802.3ar Frame Expansion

Project Kickoff

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Outline

- **Motivation for frame expansion project**
- **Excerpts from liaisons**
- **Next steps**
- **Possible project timeline**

Motivation for project

- **Standard activities requiring larger frame:**
  - **802.1ad Provider Bridges**
  - **802.1AE MACSec**
  - **ITU-T SG15/Q12 Ethernet Transport**

- **Liaisons/work requests**
  - **Directory:**

    http://www.ieee802.org/1/files/public/docs2004/
  - **802.1 work request filename:**

    "8021 Frame Size Revision Request to 8023.pdf"
  - **ITU-T SG15 (COM15-LS28) liaison filename:**

    "COM15-LS28.zip"

Excerpts from 802.1 request

- *802.1 is requesting 802.3 to start a project to define a larger 802.3 maximum frame size with the new size being in the range of 1650 to 2048 octets.*

- *802.1 further requests 802.3 to investigate and define what the largest feasible maximum frame size increase should be with minimal impact to existing networks and standards.*

- *The size of the MAC client data portion of the frame (46-1500 octets) is not to be changed.*

- *Current work in 802.1 requires a larger frame size. The [rationale] of increasing the size to beyond what is currently needed is to prevent the need for 802.1 from asking for another frame size increase in the near future.*
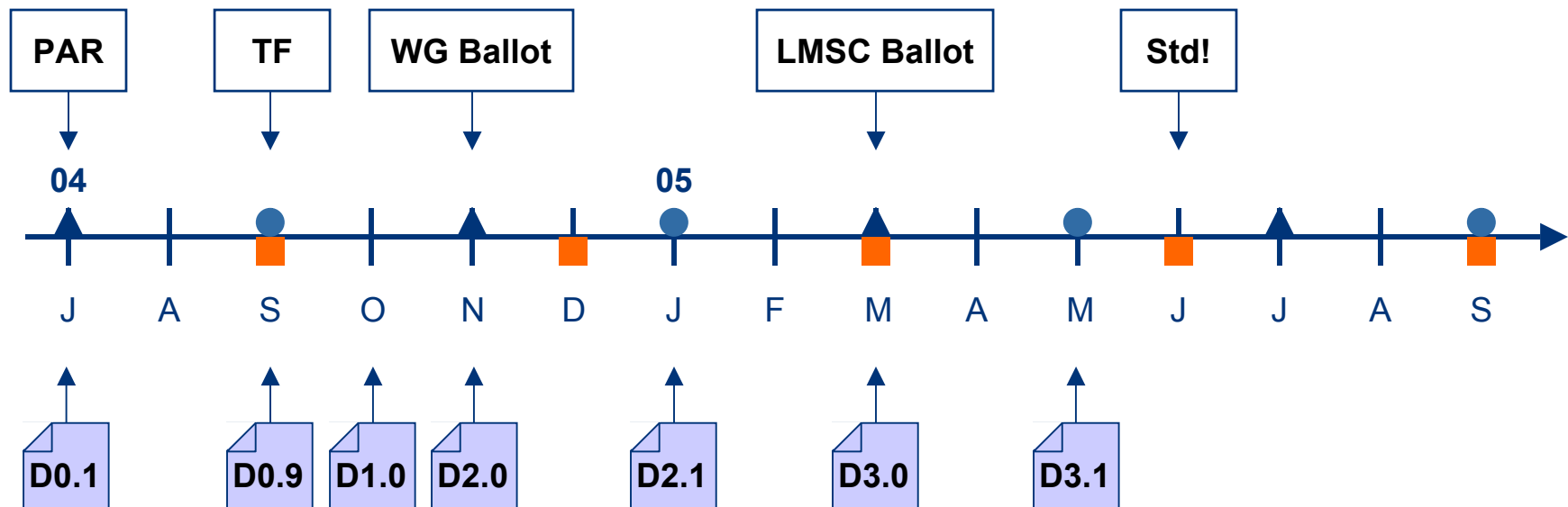
Excerpts from ITU-T liaison

- *It has been noted that one option to support Ethernet services is MPLS. In this scenario the customer's Ethernet frame is encapsulated in MPLS. The MPLS router may be connected to conventional transport equipment via an Ethernet interface. In this case, the length of the Ethernet frame on the interface from the router to the network is the customer's original frame, plus an MPLS header, plus a further Ethernet header.*

- *We would appreciate some guidance from IEEE on the maximum frame length that could be offered to an originating customer and the maximum length that must be supported by the network.*

Next steps

- **Pre-submit *draft* PAR/5 criteria to IEEE 802 EC by June 11, 2004**
- **July 2004 Plenary**
  - **802.3 Opening session**
    - **Recap March 2004 802.1/802.3 joint technical plenary**
    - **Summarize work request from 802.1 and liaison from ITU-T SG15**
    - **Invite to ad-hoc to review *draft* PAR/5 criteria, etc**
  - **Hold ad-hoc mid-week**
    - **Finalize PAR/5 criteria**
    - **Review presentations on impact to existing networks, if any**
    - **Review D0.1/Clauses 3 & 4 and Annex 4A, if possible**
  - **802.3 Closing session**
    - **Present PAR/5 criteria for 802.3 approval**
    - **Request approval to form Frame Expansion SG**
  - **Friday – get EC approval**
- **Submit to NESCOM before August deadline for Sept approval**

Possible 802.3ar timeline

| PAR | TF | WG Ballot | | LMSC Ballot | Std! |

04 | | | | **05**

J A S O N D J F M A M J J A S

D0.1 | **D0.9** | **D1.0** | **D2.0** | **D2.1** | **D3.0** | **D3.1**

Legend
- ▲ IEEE 802 Plenary
- ● IEEE 802.3 Interim
- ■ IEEE-SA Standards Board

Thank you!