Ethernet Support for the IEEE P802.1AS Time Synchronization Protocol Study Group

Minutes

Quebec, Canada, 01.05.2009

Recorded by Marek Hajduczenia, ZTE Corporation

Friday, 01.05.2009

Meeting is opened @ 09:00 (Steve Carlson, Chair).

Presentation: Agenda and General Information

- Presented by Steve Carlson @ 09:00.
- Marek Hajduczenia was appointed as recording secretary.
- Chair covers policy in IEEE-SA operations manual regarding disclosure of affiliation. It is mentioned that failure to properly disclose affiliation can lead to loss of membership privileges and attendance credit.
- Round of introductions (all present in the room) @ 09:06 - detailed list of participants available at the end of the Minutes
- Chair provides information about the TSSG reflector @ 09:07
- Chair goes over Ground Rules for the meeting @ 09:08
- Chair goes over IEEE Standards Structure @ 09:11
- IEEE patent policy is discussed @ 09:15. Patent Policy slides were presented to the TF. (completed @ 09:18). Chair makes Call for Patents @ 09:20. No responses were received.
- Guidelines for IEEE WG Meetings, slides 1-4 (http://www.ieee802.org/3/time_adhoc/public/mar09/time_cfi_0309r10.pdf) were shown @ 09:20
- The IEEE Standard development process was revised by Chair @ 09:22; description of a Study Group phase as well the various stages of the standardization process
- @ 09:30 Scope of CFI was presented (Slide 15), Project Authorization Request (PAR)

Presentation: 5 criteria

- Presented by Howard Frazier @ 09:32. Main focus: ": audience, purpose, guidelines etc.; 5 criteria is unique to 802 and represents a basis for concrete discussion between people involved in the process; @ 09:42 Broad market potential – revision; @ 09:50 Compatibility – revision; @ 09:57 Distinct identity

Presentation: Architecture overview

- Presented by David Law @ 10:15.
- Specific information on 802.3 system architecture;
- Overview of 802.3 architecture (slide 3); in 802.3ba there are markers added to bit stream for skew compensation and data transmitted over a number of lanes can be aligned in a correct way (compensate for any block misalignment).
- Architecture of the PMA for 40/100 Gbit/s systems was presented;
- parallel physical interfaces were presented;
- revision of the physical layer specifications (various data rates plus number of data lanes) – various stacks were also presented (slide 10);
- Discussion on the challenges for time-stamping from the 40/10 Gbit/s architecture: there is substantial lane-to-lane skew to deal with;
- Conclusions were presented on slide 13;

Coffee break:

- Break started @ 10:55
- Meeting reconvened @ 11:25

Presentation: Architecture overview

- Presented by Kyusang Lee, @ 11:33.
- Presentation on synchronization requirements in mobile networks;
- Carrier class Ethernet class in backhauling and synchronization requirements;
- In Femotcells, WiMAX and WiFi synchronization requirements are diverse and must be examined in detail and independently;

Presentation: EEE

- Presented by Mike Bennett @ 12:05.
- overview of EEE and its impact on the TSSG architecture;
- Things to consider: PHY will not be instantaneously available so it will take some time before data can be delivered over PHY. Wake-up times are PHY dependent and can be increased by system using layer 2 communication protocol; 802.3az uses carrier deference to indicate availability of the medium;
- It is possible that all future consumer electronics with Ethernet might have to be compliant with EEE if they want to go onto market. Future TVs may have to consume mW in the standby mode, so it is critical to make sure that EEE is also supported in the TSSG scope.
- It was suggested that 10G-EPON is also energy efficient and that an energy star logo could be also applied. It is necessary to track the development process for the energy star and see whether 10G-EPON could be included in the scope of this labeling.

Follow-up discussions

- Discussion on the work towards July Plenary

- Main points of focus: constrains and architecture of P802.3ba; pay close attention to P802.3az; P802.1AS and IEEE 1588 will have to be also closely tracked in terms of their future progress and changes in the specification;

Friday, 01.05.2009:

Meeting is adjourned @ 12:35 (Steve Carlson, Chair).