

Study Group Primer

IEEE 802.3 Multigigabit Automotive Ethernet
PHY Study Group Ad Hoc

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Study Group Basics

- Study Group Scope/Authorizing Motion
- The Goal: Get to Task Force
 - Get an approved PAR w/CSDs
- The substance: Objectives
- The forms:
 - The PAR
 - The CSDs

The Goal: Get to Task Force

- We are not convened to generically “Study” the problem
- Nominally – this means write a PAR and CSDs which the 802.3 WG and the 802 EC can pass.
 - Other IEEE-SA committees approve PAR, too
 - Templates available, in 802.3 “tools” page, see any 802.3 project for examples of finished product
- Practically – Get agreement on what problem or problems we want to solve and make the case that they are solvable and worthwhile
 - If we don’t do this, we will have trouble
 - If we do this, and document it, the PAR and CSDs will write themselves
 - Generally, we do this through ‘Objectives’

The substance: Objectives

- See other projects for some “getting started” points
 - Some are already defined in our scope (rate, 802.3 MAC)
 - Most require at least some discussion / presentations
 - ASK: “Do we really need this? Is it redundant?”
- Determine what the problem(s) to be solved need:
- Define important attributes for a PHY project
 - Rate?, Reach?, Full/Half Duplex?, Media?, One or Many PHYs, Link Segment performance? Environmental factors?, Other Options?
 - Don’t assume – ASK!
- BUT, NOT a product specification
 - Power consumption, Cost/Complexity, Markets
- NOT taking a technical decision on a baseline
- Need to work within the CSDs

History and Traditions - Objectives

(adapted from Howard Frazier “Guidelines for Project Objectives”)

- Project objectives are brief statements, usually bullet form that summarize technical objectives for an 802.3 standards project
- They represent high-level technical requirements
- They are created by the study group, but approved and owned by the 802.3 working group, and are fulfilled by the Task Force
 - Working group ballot drafts may be measured on fulfilling these
 - The objectives may be modified in Task Force, but the working group must approve
- They are not a product spec
- They typically address major characteristics: bit rate, media, reach, BER, compatibility, impairments, coexistence
- They do not typically address implementation characteristics (power, cost, integration)

Objectives - some guiding thoughts

- Identify and Present on big issues to get our heads around:
 - Market attributes addressed
 - PHY technical attributes in light of above
- Knocking down little issues can build momentum:
 - Some detailed objectives (e.g., BER)
- Where there are tradeoffs provide presentations
 - Decisions without backup don't progress well
 - We are contribution driven, we only go as fast as people contribute
 - Consensus works better if people know what is coming
- Objectives CAN change during Task Force

The substance: Objectives (process)

- Where there are tradeoffs in market needs addressed, technical or economic feasibility, provide presentations
 - Decisions without backup don't progress well
 - We are contribution driven
 - We only go as fast as people contribute
 - Consensus works better if people know what is coming
- Objectives CAN change during Task Force

NEED TO APPROVE IN 802.3 ONLY

The CSDs: Support w/Presentations

- Broad Market Potential – presentations on rationale for size and diversity of market segments addressed by objectives
 - Understanding the different reaches and market segment needs would go here
- Technical Feasibility – presentations that support one can build solutions that address this potential
- Economic Feasibility – that such solutions balance cost & meet market requirements
- Distinct Identity, Compatibility & Managed Objects should be fairly straightforward
- If you plan a presentation, PLEASE identify which CSDs your are addressing with it – it makes our record clearer

NEED TO PRESUBMIT TO OTHER 802 WORKING GROUPS!

The Form: the PAR

- Plan to take a stab at filling the PAR & CSDs in January:
 - http://www.ieee802.org/3/WG_tools/templates/index.html
- The PAR binds us at IEEE-SA highest levels & includes:
 - Project title (ideally the amendment title, but not necessarily)
 - Dates for sponsor ballot & completion (rough)
 - **Project Scope!! (Boundaries)**
 - Contingencies on other standards (What we may need to wait for/liaise with)
 - **Statement of Need (Why we're doing this)**
 - **Stakeholders in Project (who should pay attention)**
- Filling in the PAR takes a working session, but after most of the rest has taken shape.
- Be prepared to do this at the face-to-face

NEED TO PRESUBMIT TO OTHER 802 WGs AND NESCOM

Guidelines for writing and adopting

- Consensus building is key
 - Get support before you offer a motion
 - Understand the sources of opposition
 - Remember, 25% can block
- We may consider items one at a time, or as a group, if there is no objection
 - Numbered lists are helpful for reference
- Pay attention to specifics – that is where consensus can fall apart

THANK YOU!