IEEE 802.17 Development Timeline

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Agenda

- RPRWG Status
- 802.3 Sensitivities
- Proposed Timeline for standard development
- RPRWG Major Decisions

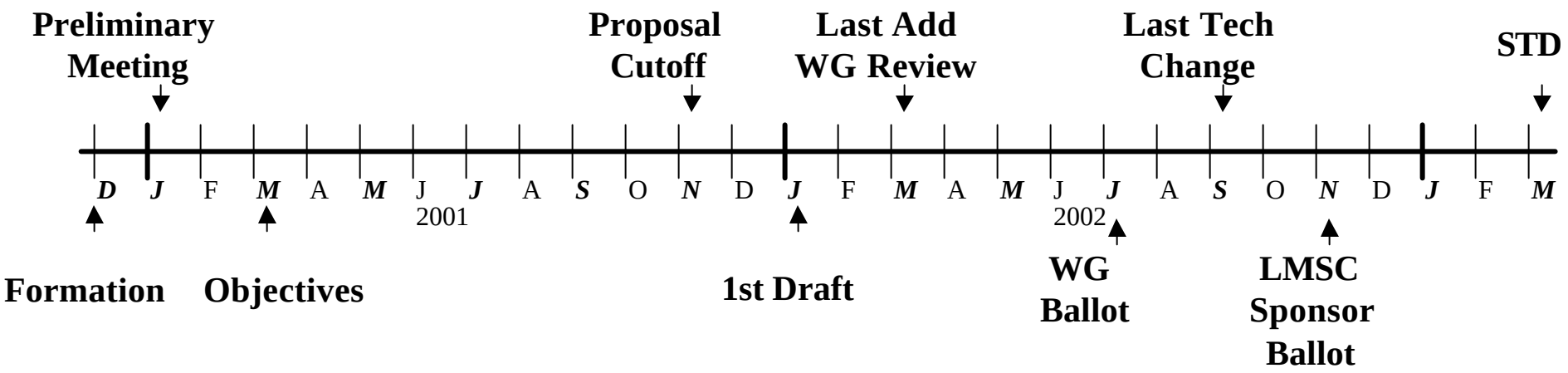
802.3 Sensitivities

- Concern expressed during the November Plenary that the market will be confusing RPR and Ethernet
- 802.17 and the RPR Alliance need to be careful to make explicit the distinction between re-use of a Physical Layer and compatibility of the MAC layers

RPRWG Status

- RPRSG formed March 10, 2000
- RPRSG PAR, 5 Criteria Approved Aug 29, 2000
- RPRWG Approved by LMSC Exec Nov 9, 2000
- RPRWG Approved by NESCOM Dec 6, 2000
- RPRWG Approved by REVCOM Dec 7,2000
- Preliminary Meeting January 16/17, 2001

802.17 Proposed Timeline



RPRWG Major Decisions

- Key to bullets on following slides
  - Normal text implies likely agreement
  - *Italicized underlined text implies likely disagreement*
  - *Italicized text implies somewhere in the middle*

RPRWG Major Decisions

- Network Features
  - Efficient support for both Routers and Bridges
    - *expose certain feature / functions to layer 3*
  - Spatial Reuse & Multi/Broad-cast support
  - Dual Counter Rotating Rings
  - *Same Physical layer on all spans*
  - *No packet loss except during protection events*
  - Plug and play (no provisioning for basic operation)

RPRWG Major Decisions

- MAC Features
  - *Transit Buffer Design / Size*
  - *Bandwidth Management Mechanism*
    - *Fairness vs Un-Fairness*
  - *Transit traffic priority support*
  - *Transmit traffic priority support*
  - *Receive traffic priority support*

RPRWG Major Decisions

- Media Independent MAC
  - SONET/SDH
    - OC-48c, OC-192c
    - *Sub OC-48*
    - *Encapsulation Method*
  - Ethernet PHY
    - *How we map RPR frame into PHY*
    - 1 Gbps
    - 10 Gbps
      - *WAN or LAN*
  - *Clocking and Synchronization*

RPRWG Major Decisions

- Frame Format & Services
  - New frame format that efficiently transports packets
  - Mechanism to insure packets do not circulate forever
  - Simple mapping for 802.3 frames into 802.17 frames
  - VLAN Services
  - *Circuit Emulation*

RPRWG Major Decisions

- Protection Mechanism
  - Sub 50 ms. recovery time for node or facility faults
  - *Degree of Data Loss during Fault Recovery*
  - *Wrap*
  - *Design of Protection messaging protocol*
  - *Design of Topology messaging protocol*

RPRWG Objectives

- Support both Layer 2 and Layer 3 networks
  - expose certain features / functions to upper layer
- *Packet sizes up to 9K bytes*
- Miscellaneous Features
  - *rate limiters (traffic shaping)*