Residential Ethernet Study Group
Opening Plenary Report
IEEE 802.3
San Antonio, TX
November 15, 2004

Steve Carlson, RESG Chair

High Speed Design

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September Interim

- First RESG Meeting in Ottawa, CA, September 29 – 30, 2004, hosted by Nortel Networks
- Introduction to IEEE Standards Process and operation of IEEE 802.3 WG and SG.
- ~20 individuals from ~8 organizations
- Goals for the Week
  - Create a set of non-binding SG Objectives
  - Presentations
- Created ad hocs on plug and play, synchronous issues, and PoE
- Set goals for November Plenary

Presentations

- “Application Objectives,” Dennis Lou, Pioneer
- “MaGIC experience,” Alexei Beliaev, Gibson Labs
- “Bridging 1394: a requirement for Residential Ethernet, “ Michael Johas Teener, Plumblinks
- “Technical and economic feasibility for millisecond deterministic delay in Residential Ethernet,” Michael Johas Teener, Plumblinks
- “Residential Ethernet: 2 Criteria,” Mike McCormack, 3Com
- “Some Issues and Considerations for RE,” Jae Hun Cho, Chong Ho Yoon, Samsung Electronics

Draft Objectives 9/30/2004

- Plug and Play
  - No user setup required (i.e. Auto MDI-X, auto-config)
- Large aggregate bandwidth (greater than or equal to 1G)
- Isochronous traffic only supported over 100Mb or greater full-duplex
- At least 75% of aggregate bandwidth available for isochronous traffic
- At least 10% of aggregate bandwidth is reserved for best-effort traffic
- Low jitter and zero wander
- Low delay (500uS maximum through 1 hop)
- Isochronous bridging to 802.11
- Isochronous bridging to IEEE1394
- Network provides “house” clock
- No packet loss in isochronous mode, bandwidth is reserved
- Low cost

Draft Objectives 9/30/2004

- No new PHY(s)
- Network will automatically reclaim allocated but unused resources
- Compatible with IEEE802.3 Clause 33
- Isochronous traffic is not disrupted when any station is removed from the network
- Isochronous traffic is not disrupted when a station or session is added to the network
- A mechanism to request/grant/assign resources and the default rule(s) for managing the resources
- The default policy is first-come, first-served by request
- Supports 802.1q traffic (isochronous)
- Support arbitrary topologies within reasonable limits (we will define what this means)

Motions

- That the SG Chair sort the objectives into a more logical order and that the RESG adopt the objectives in the document. (resg_objectives_0904_1.pdf)

- Moved: M. Johas Teener
- Second: D. Paulson
- Technical 75% required:
- Y: 21 N: 0 A: 0
- All voters
- October 1, 2004 09:15

Goals for this Meeting

- Presentations addressing the Objectives
- Continue on Objectives
- Determine the possible split in the project between 802.3 and 802.1
- Determine whether the SG should be extended
- PAR and 5 Criteria (?)

Reflector and Web

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Residential Ethernet Study Group web page URL:

http://www.ieee802.org/3/re_study/

Future Meetings

- IEEE 802.3 Interim Meeting, January 24 – 28, 2005, Vancouver, CA
- IEEE 802 Plenary Meeting, March 13 – 18, Atlanta, GA