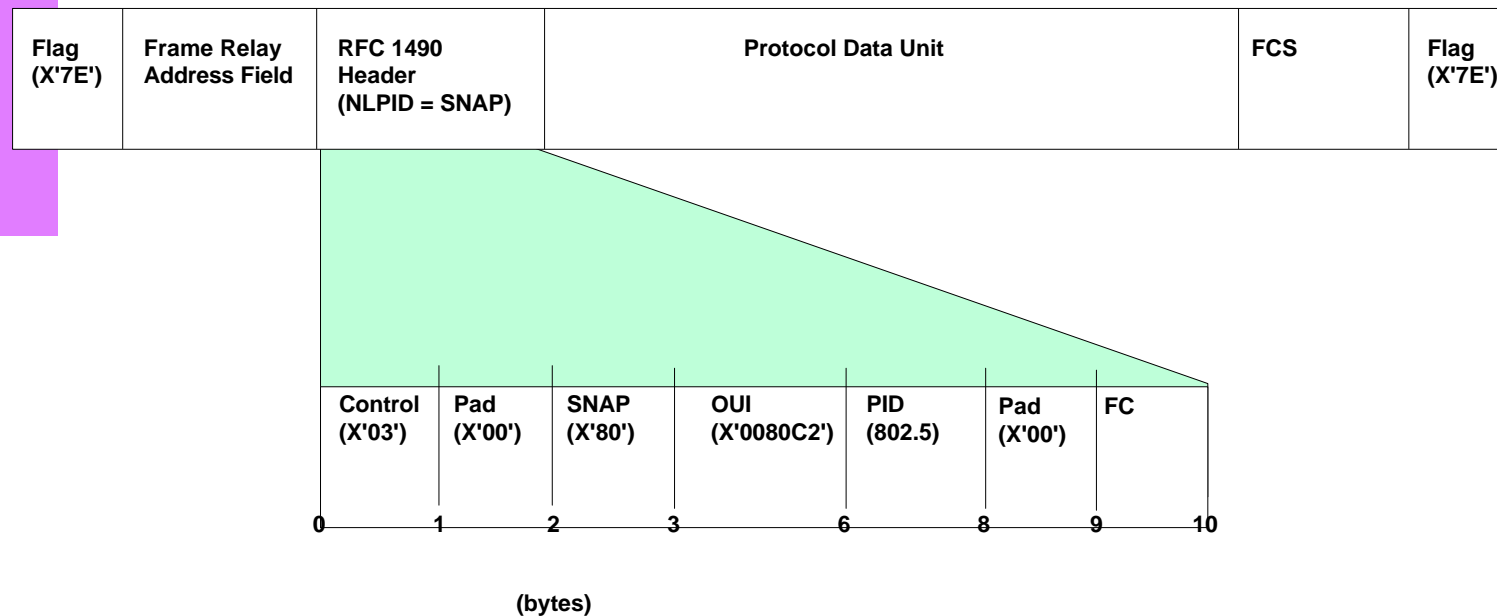


LLC 802.2 Header : 4 bytes

Frame Relay - RFC 1490 Support



BRIDGED Frame format - RFC 1490 Encapsulation

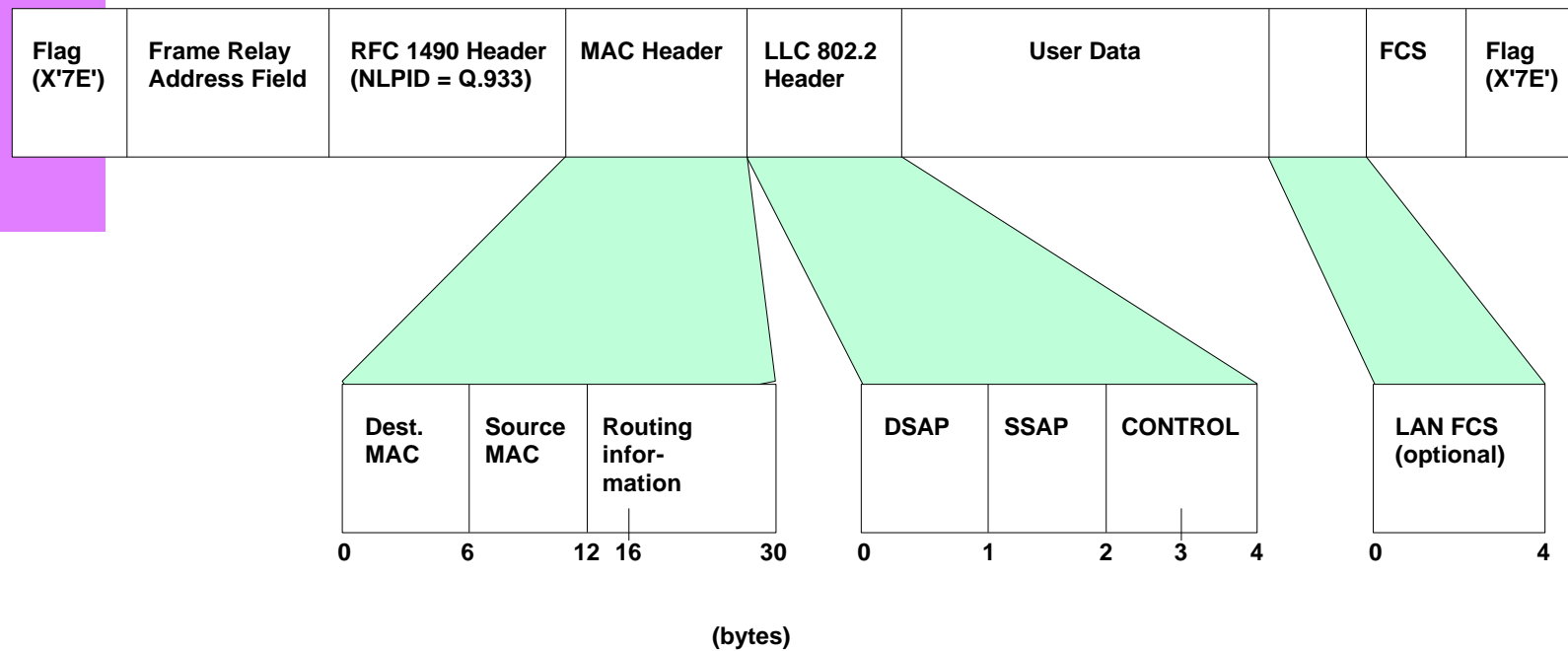


Format of Bridged 802.5 Frames
RFC1490 Header SNAP : 10 bytes

Frame Relay - RFC 1490 Support

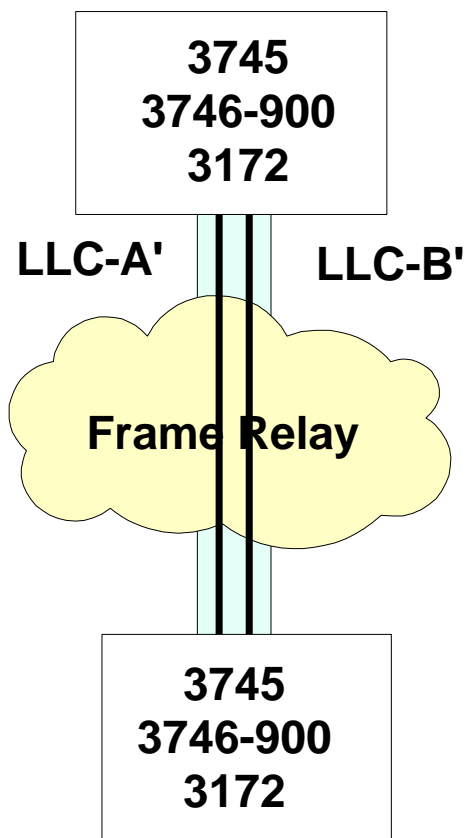


BRIDGED Frame Format (FR BAN)



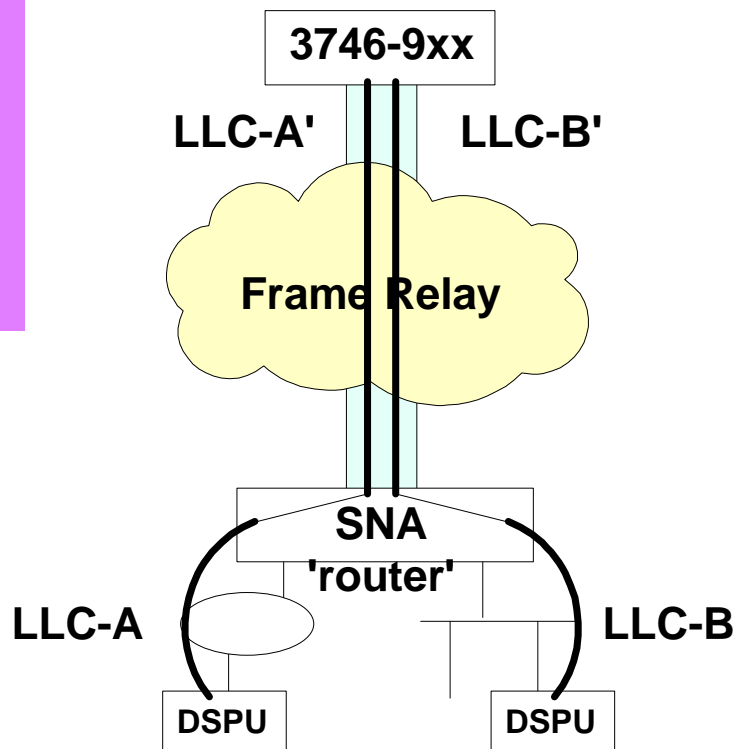
MAC 802.5 Header : 16-30 bytes
 LLC 802.2 Header : 4 bytes

Frame Relay - INN



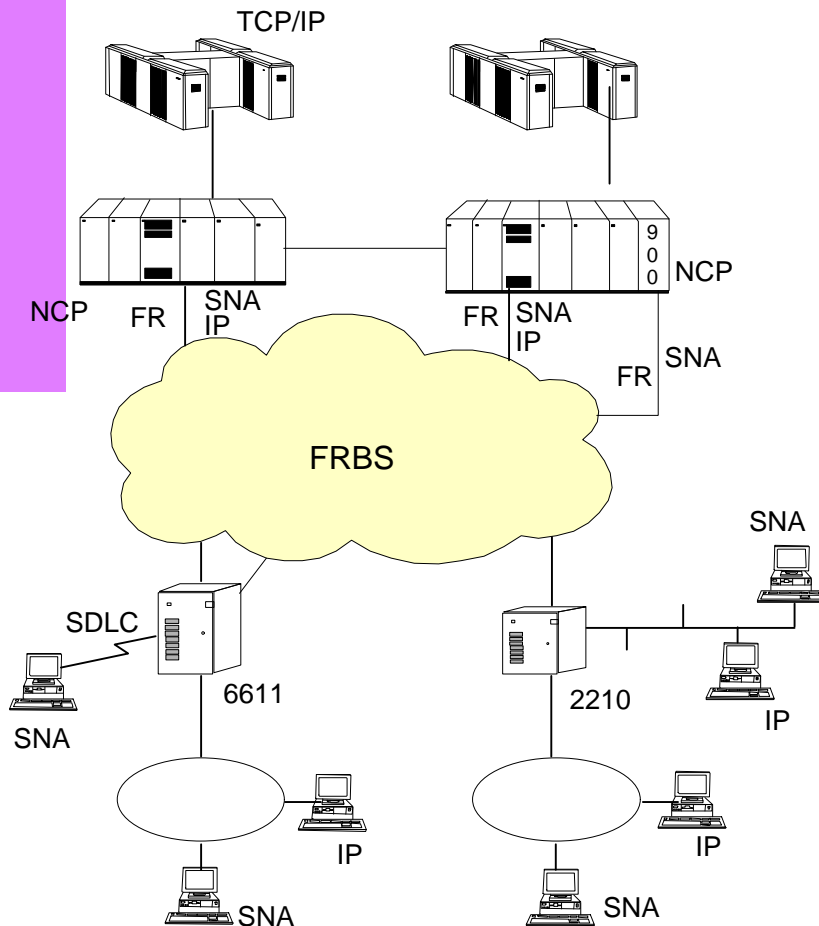
**ROUTED
Format**

Frame Relay - BNN



**ROUTED
Format**

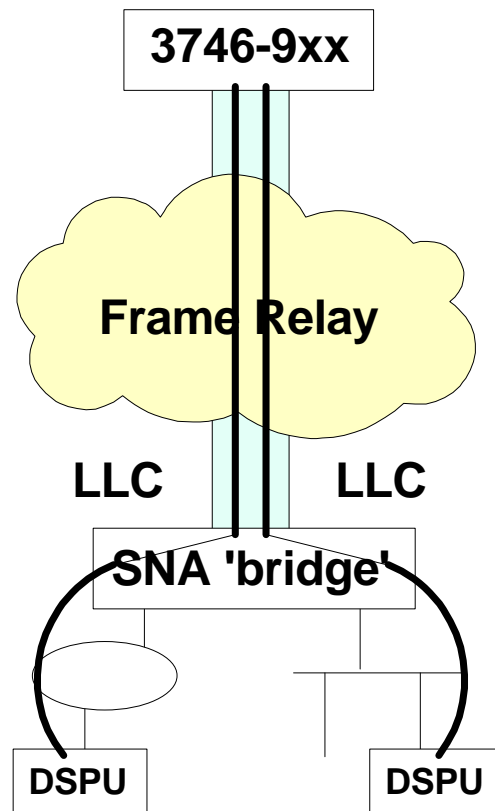
Frame Relay - BAN



BRIDGED Format

- Enhanced SNA Routing Capability
- Identical SNA Routing Capabilities as Frame Relay BNN (NCP V7R1)
- RFC 1490 Compliant Multiple SNA DSPUs Supported per DLCI
- Minimal SYSDEF

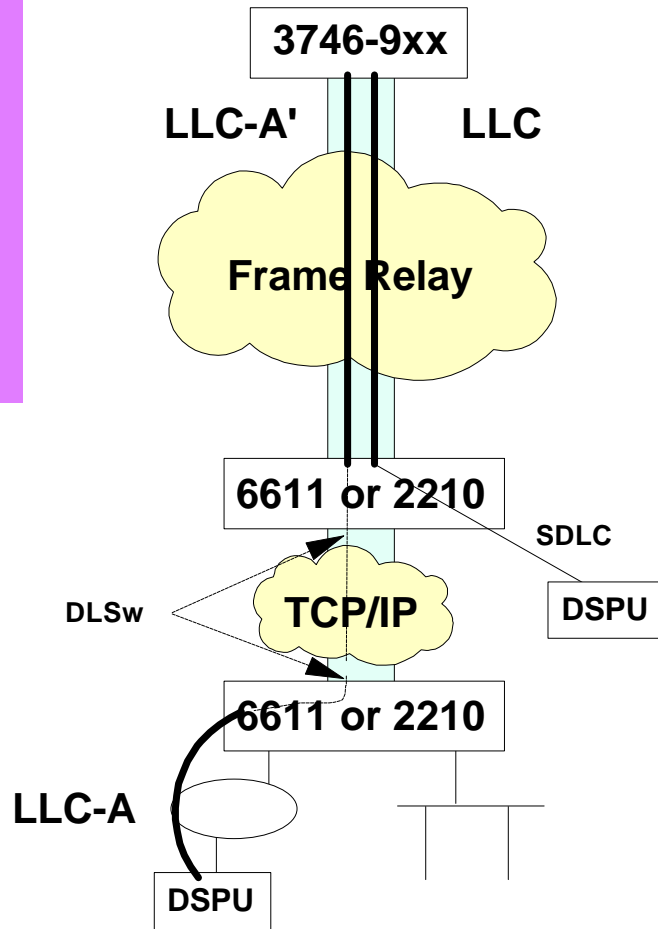
Frame Relay - BAN 1



**BRIDGED
Format**

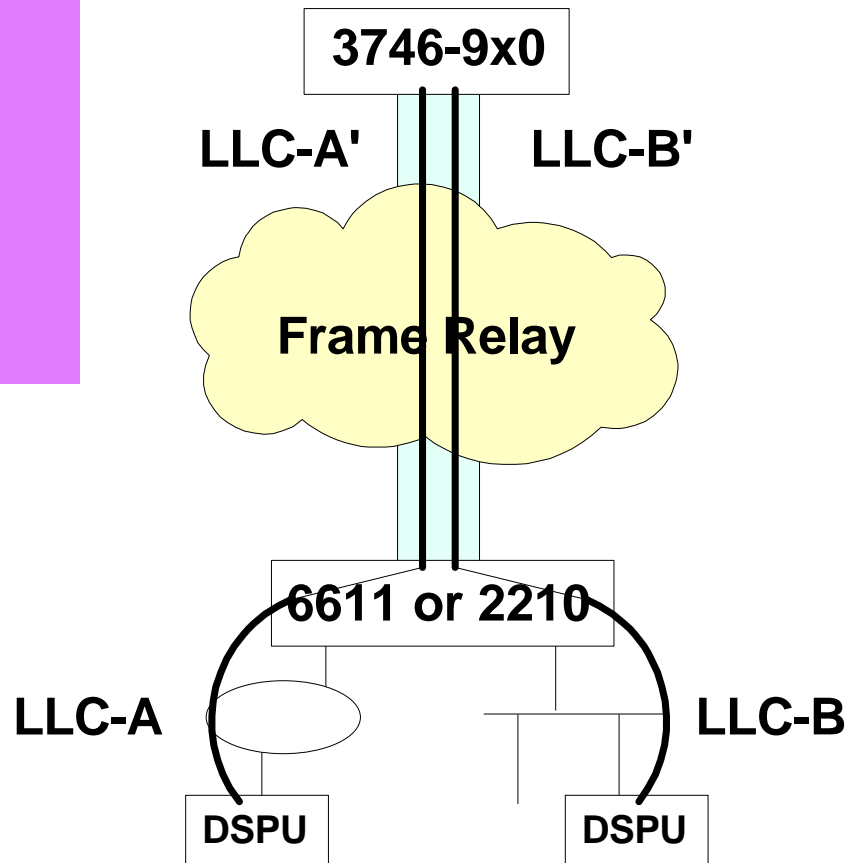
- LLC End to End

Frame Relay - BAN 2



**BRIDGED
Format**

Frame Relay - BAN 2



**BRIDGED
Format**

- LLC terminating in the router