

Objectives for DTE Power Study Group

November 10, 1999 as approved by DTE Power via MDI SG.

(1) Economically provide power over a twisted-pair link segment to a single Ethernet device. To be included:

10BASE- T,

100BASE- TX.

To be considered:

1000BASE- T.

(2) Select one power distribution technique for world- wide use

(3) Not cause damage and interoperate with compliant RJ- 45 MDI Ethernet devices including:

a. Switch- to- switch connections (both supplying power)

b. Cross- over cables

c. Common mode termination implementations

d. Shorted conductors, pairs or loop- back plug

(4) Define a capability detection function that works with a powered and an unpowered device

(5) Select the voltage, minimum and maximum current and wattage to be supplied

(6) Add appropriate management objects for power capability and status

(7) Support current standard, 4- pair, horizontal cabling infrastructure for installed Cat 3 and Cat 5 cabling

(8) Preserve the signal transmission and isolation characteristics of existing equipment and cabling

(9) Maintain normal functionality of Link Integrity Test function in legacy and new devices

(10) Consider mid- span power insertion, powering over the signal pairs, and interaction with other RJ- 45 interfaces: Token Ring, ATM, FDDI TP- PMD,

1000BASE- T, ISDN, networking test equipment, PBX, IEEE 1394, devices listed in ISO/IEC 11801 : 1995 Annex G