

802.3 NGE BASE-T SG

Potential Timeline and Challenges

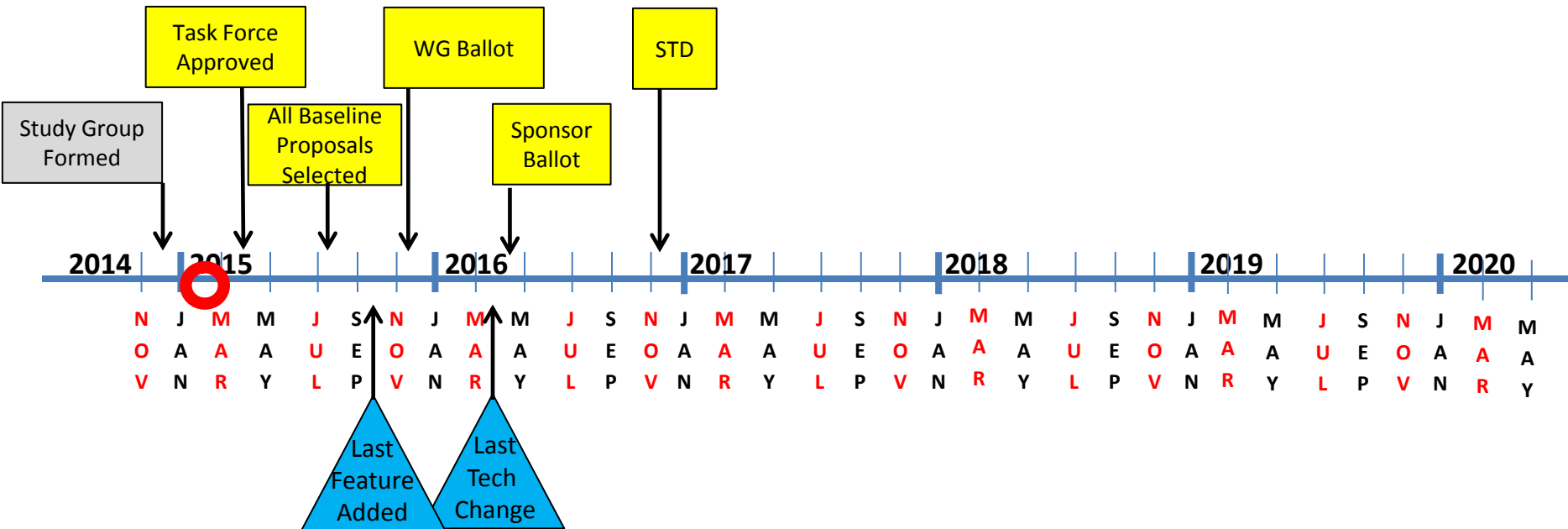
Yong Kim (ybkim at broadcom com)

Contents & Observations

- Potential Fastest and nominal schedule
- Potential challenges
 - Acknowledge multiple alliances and incompatible products serving this need already.
- Tale of two standards, lessons from...
 - 10BASE-T and 10BASE-F – both had multiple companies with incompatible products... one served the market, and the other didn't.

NGE Access BASE-T Potential Timeline

FASTEST Possible Timeline – one can dream 😊, and VERY MUCH achievable



Assumptions (minimum duration)

Study Group – one Plenary cycle

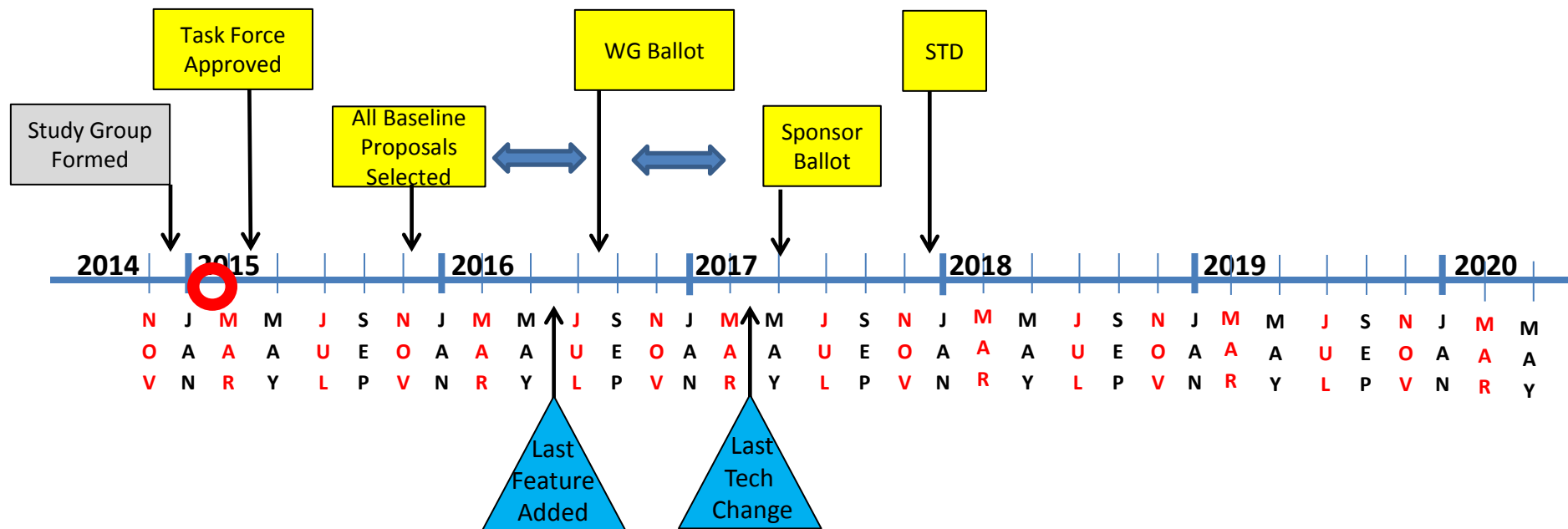
Task Force Draft – Two Plenary cycle to produce TF Draft, including more than one interim between plenaries.
Baseline over one Plenary cycle.

WG Ballot – One plenary cycles, one re-circ

Sponsor Ballot – Two plenary cycles, one re-circ

NGE Access BASE-T “Nominal” Timeline

Nominal Timeline -- **Timely contributions, reasonable consensus**



Assumptions (Nominal duration)

Study Group – one Plenary cycle

Task Force Draft – Two Plenary cycle to baseline, one additional to produce TF Draft.

WG Ballot – Two plenary cycles, one (or two) re-circ

Sponsor Ballot – Two plenary cycles, one re-circ

Potential Challenges

- The Good
 - Degree of consensus on objectives, urgency, and desire for one standard based solution.
- The Bad
 - Multiple solutions exist already and (presumed to be) non-interoperable.
- The (Potential) Ugly
 - Consensus toward one standard based solution, where consensus is defined to be 75%+, in timely fashion.

Lessons from the past.

“Those who cannot remember the past are condemned to repeat it.” - George Santayana

- Reaching far back in 802.3 history
 - 10BASE-T (1987~1990) → 3 years, one PHY
 - 10BASE-F (1986~1993) → 8 years, three PHYs
 - Both had multiple and incompatible products serving respective needs prior to 802.3 standards efforts.
 - Technical feasibility was not a major concern (multiple existence proof) in both cases (one less than the other).

Tale of two standards

- Caveat – The summary below is presenter’s personal assessment, and does not reflect any opinion of IEEE 802.
- 10BASE-T
 - 5+ comprehensive proposals → 2 compromise proposals → one adopted baseline.
 - [Not too popular at the time, but] drive toward consensus on a reasonable timeline, and adopted procedure to achieve.
 - Serve the market in reasonable time (~ 3 years), and helped to avoid fragmentation.
- 10BASE-F
 - 4 comprehensive proposals → 3 proposals → “deadlock” → all 3 became standards.
 - Drove toward consensus w/o timeline objectives in agreement.
 - Grossly failed to serve the market in time (~8 years).
 - Installed base of fragmented solutions and 100 Mbps (TX, T4, FX) solutions in parallel made this project grossly irrelevant (one solutions to a given problem).

Observation and Recommendation

- Observations
 - NGE BASE-T feasibility is not in question (existence proof).
- Recommendations
 - Drive toward consensus on a fastest possible timeline, and provide support to achieve it.
- And if the recommendation is desirable,
 - Bring forth contributions and proposals as soon as able.
 - Recap from Stated Urgency in CFI – 802.11ac is being deployed now!
“Contribute early, contribute often”
 - Discuss timeline that serves the market.
 - Nothing prevents us to make progress on the FASTEST timeline.
 - Technical feasibility --well known; Consensus – to be achieved.