DTE Power via MDI Task Force

Plenary Meeting Closing Report
July 2000
La Jolla, CA

Steve Carlson, TF Chair
Objectives for this Meeting

- Reduce discovery methods to two
- Analyze data on mid-span, create issues list
- Analyze data on power on signal pairs, create issues list
- Examine 1st. Draft
- Re-visit voltage and current in light of new information from ISO/IEC
Presentations

- “Safety Considerations - Power Fault Protection”, Lisa Leo, Raychem
- “Coupled Diode Discovery Protocols and Prototypes,” Rick Brooks, Nortel
Presentations

• “Power on the 802.3 Connection”, John Austerman, CMS Technologies
• “IEEE 802.3 DTE Power via MDI Resistive Detection and Signature Protocol Follow-Up,” Robert Leonowich, et. al, Lucent
• “PowerDsine Follow-On,” Amir Lehr, PowerDsine
• “Mid-Span Insertion and Generic Cabling Standards,”, Bob Love, LAN Connect Consultants
• “Power DTE Mid-Span Cabling Implementation,” Michel Bohbot, Nordx/CDT, Roger Karam, Cisco
  Moty Goldis, Lucent
Presentations

• “Power over Signal Pairs - Why is Cisco Pursuing?,” Chris Cullen, Cisco
• “Economic Feasibility of Power Over the Signal Pairs,” Karl Nakamura, Cisco
• “Technical Feasibility of Providing Power Over the Signal Pairs,” Roger Karam, Cisco
• “DTE Power for 1000BASE-T,” Kevin Brown, Broadcom
• “Transformer Characteristics when Used in Mid-Span Applications”, Henry Heinrichs, Pulse
• “Hard Choices for Voltage,” Mike McCormack, 3Com
Presentations

• “Hard Choices for Voltage,”, Mike McCormack, 3Com
• “Powered Device Limits,” Arlan Anderson, Nortel
• “Discovery Method Evaluations,” Karl Nakamura, Cisco
• “Signal Pair Analysis: What Needs to be Done,” Dan Dove, H-P
Straw Polls

#1: Is 14 W maximum power level delivered to the DTE acceptable?

M: Mike McCormack  S: Don Pannell

Technical - 75%

YES     NO     Abstain

51      0      No vote

All Voters
# Straw Polls

## #2: Discovery Proposals (Chicago Rules)

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistor Detection - Lucent</td>
<td>39 2 17</td>
</tr>
<tr>
<td>Diode/Cap - Nortel</td>
<td>42 0 18</td>
</tr>
<tr>
<td>Big Cap - Alcatel</td>
<td>18 15 27</td>
</tr>
<tr>
<td>Serial Detect - CMS</td>
<td>7 0 23</td>
</tr>
<tr>
<td>Big Cap II - PowerDsine</td>
<td>24 0 34</td>
</tr>
</tbody>
</table>
Straw Polls

#3 Chose the one you like:

- Resistor Detect - Lucent 19
- Diode/Cap - Nortel 23
- Big Cap - Alcatel 3
- Big Cap II - PowerDsine 4
- All Voters
## Straw Polls

### #4 - Has economic viability of power over the signal pairs been demonstrated?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>Abstain</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>47</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>.3 voter</td>
<td>26</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>
Straw Polls

#4 - Has technical feasibility of power over the signal pairs been demonstrated?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>Abstain</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>51</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>.3 voter</td>
<td>24</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Motions

Ottawa Motion: That we accept the powering of the DTE via either sets of wire pairs (1-2, 3-6 and 4-5, 7-8), in anticipation of the detailed technical and economic feasibility of each having been shown prior to the Working Group Ballot.

Moved: David Law
Second: Roger Karam
Technical: Yes 75%
Y: 32  N: 4  A: 3
Motion Carries
Motions

Motion: Move that the maximum continuous current draw at the PD end be no more than 350mA.

M: Mike McCormack
S: Don Pannell
Technical: 75%

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Abstain</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>0</td>
<td>5</td>
<td>64</td>
</tr>
<tr>
<td>31</td>
<td>0</td>
<td>1</td>
<td>.3 voter</td>
</tr>
</tbody>
</table>

Motion Carries
Motions

Motion: Move that the 802.3af TF hold an interim meeting in Boston in the second week of September.

M: Robert Love
S: Karl Nakamura

Procedural - 50%

Yes    No    Abstain
28     0     0    .3 voters

Motion Carries
**Action Items**

Mike McCormack to see that 802.3af Requirements List is posted to the Task Force Website, and to ensure that each of the requirements is dated.

- Create Ad-Hoc on mid-span technical issues - report next meeting
- Create Ad-Hoc on high-level state machine - report next meeting
- Create Ad-Hoc on power spec - report via e-mail, 2 weeks.
- Perform testing on discovery proposals against new matrix
- Perform all tests on idle pair power with the addition of CM coupling

DTE Power had approximately 71 individuals from 41 companies participating at this meeting, about 30% new to 802.3af, 15% new to 802.