Minutes of opening plenary session at 802.1 meeting Eilat (12 May 2008) taken by Oliver Thorp

- Tony Jeffree showed slides #1 through #4 of the patent presentation
- The chair provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard
    - No responses were given at the meeting or had been received prior to the meeting.
- Task group chairs were requested to repeat the patent announcement at the start of each day's meeting.
- The chair requested that no use of audio / video recording devices is made during the meeting.
- No members of the press were present in the meeting.

Future meetings

September 2008 meeting will be in ChengDu, China

- The current situation is that the Chinese government will not allow business invitation letters to be requested between May 31st and September 30th
- The Huawei deadline for submission of an invitation letter request was 10 May
- A tourist visa will not require an invitation letter from Huawei
- Linda Dunbar's view was that the port of arrival should not be too important
- Chinese consulates may not issue a visa for September until August
- Pat Thaler queried whether these issues constitute a risk to the meeting. The chair agreed that there is a concern, but that they are not yet sufficient to require a change the meeting location at this late stage.

January 2009

- There is a tentative proposal for a meeting in Bangalore, India
- Broadcom also has a tentative proposal for a meeting in the bay area

Joint discussion items

Nearest Customer Bridge address

Should this be -00 or -0F? The concern is that this has in some cases the -00 address has been implemented with a fast path to the CPU, and it may cause issues if LLDP / other future protocols are sent down the same path. The consensus was to keep the nearest customer bridge address as -00. The chair plans to formalise this with a motion at the next plenary meeting.

TMPR component reserved addresses

This issue was also discussed in the opening plenary of the March 2008 802.1 meeting. Should MAC specific addresses (-01, -02, -04 and -05) be reserved in addition to -0E? It may cause interoperability issues if protocols with these addresses are received from a MAC relay by shims defined by other IEEE 802 working groups. The addition of the -02 address to the TMPR reserved list may require a new definition of Ethernet Link Aggregation in order to allow it to be tunnelled by a TMPR. It is likely that the -05 address will be changed so that its use is undefined

again. This will remove it from the set of MAC specific addresses. The -04 address is used by 802.17. This should be noted in the 802.1aj draft.

Order of amendments to 802.1Q

The absolute order is decided by the publication date, but there are inconsistencies with the order in which some projects are applying their amendments. The tentative order discussed at the meeting is:

1. 802.1ah
2. 802.1ap (Sponsor ballot out of July meeting)
3. 802.1Q-REV (This may be moved down this list as required by the progress of other projects)
4. 802.1aj
   Documents below here have less certainty on the ordering
5. 802.1aw
6. 802.1Qay
7. 802.1Qat, 802.1Qav
8. 802.1Qaz, 802.1Qbb
9. 802.1Qau
10. 802.1aq

Additional notes – Tony Jeffree

The slides from the opening session can be found at:

http://www.ieee802.org/1/files/public/minutes/2008-05-interim-slides.pdf

Following the opening session, the meeting separated into Task Group meetings for the remainder of the time Monday through Thursday. The Security task group met separately in Roseville, California, week of 20th through 22nd May.

The TG meeting agendas follow.

AVB agenda:

- Magic decoder ring
  Presenter: CG/Craig Gunther, DP/Don Pannell, GG/Geoff Garner, KS/Kevin Stanton, MJT/Michael Johas Teener, NF/Norm Finn, TJ/Tony Jeffree

Topic	Presenter	Length
- Mon AM (802.1 opening interim) 08:00-13:00 (30min break)		
- (status of 802.1BA PAR)	TJ	5
- (possible requests for interactions with DCB w/r/t 802.1Qbb)	??	15
- (other 802.1 general biz)	TJ	160
- Mon PM 14:00-18:00 (30 min break)		
- Administrivia	MJT	30
- Assumptions review	MJT for DP	240
- Tue AM 08:00-13:00 (30 min break)		
- 802.1AS Best Master Clock Selection - formalism	RSTP GG	120
- 802.1AS	GG, NF, KS	180
- Tue PM 14:00-18:00 (30 min break)		
- 802.1AS	GG	90
- 802.1Qat	CG	180
- Wed AM 08:00-13:00 (30 min break)		
- 802.1Qat	CG	300
- Wed PM 14:00-18:00 (30 min break)		
- Worst case latency analysis update and discussion	MJT	90
- 802.1Qav	TJ	180
- Thu AM 08:00-13:00 (30 min break)		
- 802.1Qav	TJ	120
- 802.1BA	MJT	180
- Thu PM 14:00-18:00 (30 min break)		
- 802.1BA	MJT	120
- Assumptions update	MJT	150

DCB agenda:

Colleagues,

Data Center Bridging will be meeting next week as a task group on Tuesday, Wednesday and the morning of Thursday.

The tentative plan is to start with 802.1Qaz Enhanced Transmission Selection Tuesday morning and then move to 802.1Qau Congestion Notification - probably starting on that topic Tuesday afternoon.

Wednesday morning at 10, we will have a joint meeting with the Energy Efficient Ethernet Task Force of 802.3 to discuss how our work might interact. Because their work may involve changing link speed or going into extended idle operation under low load to save power, it may interact with congestion control mechansims. To familiarize yourselves with the type of proposals they are considering, you might review their January presentations at:
http://ieee802.org/3/az/public/jan08/index.html
The presentations on "Active/Idle Toggling with Low-Power Idle", "Reducing network energy via sleeping and rate-adaptation" and "A "Subset PHY" Approach for Energy Efficient Ethernet" will give you a start on the scope of proposals they are seeing.

Because we the 802.1Qbb PAR is up for approval at this meeting, we may need some flexibility on Tuesday if another group requests time to discuss the PAR and any comments on the PAR will be received by 5 PM Tuesday and will need to be addressed Wednesday. Therefore, my plan is to deal with any 802.1Qbb business on Wednesday after lunch.

Once we have finished Qbb for the week we will return to 802.1Qau.

The motion to forward the 802.1Qbb PAR will occur Thursday afternoon in the 802.1 closing session.

Regards,
Pat

Interworking agenda:

Interworking Task Group Agenda

	Mon 5/12/08	Tues 5/13/08	Wed 5/14/08	Thurs 5/15/08
Morning	**802.1** Opening **.1aj-d2.2** **TPMR** **.1Qaw-d2.1** **DDCFM**	**.1Qay-d3.0** **PBB-TE** (Saltsidis, Oliva, Alon, Mack-Crane, Kashyup, Abhay, Sprecher)	**.1Qay-3.0** **PBB-TE**	**.1Qaw-d2.1** **DDCFM**
Afternoon	**.1ap-d3.3** **MIB**	**.1Qay-d3.3** **PBB-TE MIB** **.1ap-d3.3** **MIB**	**.1ap-d3.3** **MIB**	**.1Qay-3.0** **PBB-TE** **New** (Sultan)

Security interim agenda:

The topics for the Security interim were progression of P802.1X-Rev and P802.1AR.

Minutes of discussions on 802.1Qay at 802.1 interim meeting Eilat (12-15 May 2008)

by Oliver Thorp

These minutes detail the discussions that took place following contributions on 802.1Qay. They are supplementary to the published ballot resolutions on 802.1Qay draft 3.0, available from:
http://www.ieee802.org/1/files/private/ay-drafts/d3/802-1ay-D3-0-dis-cs-v01.pdf

These minutes have been prepared to assist the IEEE 802.1 committee. The author has attempted to fairly represent the discussions and agreements which took place, but the accuracy of the contents is subject to review by the committee.

Contributions

The contributions discussed here are available for download from
http://www.ieee802.org/1/files/public/docs2008/

ay-saltsidis-project-status-0508-v01.pdf

This contribution provided an update from the editor on the changes in 802.1Qay draft 3.0.

APS signalling

G.8031 APS provides signalling of protection type, but only the information on revertive / non-revertive mode would be required by PBB-TE. The request / state field allows co-ordination of operator commands. The requested / bridged signal can be used to identify whether the state machines at either end of the PBB-TE connection are synchronised to force bi-directional switching. This self-correcting synchronisation capability was requested in ay-Oliva-Protection-Switching-Requirements-0508.ppt.

Discussion

The editor suggests using an additional CCM flag to provide a 'traffic field'. There was no agreement within the group on whether this proposal is the correct answer - more details are required. A solution may need to address anomalies that are not configuration related. Concern was expressed that the notion that 'we will align as far as possible with G.8031' will mean that we end up implementing an alternative to G.8031 in small pieces.

Resolution

The editor will attempt to put the CCM flag proposal into the PBB-TE draft for review. This will need to be discussed again at the next meeting.

ay-alon-load-sharing-05-08-v01.ppt

This contribution recommends complying with the scope of the 802.1Qay PAR by:

- Including 1:1 path protection switching only, providing the load sharing capability by means of the 1:1 path protection mechanism
- Remove support for the N×(M:1) load sharing model from the current project

Discussion

Dunbar	Routers have load-sharing – PBB-TE should have it too. There is a bandwidth saving by protecting less than all services

McGuire	This all looks nice until you try and build it in the network. If you do that, you end up with something that looks like one for one. It is always possible to set up an additional protection group to achieve the same effect. Don't want load-sharing with more than two TESIs. Don't want to do the network planning to analyse all the common mode failures. MPLS load sharing has the same issues – doesn't actually give you any benefit over doing it at the IP layer.
Gray	Just because it's more complicated doesn't mean that you don't want it. There are some cases where there is a bandwidth saving – although the worst case of 1:1 may be the common one. You are not required implement both modes.
Mack-Crane	If you can only find two paths without a common mode failure, then there will only be two TESIs in the protection group. Ben has talked to some operators that are interested in this capability.
Sprecher	Narrow the scope of the project to a single 1:1 mechanism that is capable of load sharing.
Saltsidis	There were some inaccuracies in the presentation referring to the operation of the load sharing mechanisms in the current PBB-TE draft.
Mohan	MPLS environment is different because there is control-plane signalling for bandwidth allocation.
Bottorff	The PAR doesn't say we have to define how load-sharing works. The mechanism just has to be capable of load-sharing.

Resolution

There was no resolution to this proposal at this stage.

ay-mackcrane-simple-protection-0508.pdf

The contributor gave the following updates on work occurring within ITU-T Q9/15

- Use the hold-off timer in the DNR state.
- A manual switch command may be added to go from the DNR state
- There will be updates to G.8031 to cover this.
- Suggestions for simplifying the protection state machine specification
- A proposal to complete the state machine by adding remote request/condition input, and
- A simple model for load sharing with more than 2 TESIs in a protection group.

Discussion

- Concerned that hold-off is not in the proposed diagram. Hard to align hold-off with ITU-T.
- Don't want to define variables that are waiting for some mechanism to signal remote requests. You could use the current state machine to define the input to that state machine as a function of both local and remote inputs. The question is how much of the logic do you push into the IEEE state machine.
- Issue is whether to define load-sharing so that it can be extended to more than two TESIs.
- There may be errors in the proposed state machines
- A liaison to ITU-T was requested to make sure that the protection mechanisms do not diverge. This could only be considered at the next plenary meeting.

ay-mcguire-loadsharing-0508.ppt

Conclusions

- Load sharing can be achieved with conventional 1:1 by allowing overlapping protection capacity
- Overlapping capacity reduces total B/W required
- Protection TESIs can overlap
- Do not need two mechanisms to provide the same thing
- Conventional 1:1 provides load sharing in line with the PAR

Discussion

Mack-Crane	If you have a number of TESI's > 2 this allows more options for extension to protection schemes that are outside the scope of this PAR. Easier to move BSIs around within a PBB-TE protection group.
McGuire	Arguments about bandwidth improvement in 802.1Qay in annex M are shown to be wrong.
Saltsidis	Will add discussion on how the 1:1 protection mechanism can support load-sharing.
Sultan	Without the load-sharing you would need to set up more TESIs. Panos believes the current 802.1Qay draft supports a TESI being a member of more than one protection group.
Mack-Crane	Is sharing protection bandwidth the same as load sharing? Alan thinks this is equivalent.
McGuire	The original proposal was just to improve the convergence time. If you limit this to two TESIs do you allow load sharing on that protection group. You could just leave a note to describe how the 1:1 mechanism allows load sharing.

Resolution

The editor will delete clauses 26.10.4 – 26.10.6 and annex M from 802.1Qay. He will add a note to 26.10.2 on how the 1:1 mechanism can support load sharing.

ay-sprecherporat-point-to-multipoint-TE-service-instances-05-08-v01.ppt

Discussion

Mohan	Full mesh of point-to-point service instances is prohibitive since the bandwidth requirement of this is large. If it is important to traffic engineer a point-to-multipoint TESI using PBB-TE (as opposed to PBB) then it is likely that I am prepared to configure a disjoint point-to-multipoint TESI.
Gray	Proposals are not new. Could alternatively use a control-plane to provide restoration on the service. Supported by Dave Martin. We don't need to pick a single solution here.
Saltsidis	A point-to-multipoint service is different to a general E-TREE service. You do not send a BSI over a point-to-multipoint TESI if you only want to address a subset of the leaves.
Sultan	Would support using segment based protection. This is similar to a fast reroute scheme.
McGuire	Disagree that it would be better to remove point-to-multipoint than have an unprotected point-to-multipoint TESI. The committee should also consider the case of 1+1 protection. Either define a protection

mechanism or specify that protection is outside the scope of this document. The presenter would be happy with Alan's suggestion.

Karandikar - Segment based protection

This contribution has been uploaded as ay-Abhay-Protection-Switching-for-P2MP-0508.ppt in docs2008.

Discussion

Mohan	This seems to assume a different forwarding mechanism since I need to change the B-DA as part of the forwarding process. This means that the coverage of end-to-end CC messages will not be correct. One way to get around this would be to add an additional level of tagging on the protecting segment.
Gray	Is this in scope of the 802.1Qay project?
Saltsidis	Addressing intermediate PNPs will be problematic in a PBB-TE network without broadcast.
Sultan	No one is saying that this proposal is a bad idea, but people have raised technical objections. Suggest this is put in the draft and the proposer can resolve the objections based on received comments.
Sprecher	This solution needs to be considered alongside the other alternatives.
Haddock	There is not consensus that we can accept either of these proposals now.

Resolution

The resolution of this contribution and the sprecherporat contribution is reflected in the response to ballot comment 123.

ay-kashyap-ccm-MAIDs-0508.pdf.zip

Proposal

To not require the MEP CCM receiver to check the MAID field for PBB-TE.

Discussion

- The EMS / NMS may be able to identify that it is receiving frames from an unknown TESI-ID, but the MAID provides more information that could identify a cross-connected service to higher layer entities.
- You don't want different mechanisms for PBB-TE and other applications of Continuity Check.
- Because an ESP's 3-tuple is unique a network, and traffic from a single ESP is forwarded to a MEP, a cross-connect defect will never be raised. Therefore it is not necessary to check the MAID in PBB-TE.

Resolution

Provided the MAID is sent, it is OK for checking the MAID to be optional in PBB-TE. This is captured in response to comment #89.

ay-martin-prot-reqmts-summary-0508-v00.pdf

This contribution is an attempt to collect the requirements for protection. It doesn't yet include requirements that have been agreed as part of comment resolution. No objections were raised against the contents of the slides during the meeting.

Resolution

The contents of these slides will be placed in 802.1Qay annex Z. This will be open for comment and discussion at the next meeting.

Interim meeting attendance

The following list includes attendees at the Eilat (AVB, DCB, Interworking) and California (Security) interims. Security interim attendees are denoted by an asterisk.

NAME	SURNAME	Affiliation
Bernard	Aboba *	Microsoft Corp
Zehavit	Alon	Nokia Siemens Networks
Zinaty	Amir	NOT CONFIRMED
Carmi	Arad	NOT CONFIRMED
Simoni	Ben-Michael	NOT CONFIRMED
Jean-Michel	Bonnamy	France-Telecom
Paul	Bottorff	Nortel Inc
Rudolf	Brandner	Nokia Siemens Networks
Rao	Cherukuri	Juniper Networks
Paul	Congdon *	Hewlett Packard
Diego	Crupnicoff	Mellanox
Thomas	Dineen *	Self
Linda	Dunbar	Futurewei Technologies
Janos	Farkas	Ericsson
Norm	Finn	Cisco Systems
Edna	Ganon	MRV
Geoffrey	Garner	Harman, Intel
Franz	Goetz	Siemens
Eric	Gray	Ericsson
Ken	Grewal *	Intel
Craig	Gunther	Harman Pro
Steve	Haddock	Self
Romain	Insler	France Telecom
Tony	Jeffree	Self, Cisco, Broadcom, Hewlett Packard, Adva
Michael	Johas Teener	Broadcom
Abhay	Karandikar	Tejas Networks/IIT Bombay
Prakash	Kashyap	Extreme Networks
Keti	Kilcrease *	Cisco Systems
Yongbum	Kim	Broadcom
Philippe	Klein	Broadcom
M. Vinod	Kumar	Tejas Networks
Yannick	Le Goff	France Telecom
John	Lemon	Adtran
Lihan	Liang *	Realtek
Gael	Mace	Thomson
Ben	Mack-Crane	Huawei
David	Martin	Nortel Networks
Tom	Mathey *	Independent
Alan	McGuire	British Telecommunications PLC
David	Melman	Marvell
Dinesh	Mohan	Nortel
Ygdal	Naouri	NOT CONFIRMED
David	Olsen	Harman Pro
Glenn	Parsons	Nortel Networks
Alex	Pavlovsky	Finisar Corp
Hayim	Porat	Ethos Networks
Max	Pritikin *	Cisco
Karen	Randall *	NSA/IAD
Dan	Romascanu	Avaya
Jessy V	Rouyer	Alcatel-Lucent
Joseph	Salowey *	Cisco
Panagiotis	Saltsidis	Ericsson

Mick	Seaman *	Mick Seaman
Avraham	Shimor	Sandisk Corporation
Nurit	Sprecher	Nokia Siemens Networks
Kevin B	Stanton	Intel
Bob	Sultan	Huawei Technologies
Pat	Thaler	Broadcom
Oliver	Thorp	Fujitsu
Yaacov	Weingarten	Nokia Siemens Networks
Brian	Weis *	Cisco
Glen	Zorn *	Aruba Networks