

LLDP Power Down field D2.4 v101

Info (not part of baseline)

The 'power down' field in LLDP, defined in 79.3.2.6g, allows a PD that no longer wishes to be powered to indicate this to the PSE. The PSE can then power down the port. This feature can for instance be used by PDs that require a hardware reset. This field could also be used by a PD to put itself in complete shutdown (eg. lighting which switches off overnight). Currently it is not possible to indicate to a PSE how long the port should be in shutdown.

Adding a field that allows a PD to indicate how long it should remain in shutdown would greatly increase the effectiveness of this field. We also should provide a hint how such a shutdown command can be undone.

Update Table 30–7 to reflect the added managed objects below.

30.12.2.1.18p aLldpXdot3LocPowerDownRequest

ATTRIBUTE

APPROPRIATE SYNTAX:

BIT STRING [SIZE(~~8~~ 6)]

BEHAVIOUR DEFINED AS:

A SET attribute for a bit string that indicates the local PD system is requesting a power down when the value is ~~0xDD~~ 0x1D.;

Insert new attribute after 30.12.2.1.18p as follows:

30.12.2.1.18p1 aLldpXdot3LocPowerDownTime

ATTRIBUTE

APPROPRIATE SYNTAX:

INTEGER

BEHAVIOUR DEFINED AS:

A SET attribute that indicates the amount of seconds the PD requests to stay powered off. A value of zero indicates an indefinite amount of time.;

30.12.3.1.18p aLldpXdot3RemPowerDownRequest

ATTRIBUTE

APPROPRIATE SYNTAX:

BIT STRING [SIZE(~~8~~ 6)]

BEHAVIOUR DEFINED AS:

A ~~SET~~ read-only attribute ~~for a bit string~~ that indicates the remote PD system is requesting a power down when the value is ~~0xDD~~ 0x1D.

Insert new attribute after 30.12.3.1.18p as follows:

30.12.3.1.18p1 aLldpXdot3RemPowerDownTime

ATTRIBUTE

APPROPRIATE SYNTAX:

INTEGER

BEHAVIOUR DEFINED AS:

A GET attribute that indicates the amount of seconds the remote PD requests to stay powered off. A value of zero indicates an indefinite amount of time.;

79.3.2 Power via MDI TLV

Make the following changes in Figure 79–3:

- Replace “1 octet” by “3 octets” for the Power down field in the Type 3/4 extension
- Change the TLV information string length from 27 to 29

79.3.2.6g Request power down

The request power down field shall be set as defined in Table 79–6g. This power down request field may be set to value ~~0x1D~~ 0x1D by a PD that no longer requires power from the PI.

Replace Table 79–6g as follows:

Table 79–6g — PD request power down field

Bit	Function	Value/meaning
23:18	Power down request	A value of 0x1D triggers a power down. Any other value is ignored.
17:0	Power down time	The amount of time in seconds the PD request to be unpowered. A value of zero means to remain unpowered indefinitely. Valid values for these bits are 0 through 262143.

Update Table 79–9 and 79–10 to link the new power down time to `aLldpXdot3LocPowerDownTime` and `aLldpXdot3RemPowerDownTime`.