Guide for IEEE 802.15.4

James Gilb (Pulse~LINK)

Background

- IEEE-SA allows three types of documents to be created: (IEEE SASB OM1.2)
  - Standards: documents with mandatory requirements.[1]
  - Recommended practices: documents in which procedures and positions preferred by the IEEE are presented.
  - Guides: documents in which alternative approaches to good practice are suggested but no clear-cut recommendations are made.
  - Trial-Use documents: publications in effect for not more than three years (See 5.7.). They can be any of the categories of standards publications listed above.

Informative text no longer in 15.4

- Applications of IEEE Std 802.15.4, 15-14-0226-00-0000
- Chang, S.-Y., and C. Seibert, 15-13-0166-03-004m-tg-15-4m-coexistence-assurance-documentcad.pdf
- Coexistence analysis of IEEE Std 802.15.4 with other IEEE standards and proposed standards, 15-10-0808-00-0000.
- Examples of IEEE Std 802.15.4 PHY encodings, 15-14-0225-00-0000.
- Lu, L., K. Mizutani, C.-S. Sum, F. Kojima, and H. Harada, "15-13-0565-02-004m-tvws-nb-ofdmframe-example.doc,"
- Kivinen, T., "Security Section Pictures," 15-15-0106-02-0mag-security-section-pictures.
- Seibert, C., "15-13-0131-01-004m-example-encoding-for-tvws-fsk-phy.pdf,"
- Shin, C., B.H. Kim, S. Choi, and S.-Y. Chang, "15-13-0287-01-004m-tvws-ofdm-frame-example.doc,".
- TG4f Coexistence Assurance Document, Doc. IEEE 15-10-0918-01-004f, November 2010.

Guide, pros and cons

- Options are
  - Leave as is
  - Combine into a single (or few) mentor documents
  - Start PAR for a guide
- Advantage of a guide vs. 802.15 document
  - Official IEEE document, goes through full standardization process and review
- Disadvantage
  - Lengthy process to make changes

Discussion

- Is it a problem?

- If so, which option do you prefer
  - Consolidated 802.15 document?
  - Guide?

Potential Scope

- This guide provides information on the use of IEEE Std. 802.15.4. Sample encodings of PHY frames are provided. The guide also details methods to implement precision ranging using features in the standard. Configurations of complaint devices are presented that address the following applications
  - SUN
  - TVWS
  - RCC
  - ???

Notes

- Are there other guides? Yes P2030 is a Smart Grid Guide.

- Sample PARs? How would the CSD be filled out?

- Comment: Having implementers contribute information would be ideal. It may not be a guide without their input.
  - Minimum should be reviewed by implementers.
  - Identify liaison groups and actively engage them to be involved in the drafting and balloting.

- Include SDOs as well

More notes

- Is test and certification a relevant topic?

- What about interoperability?

- What version of IEEE 802.15.4?
  - What about deprecated features?
  - What about deprecated versions?

- For example, how do you implent 802.15.4-2006?

- Could allow us to get out in front to define suggest profiles

Action items

- Determine schedule (when do we draft PAR)

- Is this done in SC-M or do we form an Interest Group or Study Group?

- Find volunteers

- Heile to form IG. 1 slots in Kona.