

The Final Power Over Ethernet Standard

IEEE802.3bt - Four Pair PoE

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Problem Statement

- ▶ 802.3af first standard, popular
- ▶ 802.3at second standard, not as popular, causes confusion
- ▶ 802.3bt third standard, more confusion?
- We are segmenting the market based on power level

Presented to the IEEE

We have the opportunity to make 802.3bt "The Standard" for PoE

- Highest power available (no more standards)
- Backwards compatible
- Fix af and at issues
- All four pairs energized
 - Lower heat dissipation in the wires
 - More power to the PD
 - Green standard
 - "Energy Efficient PoE"
- All future PDs will run on 4 pairs
- All future PSEs will run on 4 pairs
 - Can have less than full power

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Challenges

- PSE not being able to supply the highest power
- Communicating to the user when not enough power
- These issues exist now in multi-port units with less than full power on each port.

Cost implementing 4 pair for lower power designs

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