30.17 Management for Multidrop Power over Ethernet (MPoE)

30.17.1 MPSE managed object class

This subclause formally defines the behaviors for the oMPSE managed object class attributes and actions.

30.17.1.1 MPSE attributes

30.17.1.1.1 aMPSEAdminState

ATTRIBUTE

APPROPRIATE SYNTAX:

An ENUMERATED VALUE that has one of the following entries:

enabled	MPSE functions enabled
disabled	MPSE functions disabled

BEHAVIOUR DEFINED AS:

A read-only value that identifies the operational state of the MPSE function. This maps to the *mpse_enable* variable specified in 169.4.4.2.

The operational state of the MPSE function can be changed using the *acMPSEAdminControl* action.

30.17.1.1.2 aMPSEPowerState

ATTRIBUTE

APPROPRIATE SYNTAX:

An ENUMERATED VALUE that has one of the following entries:

unknown	MPSE true state unknown
offline	MPSE offline
idle	MPSE idle
discovery	MPSE discovery
inrush	MPSE inrush
powering	MPSE powering
error	MPSE error
backoff	MPSE backoff

BEHAVIOUR DEFINED AS:

A read-only value that indicates the state of MPSE as specified in 169.4.4.5

30.17.1.1.3 aMPSETypeDiscovery

ATTRIBUTE

APPROPRIATE SYNTAX:

An ENUMERATED VALUE that has one of the following entries:

type0	Type 0 MPD(s)
type1	Type 1 MPD(s)
mixed	Both Type 0 and Type 1 MPDs

BEHAVIOUR DEFINED AS:

A read-only value that indicates the MPD Class(s) of the detected MPD(s) as specified in 169.4.6.;

30.17.1.1.4 aMPSEPoweringCounter

ATTRIBUTE

APPROPRIATE SYNTAX:
Generalized non resettable counter.

BEHAVIOUR DEFINED AS:
This counter is incremented when the MPSE transitions to the *POWER_ON* state in from the MPI as specified in Figure 169–4.;

30.17.1.1.5 aMPSEOverloadCounter

ATTRIBUTE

APPROPRIATE SYNTAX:
Generalized non resettable counter.

BEHAVIOUR DEFINED AS:
This counter is incremented when the MPSE detects an overload condition as specified in 169.4.9.;

30.17.1.1.6 aMPSEShortCircuitCounter

ATTRIBUTE

APPROPRIATE SYNTAX:
Generalized non resettable counter.

BEHAVIOUR DEFINED AS:
This counter is incremented when the MPSE detects a short circuit condition as specified in 169.4.10.;

30.17.1.1.7 aMPSEActualPower

ATTRIBUTE

APPROPRIATE SYNTAX:
INTEGER

BEHAVIOUR DEFINED AS:
An integer value indicating present (actual) power being supplied by the MPSE as measured at the MPI in milliwatts. The behavior is undefined if the state of *aMPSEPowerState* is anything other than *powering*. The sampling frequency and averaging is vendor-defined.;

30.17.1.1.8 aMPSEPowerAccuracy

ATTRIBUTE

APPROPRIATE SYNTAX:
INTEGER

BEHAVIOUR DEFINED AS:
An integer value indicating the accuracy associated with *aMPSEActualPower* in +/- milliwatts.;

30.17.1.1.9 aMPSECumulativeEnergy

ATTRIBUTE

APPROPRIATE SYNTAX:
Generalized non resettable counter.

BEHAVIOUR DEFINED AS:
A count of the cumulative energy supplied by the MPSE as measured at the MDI in kilojoules.;

30.18 30.17.1.2 MPSE actions

30.17.1.2.1 acMPSEAdminControl

ACTION

APPROPRIATE SYNTAX:
Same as *aMPSEAdminState*

BEHAVIOUR DEFINED AS:
This action provides a means to alter Clause 169.4.4.2 *mpse_enable*.;

30.17.2 MPD managed object class

This subclause formally defines the behaviors for the oMPD managed object class attributes and actions.

30.17.2.1 MPD attributes

30.17.2.1.1 aMPDType

ATTRIBUTE

APPROPRIATE SYNTAX:
An ENUMERATED VALUE that has one of the following entries:

type0	Type 0 only MPD
type1	Type 1 only MPD
mixed	Type 0 and Type 1 MPD

BEHAVIOUR DEFINED AS:
A read-only value that indicates the MPD Type as specified in 169.3.;

30.17.2.1.2 aMPDAdminState

ATTRIBUTE

APPROPRIATE SYNTAX:
An ENUMERATED VALUE that has one of the following entries:

enabled	MPD functions enabled
disabled	MPD functions disabled

BEHAVIOUR DEFINED AS:
A read-only value that identifies the operational state of the MPD functions. An interface which can provide the MPD functions specified in Clause 169 will be enabled to do so when this attribute has the enumeration "enabled". When this attribute has the enumeration "*disabled*" the interface will act as it would if it had no MPD function. This attribute reports *disabled* when in the *OFFLINE* state in 169.5.3.6 and *enabled* otherwise.
The operational state of the MPD function can be changed using the *acMPDAdminControl* action.

30.17.2.1.3 aMPDPowerState

ATTRIBUTE

APPROPRIATE SYNTAX:
An ENUMERATED VALUE that has one of the following entries:

unknown	true state unknown
offline	MPD offline
idle	MPD idle
discovery	MPD discovery
powered	MPD powered

BEHAVIOUR DEFINED AS:
A read-only value that indicates the state of MPD state diagram specified in 169.5.3.6.;

30.17.2.1.4 aMPDDiscoveryCounter

ATTRIBUTE

APPROPRIATE SYNTAX:
Generalized non resettable counter.

BEHAVIOUR DEFINED AS:
This counter is incremented when the MPD enters the *DO_MARK1* state in Figure 169–8.;

30.17.2.1.5 aMPDMismatchCounter

ATTRIBUTE

APPROPRIATE SYNTAX:
Generalized non resettable counter.

BEHAVIOUR DEFINED AS:
This counter is incremented when the MPD enters the *PON_MISMATCHED_TYPE* state in Figure 169–8.;

30.17.2.1.6 aMPDPoweredCounter

ATTRIBUTE

APPROPRIATE SYNTAX:
Generalized non resettable counter.

BEHAVIOUR DEFINED AS:
This counter is incremented when the MPD enters the *PON_LOAD_ON* state in Figure 169–8.;

30.17.2.1.7 aMPDNoPowerCounter

ATTRIBUTE

APPROPRIATE SYNTAX:
Generalized non resettable counter.

BEHAVIOUR DEFINED AS:
This counter is incremented when the MPD enters the *PON_NO_POWER* state in Figure 169–8.;

30.17.2.1.8 aMPDActualPower

ATTRIBUTE

APPROPRIATE SYNTAX:
INTEGER

BEHAVIOUR DEFINED AS:
An integer value indicating present (actual) power being supplied to the MPD as measured at the MPI in milliwatts. It reports the value *0* if the value of *aMPDPowerState* is not *powered*. The sampling frequency and averaging is vendor-defined.;

30.17.2.1.9 aMPDPowerAccuracy

ATTRIBUTE

APPROPRIATE SYNTAX:
INTEGER

BEHAVIOUR DEFINED AS:
An integer value indicating the accuracy associated with *aMPDActualPower* in +/- milliwatts.;

30.17.2.1.10 aMPDCumulativeEnergy

ATTRIBUTE

APPROPRIATE SYNTAX:
Generalized non resettable counter.

BEHAVIOUR DEFINED AS:
A count of the cumulative energy supplied to the MPD as measured at the MDI in kilojoules.;

30.17.2.2 MPD actions

30.17.2.2.1 acMPDAdminControl

ACTION

APPROPRIATE SYNTAX:
Same as *aMPDAdminState*

BEHAVIOUR DEFINED AS:
This action provides a means to alter Clause 169.5.3.3 *mpd_reset* and *dte_power_required*.
A "*disabled*" to "*enabled*" transition sets *mpd_reset* to *FALSE* and *dte_power_required* to *TRUE*.
An "*enabled*" to "*disabled*" transition sets *mpd_reset* to *TRUE* and *dte_power_required* to F*ALSE*.