Chapter 6. SSCP-PU/SSCP-LU Session Encapsulation

Once the CP-SVR pipe has been established between server and requester nodes, SSCP-PU and SSCP-LU sessions must be established to provide SSCP services to the dependent LUs. These sessions will be encapsulated on the CP-SVR pipe. This will require a special encapsulation and de-encapsulation transaction program (TP) on either side of the conwinner and conloser CPSVRMGR sessions. These TPs are known as the Send_Encap_Msg_TP and Receive_Encap_Msg_TP respectively. Since the Receive_Encap_Msg_TP must be attached by the Send_Encap_Msg_TP, it has been assigned X′22F0F0F6′ as its architected TP name.

6.1 Encapsulation Addressing

The information carried on the SSCP-PU and SSCP-LU sessions will be encapsulated in a new FID2 Encapsulation GDS variable X′1500′. This GDS variable will contain the entire FID2 message that is normally carried between the SSCP Boundary Function and peripheral node. This includes the Transmission Header (TH), Request/Response Header (RH), and Request Unit (RU) fields (the RH will not be present in a FID2 message which is a middle or last segment - see 6.1.4, “Encapsulating Message Segments” on page 6-6 for more information about segmentation of messages on the CP-SVR pipe). The TH field will provide the appropriate PU and LU addressing as it does today, and the RH and RU fields will enable the PU to interpret the RUs and function the same way in both the DLUR/S and SSCP subarea environments. Because a given CP-SVR pipe may support multiple SSCP-PU sessions, it will be important to distinguish which SSCP-PU/LU flows go with which PU image. This will be done by carrying a Fully Qualified Procedure Correlator Identifier (FQPCID) control vector (CV X′60′) on each FID2 Encapsulation GDS variable. The FQPCID will be generated by the node creating the first encapsulated flow. This will be the DLUR node when REQACTPU is used, and it will be the DLUS node when an unsolicited ACTPU is sent. Once assigned, the CV X′60′ flows on each ensuing encapsulated flow having to do with that particular PU image (or its dependent LUs). This FQPCID essentially extends the ability for a single node to support more than 255 dependent LUs by providing addressing to multiple PU images. In addition, the FQPCID provides the DLUS with a mechanism to quickly index resource-related information for control flows. Because the FQPCID is being used in this manner, it is essential that it is unique for each DLUS node. Since the FQPCID is fully qualified, this implies that each node must ensure that it does not generate duplicate active FQPCIDs.

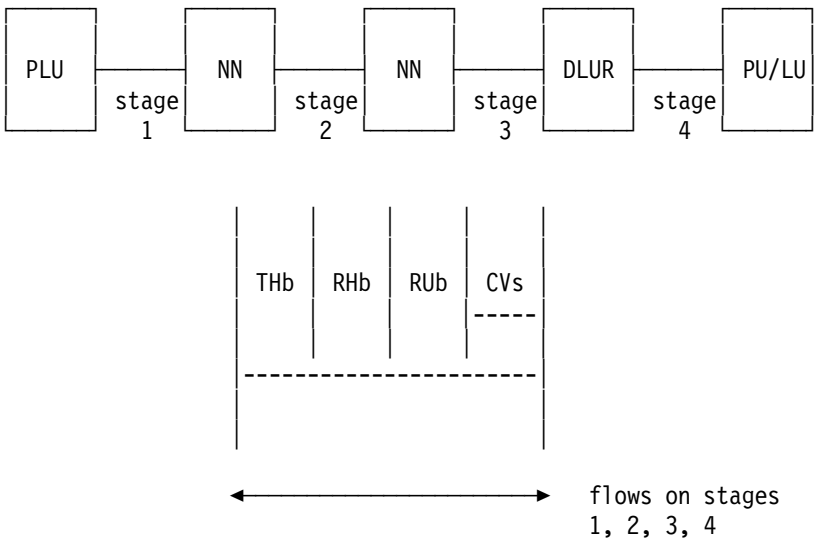
An FQPCID includes a PCID, a network-qualified CP name, and an optional PCID modifier. The network-qualified CP name will be defined as follows:

- DLUS-generated - the network-qualified SSCP name
- DLUR-generated - the network-qualified CP(DLUR) name

6.1.1 Multiple PU Images

As mentioned above, it is possible for a DLUR node to support more than 255 dependent LUs. In this case, it will be necessary for DLUR nodes to emulate multiple PU images. PU images that are being served by the same SSCP (DLUS node) will share the CP-SVR pipe. It is possible, however, for different PU images to be served by different SSCPs (DLUS nodes). In this case, a given DLUR node may have multiple CP-SVR pipes to multiple DLUS nodes. In either case, a given SSCP-PU and its subsequent SSCP-LU sessions will all be encapsulated on the same CP-SVR pipe. When a DLUR node is supporting multiple CP-SVR pipes to multiple DLUS nodes, the DLUR node may (or may not) run multiple instances of the

6.1.3.2 LU-LU Sessions



LU-LU THb	stages 1, 2, 3	stage 4
SIDH	X'02'-X'FE'	X'01'
SIDL	X'00'-X'FF'	X'01'-X'FF'
ODAI	negotiated during XID exchange	0

Figure 6-2. Addressing For LU-LU Sessions

For stages 1, 2, and 3, LFSIDs for THb are independently set for each stage and for each direction; in the configuration shown, there will be six different THb LFSIDs for a message sent from PLU to DLUR and back to PLU. For stage 4, SIDL should be the same value used for the SIDL in THb for that LU's SSCP-LU session.

% 6.1.4 Encapsulating Message Segments

% The DLUR can encapsulate FID2 PIU segments in separate GDS X'1500's. The only PIUs which can be % sent segmented are FMD requests, FMD responses with QRI=1, and non-expedited DFC requests. The % segments will be reassembled at the DLUS.