

IEEE 802.3 EFMP (Ethernet + Fault Managed Power) Study Group Closing Report

Bob Voss
Panduit
Montreal, Quebec
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IEEE 802.3 EFMP Study Group

Study Group information

Study Group Organization

Bob Voss, IEEE 802.3 EFMP Study Group Chair

Study Group charter

Move that the IEEE 802.3 Working Group request the formation of a Study Group to develop a Project Authorization Request (PAR) and Criteria for Standards Development (CSD) responses for Fault-Managed Power Ethernet powering techniques.

Study Group web and reflector information

Reflector information: <https://www.ieee802.org/3/EFMP/reflector.html>

Home page: <https://www.ieee802.org/3/EFMP/index.html>

IEEE 802.3 EFMP Study Group Activities This Week

Study group met Wednesday AM1 & AM2

Received and responded to comments from 802.1 and 802.11

Comments helped the Study Group improve clarity of PAR and CSD responses

Voted to move revised PAR and CSD responses forward

Formulated and approved Basic Objectives

PAR and CSDs Available:

[EFMP PAR Responses with Working Group Review Changes – Clean](https://www.ieee802.org/3/EFMP/public/par/P802.3dw_PAR_Clean.pdf)

https://www.ieee802.org/3/EFMP/public/par/P802.3dw_PAR_Clean.pdf

[EFMP PAR Responses with Working Group Review Changes – Diff](https://www.ieee802.org/3/EFMP/public/par/P802.3dw_PAR_Diff.pdf)

https://www.ieee802.org/3/EFMP/public/par/P802.3dw_PAR_Diff.pdf

[EFMP CSD Responses with Working Group Review Changes – Clean](https://www.ieee802.org/3/EFMP/public/par/CSD_EFMP_20260715_Clean.pdf)

https://www.ieee802.org/3/EFMP/public/par/CSD_EFMP_20260715_Clean.pdf

[EFMP CSD Responses with Working Group Review Changes – Deltas](https://www.ieee802.org/3/EFMP/public/par/CSD_EFMP_20260715_Diff.pdf)

https://www.ieee802.org/3/EFMP/public/par/CSD_EFMP_20260715_Diff.pdf

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Next Steps

Move to Task Force

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802.1 Comments and Responses

Document	Section	Comment	Response
PAR	5.2B Project scope	Change “The scope of the project ... ” to “This amendment adds ...”	The proposed change makes a direct, forward-looking statement about what the project will result in specifying rather than a bounding statement as to what scope the project may consider specifying. A bounding statement is appropriate for PAR item 5.2B. The text is also in harmony with recently SASB-approved PARs P802.3ds and P802.3dt, as well as P802.3dv.
PAR	5.6 Stakeholders	Change “switches” to “bridges”	Modify PAR item 5.6 text, “... system product providers (e.g., switches and associated networking equipment)”
CSD	Broad Market Potential	Spell out acronyms PoE, FMP, ICT, HVAC, and EV at first use. Align subsequent slides	Acronyms spelled out in submitted version of IEEE P802.3dw draft CSD responses
CSD	Compatibility	Change response to a) to “Yes”	Suggested change was made.

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802.11 Comments and Responses

Document	Section	Comment	Response
PAR	5.2B Project scope	“This project specifies optional Fault Managed Power (FMP) delivery on Ethernet cabling with additions and modifications to the Physical Layer (PHY) (including reconciliation sublayer) and management parameters.”	The proposed change makes a direct, forward-looking statement about what the project will result in specifying rather than a bounding statement as to what scope the project may consider specifying. A bounding statement is appropriate for PAR item 5.2B. The text is also in harmony with recently SASB-approved PARs P802.3ds and P802.3dt, as well as P802.3dv.
PAR	5.5 Project need	Change to “The success of Power over Ethernet (PoE) has created demand for power delivery over Ethernet cabling that exceeds it’s limit of 71.3 W.”	Modify PAR item 5.5 text, “The success of Power over Ethernet (PoE) has created demand for power delivery over Ethernet cabling that exceeds it’s limit of 71.3 W.”

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802.15 Comments and Responses

Document	Section	Comment	Response
PAR	2.1 Project title	“Is there coordination with IEEE Power Engineering Society (PES) or Product Safety Engineering Society (PSES) on this project? It seems that this may have implications for PES stakeholders?”	The proposed project is focused on interoperability of FMP with Ethernet. This project is known in the industry. One example is the National Electrical Code is in a revision cycle. A public input called out the project and known members of PES are in that group. The PAR stakeholders section is intended to notify industry participants who may have interest.

IEEE 802.3 EFMP Study Group WG Motion

Move that the IEEE 802.3 Working Group request the re-chartering of the EFMP Study Group.

Moved by Bob Voss on behalf of the study group
(Technical $\geq 75\%$)

Rationale for extension request: Approval has been sought to forward the IEEE P802.3dq PAR to NesCom, which was developed by this Study Group. This request for extension is only to address any issues during the approval process for the IEEE P802.3dq PAR.

Basic Objectives

1. Define a method to detect a Fault Managed Power (FMP) receiver before applying operating voltage
2. Specify FMP transmitter interface startup, operating, and shutdown behaviors and electrical characteristics
3. Specify FMP receiver interface startup and operating behaviors and electrical characteristics
4. Do not preclude operation with at least one IEEE 802.3 PHY
5. Do not preclude Ethernet operation of the supported IEEE 802.3 PHYs in the presence of FMP
6. Do not preclude FMP operation in the presence of Ethernet traffic between the supported IEEE 802.3 PHYs
7. Define optional management parameters such as FMP detection, startup, operating state, allocated power, fault state, and fault reporting
8. Do not preclude meeting the UL 1400-1 Fault-Managed Power Systems (Part 1: Safety Requirements) standard

IEEE 802.3 EFMP Study Group WG Motion

Move that the IEEE 802.3 Working Group approve the IEEE P802.3dw EFMP Basic Objectives, per slide 9 of https://www.ieee802.org/3/EFMP/public/260715/EFMP_Plenary_Closing_Report_20260716.pdf

M: Bob Voss

S: Jason Potterf

(Technical $\geq$ 75%)

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WG Motion

Move that the IEEE 802.3 Working Group approve the IEEE P802.3dw EFMP CSD “Managed Objects”, “Coexistence”, “Broad Market Potential”, “Compatibility”, “Distinct Identity”, “Technical Feasibility”, and “Economic Feasibility” responses, as per

https://www.ieee802.org/3/EFMP/public/260715/CSD_EFMP_20260715.pdf.

M: Bob Voss

S: George Zimmerman

(Technical $\geq$ 75%)

IEEE 802.3 EFMP Study Group WG Motion

Move that the IEEE 802.3 Working Group approve the IEEE P802.3dw EFMP PAR, in

https://www.ieee802.org/3/EFMP/public/260715/P802.3dw_PAR_150726.pdf

M: Bob Voss

S: Chad Jones

(Technical $\geq 75\%$)

Questions?

Thank You!