Fixing DLL and LLDP
D1.7 comment # 98, v6

Fred Schindler, **Seen** **Simply**

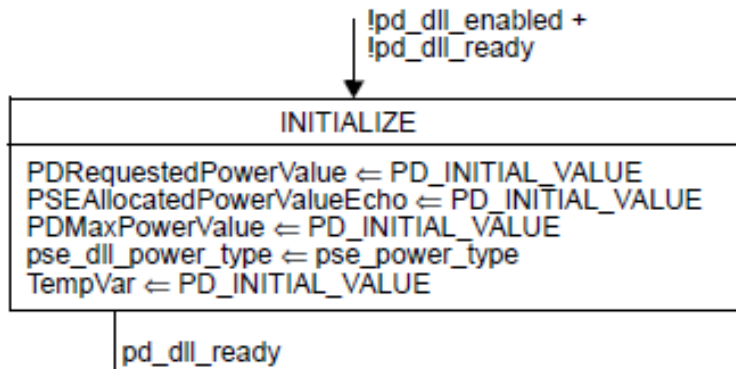Editor instructions highlighted in orange.

Draft 1.7 Comment #98

The San Antonio 2014 meeting presentation, Mutual_ID_PD_updated, change variable **pse_dll_power_type** was changed to **pse_dll_power_level**.
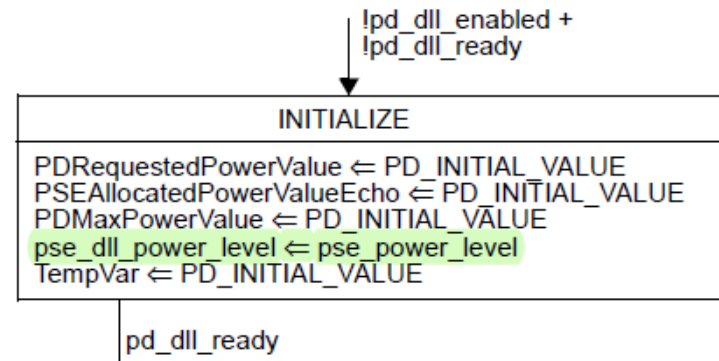
This change:

1. Broke legacy DLL power control.
2. Broke DLL classification for new Types.

PD DLL power control State Diagram (SD)

Legacy   D1.7

pd_dll_power_type is used by Type 1 and 2 PDs, p124

pd_dll_power_level is used by Type 3 and 4 PDs. p129

This is the PD view of the PSE Type and is used by the PD state diagram.
pse_power_type is the **physical layer view**, while **pse_dll_power_type** is the **DLL view**.

DLL Variables Use

DLL uses PD power to negotiate PD power not PD class, **pse_dll_power_level** is not required for this.

PDs are allowed to draw up to the physical layer power level.
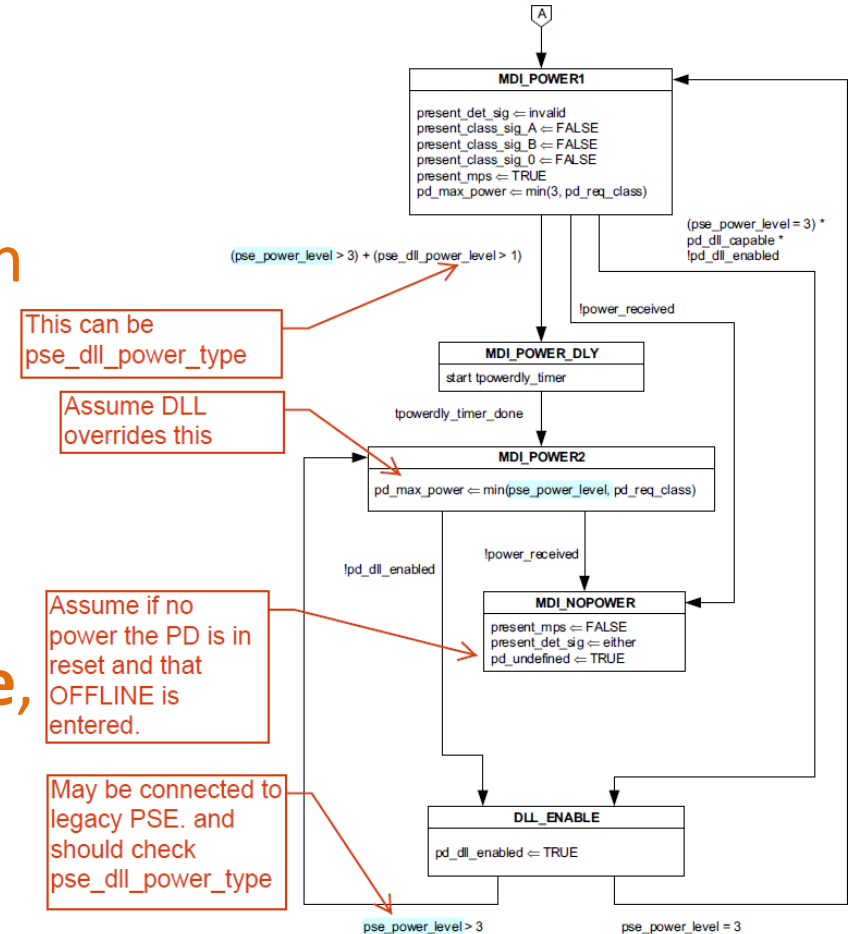The assigned class should not limit this.

New >class-3 PDs are required to support DLL, **pse_dll_power_level > 1 for this case** (i.e. >class 3 or legacy Type >1).

Type 3,4 PD State Diagram

On page 129,

    MDI_POWER1 test replace **pse_dll_power_level** with **pse_dll_power_type**.

DLL_ENABLE tests should replace **pse_power_level** with **pse_dll_power_type**, change 3 to 1.

One DLL SD works

On page 175, restore the legacy SD.

Context information provided below this point:

Page 173

PD		aLldpXdot3RemPowerType Value[1]		pse_dll_power_type Value[1]
	pse value	10	⇒	01
		00	⇒	10

Page 205 legacy,

79.3.2.4.1 Power type

Change text in 79.3.2.4.1 as follows:

This field shall be set according to Table 79–4. Type 3 or Type 4 PSEs shall set this field to the value corresponding with Type 2 PSEs. Type 3 or Type 4 PDs shall set this field to the value corresponding with Type 2 PDs.

Fix LLDP TLV Variables

On page 216, new TLV variable and object class attributes are required, change

Power class	aLldpXdot3LocPowerClass	34
		35
Power type	aLldpXdot3LocPowerType	36
		27

to Power classx aLldpXdot3LocPowerClassx

Power typex aLldpXdot3LocTypex

Note that legacy Power class and Power type rows remain the same.

Fix LLDP TLV Variables

On page 218, new TLV variable and object class attributes are required, change

Power class	aLldpXdot3RemPowerClass	31 32
Power type	aLldpXdot3RemPowerType	33 34

to Power classx aLldpXdot3RemPowerClassx

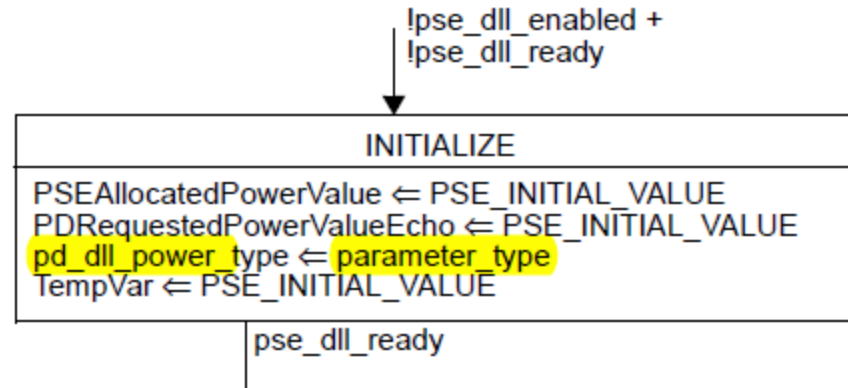Power typex aLldpXdot3RemPowerTypex

Note that legacy Power class and Power type rows remain the same.

Correct Definitions

This specification duplicates definitions of **pse_dll_power_level** on pages 127 and 172.

Use the definition on page 127 for the same definition on page 172. Alternatively, have the Editor remove duplicated definitions in these sections, and use the correct definition.

PSE DLL power control SD

Legacy & D1.7

pd_dll_power_type is used by Type 1 and 2 PSEs, p63

pd_dll_power_type is not used by Type 3 and 4 PDs. p79

This is the PSE view of the PD Type that is used by the legacy PSE state diagram.

Fix LLDP TLV Variables

These were fixed as part of the PD state diagram fix.

The PSE **LOC**al Power Type is the PD **REM**ote power type and visa versa.

Note that legacy Power class and Power type rows remain the same.

Correct Definitions

This specification duplicates definitions of **pd_dll_type** on pages 127 and 172.

Use the same definition on both pages. Alternatively, have the Editor remove duplicated definitions in these sections, and use the correct definition.

Correct by removing "(default)". Strike the related Editor's note on page 70, line 39.

Review

One PD & PSE DLL state diagram handles legacy and new Types by restoring the legacy DLL state diagram**.**

The system obtains LLDP updated value of **pd_dll_power_type** from attributes **aLldpXdot3RemPowerType**.

DLL uses PD power, not class, to negotiate PD power.

Motion

Move to accept text from slides 5– 9, and 12 of Schindler_3bt_01_05_16.pdf as IEEE802.3bt the comment resolution for D1.7 comment #98.

Mover: Fred Schindler

Seconder:

Y: N: A:

Seen Simply

Turning complexity into understanding.