

Definition of “IEEE 802 Network” in P802-REVc/D1.1

Rev 1: Adds slides 9-10. Revises last bullet of slide 5.

Roger Marks (EthAirNet Associates)

roger@ethair.net

+1 802 capable

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“IEEE 802 Network” in IEEE Std 802

- In P802-REVc/D1.1, “IEEE 802 network” appears 74 times
 - Sometimes as “IEEE 802® network”
- No specific definition, but many descriptions
 - Descriptions are inconsistent
- During comment resolution and discussion, many efforts have been made at proposing a definition
- The problem is that a single definition is inconsistent with some of the 74 uses

Generic “IEEE 802 Network”

- Clause 4

- *IEEE 802 networks use frame-based communications over a variety of media to connect various digital apparatus regardless of computer technology and data type.*
- *Some IEEE 802 networks can provide scheduled frame transmissions in addition to or alternatively to asynchronous frame transmissions.*
- *IEEE 802 networks are intended to have wide applicability in many environments.*

Specific “IEEE 802 Network”

- Clause 6

- *With the descriptions in Clause 5 as a basis, an IEEE 802 network can be characterized as a communication resource that provides sufficient capabilities to support the MAC service specified in IEEE Std 802.1AC, between two or more MSAPs...*
- *An IEEE 802 network is required, at a minimum, to support the MAC Internal Sublayer Service specified in IEEE Std 802.1AC and support the use of EtherTypes for protocol identification at the LLC sublayer.*

“IEEE 802 Network” in ballot

- In the final disposition of comments for P802-REVC/D1.0, the disposition of Comment 98 says:
 - *The current definition of an IEEE 802 network does not necessarily include all IEEE 802 standards. Instead, the definition of IEEE 802 networks is those that conform to Clause 6.*
- Enforcement of this definitions lead to many inconsistencies in the draft, as detailed in many recirc comments.
- Note: this resolution appears only in the final disposition of comments, which is hard to find. It was at neither:
 - <https://1.ieee802.org/maintenance/802-revc/> nor
 - https://mentor.ieee.org/802.1/documents?is_group=Mntg

Proposal

- Add term “bridgeable IEEE 802 Network”
- Change text regarding the specific “IEEE 802 Network” to apply to this “bridgeable IEEE 802 Network”

Detailed changes (1 / 2)

- bridge: A functional unit that interconnects two or more bridgeable IEEE 802 networks...
- P30L26: In particular, the use of bridges, as described in 5.3.2, for interconnecting bridgeable IEEE 802 networks is now widespread.
- P40L33: IEEE Std 802.1Q provides the basic specification for bridge interworking among bridgeable IEEE 802 networks.

Detailed changes (2/2): Clause 6

- P46L3: *With the descriptions in Clause 5 as a basis, a bridgeable IEEE 802 network can be characterized as a communication resource that provides sufficient capabilities to support the MAC service specified in IEEE Std 802.1AC, between two or more MSAPs.*
- P46L7: *An bridgeable IEEE 802 network is required, at a minimum, to support the MAC Internal Sublayer Service specified in IEEE Std 802.1AC and support the use of EtherTypes for protocol identification at the LLC sublayer. Note that networks that meet these requirements are bridgeable IEEE 802 networks, even if not specified in IEEE 802 standards.*

Proposed resolution: Comment 15

Revised – The comment is related to the ambiguous usage of the term “IEEE 802 network” in the draft and the definition presumed in the resolution of Comment 98 of the initial ballot. Revise as follows:

- P46L3: With the descriptions in Clause 5 as a basis, an bridgeable IEEE 802 network can be characterized as a communication resource that provides sufficient capabilities to support the MAC service specified in IEEE Std 802.1AC, between two or more MSAPs. In particular, this requires the ability to convey LLC sublayer data from one MSAP to n other MSAPs, where n can be any number from 1 to the number of all of the other MSAPs on the network. A bridgeable IEEE 802 network is required, at a minimum, to support the MAC Internal Sublayer Service specified in IEEE Std 802.1AC and support the use of EtherTypes for protocol identification at the LLC sublayer. Note that networks that meet these requirements are bridgeable IEEE 802 networks, even if not specified in IEEE 802 standards.
- P30L26: In particular, the use of bridges, as described in 5.3.2, for interconnecting bridgeable IEEE 802 networks is now widespread.
- P40L33: IEEE Std 802.1Q provides the basic specification for bridge interworking among bridgeable IEEE 802 networks.
- P25L8: bridge: A functional unit that interconnects two or more bridgeable IEEE 802 networks...

Other proposed resolutions

Comment 17, 18, 19, 20, 21, 22, 23, 25:

Revised – The comment is related to the definition of the term “IEEE 802 network” and is alternatively addressed by the resolution of Comment 15.

Comment 24:

Revised – At P58L14 and P58L15, replace “IEEE Std 802 network” with “IEEE 802 network”.