

November, 2020 IEEE802 Virtual Plenary

Jordon Woods, Analog Devices

Respondents

SATUS	VOTE	NAME	COMMENTS	S	ATUS	VOTE	NAME	СО
N	0	Abdul, Amin	Y	N	1	N	Osagawa, Daisuke	Y
V	N	Ademaj, Astrit	Υ	V	,	Т	Pannell, Donald R	N
V	Т	Congdon, Paul	N	V	/	Y	Potts, Michael	Ν
V	N	Dorr, Josef	Υ	V	1	Y	Proell, Dieter	Y
V	Y	Enzinger, Thomas	Υ	V	1	E	Randall, Karen	Ν
V	N	Farkas, Janos	Y	N	l I	Y	Rodrigues, Silvana	Y
V	N	Garner, Geoffrey	Y	V	1	Y	Sato, Atsushi	Y
V	E	Gunther, Craig	N	V	(N	Seewald, Maik	Y
V	E	Haddock, Stephen	N	V	′	Y	Stanica, Marius	Y
V	N	Hantel, Mark	Y	V	(N	Steindl, Guenter	Y
V	N	Kehrer, Stephan	Y	N	1	Ν	Takita, Daisuke	Y
V	E	Kelsey, Randy	N	N	I.	Ν	Tarui, Isao	Y
N	Y	Lv, Jingfei	Y	V		Y	Wang, Hao	Ν
V	N	Mangin, Christophe	Y	V	(Ν	Weber, Karl	Y
V	Y	McCall, David	Y	V		Y	Winkel, Ludwig	Y
V	E	McMillan, Larry	N	V	6	Ν	Woods, Jordon	Y
V	Y	Ohsawa, Tomoki	Ν	N	I	N	IEC, CA	Y
V	Y	Ohue, Hiroshi	N	N	I	N	IEC, DE	Y

Table 1—Table of responses

COMMENTS

Ballot Statistics

Table 2—Results

CATEGORY	All Respondents			
	TOTAL	%		
Yes	10	47.62%		
No	11	52.38%		
Voting Yes or No	21	100.00%		
Abs. Time	2	5.56%		
Abs. Expertise	5	13.89%		
Abs. Other	0	0.00%		
Respondents	36			
Voting members	28			
Non-voting	8			
No. of commenters	25	69.44%		
No. of comments	959			

Observations

- A total of 959 comments
 - Technical 635
 - Editorial 317
 - General 7
- Breakdown of Comments
 - Resolved comments 185
 - Unresolved comments 774
- Note: The comments from IEC have been incorporated in the comment database. However, these comments have not been sorted into the tracking spreadsheet used by the editor.

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Deferred Comments

- The disposition of several comments regarding definitions was deferred:
 - Application Data Cycle

user-defined time interval required for data-exchange between applications

Note 1 to entry: For example: applications for closed loop control.

• Isochronous Application

application that is synchronized to the Working Clock that is synchronizing network access

• Network Access

action of placing frames on the network or of collecting frames from the network Note 1 to entry: This concept is unrelated to port-based access control as defined in IEEE Std 802.1X-2010.

• Network Cycle

user-defined time interval derived from the Working Clock and used to control Network Access

• Scheduling Cycle

IA-ME defined time interval during which Talker-Listener pairs exchange cyclic data

• Start of cycle trigger

point in time in the Working Clock time domain, which aligns the understanding of time between application data cycle, scheduling cycle and network cycle

Corresponding Subclause

 These definitions are strongly related to the text and figures in subclause 4.3 and are the subject of discussions in the system ad hoc. The editor suggests waiting for the outcome of those discussions before attempting to resolve the comments





Figure 1 – Isochronous network Access

Table 1 – Application Requirements

Deferred Comments

• Requirements:

- TAS in ccA 564, 566, 290, 134
- TAS in ccB 294, 565, 20, 302, 24, 567
- Number of supported VIDs 752,789
- Time sync
 - Sync/announce interval 339, 340, 563, 291
 - How do we deal with "jumps" in grandmaster time
- FDB entries 139, 140, 395
- Number of gate events 1004, 1003, 141, 21, 874, 887, 888, 889
- Flow meters for unicast, multicast and broadcast traffic 298, 299, 300
- Start of cycle trigger 620
- Reporting of traffic specification 676, 301, 304

Observations

- In general, these comments fall into one of three categories
 - Network access
 - Definitions of application data cycle, network access, etc.
 - Support of TAS, number of gate events (stream-based vs. class-based scheduling).
 - FDB entries
 - Management
 - Reporting of traffic specification
 - Note that: we have not yet begun comment resolution on the management clause.
 - Synchronization
 - Sync/announce interval 339, 340, 563, 291
 - How do we deal with "jumps" in grandmaster time
- These comments are also the subject of discussions in the system ad hoc or awaiting results from the time synchronization simulation. The editor suggests waiting for the outcome of those discussions before attempting to resolve the comments

Comments to revisit

- We have also deferred comments regarding traffic types pending a contribution expected at the November Plenary.
 - It may make sense to revisit those comments once the contribution has been provided.
- There are several other comments the editor would like to revisit:
 - Topology management (TE-MSTID) 1000, 197, 289
 - Please see https://www.ieee802.org/1/files/public/docs2020/60802-dorr-MST-0820-v01.pdf
 - Definitions for IA-Controller and IA-Device (727, 53, 115, 157, 728, 116, 158)
 - It was suggested to use definitions for controller and devices from existing IEC documents.
 - Thus far, one such definition has been provided:

IA-device

independent physical entity capable of performing one or more specified functions in a particular industrial automation context and delimited by its interfaces

[SOURCE: IEC 61499-1:2012, 3.29, modified – , added industrial automation before context and replaced the Note 1 to Entry.]

Note 1 to entry: An IA-device can be for example a sensor or an actuator

Thank you