Extended SDLC Station (X′43′) Control Vector

Byte	Bit	Content
19		Group poll address (present when byte 5, bit 4 in control vector X′0B′ was set by the T4 node and the SSCP has APPN capability; otherwise, not present): nonzero value to identify a group poll address; 0 if no group poll address exists
Note:		When this control vector flows on an RNAA, it may be abbreviated (indicated by the length field); in this case, bytes 7–8 are reserved, and byte 19 or bytes 11–19 are omitted. When this control vector is sent on a SETCV, byte 3, bits 2–7, and bytes 5–8 are reserved.

C.3.17 TG Descriptor (X′46′) Control Vector

C.3.17.1 TG Descriptor (X′46′) Control Vector

The TG Descriptor control vector identifies a transmission group (TG). All implementations, as a base requirement, always accept and forward the TG Descriptor (X′46′) control vector in its entirety.

TG Descriptor (X′46′) Control Vector

Byte	Bit	Content
0–1		Vector header; Key=X′46′ (see -- Heading ′RUSPARS′ unknown -- and -- Table ′CV′ unknown --)

TG Descriptor (X′46′) Control Vector

Byte	Bit	Content
2 – n		Vector Data *Note:* The following subfields (described following this control vector) may be included. They are parsed according to subfield parsing rule LT (see "Substructure Encoding/Parsing Rules" in -- Heading 'CF' unknown --). X′80′ TG Identifier subfield (always present except when the control vector is included in a FID2 Encapsulation GDS variable) X′82′ DLC Signaling Information subfield (present only when the X′80′ subfield indicates the TG is to a link connection network, except not present on XID3) X′83′ Real Partner CP Name subfield (present in a CD-Initiate in a Locate reply [or request] when a border node modifies the associated resource hierarchy such that the CP(DLU) [or CP(OLU)] is not adjacent to the NNS(DLU) [or NNS(OLU)]; or in an RSCV when an NNS(OLU) calculates a route that includes a TG vector carrying it): when present, used in preference to the TG-partner node's CP name in the TG Identifier (X′80′) subfield X′91′ DLC Signaling Type subfield (present when DLC signaling information is to be conveyed for DLUR use). When present, additional DLC Signaling Information subfields (in the range X′92′ through X′F0′) follow this subfield, depending upon the DLC type indicated in the X′91′ subfield, as described below. More than one such series of DLC signaling information, consisting of one DLC Signaling Type (X′91′) subfield and its following DLC Signaling Information (X′92′ – X′F0′) subfields, may be included in the TG Descriptor (X′46′) control vector.

C.3.17.1.1 DLC Signaling Type (X′91′) TG Descriptor Subfield

DLC Signaling Type (X′91′) TG Descriptor Subfield

Byte	Bit	Content
0– 1		Subfield header; Key=X′91′ (see -- Heading 'RUSPARS' unknown --)
2 – n		Subfield Data
For DLC Type of Internal PU (DLUR):		
2– 6 (= n)		DLC type (EBCDIC characters):

DLC Signaling Type (X′91′) TG Descriptor Subfield

Byte	Bit	Content
		INTPU (for internal PU)
		Note: For DLC Type = INTPU, one or both of the following subfields (described following this subfield) may be included in TG Descriptor (X′46′) control vector following the DLC Signaling Type (X′91′) subfield; when both are present, each one identifies the same internal PU. Each internal PU to be identified requires its own X′91′ series.
		X′92′ Internal PU Identifier: ID Block/ID Number (always present if identifying a different internal PU from that identified by the CP name in another X′91′ series present in the same X′46′ control vector; may be present if a X′93′ subfield is present in the same X′91′ series, in which case it identifies the same internal PU as the CP name in the accompanying X′93′ subfield)
		X′93′ Internal PU Identifier: CP Name (may be present to identify only one internal PU; any other internal PUs identified in other X′91′ series in the same X′46′ control vector are identified by ID block/ID number only — in other words, in a given X′46′ control vector, only one X′91′ subfield for DLC type = INTPU can have a following CP Name [X′93′] subfield)
For DLC Type of Token-Ring LAN:		
2–3 (=n)		DLC type (EBCDIC characters):
		TR (for token-ring — see *IBM Token-Ring Network Architecture Reference*)
		Note: For DLC Type = TR, the following subfields (described following this subfield) may be included in the TG Descriptor (X′46′) control vector following the DLC Signaling Type (X′91′) subfield:
		X′92′ Port Identifier (optionally present product-dependent identifier if for signaling use; not present in a TG Descriptor control vector on a Locate)
		X′93′ Destination Service Access Point Address (DSAP) (always present)
		X′94′ Destination MAC Address (always present)
		X′95′ Source Service Access Point Address (SSAP) (present in signaling information if multiple parallel links are supported; not present in a TG Descriptor control vector on a Locate)
		X′96′ Source MAC Address (present if for DLUR use and X′92′ subfield not present; optional otherwise; not present in a TG Descriptor control vector on a Locate)
For DLC Type of Ethernet (IEEE 802.3) LAN:		
2–9 (=n)		DLC type (EBCDIC characters):

DLC Signaling Type (X′91′) TG Descriptor Subfield

Byte	Bit	Content
		ETHERNET (for IEEE 802.3 LAN — see ISO/IEEE 8802.3 documentation)
		Note: For DLC Type = ETHERNET, the following subfields (described following this subfield) may be included in a TG Descriptor (X′46′) control vector following the DLC Signaling Type (X′91′) subfield: X′92′ Port Identifier (optionally present product-dependent identifier if for signaling use; not present in a TG Descriptor control vector on a Locate) X′93′ Destination Service Access Point Address (DSAP) (always present) X′94′ Destination MAC Address (always present) X′95′ Source Service Access Point Address (SSAP) (present in signaling information if multiple parallel links are supported; not present in a TG Descriptor control vector on a Locate) X′96′ Source MAC Address (present if for DLUR use and X′92′ subfield not present, optional otherwise; not present in a TG Descriptor control vector on a Locate)
For DLC Type of Frame-Relay Permanent Virtual Circuit (PVC):		
2–3 (=n)		DLC type (EBCDIC characters):
		FR (for frame-relay permanent virtual circuit)
		Note: For DLC Type = FR, the following subfields (described following this subfield) may be included in a TG Descriptor (X′46′) control vector following the DLC Signaling Type (X′91′) subfield: X′92′ Port Identifier (product-dependent identifier present if for signaling use; not present in a TG Descriptor control vector on a Locate) X′93′ Destination Service Access Point Address (DSAP) (always present) X′94′ Data Link Connection Identifier (DLCI) (always present) X′95′ Source Service Access Point Address (SSAP) (present in signaling information if multiple parallel logical links are supported; not present in a TG Descriptor control vector on a Locate)
For DLC Type of SDLC Nonswitched:		
2–7 (=n)		DLC type (EBCDIC characters):
		SDLCNS (for SDLC nonswitched)
		Note: For DLC Type = SDLCNS, the following subfields (described following this subfield) may be included in TG Descriptor (X′46′) control vector following the DLC Signaling Type (X′91′) subfield: X′92′ Port Identifier (product-dependent identifier present if for signaling use; not present in a TG Descriptor control vector on a Locate) X′93′ Secondary Station Address (always present) X′94′ Group Address (optionally present if group addressing is used) X′95′ Station Role (present in signaling information; not present in a TG Descriptor control vector on a Locate) X′96′ Asynchronous SDLC Support Type (present if asynchronous SDLC operation is used)
For DLC Type of SDLC Switched:		

DLC Signaling Type (X′91′) TG Descriptor Subfield

Byte	Bit	Content
2–7 (=n)		DLC type (EBCDIC characters):
		SDLCSW (for SDLC switched)
		Note: For DLC Type = SDLCSW, the following subfields (described following this subfield) may be included in a TG Descriptor (X′46′) control vector following the DLC Signaling Type (X′91′) subfield: X′92′ Port Identifier (product-dependent identifier present if for signaling use; not present in a TG Descriptor control vector on a Locate) X′93′ Secondary Station Address (always present) X′94′ Group Address (optionally present if group addressing is used) X′95′ Station Role (present in signaling information; not present in a TG Descriptor control vector on a Locate) X′96′ Asynchronous SDLC Support Type (present if asynchronous SDLC operation is used)
		Note: For DLC Type = SDLCSW, a second DLC Signaling Type (X′91′) subfield specifying the switched physical interface type, along with its associated subfields, immediately follows the SDLCSW subfields. The Port Identifier subfields in both the SDLCSW X′91′ series and the corresponding physical interface X′91′ series contain the same port identifier.
For Physical Interface Type of V.25:		
2–4 (=n)		Physical interface type (EBCDIC characters):
		V25 (for V.25 switched physical interface)
		Note: For Physical Interface Type = V25, the following subfields (described following this subfield) may be included in TG Descriptor (X′46′) control vector following the Physical Interface Signaling Type (X′91′) subfield: X′92′ Port Identifier (product-dependent identifier present if for signaling use; it contains the same port identifier present in the associated DLC Port Identifier (X′92′) subfield; not present in a TG Descriptor control vector on a Locate) X′93′ Destination Dial Address (always present)
For Physical Interface Type of V.25bis:		
2–7 (=n)		Physical Interface type (EBCDIC characters):
		V25BIS (for V.25bis switched physical interface)
		Note: For Physical Interface Type = V25BIS, the following subfields (described following this subfield) may be included in TG Descriptor (X′46′) control vector following the Physical Interface Signaling Type (X′91′) subfield: X′92′ Port Identifier (product-dependent identifier present if for signaling use; it contains the same port identifier present in the associated DLC Port Identifier (X′92′) subfield; not present in a TG Descriptor control vector on a Locate) X′93′ Destination Dial Address (always present) X′94′ Calling Identification Number (present in signaling information; not present in a TG Descriptor control vector on a Locate)

C.3.17.1.2 DLC Signaling Information (X′92′) TG Descriptor Subfield

DLC Signaling Information (X′92′) TG Descriptor Subfield

Byte	Bit	Content
0–1		Subfield header; Key=X′92′ (see -- Heading 'RUSPARS' unknown --)
2 – n		Subfield Data
For DLC Type = INTPU:		
2–5 (= n)		Internal PU identifier: ID block/ID number
	0–11	Block number: product-specific binary number, as contained in bytes 2–5, bits 0–11 in XID3
	12–31	ID number: binary number that, together with the block number, identifies a specific link station uniquely within a network, as contained in bytes 2–5, bits 12–31 in XID3
For DLC Type = TR, ETHERNET, FR, SDLCNS, or SDLCSW:		
2 – n		Port Identifier: a variable-length hex string containing product-specific information to identify the port to which this signaling information pertains
For Physical Interface Type = V25 or V25BIS:		
2 – n		Port Identifier: a variable-length hex string containing product-specific information to identify the port to which this signaling information pertains *Note: This subfield contains the same port identifier as that contained in the associated SDLCSW series Port Identifier (X′92′) subfield.*

C.3.17.1.3 DLC Signaling Information (X′93′) TG Descriptor Subfield

DLC Signaling Information (X′93′) TG Descriptor Subfield

Byte	Bit	Content
0–1		Subfield header; Key=X′93′ (see -- Heading 'RUSPARS' unknown --)
2 – n		Subfield Data
For DLC Type = INTPU:		
2 – n		Internal PU identifier: DLUR network-qualified CP name (up to 17 characters)
For DLC Type = TR:		

DLC Signaling Information (X′93′) TG Descriptor Subfield

Byte	Bit	Content
2(=n)		Destination service access point address (DSAP) **Note:** The DSAP here is encoded in *noncanonical* format.
For DLC Type = ETHERNET or FR:		
2(=n)		Destination service access point address (DSAP) **Note:** The DSAP here is encoded in *canonical* (i.e., ISO/IEEE 8802) format.
For DLC Type = SDLCNS or SDLCSW:		
2(=n)		Secondary station SDLC address
For Physical Interface Type = V25 or V25BIS:		
2 – n		Destination dial address: E.160 circuit-switched network address (up to 12 digits) encoded in packed form, two hex digits to the octet. If the dial address contains an odd number of digits, the low-order half-byte of the byte containing the last (low-order) digit contains X′C′.

C.3.17.1.4 DLC Signaling Information (X′94′) TG Descriptor Subfield

DLC Signaling Information (X′94′) TG Descriptor Subfield

Byte	Bit	Content
0– 1		Subfield header; Key=X′94′ (see -- Heading 'RUSPARS' unknown --)
2 – n		Subfield Data
For DLC Type = TR:		
2– 7 (=n)		Destination MAC address **Note:** The MAC address here is encoded in *noncanonical* format.
For DLC Type = ETHERNET:		
2– 7 (=n)		Destination MAC address **Note:** The MAC address here is encoded in *canonical* (i.e., ISO/IEEE 8802) format.
For DLC Type = FR:		
2– 3 (=n)	0– 5	Reserved
	6– 15	Data link connection identifier (DLCI)
For DLC Type = SDLCNS or SDLCSW:		
2(=n)		Group SDLC address
For Physical Interface Type = V25BIS:		

DLC Signaling Information (X′94′) TG Descriptor Subfield

Byte	Bit	Content
2 – n		Calling Identification Number: E.160 circuit-switched network address of the calling data station starting with the country code encoded in packed form, two hex digits to the octet. If the calling identification number contains an odd number of digits, the low-order half-byte of the byte containing the last (low-order) digit contains X′C′.

C.3.17.1.5 DLC Signaling Information (X′95′) TG Descriptor Subfield

DLC Signaling Information (X′95′) TG Descriptor Subfield

Byte	Bit	Content
0– 1		Subfield header; Key=X′95′ (see -- Heading 'RUSPARS' unknown --)
2 – n		Subfield Data
For DLC Type = TR:		
2(=n)		Source service access point address (SSAP) **Note:** The SSAP here is encoded in *noncanonical* format.
For DLC Type = ETHERNET or FR:		
2(=n)		Source service access point address (SSAP) **Note:** The SSAP here is encoded in *canonical* (i.e., ISO/IEEE 8802) format.
For DLC Type = SDLCNS or SDLCSW:		
2(=n)	0– 1	Station role: 00 Receiver of signaling information is to be primary link station (nonnegotiable). 01 Receiver of signaling information is to be secondary link station (nonnegotiable). 10 Reserved 11 Receiver of signaling information is to be negotiable link station (primary or secondary capability). **Note:** The DLUR link station is always primary to its downstream dependent-LU link stations.
	2– 7	Reserved

C.3.17.1.6 DLC Signaling Information (X′96′) TG Descriptor Subfield

DLC Signaling Information (X′96′) TG Descriptor Subfield

Byte	Bit	Content
0– 1		Subfield header; Key=X′96′ (see -- Heading ′RUSPARS′ unknown --)
2 – n		Subfield Data
For DLC Type = TR:		
2– 7 (= n)		Source MAC address **Note:** The MAC address here is encoded in *noncanonical* format.
For DLC Type = ETHERNET:		
2– 7 (= n)		Source MAC address **Note:** The MAC address here is encoded in *canonical* (i.e., ISO/IEEE 8802) format.
For DLC Type = SDLCNS or SDLCSW:		
2(=n)		Asynchronous SDLC Support Type
	0	Data transparency type: 0 8-bit data transparency not selected 1 8-bit data transparency selected (allows 8-bit data to be transmitted on 7-bit networks)
	1– 2	Character transparency type: 00 basic transparency selected 01 flow-control transparency selected (includes basic transparency) 10 control-character transparency selected (includes flow-control transparency) 11 Reserved
	3– 7	Reserved

C.3.18 DLUR/S Capabilities (X′51′) Control Vector

C.3.18.1 DLUR/S Capabilities (X′51′) Control Vector

DLUR/S Capabilities control vector is exchanged by the dependent LU requester and the dependent LU server to describe their DLUR/S capabilities once a DLUS-DLUR session is activated.

DLUR/S Capabilities (X′51′) Control Vector

Byte	Bit	Content
0– 1		Vector header; Key=X′51′ (see -- Heading ′RUSPARS′ unknown -- and -- Table ′CV′ unknown --)
2 – n		Vector Data
2		Dependent LU support level: X′01′ Release 1