Modify Table 9.1:

Value	Message Type	Meaning
…	…	…
8	HDCP_APM_COMMAND	HDCP IIA Authentication Protocol command payload
9	HDCP_APM_RESPONSE	HDCP IIA Authentication Protocol response payload
…	…	**…**

New Section 9.2.1.5:

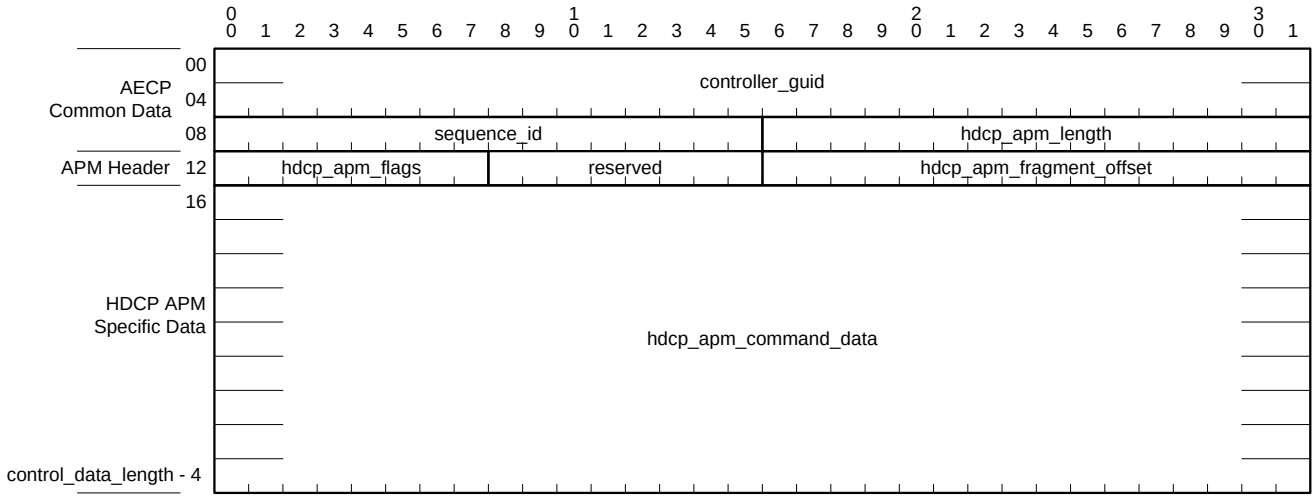
9.2.1.5 HDCP IIA Authentication Protocol format

The HDCP IIA Authentication Protocol command and responses allow for the transport of HDCP (High-bandwidth Digital Content Protection) IIA (Interface Independent Adaptation) commands and responses.

HDCP IIA Authentication Protocol adds the following fields to the AECPDU following the **sequence_id** field:

- **hdcp_apm_length:** 16 bits
- **hdcp_apm_flags:** 8 bits
- **reserved:** 8 bits
- **hdcp_apm_fragment_offset:** 16 bits
- **hdcp_apm_command_data: (**hdcp_apm_length – 4) octets

Figure x shows an HDCP IIA Authentication Protocol AECPDU.



If the command or response frame is shorter than the minimum transmission unit then the frame is padded to the minimum length. These padding octets are not included in the **hdcp_apm_length** field value.

[INSERT STATE DIAGRAM HERE?]

9.2.1.5.1 hdcp_apm_length

The **hdcp_apm_length** field contains the total number of octets in the HDCP IIA command and does not include the four (4) octets for the APM Header, which consists of the **hdcp_apm_flags, reserved,** and **hdcp_apm_fragment_offset** fields. This value is the total length of the message, even when the message spans multiple packets.

9.2.1.5.2 hdcp_apm_flags field

An HDCP_APM_COMMAND packet contains exactly one HDCP IIA command as defined in HDCP IIA Section 4. These commands may contain more data than can be carried in a single 1722.1 frame. The APM Header includes a mechanism to fragment the HDCP IIA command into multiple frames.

If an HDCP IIA command message is large enough that transmitting it in one packet would exceed the **control_data_length** field limit of 524, then the message is be fragmented into multiple packets. If the HDCP IIA command message size does not exceed the **control_data_length** maximum of 524, the APM Header is still be used and the MF bit is be set to 0, since the message contains only "one fragment" and is therefore the last fragment.

The **flags** field is an 8-bit bitfield used to convey information about the fragmentation being used on the current message. The field is defined as shown in Table x:

Bits	Name	Value	Description
1-7	Reserved	Set to 0 by the transmitter	Reserved for future use
0	MF (more fragments)	0-1	0: This is the last fragment 1: More fragments follow this fragment

All packets pertaining to a fragmented message shall use the same **sequence_id**.

9.2.1.5.3 reserved field

The **reserved** field is reserved for future use. It is set to zero (0) on transmit and ignored on reception.

9.2.1.5.4 hdcp_apm_fragment_offset field

The **fragment_offset** field specifies the offset in octets of the current fragment within the context of the entire message. The first fragment of a message has offset zero (0).

9.2.1.5.5 hdcp_apm_command_data field

If **message_type** is set to HDCP_APM_COMMAND, the **hdcp_apm_command_data** field contains an HDCP IIA Authentication Protocol message as defined in HDCP IIDA Section 4, or a portion of an

HDCP IIA Authentication Protocol message if the message is fragmented.

For HDCP_APM_COMMAND packets, the **status** field is be set to SUCCESS.

9.2.1.5.6 HDCP APM Response

Each HDCP_APM_COMMAND received shall be acknowledged by the receiver. This is done by sending an HDCP_APM_RESPONSE packet back to the transmitter.

If the receiver does not support HDCP IIA Authentication Protocol, it shall transmit an HDCP_APM_RESPONSE packet with the **status** field set to NOT_IMPLEMENTED**.** If the receiver supports HDCP IIA Authentication Protocol, it shall transmit an HDCP_APM_RESPONSE packet with the **status** field set to SUCCESS**.**

In both cases, the receiver replies to the HDCP_APM_COMMAND by sending an HDCP_APM_RESPONSE packet with the same **sequence_id**, **hdcp_apm_flags**, and **hdcp_apm_fragment_offset** that were present in the HDCP_APM_COMMAND packet. The **hdcp_apm_length** field is set to zero (0) since no HDCP IIA Authentication Protocol messages follow the APM Header. No other data is sent after the **hdcp_apm_fragment_offset** field**.**

9.2.1.5.7 Message Timeouts

After transmitting an HDCP_APM_COMMAND packet, an entity expects to receive an HDCP_APM_RESPONSE acknowledging reception of that packet within 25 milliseconds. This timeout is necessary to ensure that the HDCP authentication process is able to complete within the timeouts defined in HDCP IIA Section 2.2, even when packet retries are necessary. If an HDCP_APM_RESPONSE is not received in this time frame, the transmitting entity will retransmit the packet. If the transmitting entity sends the same packet three (3) times without a response, HDCP IIA negotiation is aborted.