IEEE P802.22
Wireless RANs

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| Minutes of RASGCIM study group teleconference-2 |
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Abstract

This document presents the minutes of regional area smart grid and critical infrastructure monitoring (RASGCIM) study group teleconference-2 held on August 8, 2011.

 **RASGCIM Study Group Teleconference-2 Minutes**

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**August 8, 9-10:30 PM EDT**

**Attendees:**

Apurva Mody (BAE Systems), Gerald Chouinard (CRC), Antony Franklin (ETRI), Sung Hyun Hwang (ETRI), Dan Luber (RelayServices), Shigenobu Sasaki (Niigata University), Jerry Kalke (CBS), Nancy Bravin (Bravin Consulting), Zhang Xin (NICT), Chunyi Song (NICT), Chang Woo Pyo (NICT), M. Azizur Rahman (NICT), Hiroshi Harada (NICT)

**Minutes:**

1. Meeting called to order by M. Azizur Rahman.
2. Agenda 802.11-0092-00-rasg presented by chair and approved by the attendees.
3. Zhang Xin from NICT Singapore volunteered to be secretary.
4. IEEE patent policy read by the chair.
5. System Requirement Document (802.22-11-0093-01) was presented by Zhang Xin (NICT).
6. The following is the Q & A session:

Q: Regarding requirement #2, is the communication among CPEs supervised by BS or is it an ad hoc communication.

A: In current .22 standard, BS supervised all the communication, we would like to support that, for amendment, we would like to add ad hoc function if possible.

Q: In ad hoc case, some CPEs may not be reachable. This is one problem.

1. A: The BS controls every CPE, this is mandatory. However, we also enable certain CPE with high capability to take control of some low capability CPE, so to avoid the above mentioned problem. But at the moment, we don’t have many technical details.There was a debate on whether we should modify 22 or start from scratch. One side thinks the changes are significant such as requirement #1 because in current 22, CPE grab the whole downstream multiplex. Opposite think that this is a clear amendment to 22 which enabling scalable capability CPE. However, for the low capability CPE, there may be direct conflict with 15 TV whitespace PAR, on the other hand, this amendment give us broadband and various services, hence it is not in conflict with anybody in TV whitespace. Careful thought need to be given to this requirement. Amendment is easy, new standard is difficult from marketing perspective and making sure the standard can fly. Finally, concensus is reached that we don’t want new standard. If the changes are sizable, we need to think twice; else, we would end up doing new standard rather than modifying 22 stragically. Hence, we need to balance the requirement carefully.
2. There was a question about the aggregated data rate being huge for TV white space environment. The answer is 180 Mbps is chosen for 7 or 8 channel aggregation. In Singapore, 7 or 8 channel can transmit simultaneously. There were still worries on power spectrum density if the data rate is 180 Mbps. Queston was raised if the transmission of high quality video is intended.
3. More than one person expressed concern on the data rate. New standard may be needed if there are requirements that are hard to meet by amendment.
4. There was a question raised regarding the difference between communication among CPEs and peer-to-peer communication.
5. A Question was asked on Coexistence mechanism.
6. 5C and PAR development procedure was presented by Aziz (NICT). No objection was heard from the group.
7. The discussion on PAR in document (22-11-0092-01-rasg) was presented by Aziz.
8. There was concern on the indication of the data rate. It was suggested that in order not to undermind the current standard, instead of indicating the data rate, we should indicate channel bonding. Another comment is use more than 22 Mbps instead of up to 180 mbps.
9. A suggestion was raised to change the title to “enhancement of scalability of PHY and MAC”, also replace the word “service” to “capability” and reduce the first sentence in the PAR scope to support higher data rate.
10. Comments for need for project: be careful about the word “real time”, suggest to change “real time monitoring application” to “appropriate monitoring application” and add in “regional area network”
11. Peer-to-peer communication may require a big change in PHY, may need to consider “alternate PHY”.
12. Suggested to downplay the data throughput.
13. Meeting adjourned by M. Azizur Rahman.