

IEEE 802.3da SPMD TF AdHoc meeting

23 September 2020

Prepared by Peter Jones

Presentations posted at:

<http://www.ieee802.org/3/SPMD/index.html>

Agenda/Admin Peter Jones:

Meeting began at 7:05am PT.

1. Reviewed the Attendance information related to the ad hoc(s).
 - a. Reminded participants to indicate full names and employer/affiliation correctly for the meeting minutes.
2. Reviewed agenda and asked for approval of 26 August 2020 minutes?
 - a. Approved without objection.
3. Displayed TF slide deck, reviewed participation conditions.
http://www.ieee802.org/3/WG_tools/templates/Task_Force_agenda_V3p8.pptx

Presentations/Discussion.

MACsec & SPMD

Peter Jones Cisco

- Add source for figures
- Support for “virtual networks” – addressed building control uses cases when sharing media between different applications
- does LLDP use controlled or uncontrolled port? LLDP in multidrop?
 - Homework

Liason Letter

Chad Jones Cisco

- Waiting for TIA TR42 to complete agreement to access documents
- Need to add TR42.7 chair?

SPMD Power Up Procedure

Chad Jones Cisco

- Minimizing available power/minimizing “reserve power” is important
- Concern about “power keepalive” requirement for low power end devices, prefer to mandate that PDs powering down signal the PSE. This would mandate the PD maintain some power storage. Concern expressed from call.
- Send/receive LLDP can be done with much simpler machinery than an MCU. Could remove the need for a 1W startup.
- sleep state using only reserved power – need to signal this.
- reserved power absolute number (0.1W) – make this configurable in the PSE
- PD removal – use LLDP timeout.
- PSE configuration for startup/reserved power can break plug-and-play
- The simpler we can make this, the better
- Propose to have the PD signal its reserved power
- Can we avoid specifying the reserved power in the standard?
- Need to account for power cable loss.
- What about dealing with a larger set of physical attached nodes (e.g. 128), with only a subset of active nodes (e.g., 16).
 - SPMD will compete with wireless technologies, including energy harvesting with local storage.
 - Not in line with the spirit of the objectives?
 - Support for “borrowing power” for devices with high power peak, but very infrequent use (e.g. window blind)?
- “Peak power” vs “normal power”
 - PD storage with trickle charge?
 - Temporary borrow from “slush fund”?
- How do we account for physical effects of connecting many devices to the mixing segment?
 - To be accounted for in mixing segment definition.
 - Need to support plug and play, as well as considering engineered systems.
- Negotiation power of 1W – 802.3bt uses 1 second average – peak power may be different – means voltage can/will vary.

Progressing the study group

Chad Jones Cisco

- Will use this slot going forward (at least to November plenary) as TF interims.
 - Email announcement will be sent.
- Presentations requesting a decision need to be pre-posted early enough to enable review
- Review work items every meeting, track who signed up for items and when.

Meeting closed ~8:50 PT

Attendees (from Webex + emails)

Name	Employer	Affiliation	Attended 09/23
Alessandro Ingrassia	Canova Tech	Canova Tech	y
Arkadiy Peker	Microchip	Microchip	y
Bernd hHormmeyer	Phoenix Contact	Phoenix Contact	y
Bob Voss	Panduit	Panduit	y
Bruce Nordman	Lawrence Berkeley National Laboratory	Lawrence Berkeley National Laboratory	y
Chad Jones	Cisco	Cisco	y
Chris Diminico	MC Communications	PHY-SI LLC/Panduit	y
Christopher Pohl	Beckhoff Automation	Beckhoff Automation	y
Cornelia Eitel	Belden	Belden	y
David D. Brandt	Rockwell Automation	Rockwell Automation	y
David Katz	Phoenix Contact	Phoenix Contact	y
Denis Beaudoin	TI	TI	y
Dongok Kim	Hyundai	Hyundai	y
Egenhofer Ulrich	Draexlmaier	Draexlmaier	y
Eric DiBiaso	TE	TE	y
Fred Dawson	Chemours	Chemours	y
Geoff Thompson	Independent	Independent	y
George Zimmerman	CME Consulting	CME Consulting/ADI, Cisco, CommScope, Marvell, Sentekse	y
Gergely Huszak (Kone)	Kone	Kone	y
Hans Lackner	QoSCom	QoSCom	Y
Haysam M. Kadry	Ford	Ford	y
Heath Stewart	Analog Devices	Analog Devices	y
Jason Potterf	Cisco	Cisco	y
Mark Dearing	Leviton	Leviton	y
Michael Paul	Analog Devices	Analog Devices	y
Michal Brychta	Analog Devices	Analog Devices	y
Mick McCarthy	Analog Devices	Analog Devices	y
Paul Vanderlaan	UL	UL	y
Peter Jones	Cisco	Cisco	y
Rory Buchanan	OnSemi	OnSemi	y
Scott Wade	WadeLux/DiiA	WadeLux/DiiA	y
Seungsu Kim	HKMC	HKMC	y
Steve Sedio	TDK	TDK	y
Tim Baggett	Microchip	Microchip	y
Tobias Islinger	Infineon	Infineon	y

Valerie Maguire	Siemon	Siemon	y
Viliam Vozar ()	OnSemi	OnSemi	y
Wojciech Koczwara	Rockwell Automation	Rockwell Automation	y
Attendees			38