

IEEE802.3at Study Group

4P vs 2P

Proposal for getting consensus

Nashua, NH September 2005

Yair Darshan/ PowerDsine



Objectives

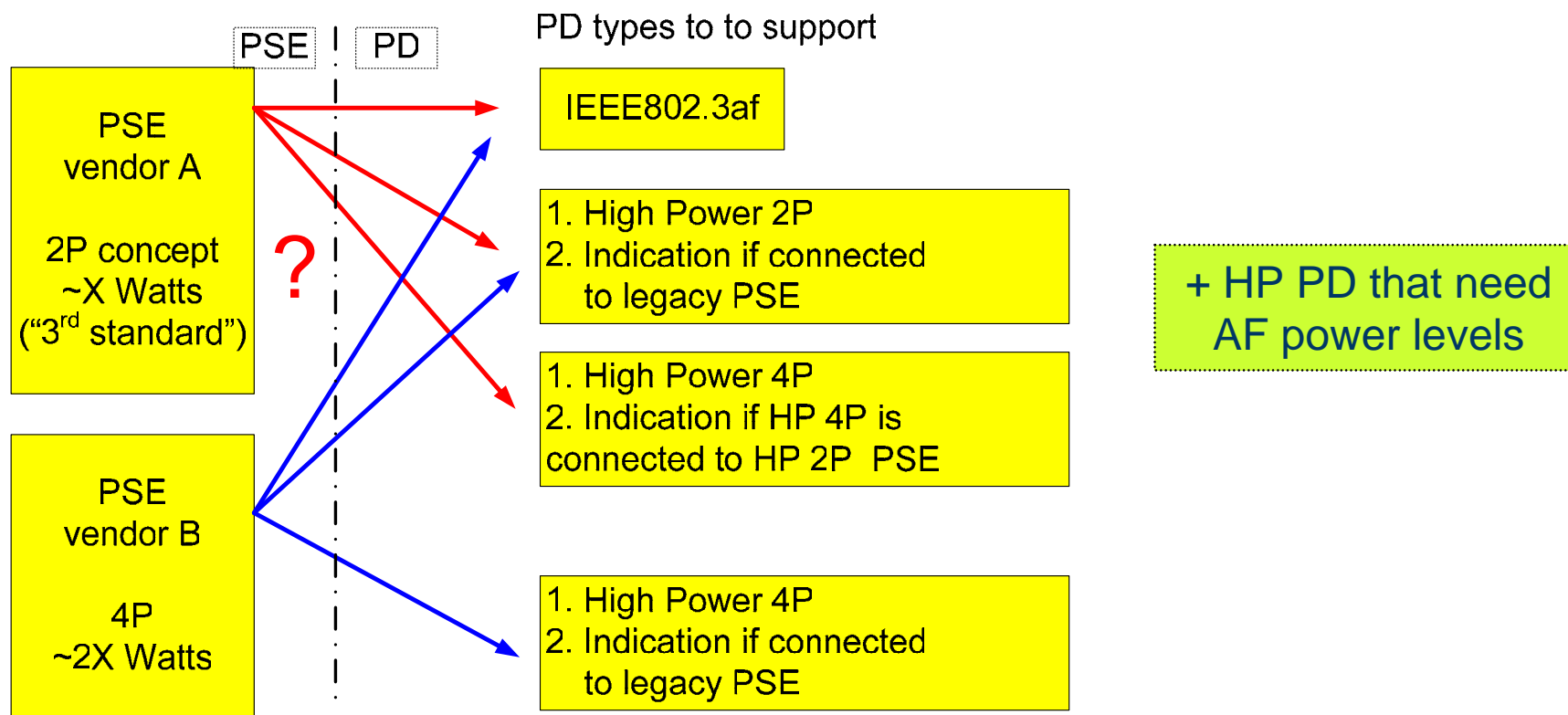
- To agree on a Concept that
 - Not infringes IEEE rules for having a single solution for a single problems
 - Allows supporting 2P medium power loads



Background

■ This is NOT a standard

- Multiple solutions for a single problem
- Creates Multiple problems for a single solution
- Infringe IEEE requirements



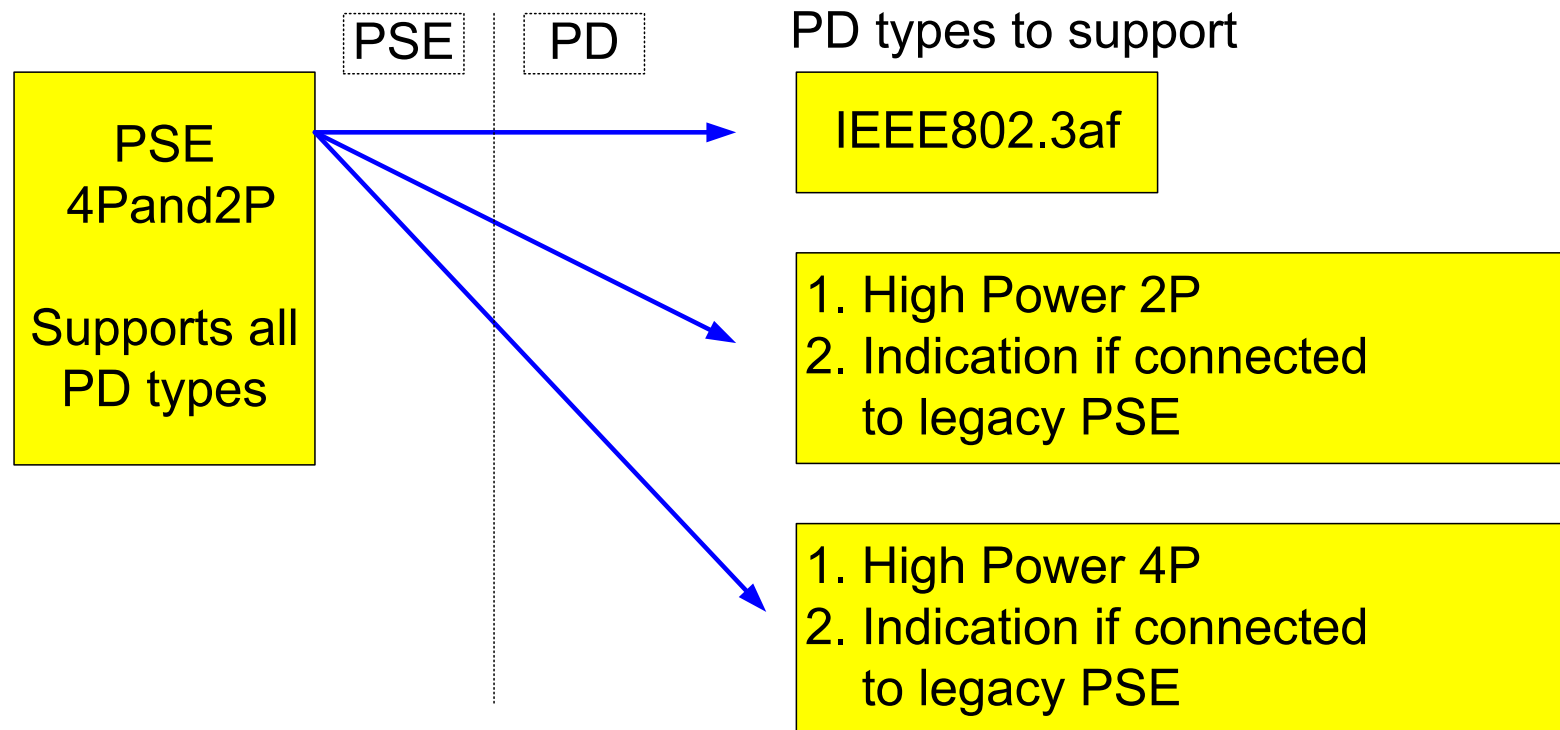
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Background

■ This is a standard

- Single solution for a single problem (=How to support HP and 802.3af PDs)
- Less cost and less complexity



How to keep all Happy?

■ Principles of the concept

– PSE: 4P interface for any PoE_p PD type

- Backwards compatible to 802.3af

– PD: 4P interface

- 4P interface=Detection+Classification

– PD can take

- HP through all 4 pairs
- MP through either pair (like in 802.3af)
- MP through all 4 pair distributed w/o limitations



Internal Structure of 4P PD

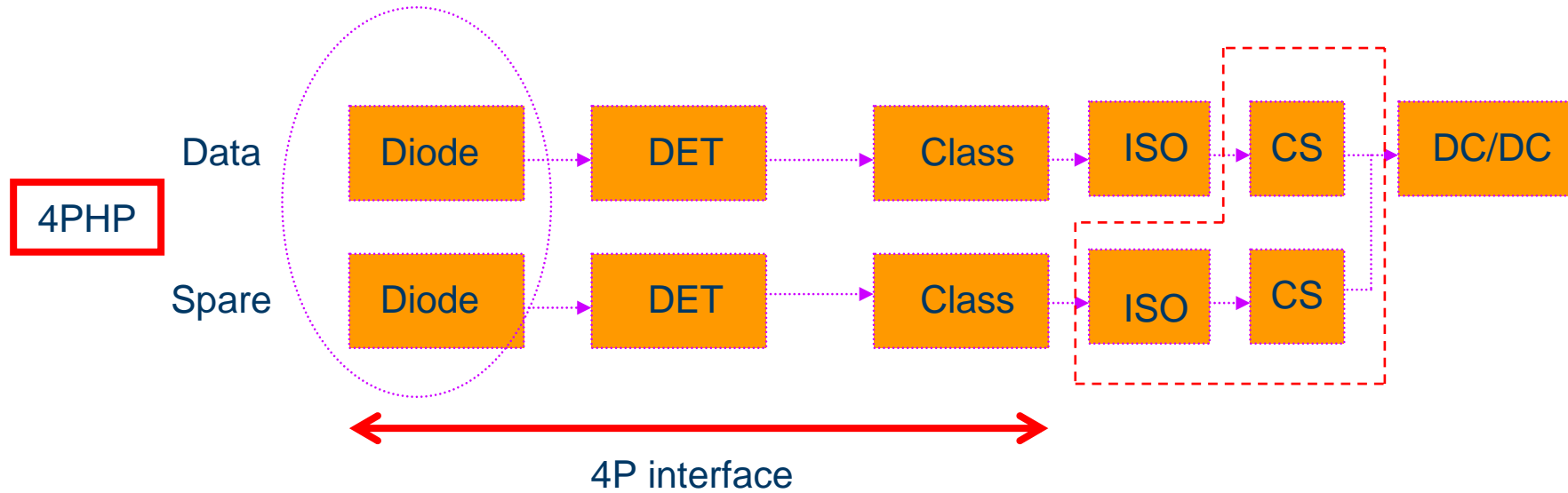
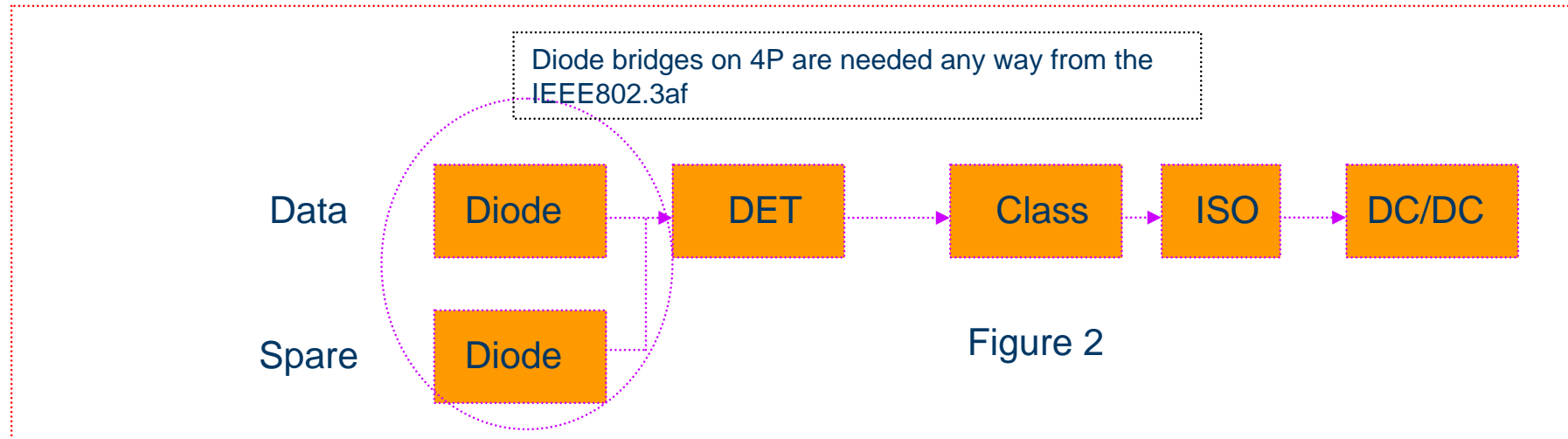
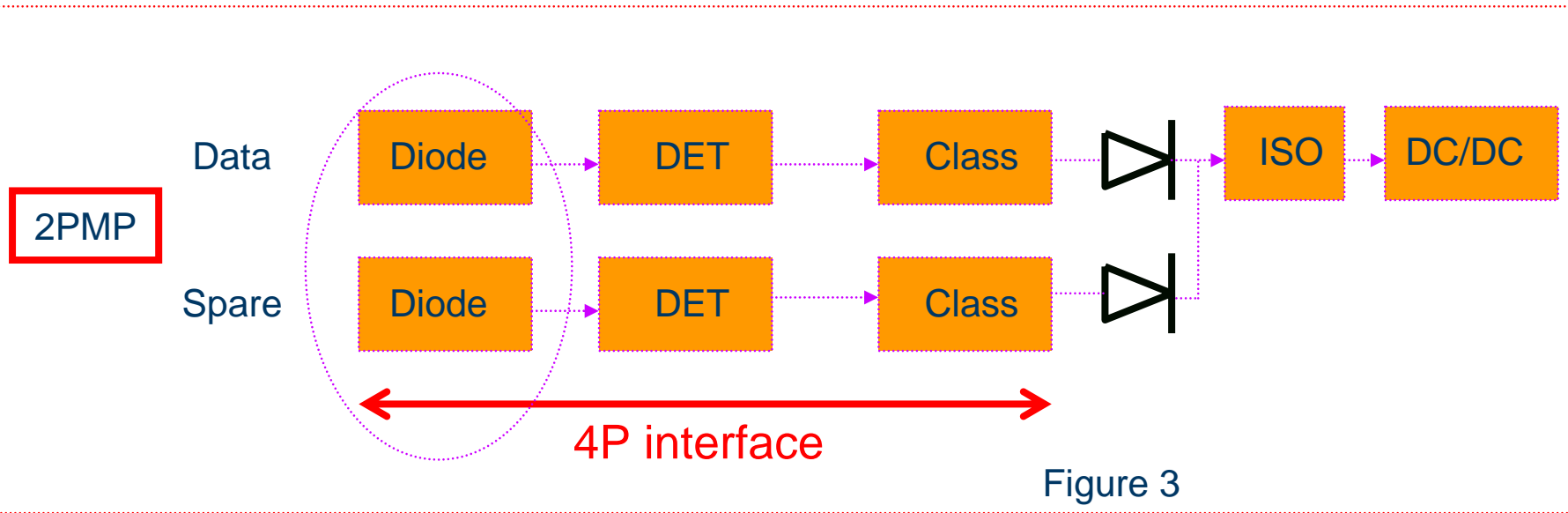


Figure 1

Internal Structure of 2P PD – 802.3af



Internal Structure of propose 2P MP PD



- Reduced Cost of MP with 4P interface
- Interoperable with all PD types (4P HP, 2P MP, AF)
- Simple standard

-Discussion

