Open Source Implementation for IEEE Standards

IEEE-SA Corporate Advisory Group
Ad Hoc on Open Source
Agenda

- Effort
- Open Source Pilots
- Next Steps
**Effort**

- Since 2015, the CAG Ad Hoc has
  - Reviewed various support structures needed to support OS development in IEEE
    - Josh Gay was brought on as the new IEEE-SA OS Community Manager
  - Analyzed various OS platforms (GitLab, GitHub, other Git options)
  - Considered several OS licensing options
  - Invited IEEE groups currently developing OS code to participate in pilot projects
  - Consulted with other OS communities about IEEE’s effort and the best way to engage OS collaboration

- OS Streams were created to advance the efforts for use cases, pilots, IPR, and marketing
  - Approximately forty (40) participants who expressed interest
  - Seven (7) use cases were identified
  - Three (3) open source licenses were evaluated
  - Several IEEE groups have expressed interest in being pilots
Effort

- Use cases
  - Test & Tools Framework
  - Reference Example Implementation
  - Informative Portion of a Standard
  - Normative Portion of a Standard (exception rather than norm)
  - IEEE (but not IEEE-SA) OS Project
  - Non-IEEE OS Project
  - IEEE-SA Non-Standard Open Source Project

- IEEE Projects Expressing Interest as Pilots
  - IEEE 802® YANG
  - IEEE P1076™ VHSIC Hardware Definition Language (VHDL)
  - IEEE P1451-99™ Standard for Harmonization of Internet of Things (IoT) Devices and Systems
  - IEEE P370™ Electrical Characterization of Printed Circuit Board and Related Interconnects at Frequencies up to 50 GHz
Effort

- IEEE Open Source Environments
  - GitLab (pilots)
  - GitHub

- IEEE Staff and Legal Support
  - Josh Gay, IEEE Standards Open Source Community Manager
  - External counsel with expertise in open source

- Outreach
  - Leading Open Source organizations
  - Open Source conferences
Open Source Pilots

- IEEE invited groups interested in developing open source material to participate as pilots
  - Intent of pilots is to work with IEEE-SA as it develops protocols, processes, learning collateral, and other information to help inform the direction taken in establishing an open source platform for IEEE
  - Pilots will allow IEEE to understand current and possible future open source development within IEEE
  - Participants in pilots will be able to help IEEE-SA frame the volunteer and staff support, as well as tools that will be needed

Steps for volunteering as a pilot
- Complete the Open Source Information Request Form
  - Form can be obtained by contacting m.aranzamendez@ieee.org
- Once accepted as a pilot
  - All contributors (for any material submitted wrt the open source development) shall submit an appropriate Contribution License Agreement (CLA)
  - A GitLab area will be established where all relevant material can be uploaded for initial review (including IPR review) by the Community Manager
Next Steps

- Pilots initiated for the various use cases
  - IEEE 1076 an active pilot
  - Additional pilots will be accepted

- Define Open Source development processes/protocols for pilots
  - Can be used in review by IEEE and SASB

- Handoff to IEEE-SASB for consideration of implications to IEEE standards development process and associated policies and procedures

- Discussion on IEEE level with respect to governance of IEEE open source initiatives
  - Will need to take under consideration IEEE Standards as one source of IEEE OS activity
Contact Information

Josh Gay
Standards Open Source Community Mgr
j.gay@ieee.org

IEEE
445 Hoes Lane
Piscataway, NJ 08854
T: 732-562-6019
standards.ieee.org

Yvette Ho Sang
Director, IPR & Risk Mgmt
y.hosang@ieee.org

IEEE
445 Hoes Lane
Piscataway, NJ 08854
T: 732-562-3814
standards.ieee.org