IEEE 802.3
Interpretations Report

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San Francisco, CA

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Interpretations Status

- 3 new Interpretations received

  1-07/05 - DTE Power via MDI Isolation

  2-07/05 - Auto-Negotiation

  3-07/05 - PME Aggregation restrictions

  Available on Interpretations area of web site

  HTTP://www.ieee802.org/3/interp/index.html

Request 1-07/05

Interpretation Request

I have some problems to understand the meaning of clause 33.4.1 (Isolation) of IEEE802.3af-2003.

Example:

There is a six port switch including a PSE to provide power via MDI and an inband management (IP) for configurations and status informations. The entire device has only one connector for external power supply (48Vdc) and six twisted pair ports for the ethernet.

Q1:
Where is the isolation required?

Q2:
Must the CPU and the switch inside the device isolated from the PSE controller?

Q3:
What is the meaning of "PI device circuits"? Does it means only the 48V power supply, the PSE controller and the FET´s?

Q4:
How do I isolate the PI leads from the PI device circuits like the PSE controller? The PI leads are directly connected to the FET and the PSE controller.

Request 2-07/05

Interpretation Request

I am debating with a colleague the validity of configuring a 10/100/1000 Ethernet port for fixed 1000Mb full-duplex operation. Is this permissible? I have seen interpretations that it is permissible to configure a port for fixed 1000Mbps operation and interpretations that if auto-negotiation is disabled, fixed speed can only be set to 100Mbps or 10Mbps.

Standard: IEEE Std 802.3(tm)-2002
Section(s): 37 and 40.5.1 Support for Auto-Negotiation
Conditions: A physical Ethernet port is capable of operation at 10Mbps, 100Mbps, or 1000Mbps. Full-duplex operation is possible at all speeds. Half-duplex operation is available at 10 and 100Mbps. It is also possible to configure the port for auto-negotiation.

The question is, Is it permissible to configure a 10/100/1000 capable port for fixed, full-duplex operation at 1000Mbps when auto-negotiation is disabled?

Request 3-07/05

Interpretation Request

Standard: Std 802.3ah-2004
Section: 61.2.2.5: PME Aggregation Restrictions

Question:
The above section defines the term "differential latency" as the number of bits, N , that can be sent across the fast link in the time it takes one "maxFragmentSize" fragment to be sent across the slow link. In the next page it says that "maxFragmentSize"=512 octets, and that the maximum ratio between any tow links is 4. Combine it with the above statement, you get the value of 4*512=2048 octets = 16K bits for the maximal possible value of "differential latency". But in the next page, it says that the maximum value of "differential latency" should be 15000. How come?

IEEE-SA Standards Companion Text on interpretations

- Interpretations are a unique form of commentary on the standard. They are not statements of what the standard should have done or meant to say. Interpretations cannot change the meaning of a standard as it currently stands. Even if the request points out an error in the standard, the interpretation cannot fix that error. The interpretation can suggest that this will be brought up for consideration in a revision or amendment (or, depending on the nature of the error, an errata sheet might be issued).

- However, an interpretation has no authority to do any of this. It can only discuss, address, and clarify what the standard currently says. The challenge for the interpreters is to distinguish between their expertise on what 'should be,' their interests in what they 'would like the standard to be,' and what the standard says. Interpretations are often valuable, though, because the request will point out problems that might otherwise have gone unaddressed.

- http://standards.ieee.org/guides/companion/part2.html#interpret

Plans for the week

- Meet this week
  - Review requests and draft responses
- Present draft responses to closing plenary
  - Three way vote
    - Approve proposed response
    - Reject proposed response
    - Send proposed response out for Working Group Ballot