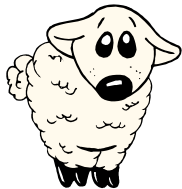# Bridging Ad-Hoc (BAH) Overview

May 2002

Marc Holness (Bridging Technical Editor)
Robert Castellano (Bridging Sectional Editor)

Comment Resolution: Section F

Comment 134 (Technical, Non-Binding)

"Would be nice to have a more efficient solution for bridging on RPR."

Resolution:

Group request the Chair to charter an Ad-Hoc for the purpose of exploring a more efficient solution for Bridging on RPR.

Topics include:
- Interactions with Spatial Re-Use with 802.1D/Q Bridging compliance.
- Efficiency improvements without losing basic compliance.
- Bridging interactions with Ringlet Selection, Protection, and Flooding.

Motion

Request the Chair to charter an Ad-Hoc for the purpose of exploring a more efficient solution for Bridging on RPR.

Topics include:

– Interactions with Spatial Re-Use with 802.1D/Q Bridging compliance.

– Efficiency improvements without losing basic compliance.

– Bridging interactions with Ringlet Selection, Protection, and Flooding.

BAH "Pillars"

1. Frame Structure Analysis
   – Analysis include how to extend currently defined frame structure to support BAH requirements
   – Frame structure support of Station Identifiers facilitates various flooding techniques and Bridging & Spatial Re-Use techniques
   – Frame structure support of Flooding Indicator supports 802.1D/Q Compliance requirements

2. Flooding Techniques Analysis
   – Analysis of various RPR flooding techniques
   – Analysis of packet misordering, duplication, and loss during various exception scenarios

3. Bridging and 802.1D/Q Compliance
   – Extension of currently specified Bridging proposal to address 802.1D/Q non-conformances

4. Bridging & Spatial Re-use Compliance with 802.1D/Q
   – Introduction of new Bridging proposal that provides 802.1D/Q Compliant Bridging with spatial reuse

BAH Sub-Teams

Sub teams formed to align with 4 BAH Pillars

1. Frame Structure Analysis
   - Marc Holness, William Dai, Robert Castellano, Vinay Bannai

2. Flooding Techniques Analysis
   - Li Mo, Anoop Ghanwani, Jim Kao, Vinnay Bannai, Spencer Dawkins

3. Bridging and 802.1D/Q Compliance

4. Bridging & Spatial Re-use Compliance with 802.1D/Q
   - Robert Castellano, Willaim Dai, Li Mo, John Coulter

BAH Results

- Collaborated with Tony Jeffree (802.1Chair) and Norman Finn (802.1 SME) during our investigation
  - Output of collaboration feed into BAH proposals

- In depth analysis of paper provided by Norman Finn outlining Bridging compliance requirements
  - Bridging compliance requirements outlined by Norm feed into BAH proposals

- All known 802.1D/Q compliance issues have been addressed by all BAH proposals

- Presentation of findings, observations, and recommendations will be made on each BAH Pillar to the 802.17 WG

BAH Member List

- Anoop Ghanwani
- Chris Garner
- Constanitinos Bassias
- Daniel Zhu
- Fredrik Olsson
- Gal Mor
- Gary Turner
- Hui Zhang
- Italo Busi
- Jai P Agrawal
- Jim Kao
- Joerg Ottensmeyer
- John Coulter
- Khaled Amer

- Li Mo
- Marc Holness
- Mike Takefman
- Nader Vijeh
- Necdet Uzun
- Offer Pazy
- Pankaj K Jha
- Peter Jones
- Robert Castellano
- Siamack Ayandeh
- Spencer Dawkins
- Vinay Bannai
- Wai-Chau Hui
- William Dai
- Yongbum Kim

Back-Up

mh_BAH_04.pdf

Initial Ad-Hoc Meeting Summary

Work Partitioning (not in priority order)

1. Establish Bridging Ad-Hoc mailing list
   – Co-ordinate activities
   – Share proposals, and review ideas
   – etc

2. Establish liaison with 802.1 group
   – Assign 802.17 liaison prime within group

3. Perform problem analysis on existing Bridging proposal (I.e., Annex F of RPR Draft v0.1)
   – Obtain/Request list of comments/issues from 802.1
   – Collaborate with 802.1 to ensure their understanding of 802.17 capabilities and our understanding of 802.1D/Q converge
   – Address list of issues (provided by 802.1 group and 802.17 WG) that may prevent 802.1D/Q compliance
   – Focus on 802.1D compliance solution hardening first, followed by 802.1Q compliance issues
   – Ensure RPR Draft is self consistent with contents of Bridging Compliance specification

Initial Ad-Hoc Meeting Summary

Work Partitioning (not in priority order)

4. Investigate solutions required to address Bridging and BW Efficiency (e.g., Spatial Re-use) requirements
   - 802.1D/Q compliance needs to be adhered to
   - Multiple proposals may be internally generated
   - Group will review and merge proposals prior to release to the 802.17 WG at large
   - Objective will be for the Bridging Ad-Hoc group to present one proposal (or at least a minimal set of proposals) to the 802.17 WG for direction

Next Steps

- Assign 802.17 liaison to 802.1

- Identify 802.1 primary point of contact (I.e., liaison from 802.1)

- Establish mailing list

- Have first conference call next week

- Liaison will obtain list of issues/comments from 802.1

- Individuals within the team will sign up to move Item #3 and/or Item #4 forward

  – Deliverables for Work Item #3 is to refine/amend text of Annex F contained in the current Bridging section of RPR Draft v0.1. In addition, update other sections of the RPR Draft v0.1 to ensure the Draft is self consistent

  – Deliverable for Work Item #4 is drafting proposals and sharing with the Ad-Hoc group for review, discussion, and refinement

Initial Proposed Mode of Operation

- Internal process within the group will be further refined and advertised

- Mailing list will be used to communicate issues, findings, ideas, etc.

- Period (perhaps weekly) conference calls will be set up

- Collaborate with 802.1 (via liaisons)

- Work Item #3 problem analysis and subsequent solution hardening needs to be completed prior to the May2002 meeting

- All proposals/findings should be made available to the Ad-hoc group 2 weeks prior to next meeting (May2002).
  - Proposals will be internally reviewed

- Reviewed proposals (hopefully one) will be presented to 802.1WG during May meeting