

**10GBASE-LRM  
CLOSING PLENARY**

**15 – 17 MARCH 2005**

**Task Force Chair: David Cunningham**

# 10GBASE-LRM MARCH 2005

- **IEEE802.3aq Officers**
- **Reflector and Web details**
- **10GBASE-LRM Objectives**
- **Project schedule**
- **Motions**

# IEEE 802.3aq Officers

- Task Force Chair: **David Cunningham**
- Editor: **Nick Weiner**
- Web Master: **Piers Dawe**
  
- Channel Ad hoc Chair: **Ian White**
  - Task 1 (OM1, OM2, OM3 & connectors) leader: **Richard Penty**
  - Task 2 (Time variation of channel & MN): **Jonathan King**
  - Task 3 (Input-output parameters) leader: **Lars Thon**
  - Task 4 (Launch & Mode Filtering) leader: **Yu Sun**
  - Task 5 (Validation) leader: **Nick Weiner**
  
- TP2 weekly call leader: **Tom Lindsay**
- TP3 weekly call leader: **Jim McVey**

# REFLECTOR AND WEB

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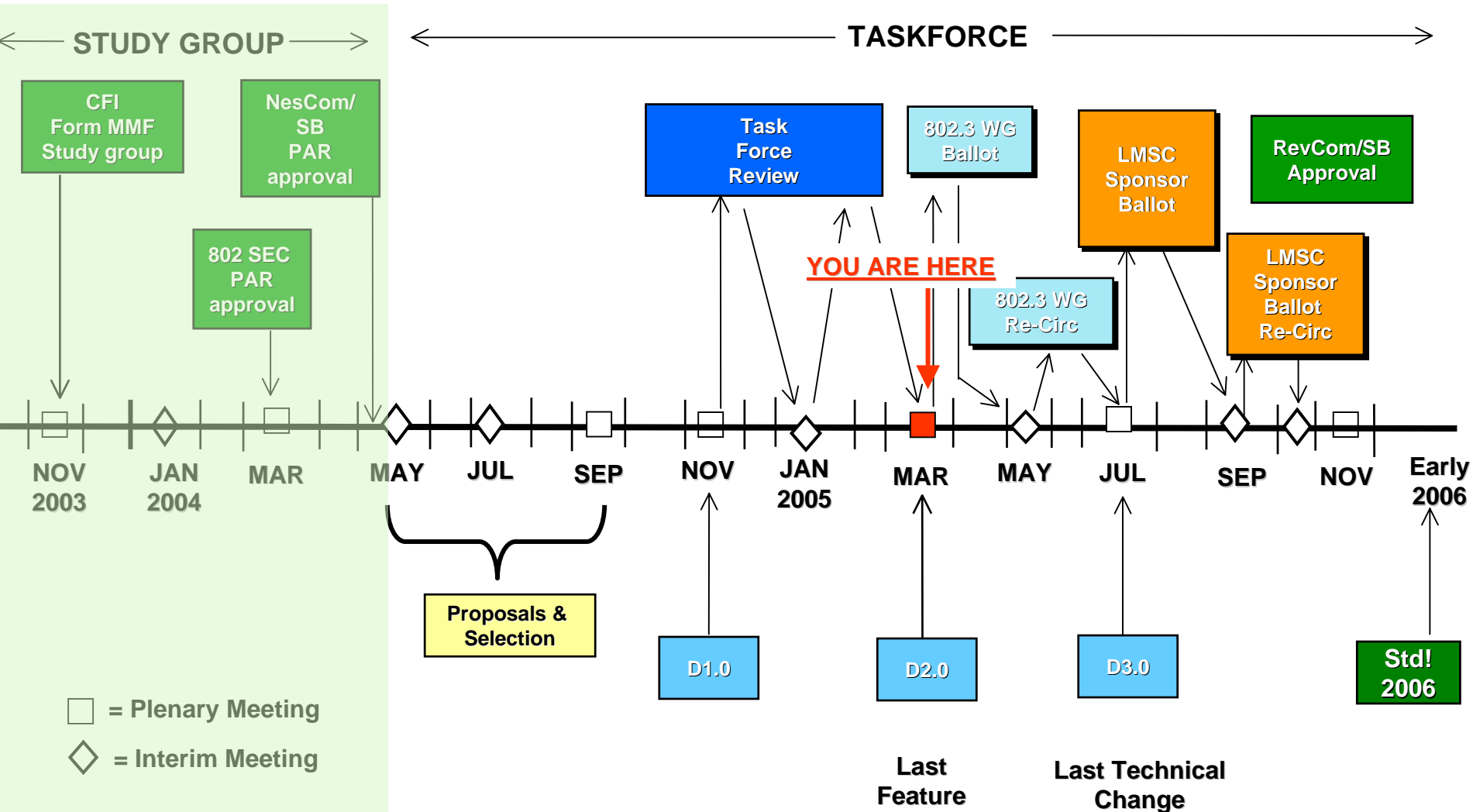
**10GBASE-LRM web page URL:**

- <http://ieee802.org/3/aq>

# 10GBASE-LRM OBJECTIVES

- **Use the existing 10GBASE-R PCS**
- **Support a BER of better than or equal to  $10^{-12}$**
- **Support fiber media selected from IEC 60793-2-10: 2003**
- 62.5 $\mu$ m
  - 160/500 MHz-km (A1b, 60793-2-10:2003)
  - 200/500 MHz-km (A1b, 60793-2-10:2003)
- 50 $\mu$ m
  - 500/500 MHz-km (A1a.1, 60793-2-10:2003)
  - 400/400 MHz-km (A1a.1, 60793-2-10:2003)
  - 1500/500 MHz-km (A1a.2, 60793-2-10:2003)
- **Provide a Physical Layer specification which supports link distances of:**
  - at least 220m on installed 500MHz.km multimode fiber
  - at least 300m on selected multimode fiber

# 10GBASE-LRM TIMELINE



IEEE 802.3aq TASK FORCE, ATLANTA, GEORGIA 15 - 17 MARCH 2005

# GOALS FOR THIS MEETING

- **Comment review of draft D1.1.**
  - *Changes per properly submitted comments to D1.1.*
  - *Review incomplete (rejected) comments, understand any underlying issues and develop plans for resolution in Working Group Ballot.*
- **Adopt the amendments agreed during this meeting and prepare an updated complete draft (D1.2).**
- **At the Thursday IEEE 802.3 Plenary meeting show changes in D1.2 compared to D1.1 to IEEE 802.3.**
- **At the Thursday IEEE 802.3 Plenary meeting ask permission of IEEE 802.3 to conduct Working Group Ballot of D1.2(D2.0).**
- **If required, adopt amendments to fiber, link or channel models per associated supporting presentations.**

# Agenda – 10GBASE-LRM

| Tuesday 15 March 2005 |   | 10GBASE-LRM<br>DRAFT AGENDA |          |          |
|-----------------------|---|-----------------------------|----------|----------|
| Presenter             | Topic   | Length<br>(Minutes)         | Start    | Finish   |
| David Cunningham      | Opening Session                                     | 01:00:00                    | 08:00    | 09:00    |
|                       | Welcome and Introduction                            |                             |          |          |
|                       | Appoint Recording Secretary                         |                             |          |          |
|                       | Reflector and Web                                   |                             |          |          |
|                       | Ground Rules  |                             |          |          |
|                       | Approve Minutes (November and January)              |                             |          |          |
|                       | Review of Project Timeline                          |                             |          |          |
|                       | Goals for the Meeting                               |                             |          |          |
|                       | <b>Reports</b>                                      |                             |          |          |
| Nick Weiner           | Editors Report                                      | 00:20:00                    | 9:00 AM  | 9:20 AM  |
| Tom Lindsay           | Report from TP2 Calls                               | 00:20:00                    | 9:20 AM  | 9:40 AM  |
|                       | <b>Comment Review</b>                               |                             |          |          |
| Nick Weiner           | Comment Review: TR & 802.3 TR & T pre-view comments | 00:20:00                    | 9:40 AM  | 10:00 AM |
|                       | <b>Break</b>  | 00:20:00                    | 10:00 AM | 10:20 AM |
| Nick Weiner           | Comment Review: TR & T                              | 02:00:00                    | 10:20 AM | 12:20 PM |
|                       | <b>Lunch</b>  | 01:15:00                    | 12:20 PM | 1:35 PM  |
| Nick Weiner           | Comment Review: T                                   | 01:30:00                    | 1:35 PM  | 3:05 PM  |
|                       | <b>Break</b>  | 00:20:00                    | 3:05 PM  | 3:25 PM  |
| Nick Weiner           | Comment Review: E if TR, T and 802.3 complete       | 02:05:00                    | 3:25 PM  | 5:30 PM  |



# Agenda – 10GBASE-LRM

| 10GBASE-LRM   |   |                  |          |          |
|---|---|------------------|----------|----------|
| Wednesday 16 March 2005   |   |                  |          |          |
| Presenter   | Presentations   | Length (Minutes) | Start    | Finish   |
| David Cunningham  | Opening remarks   | 00:15:00         | 08:00    | 8:15 AM  |
| <b>Start of presentations will be delayed until all T's are resolved.</b>   |   |                  |          |          |
| <b>If any T's remain open we will continue our comment review until they are resolved or have been withdrawn.</b> |   |                  |          |          |
| Jim McVey   | TP3 Stressed Receiver Test System   | 00:20:00         | 8:15 AM  | 8:35 AM  |
| Aeneas Massara  | Towards a Comprehensive Stressed Receiver Tester & TWDP.....              | 00:20:00         | 8:35 AM  | 8:55 AM  |
| Peeters Weem  | The TWDP Test Applied to 10GBASE-LR Optics                                | 00:20:00         | 8:55 AM  | 9:15 AM  |
| John Abbott   | Analysis of 1998-99 FDDI Fibers for PIE-D and DMD BW                      | 00:20:00         | 9:15 AM  | 9:35 AM  |
| John Abbott   | Essential Changes to Monte Carlo Model                                    | 00:20:00         | 9:35 AM  | 9:55 AM  |
| <b>Break</b>  |   | 00:20:00         | 9:55 AM  | 10:15 AM |
| Stephen Ralph   | Finite Equalizer Performance for TP3 Stressed Sensitivity Test on Gen67YY | 00:20:00         | 10:15 AM | 10:35 AM |
| John Ewen   | TP3 ISI Parameter Selection Methodology                                   | 00:20:00         | 10:35 AM | 10:55 AM |
| Piers Dawe  | How Many Connections for 10GBASE-LRM                                      | 00:20:00         | 10:55 AM | 11:15 AM |
| Sudeep Bhoja  | 10GBASE-LRM Interoperability and Technical Feasibility Report             | 00:20:00         | 11:15 AM | 11:35 AM |
| <b>Lunch</b>  |   | 01:15:00         | 11:35 AM | 12:50 PM |
| <b>Rejected Comments &amp; #146: Discussion &amp; Action Plan</b>   |   |                  |          |          |
| Subject   | Comment number  |                  |          |          |
| Clarification of Table 44-4   | 5   | 00:05:00         | 12:50 PM | 12:55 PM |
| Average Receive Power   | 62  | 00:05:00         | 12:55 PM | 1:00 PM  |
| Signal Detect   | 19  | 00:05:00         | 1:00 PM  | 1:05 PM  |
| BER Specification and Test  | 26, 33, 70  | 00:15:00         | 1:05 PM  | 1:20 PM  |
| Noise (RIN OMA etc)   | 34  | 00:05:00         | 1:20 PM  | 1:25 PM  |
| RMS Spectral Width  | 38  | 00:05:00         | 1:25 PM  | 1:30 PM  |
| Jitter  | 108   | 00:05:00         | 1:30 PM  | 1:35 PM  |
| Eye Mask Related  | 63, 66  | 00:10:00         | 1:35 PM  | 1:45 PM  |
| TWDP  | 40, 67, 90, 92, 94, 97, 154 & 146   | 00:30:00         | 1:45 PM  | 2:15 PM  |
| Dual Launch Strategy  | 22, 23, 31, 42  | 00:20:00         | 2:15 PM  | 2:35 PM  |
| Comprehensive Stress Test   | 51, 71  | 00:10:00         | 2:35 PM  | 2:45 PM  |
| <b>Break</b>  |   | 00:20:00         | 2:45 PM  | 3:05 PM  |
| ISI Stressors   | 9, 10, 11, 12, 20, 52, 53, 54, 55, 113, 114, 115, 118, 130, 150           | 00:30:00         | 3:05 PM  | 3:35 PM  |
| Time Variation of Channel and Adaptation  | 49  | 00:05:00         | 3:35 PM  | 3:40 PM  |
| Test Procedure Validation   | 56  | 00:05:00         | 3:40 PM  | 3:45 PM  |
| Power Budget and Simple Sensitivity   | 35, 51  | 00:10:00         | 3:45 PM  | 3:55 PM  |
| Percentile Coverage at Operating Range  | 7, 160  | 00:05:00         | 3:55 PM  | 4:00 PM  |
| Inter-operation demonstration   | 1   | 00:05:00         | 4:00 PM  | 4:05 PM  |
| <b>Comment Review</b>   |   |                  |          |          |
| Nick Weiner   | Comment Review: Review marked up draft and some E's?                      | 01:55:00         | 4:05 PM  | 6:00 PM  |

# Agenda – 10GBASE-LRM

| 10GBASE-LRM            |   |                  |          |          |
|------------------------|---|------------------|----------|----------|
| Thursday 17 March 2005 |   |                  |          |          |
| Presenter              | Presentations   | Length (Minutes) | Start    | Finish   |
| David Cunningham       | Closing Session   | 00:30:00         | 08:00    | 08:30    |
|                        | Reflector and Web   |                  |          |          |
|                        | Ground Rules  |                  |          |          |
|                        | Review of Project Timeline  |                  |          |          |
| Nick Weiner            | Editors Report  | 00:30:00         | 8:30 AM  | 9:00 AM  |
|                        | Motions to accept D1.2 & direct Chair to ask permission for WG ballot of D1.2 | 00:30:00         | 9:00 AM  | 9:30 AM  |
|                        | A.O.B.  | 01:00:00         | 9:30 AM  | 10:30 AM |
|                        | <b>End of Meeting</b>   | 00:00:00         | 10:30 AM | 10:30 AM |

## Technical

**10GBASE-LRM accepts D1.2/D2.0 per comment review and motions at this meeting.**

Moved: Nick Weiner

Second: Piers Dawe

Among those present:

Y: 28    N:0    A: 4

Among 802.3 voters:

Y: 16    N:0    A: 4

## Technical

***Motion to request that the IEEE 802.3 Working Group:  
Submit IEEE Draft P802.3aq/D2.0 for 802.3 Working Group Ballot, and  
authorize the IEEE 802.3aq 10GBASE-LRM Task Force to respond to  
ballot comments and conduct re-circulations as necessary.***

Moved: Nick Weiner

Second: John Jaeger

Among those present:

Y: 31    N: 4    A: 3

Among 802.3 voters:

Y:15    N: 4    A: 3

# Draft WG Ballot, Recirculation & Potential June Interim Dates

- Start Ballot: 24<sup>th</sup> March05
- End around: 30<sup>th</sup> April
- Comment resolution: Austin 17-19<sup>th</sup> May
- 1<sup>st</sup> Recirculation: Target 23 May – 8<sup>th</sup> June, Potential LRM only Interim: Week of June 13<sup>th</sup>
- 2<sup>nd</sup> Recirculation: 24<sup>th</sup> June – 11<sup>th</sup> July OR Continue comment resolution.
- Plenary Meeting week of 18<sup>th</sup> July.

## Procedural Motion

Motion to direct Chair to use the draft timeline per this slide as the basis of planning Ballots, recirculation and interim meetings until the next IEEE 802.3 Plenary.

Moved: Mike Dudek

Seconded: Lew Aronson

Y: 37    N: 0    A: 2