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VB5

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The VB5 reference point concept, based on ITU-T Recommendation G.902, was split into two variants. The VB5.1 reference point, the first variant, is based on an ATM cross-connect with provisioned connectivity. The VB5.1 protocol is based on the Real Time Management Co-ordination (RTMC) protocol.

The VB5.1 message format is as shown in the following illustration:

8	7	6	5	4	3	2	1	Octet
Protocol discriminator								1
0	0	0	0	TID length				2
TAID								3
Transaction identifier value								4-5
Message type								6
Message compatibility instruction indicator								7
Message length								8-9
Information elements								10-n

VB5.1 message structure

Protocol discriminator

Distinguishes between VB5 specific protocols and other non-VB5 protocols. This field is coded as follows for RTMC:

8	7	6	5	4	3	2	1
0	1	0	0	1	0	0	1

Transaction identifier

4-byte field which identifies the transaction at the VB5.1 protocol virtual channel to which the particular message applies. This field includes the TAID flag and the TID length.

TID length

Transaction identifier length in octets.

TAID flag

When set, indicates that the message is sent to the side that originated the transaction identifier. Otherwise, the message is sent from the side that originated the transaction identifier.

Message type

Identifies the specific VB5 protocol the message belongs to and the function of the message being sent. Values may be as follows:

0 0 0 0 0 0 0 0 Reserved.
0 0 0 0 0 0 1 0 BLOCK_RSC.
0 0 0 0 0 0 1 1 BLOCK_RSC_ACK.
0 0 0 0 0 1 0 0 CONS_CHECK_REQ.
0 0 0 0 0 1 0 1 CONS_CHECK_REQ_ACK.
0 0 0 0 0 1 1 0 CONS_CHECK_END.
0 0 0 0 0 1 1 1 CONS_CHECK_END_ACK.
0 0 0 0 1 0 0 0 REQ_LSPID.
0 0 0 0 1 0 0 1 LSPID.
0 0 0 0 1 0 1 0 PROTOCOL_ERROR.
0 0 0 0 1 1 0 0 RESET_RSC.
0 0 0 0 1 1 0 1 RESET_RSC_ACK.
0 0 0 0 1 1 1 0 AWAIT_CLEAR.
0 0 0 0 1 1 1 1 AWAIT_CLEAR_ACK.
0 0 0 1 0 0 0 0 AWAIT_CLEAR_COMP.
0 0 0 1 0 0 0 1 AWAIT_CLEAR_COMP_ACK.
0 0 0 1 0 0 1 0 UNBLOCK_RSC.
0 0 0 1 0 0 1 1 UNBLOCK_RSC_ACK.
1 1 1 1 1 1 1 1 Reserved.

Message compatibility instruction indicator
Defines the behavior of the peer network element if the message is not understood.

Message length
Identifies the length of the contents of a message. It is the binary coding of the number of octets of the message contents.

Information element
Each information element contains the following elements:

8	7	6	5	4	3	2	1	Octet
Information element type								1
Information element compatibility instruction indicator								2
Information element length								3-4
Information element content								5-n

Information element type
Identifies the specific VB5 protocol the information element belongs to and the function of the information element being sent.

Information element compatibility instruction indicator
Defines the behavior of the peer network element if the information element is not understood.

Information element length
Length of the contents of the information element. It is the binary coding of the number of octets of the information element contents, i.e., the number of octets following the information element length octets.