26.11.2 Segment Monitoring

<<Editor’s Note: This material represents an alternative approach to segment monitoring as that described in 802.1Qbf D0.1. This is for discussion before and/or during the January 2009 Interim Meeting. VLAN-based monitoring, described below, has the benefit that a logical CPB need not be introduced, greatly simplifying the IPS architecture. The 12-bit size of the VID may, however, severely restrict the number of Monitoring VLANs available, and the number of Segments that may be supported.>>

As illustrated in Figure 26-17, each Segment is associated with an MA for purposes of determining the operational state of that Segment. The MA is known as the “Monitoring MA” for that Segment. A VLAN, known as the “Monitoring VLAN” is provisioned between the SEPs at the endpoints of the Segment. Each PNP associated with the Segment participates in the Monitoring VLAN. No other Ports associated with Bridges along the Segment participate in the Monitoring VLAN. That is, the Monitoring VLAN is provisioned as a point-to-point VLAN between the SEPs. The MA managed object associated with the MA specifies the VID identifying the Monitoring VLAN. The value of the VID is inherited by the MEP associated with the Monitoring MA.

The IPS Control entity references the MAdefectIndication variable (20.9.3) indicating the operational state of the Monitoring MA. A value of “true” is interpreted by the IPS Control entity as an indication that the associated Segment is not operational. A value of “false” is interpreted as indicating that the Segment is operational.

NOTE—It is recommended that the operator provision the Monitoring VLAN at each PNP associated with the Segment and that no other Port associated with a Bridge along the Segment be provisioned for participation in the Monitoring VLAN. It is further recommended that the operator provision the Monitoring MA and corresponding MEP in each SEB terminating the associated segment. Failure to do so may result in improper operation of IPS.

Figure 26-17—Segment Monitoring