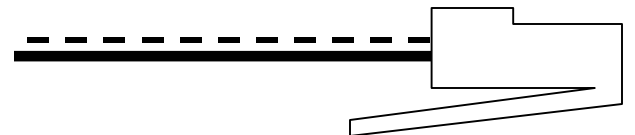


Hard Choices for Voltage

Michael McCormack
3Com Corporation

DTE Power via MDI Study Group
802.3 July 200 Plenary, La Jolla, CA



Conflict

Nominal 48VDC

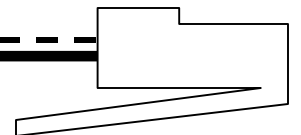
- Existing Source PS and Sink DC - DC

15 Watts at the PD

- Comfort number / Agreed target

Link / component reality

- 350mA transformer limit for 1000BASE-T
- 25 two pair loop Ohm for existing cabling
- Support for Auto MDI / Crossover Cables



Consequences

48VDC Nominal

- After loss min at PD
35.45 VDC (rectified)
- +/- 5% (not battery)

15 Watt Power

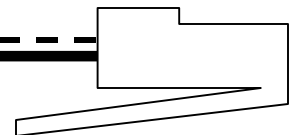
- Target +/- 5% power
- 15 Watts rectified

12.4 Watts

after rectifiers

55.2 VDC

nominal



Summary

- Decision is necessary for testing
- Either solution will be “annoying” to some
- Compromise is not reasonable

