Discussion on PoE procedure

Yan Zhuang, Huawei Technologies

Rui Hua, Huawei Technologies

enterprise.huawei.com

HUAWEI TECHNOLOGIES CO., LTD.

Motivation

➢ **With new processes added, discuss goals and sequence of all PoE processes.**

History:

1. 4P Identification (motions_and_polls.pdf in 2014 September meeting &4PID Revisited.pdf)

4PID Goals

- Identify Type 1 and 2 PDs that can accept 4P power
  - 4PID is a workaround for mutual ID since T1/2 predate 4P
  - All Type 3+ PDs will be designed to accept 4P power: will have positive mutual ID via class
- 4PID should be detected using Layer 1, ideally before classification and powerup (but not mandatory)
- LLDP can override any L1 4PID results

Motion 1

The BT project shall require a PSE to successfully complete a 4P-ID test before enabling power over all 4 pairs to Type 1 & 2 PDs.

Y: 33 N: 0 A: 1

2. Mutual ID: (Abramson_01_0914)

Mutual ID: A Review

- The main objective of mutual identification is for both the PD and PSE to learn the capabilities/requirements of the other.
  - The current standard reads: "Mutual identification is the mechanism that allows a Type 2 PD to differentiate Type 1 PSEs from Type 2 PSEs. Additionally, mutual identification allows Type 2 PSEs to differentiate between Type 1 and Type 2 PDs."

3. Connection Check (Lukacs_01_1114)

Connection Check

- Previous work has shown the need for a connection check to determine if a PSE is attached to a single or dual interface PD.

New processes are proposed in bt standard to fulfill the 4-pair PoE procedure.

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What's process and Goals of new processes

In order to make discussion more efficient, it's better to clarify goals of new introduced processes.

| No	Process	Goal	Notes
1	Connection Check	Determine if a PSE is attached to a single or dual interface PD	
2	4P Identification	Identify Type 1 and 2 PDs that can accept 4P power	Be detected using L1, ideally before classification and power up(but not mandatory)
3	Mutual-ID	For both the PD and PSE to learn the capabilities/requirements of the other	Not only power level in bt, but also new features such as new MPS.

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Suggested BT PoE procedure

Compared with PoE procedure of AT standard, several new processes are introduced into BT standard. The following are PoE procedures of the two specs.
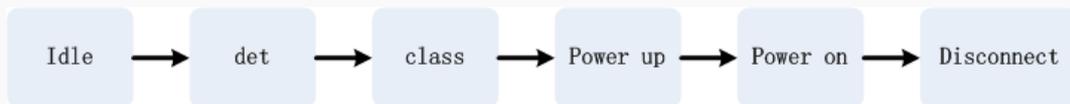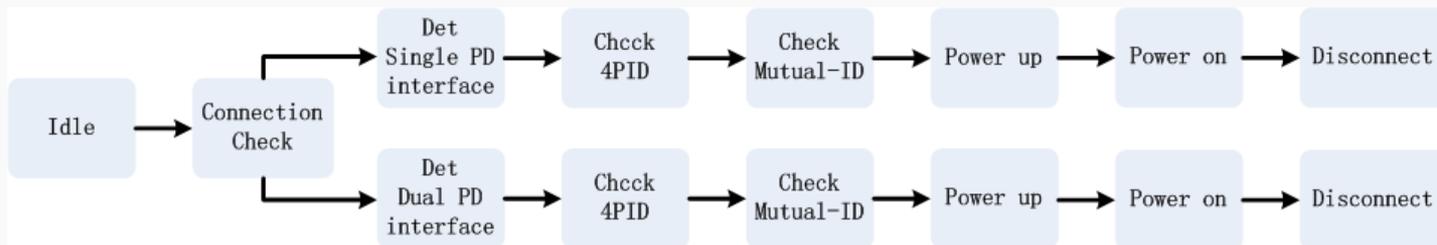
The sequence is: CC ➔ Detection ➔ 4P Identification ➔ Mutual-ID ➔ Power up ➔ Power on ➔ Disconnect.

Questions to discuss

- Do you agree with goals of these new processes?

- Do you agree with the proposed sequence?

- If not, what is your suggestion?

It helps our work more concentrated and efficient if goals and sequence of PoE processes are clear.

Thank you!

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