4.3.1.1 MACCSI:MA_DATA primitives

The MACCSI:MA_DATA is a mandatory interface between the MAC Control sublayer and the VLC sublayer (see Figure <mark>4-2</mark>). The MAC Control sublayer communicates with the VLC sublayer using the following service primitives:

— *MACCSI:MA_DATA.request*

— *MACCSI:MA_DATA.indication*

4.3.1.1.1 MACCSI:MA_DATA.request

The *MACCSI:MA_DATA.indication* service primitive is used to pass a properly-formed and valid MAC frame from the VLC sublayer to the MAC Control sublayer. This primitive is defined in IEEE Std 802.3, 2.3.1.

4.3.1.1.2 MACCSI:MA_DATA.indication

The *MACCSI:MA_DATA.indication* service primitive is used to pass a properly-formed and valid MAC frame from the VLC sublayer to the MAC Control sublayer. This primitive is defined in IEEE Std 802.3, 2.3.2.

4.3.1.2 VLCSI:MA_DATA primitives

The VLCSI:MA_DATA is an interface between the VLC sublayer and the OAM sublayer, if this sublayer is present (see Figure <mark>4-2</mark>). Otherwise, the VLCSI:MA_DATA is an interface between the VLC sublayer and MAC client. The VLC sublayer communicates with the OAM sublayer or MAC client using the following service primitives:

— *VLCSI:MA_DATA.request*

— *VLCSI:MA_DATA.indication*

4.3.1.2.1 VLCSI:MA_DATA.request

The *VLCSI:MA_DATA.indication* service primitive is used to pass a properly-formed and valid MAC frame from the OAM sublayer or a MAC client to the VLC sublayer. This primitive is defined in IEEE Std 802.3, 2.3.1.

4.3.1.2.2 VLCSI:MA_DATA.indication

The *VLCSI:MA_DATA.indication* service primitive is used to pass a properly-formed and valid MAC frame from the VLC sublayer to the OAM sublayer or to a MAC client. This primitive is defined in IEEE Std 802.3, 2.3.2.

4.3.1.3 VLCSI:VLCPDU primitives

The VLCSI:VLCPDU is a mandatory interface between the VLC sublayer and the VLC client (see Figure <mark>4-2</mark>). The VLC sublayer communicates with the VLC client using the following service primitives:

— *VLCSI:VLCPDU.request*

— *VLCSI:VLCPDU.indication*

4.3.1.3.1 VLCSI:VLCPDU.request

Implementation of the *VLCSI:VLCPDU.request* primitive is mandatory.

4.3.1.3.1.1 Function

This primitive defines the transfer of control commands from a VLC client entity to the local VLC sublayer entity.

4.3.1.3.1.2 Semantics of the service primitive

The semantics of the primitive are as follows:

VLCSI:VLCPDU.request   (
                    opcode,
                    request_operand_list
)

The *opcode* specifies the control operation requested by the VLC client entity. The *request_operand_list* is an opcode-specific set of parameters. The only valid opcode value is VLC_CONFIG as defined in Table 5-1.

4.3.1.3.1.3 When generated

This primitive is generated by a VLC client whenever it wishes to use the services of the VLC sublayer entity.

4.3.1.3.1.4 Effect of receipt

Upon the receipt of this primitive, the Transmit Process of the VLC sublayer entity forms a complete VLCPDU as described in 6.3. The VLCPDU may be further modified by the egress CTE entity, before it is passed to MAC Control sublayer via the MACCSI:MA_DATA interface.

4.3.1.3.2 VLCSI:VLCPDU.indication

Implementation of the *VLCSI:VLCPDU.indication* primitive is mandatory.

4.3.1.3.2.1 Function

This primitive defines the transfer of control information from the VLC sublayer entity to the VLC client entity.

4.3.1.3.2.2 Semantics of the service primitive

The semantics of the primitive are as follows:

VLCSI:VLCPDU.indication (
                    opcode,
                    indication_operand_list
)

The *opcode* specifies the control information being transferred to the VLC client entity. The *indicatoion_operand_list* is an opcode-specific set of parameters. The only valid opcode value is VLC_CONFIG as defined in Table 5-1.

4.3.1.3.2.3 When generated

The *VLCSI:VLCPDU.indication* is generated by the VLC sublayer when it receives from the MACCSI:MA_DATA interface a valid VLCPDU with subtype equal to VLC_CONFIG.

4.3.1.3.2.4 Effect of receipt

The VLC client performs the requested operation, as encoded in the *indication_operand_list*. The format and encoding of the *indication_operand_list* is specified in 8.1, but the formal specification of VLC client operation is beyond the scope of this standard.

4.3.1.3 VLCSI:OAMPDU primitives

4.3.1.3.1 VLCSI:OAMPDU.request

4.3.1.3.2 VLCSI:OAMPDU.indication