IEEE P802.22
Wireless RANs

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| Minutes of the teleconference on June 6, 2011 on regional area smart grid and critical infrastructure monitoring |
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Abstract

This document presents the minutes of the teleconference on June 6, 2011 on regional area smart grid and critical infrastructure monitoring.

**WG teleconference meeting minutes**

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**June 6, 9-10:30 PM ET**

**Attendees:**

Apurva Mody (BAE Systems), Gerald Chouinard (CRC), Ivan Reede (AmeriSys), Winston Caldwell (Fox), Anthony Franklin (ETRI), Shigenobu Sasaki (Niigata University), Chang Woo Pyo (NICT), Zhang Xin (NICT), M. Azizur Rahman (NICT)

**Minutes:**

1. Meeting call to order by Apurva Mody
2. Chang Woo Pyo presented the document 802.22-11-66r1 titled “Review of 802.15.4 & Comparison with 802.22 Smart Grid and Critical Infrastructure Monitoring”
3. The group discussed if details of 15.4g standard such as BW, modulations are known. 15.4g uses simple technology such as FSK and is narrow band. The group also discussed why 15.4g didn’t consider 5 GHz band. It might be due to power consumption of oscillators.
4. The group discussed that the suggested use cases in slide 8 are in-line, especially the a) Regional Area Smart Grid/Metering and c) Critical Infrastructure/Hazard Monitoring. However, it’s not clear how could we support the other two: b) Emergency Temporary Broadband Infrastructure and d) Remote Medical Service especially by ensuring distinction with existing activities in other WGs. It was also suggested that swapping the positions of b) and c) would be good and then first two will be of one category and the last two will form another category. It was also commented that after study we may come up with very different requirements to fulfill the use cases for smart grid and critical infrastructure monitoring. To improve wording, it was suggested that we use low duty cycle to appeal low energy usage
5. There was a discussion on the distinction feature listed in 15 SG4TV. Certain members felt it is not perfect while seen from 802.22 side. Certain other members thought it was good approach and they used some smart ideas.
6. There was a discussion on how many CPEs need to be supported. We need to consider how many end points we need to support and how much data the backhaul can support etc. The group was informed that presently 9 bit assigned for station ID can support 512 stations. However, there are 3 more bits for flow ID that can be used to increase the supported number of CPEs.
7. It was commented that the presentation from Pyo was from application point of view. We need to consider cases where we have the broadband service as well as we support smart grid services and end point meter reading etc (low data rate, scalable). It was added that the proposed use case a) in slide 8 may fulfill cases as mentioned. However, there was disagreement in the group. It was also discussed that we should consider the market demands. We need cheap devices. Having broadband service shouldn’t make the devices expensive.
8. The group discussed that we can give service nonstop at any time. This is an advantage as compared to 15.4. 802.22 is robust against multipath fading that 15.4 would lack. The distinction with 15.4 was also discussed that includes a) 15.4 is for end users at last mile. They need back haul b) may be for urban, but it would be difficult for rural areas c) 22 would give robust connection d) 22 would give real time connection e) no other wireless can give such range/coverage. We should fill up the gap 15.4 would have and work together.
9. Meeting adjourned by Apurva Mody