IEEE P802.15

**Wireless Personal Area Networks**

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| Project | Dependability Interest Group |
| Title | **Meeting Minutes for July 2017**  |
| Date Submitted | July 11, 2017 |
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| Re: | Meeting Minutes |
| Abstract |  |
| Purpose | Minutes of Dependability Interest Group sessions |
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**Monday, July 7, 2017, AM1, 8:00**

* 1. Meeting called to order 8:00

By Chair Ryuji Kohno (YNU / CWC-Nippon)

Secretary Jussi Haapola (CWC)

* 1. Roll Call

Notepad for Attendance circulated.

* 1. Opening Report

Chair presented Opening report Doc #365

Chair showed IEEE Patent policy.

Chair issued Call for Potentially Essential Patents

No essential intellectual property in the scope of IG DEP was declared.

* 1. Approval of previous meeting minutes

Upon no comments on the previous meeting minutes, doc #219 was approved.

* 1. Overview of IG DEP activity

Ryuji presented doc #176r1

Discussion on role of existing standards and standard developments (TSN, DetNet, 15.10, 15.12, TG4s) impacts on IG DEP uniqueness criteria.

* 1. Recess at 9.56.
	2. Attendees



**Tuesday 11 July, 2017, AM1, 08:00**

* 1. Meeting called to order at 08:05
	2. Roll Call

Notepad was circulated

* 1. IETF related activities

Pascal Thubert presented routing mechanisms for deterministic wireless communications.

* 1. Discussion on collaboration with FFPJ

Ryuji presented doc #394

* 1. Review WNG presentations

Ryuji presented doc #398 on behalf of Hiroshi Kobayashi

* 1. Recess at 10:01
	2. Attendees



**Wednesday 12 July, 2017, AM1, 08:00**

* 1. Meeting called to order at 08:03
	2. Roll Call

Notepad was circulated.

* 1. Agenda

Agenda was updated as doc #410r3.

* 1. Continue reviewing WNG presentations

WNG #1: Ryuji continued presenting doc #398.

* Inter-network coordination was identified as a necessary item to define, which is not covered by current 802.15 standards.

Ryuji presented doc #420.

* A solution could be multiple projects. Contribution to 802.15.12 with timing requirements and parameter exchange between MAC and higher layer helps deterministic networking (cross-layer interaction piece for control loops).
* Inter-network coordination and dynamic parameter reconfiguration could be a recommended practice or standard amendment.
* Cross-layer management messaging needs to be defined and the feedback interval to be determined.
* Management of duplicate messaging needs to relate to multipath delivery requirements.
* Individual device reliability assessment and aggregate reliability assessment needs to be defines.
* Multipath forwarding protocol needs to include redundant coding to cope with lost/corrupted/missing frames.

Four main points to address:

1. Cross-layer information exchange and management PHY&MAC <-> higher layers
* To guarantee service levels
* To know flow characteristics
* To know dynamic media characteristics
* Be energy aware
1. Application of metrics at specific layers and cognition in layers
* To improve stability
* To improve predictability
* To enable feedback loops
1. Forwarding protocol
* To apply path diversity and redundancy adaptively
	+ Routing and forwarding time scales are vastly different
	+ Application stability is yet another order of magnitude longer time scale, but may change over time.
1. Coordination and management across independent PANs
* Other PAN interference mitigation

Task is to reflect the above to the key three applications in vehicular automation.

(c.f. 802.15.9 PAR)

* 1. AoB

Telcos to be determined via the reflector. Target 10 days notice before telco.

* 1. Adjourn 9:59
	2. Attendees

