IEEE 802.1 Minutes, November 2004

ATTENDEES

The following attended 802.1 meetings during the November 2004 session:

Osama
Paul
Floyd
Les
Mike
Paul
Richard
Rudolf
Robert
Jim
Dirceu
Frank
Charles
David
Paul
Arjan
Craig
Anush
Hesham
David
Don
Norm
David
An
Anoop
Ken
Takashi
Asif
Gopal
Ran
Vipin
Tony
Peter
Ulf
Tetsuya
Yongbum
Sreenivas
Gadi
Loren
Aboul-Magid
Amsden
Backes
Bell
Borza
Bottorff
Brand
Brandner
Brunner
Burns
Cavendish
Chao
Chen
Chin
Congdon
de Heer
Easley
Elangovan
Elbakoury
Elie-Dit-Cosaque
Fedyk
Finn
Frattura
Ge
Ghanwani
Grewal
Hassegawa
Hazarika
Hegde
Ish-Shalom
Jain
Jeffree
Jones
Jonsson
Kawakami
Kim
Kottapalli
Lahat
Larsen
Pre-Meeting Monday, November 15, 2004

Project Proposal for an MSTP-MIB – Paul Congdon

Current documents are at http://www.ieee802.org/1/files/public/docs2004

Questions:

Is this an amendment to 802.1Q Rev?

Probably will have to be an amendment to .1Q

Not wise to get PAR yet, wait until .1Q rev is further along
Is it a standard or recommended?
Discussion about the vocabulary differences between IETF and IEEE 802

Do we have a committed editor?
Discussion about having an editor who attends IEEE 802 meetings versus doing most work by email
Somebody has to be here and deal with the IEEE 802 discussions that happen at meetings and handle the IEEE 802 issues
Is Paul going to check with the potential editors to see if they can and will work on the MIBS?
Paul will contact the folks that have said they would consider being editor.

Do we need to create an RFC?
Probably not
What about using the resources of IETF for getting MIBS right?

Potential Deliverables
PAR – not until March at the earliest
ASCII MIB

Straw man PAR review

Scope
Discussion about the scope for the PAR
Allow the base standard to be changed however limit the change scope to those things that must be changed to support the MIB. For example, variable definitions

Purpose
5 Criteria

Further discussion
We can get a lot of the work completed before starting the PAR to coordinate with 802.1Q Revision
Maybe interim meeting can be in a more convenient location

802.1ae MIB – Mick Seaman
Talk about how MIB can be fitted into the existing document
Ae is almost finished
The MIB is one big item to complete
Management has to be able to help get MacSec up and running
Security is really about making sure unknown folks don’t do unknown things to you
If you want to deploy confidentially need to do the integrity first and then confidentially so when things go wrong you can determine where the errors are and get the bugs worked out of the deployment
Need work about what information is kept on dropped packets
Need feedback from MIB folks about the nesting of variables
Object class diagram for the Secy needs updating
Need to document the relationship between physical layer interface and this interface
This won’t be an issue because this is a port so this should not confuse anyone
Is this the right structure for this information and how does it relate to how other standards do this
The issue of how to deploy this and have the tools in place to help get MacSec deployed will create a certain level of complexity that we must understand

**Opening Plenary, Monday, November 15, 2004**

**Administrative stuff – Tony Jeffree**
- Review of voting membership rules

**802.1 WG and TG operation – Tony Jeffree**

**TG, WG, and Sponsor ballots – Tony Jeffree**

**IEEE Patent Policy – Tony Jeffree**

The IEEE patent policy was reviewed to insure that everyone in the room is familiar with the IEEE policy and the two required slides were shown and read.

The following questions were raised:
- If voting rights are changed to entity balloting how does these effect individuals that become disenfranchised? Are these folks then held to this patent policy?

**Future meetings – Tony Jeffree**
- Jan 10 -13 Sacramento Hyatt
- May
  - Barcelona or Edinburgh

**Liaison reports**

**TIA work David Futtura**
- Working on adopting 802.1ab for TIA TR41.4
- 802.1ab will be required within this standard
- Will be used in E911 work
- Anything that could create a security problem – that is a port
- We have to make sure not too much gets pushed into 802.1ab
- We have to balance the success of 802.1ab with allowing it becoming a transport protocol

We need to a new 802.3 liaison since Don Pannell can no longer continue in that role

**Executive committee report – Tony Jeffree**
- Attendance already exceeds 1500
- Proposal from IEEE to stop free paper copies of standards
- Online training program – ongoing
- Tutorials
  - RF management Tuesday 6:30 AM
  - Congestion management Tuesday this may involve 802.1
- Policy and Procedures – ongoing work to get in shape
- 802.3 finances – fallout from interim meeting
  - Our last interim turned out to be sponsored by 802.3 not Nortel
- New “Member Emeritus” role
  - This is actually a role so the chair has an extra person
- 802.11/SC6 & Chinese security proposal (WAPI)
China has submitted a proposal to SC6 to include WAPI into the ISO standard of 802.11. It appears that 802.11 and China have agreed to work together on 802.11i and Chinese. This shows some of the issues with putting 802 standards in ISO Architecture group.

Meeting yesterday identifying architectural items that cross various working groups.

Recommending changes to P&P to require working groups to state that the work at sponsor ballot is consistent with PAR and the interoperable part PARs.

Network services RFP

Current contract is up.

**Agenda – Mick Seaman**

- Bridge MIB plans
- ITU Q3/13 P802.1ag liaison
- MEF liaison
- P802.1Q/rev

Agenda was updated and will be emailed.

**Bridge MIB plans – Dan Romascanu & David Herrington**


IETF meeting last week.

IETF is the management experts but not the content so the folks that have the expertise to do the content should be the ones to put the content in.

Remaining issue is getting a qualified MIB editor to commit to doing this work and attending IEEE meetings to get this work accomplished.

**ITU-T Ethernet related standardization - Hiroshi Ohta.**


DSL folks are considering using Ethernet backbone.

Have to apply Ethernet OAM functions to DSL systems.

**Metro Ethernet Liaison Statement to IEEE P802.1 – Paul Bottorff**


MEF would like to use one of the reserved addresses and they would like to discuss the uses to insure correctness.

Paul will get some off-line discussion and formulate a response to be reviewed by the committee.

Discussion about the how to make this work.

The Ethertype following will be an MEF allocated Ethertype for this purpose.

This will be discussed Thursday in the closing plenary.

More discussion about how allocating the address works.

There is no actual assignment but 802.1 will state whether this is an appropriate use of the address.

**P802.1Q Revision – Tony Jeffree**
There are a number of amendments that have been produced and a re-affirmation ballot in 2003
Amendments s, u, and v have been added to the base line document without an attempt to make things clean
There are several items that need to been cleaned up such as references
Also, several items in P802.1ad that are Q revision items have been moved into this revision so P802.1ad can be a Provider Bridge standard
P802.1D gets referenced in two different ways in this draft, if the reference is P802.1D then that means the latest P802.1D – 2003. If the reference is to a specific revision then the reference is spelled out.
Pulled in the required definitions from P802.1ad
The cross references was cleaned up
The terminology (shall and can) was tighten up and the terminology was defined.
Between now an March this should go to WG and re-circulation ballot so at the March meeting it will be ready to go to sponsor ballot
PICS is a major area of work before the document is finished
P802.1ad will now show the deltas and P802.1Q will have the base stuff

**Tuesday AM, November 16, 2004**

**Joint meeting with 802.3 for congestion management – Ben Brown**

Analysis, history, and viable options – Mick
- This presentation is on the 802.3 web site

**Discussion**

Since this proposal is for short networks under a single management control then there is a possible solution
A viable option would be to use dropped precedence from provider bridges
Do we have the right information passing through the bridge to inform the right entity of the congestion? The interface should not be a problem model as a operState variable
Much of this work requires new behavior for end stations; however, end stations manufactures do not read 802.1 may need to consider 802.1 for end station behavior
Observation that in the data center does not always use IP
Do the protocols other than IP have a congestion indication? If so then tweak that way in the face of congestion
First need to identify what it is we want to do then figure out how to do it
The how may be a new standard or it could be a recommended practice
Is the non-IP an issue?
What about old bridges? Only have to do this a congestion point bridge
Observation - End station implementers will have to follow this standard
802.3 congestion management has a tutorial tonight – will be discussing the market space for this work, blades, data centers, or high performances clusters
How to convince 802.1 that this is a big enough market to get the work done? The work in 802.1 is done by individuals most of the major switch vendors are in the room – convince the individuals

P802.1ad ballot resolution – Mick Seaman
Steve Haddock will be taking over as the primary editor
Mick expects a resolution to move this to working group ballot Thursday
A large part of the document will disappear and reappear in P802.1Q revision

Tuesday PM, November 16, 2004
P802.1ad ballot resolution – Mick Seaman
After the break the MACSec and Provider Bridge activities met in parallel
There was a discussion about congestion management and how to proceed in the provider bridge meeting

MIB discussions – Mick Seaman
.1ae Management Info – Frank Chao
This presentation is on the web site at
Discussion about what is the definition of enable/disable and how granular the enable/disable functionality should be

Discussion about the architecture – Mick Seaman
Roll out checks
There was a comment yesterday about wanting to know what packets are encrypted and decrypted at the controlled port
This is a deployment issue

Wednesday AM, November 17, 2004
Trusted Computing Overview – Paul Congdon
This presentation is on the web site
What needs to be accomplished for DevID work in P802.1
There may be patented stuff that must be licensed to use TCG
Trusted Platform Module (TPM)

DevID relationship to TPM – Mike Borza
This presentation is on the web site
Suggestion to use the Platform Credential as the Device ID
This does tie DevID to TPM
There is resistance to tying Device ID to TPM

Discussion
What is the scope of the specification?
Use existing standards as much as possible, simply reference those standards and possible how the those standards should be used within the context of this standard

Review of IETF EAP network discovery draft – Paul Congdon
This presentation is on the web site at
IETF draft is Draft-adrangi-eap-network-discovery-05
This work is for end stations
Image a wired hotspot where multi supplier can deliver services – this allows Wayport and/or T-Mobile
Multiple different service providers through this same wire
Network services are referred to as realms
Status working group last call
Discussion about how to discover the particular service or the particular CA that a given station wishes to be on

TCN – John Vollbrecht
Picture of the various tunnels that exist with the authentication frame work
Allow third party systems to communicate to do integrity checks
IMC – Integrity management client
IMV – Integrity management verifier
There are some that would like to see a layer three solution rather than doing EAP extensions

Wednesday PM, November 17, 2004
Ballot resolution P802.1ad continued – Mick Seaman
The official ballot comment dispositions are on the web site
Completed review of all of the comments
There will be a ballot resolution Thursday to allow this to go to working group ballot out of the March session

Discussion about media converter PAR – Mick Seaman
Pat Thaler noted that the title is not intuitive and we should modify it
P802.1 will put some pointers on web site to help out

Attendance sheet – Tony Jeffree
Tony reminded every one that signing the attendance sheet means they are here for 75% of time of that meeting

Two Port MAC Relay – Norm Finn
Norm would like to get who the editor for this work will be settled before the end of this week

P802.17 Interworking Issues – Marcus Holness, Mike Takefman, chair of 802.17
Spatially Aware Sub-layer
Frame expansion
Security
Issue – If requested, would 802.1 be willing to allocate one of the reserved group addresses to be used for this purpose?
In the current the P802.1D there is a set of addresses that already fulfill the requirement
Discussion about how 802.17 views S-Tags, C-Tags, and no tag.
Security and VLANs – We intend SAS to be VLAN aware. Do you see any issues with security encrypting or moving the Q Tag
Question where is the Q Tag and how to read it in the face of encryption

Discussion
Lots of discussion
This could be viewed as yet another P802.1Q
Another way to approach the problem is the same as link
aggregation and P802.17 must specify where the MACSec must go
relative to an P802.17 shim to be able to access the VLAN tag so
the packet can be sent to the correct destination without broadcast

Issue #3 Frame expansion
Please advise us on the current status of the request to 802.3 and what
should 802.17 be prepared to support?

Discussion
What did P802.1 ask for and what did P802.3 say?
P802.3 is putting a PAR forward and the task force will meet in January.
Currently, P802.3 is around the 2048 byte frame size
Another issue – How does security operate in P802.1? (This is
paraphrasing the question)
Point to Point looks a similar to a broadcast as possible

What needs to be done next about the shim?
First need some thinking about how this works
How would the shim thingy be specified?
Have to worry about the security claims and insure that the shim and its
position effect the security claims
As long as P802.17 is within its boundary then this could save you some
grief

Thursday AM, November 18, 2004

Joint meeting with 802.11
Scope of Ad-Hoc Work - Dorothy Stanley, Chair of AP functionality
Formed a group to look at AP functionality
Document number 80211-04/1428
Descriptive task rather than creating functionality
TGM is a maintenance work that will be a revision of 802.11 2003 the AP work
will be put in TGM

AP Architecture Thoughts – Mike Moreton
Document IEEE 802.11-04/1191r5
Discussion about how the 802.11 AP model can be tweaked to be like an 802.1D
Virtual ports to stations can be operEdge bridge ports with a small tweak
P802.1 may need to create a new port definition for this to work
Should 802.11 define it’s own (enhanced) Relay Entity, or should the standard
802.1D Relay Entity be enhanced to support 802.11i?
Discussion
How to make this work
How not to break existing AP
This will take some time so the legacy equipment will not be much
of an issue
Format for organizing this
This could be done within P802.1 without any wireless stuff
P802.11 could ask us to do this work

Straw Poll
Should 802.11 define its own Relay Entity
P802.1 – 0
P802.11 – 0
Should 802.11 and 802.1 work on P802.1Q Relay Entity to make it work
P802.1 Yes 31
P802.11 Yes 16

We should proceed with how to work together to get this project underway

What formal documents would be needed to get this effort started?

802.1 AE/AF Platform considerations – Ken Grewal
This presentation is on the web site at

Issue with data origin within a group – if you are a member of the group then you can impersonate anyone else in the group because this is a group association
There is a misconception about the security offerings because of the group associations
Node leaving the CA has the keys to the CA so a refresh of master keys is needed for the remaining nodes in the CA
This can be broken down into detection and remediation
Maybe we need a section in the document that discusses security issues and how various configurations affect security
May not be necessary to couple P802.1ae and P802.1af
Why did we want to hold P802.1ae up for P802.1af?
There should be a key management protocol and we need to make sure P802.1ae is complete that is P802.1af will test the P802.1ae architecture
The relationship of P802.1ae and P802.1af is not clear in the current draft. Allyn has this as a higher priority to clear this up.

Frame Expansion
Within P802.1ae you can define different cyber suites that changes the frame size
Different cyber suites have different requirements on the nonce so a packet number can not be used as a nonce and another field would be needed
Bottle line it is not possible to say what is the maximum expansion could be because of the number of variables

P802.1ab confirmation ballot summary – Paul Congdon
Need to ask for conditional approval to send document to RevCom
One note vote with 68 comments with 4 comments that should be discussed by the committee the other comments are mostly minor editor
Conformance Levels
In clause 3 define may, shall, and should. Paul copied the text from 802 style guide
In Q Rev the definitions were put in the conformance clause
Probably best place to put is in clause 5 to be consistent with Q Rev

Numerical Representation
The explanation of how numbers are represented will be put in clause 3

Capitalization of field names
Fields are capitalized in the figure but not in the text
The case should be consistent

Organizations maintaining lists
Change to note so and change shall to are so in does not require conformance

OUI Transmission
Sorted out a definitions that was acceptable
David James will change his no vote will be changed to a yes

Confusion about Power MDI TLV
Rename the fields to clear up the confusion

Next steps
Submit the editor comments, produce D13, and run re-circulation ballot.
This ballot will be clean and this gets P802.1ab published early next year

P802.1ad dropped precedence change – Mick Seaman
Mick will post email to make sure the change is okay.
Everyone needs to check this out
Table of reserved addresses – time to freeze but can not really freeze until sponsor ballot

In the P802.1Q days had a gentlemen’s agreement that the frame format would not change, we need a similar mechanism with the table of reserved addresses, which are always filtered in a provider bridges.

LLDP address in provider bridges
Need to discuss some more about the LLDP use cases to see the ramifications
If the changes are trivial then put in P802.1ad and if it is not trivial it has to go into P802.1ab

P802.1ae frame format
Need same sort of gentlemen’s agreement that the frame format is frozen
There was good history with the gentlemen’s agreement in P802.1Q
There will be a resolution in March but the agreement should be set in January and it will be discussed on the email list

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**Closing Plenary, November 18, 2004**

Agenda
Officers
Voting Membership
TG and WG Operations
Patent Policy – The patent policy was reviewed and the two required slides where shown and read to the committee. Also, everyone was reminded that there was a call for any patents at the beginning of the week

Future meetings
- January 10 – 13 Sacramento hosted by Paul/HP
- May – where – Edinburgh does not look like it will happen, Barcelona but may require a fee
  - There are issues with paying the fee and getting the organization folks involved
  - Norm is going to investigate about the issues of managing the fee to see if Cisco
  - Barcelona is not required
  - Who else would like to be with us?

Liaison reports
- Bob P802.11s, mesh with unreliable links, has a requirements document trying to live within the P802.11i security model but have to do a different keying mechanism.
- Sanity check of PARs and PAR end dates
  - Q Rev going to working group ballot

What are we going to do about:
- Bridge MIB – Dan is looking for editors. Wait until we have editor as far as a project but there can still be technical discussions
- 802.11 and Bridging – Need some technical input to scope the problem. P802.11 will need to request this. Need an official liaison request from P802.11 to get this going
- Wireless management – Tutorial was well attended and interest in doing this work. Biggest concern is there enough commonality that this work can be done? Floyd will have presentation at January about this issue. P802.11 has a group P802.11v, to work on this within P802.11. However, it has a bit of contentious Review of the proposed P802.11v PAR. Tony is now aware and will discuss at the exec committee if necessary. Based on the information gained in this morning’s meeting there is new information that should be considered
- Congestion management – same as P802.11 and Bridging

Motions
- 802.1 approves the July ‘2004 and October ‘2004 meeting minutes
  - Proposed Wright
  - Second Finn
  - Yes 19 No 0 Abstain 1

- 802.1 resolves to hold an interim session in Sacramento, Mon 10th January 2005 9:00 AM through Thurs 13th January 5:00 PM, hosted by HP
  - Proposed: Wright
  - Second: Messenger
  - For 20
802.1 resolves to hold a pre-meeting on the Monday morning of the March 2005 plenary session.
Propose: Seaman
Second: Wright
For 20
Against 0
Abstain 0

802.1 requests conditional approval from the SEC, as per current P&P, to forward the P802.1AB draft to RevCom following completion of recirculation balloting
Proposed Wright
Second Bell
For 22
Against 0
Abstain 0

802.1 instructs the editors of P802.1ad, Mick Seaman and Steve Haddock, to prepare a further draft taking into account the discussions during the Nov 2004 meeting, and issue the draft for a Working Group ballot.
Proposed Seaman
Second Finn
For 24
Against 0
Abstain 0

802.1 instructs the editor of P802.1Q-REV, Tony Jeffree, to prepare a further draft taking into account the discussions during the Nov 2004 meeting, and issue the draft for a Working Group ballot.
Proposed Seaman
Second Wright
For 23
Against 0
Abstain 0

802.1 instructs the editor of P802.1ae, Allyn Romanow, to prepare a further draft taking into account the discussions during the Nov 2004 meeting, and issue the draft for a Working Group ballot.
Proposed Romanow
Second Wright
For 21
Against 0
Abstain 1
802.1 instructs the editor of P802.1ag, Norm Finn, to prepare a further draft taking into account the discussions during the Nov 2004 meeting, and issue the draft for a Task Group ballot.
Proposed Finn
Second Wright
For 23
Against 0
Abstain 0

802.1 requests permission from the SEC to forward the P802.1ah “Provider Backbone Bridges” PAR to NesCom
Proposed Bottorff
Second Wright
For 20
Against 0
Abstain 4

802.1 requests permission from the SEC to forward the P802.1aj “Two port MAC Relay” PAR to NesCom
Proposed Finn
Second Bottorff
For 23
Against 0
Abstain 0

802.1 requests permission from the SEC to forward the P802.1ak “MRP” PAR to NesCom.
Proposed Finn
Second Wright
For 22
Against 0
Abstain 1

802.1 approves the attached liaison contribution to the MEF
Source: IEEE 802.1
Title: Response to Progress on Ethernet related recommendations
COMMUNICATION STATEMENT To:
MEF
Approval:
November 2004 meeting, San Antonio
Contacts:
Tony Jeffree, 802.1 Chair. Email: tony@jeffree.co.uk
Mick Seaman, Interworking, TF Chair. Email: mick_seaman@ieee.org

Response
At our November 2004 meeting, the MEF liaison to IEEE 802.1 was brought to our attention. We would like to take the opportunity to provide feedback on your current recommendations.

As you have correctly indicated four multicast addresses are available which are blocked by all 802.1D, 802.1Q, and 802.1ad bridges. These addresses are:

- 01-80-C2-00-00-06
- 01-80-C2-00-00-07
- 01-80-C2-00-00-09
- 01-80-C2-00-00-0A

One of these addresses would be the correct address to use for your E-LMI protocol. None of these addresses are available for exclusive use by protocols outside 802.1, however as you suggested non-exclusive use based on the MEF using a unique EtherType for the E-LMI protocol is acceptable.

The IEEE 802.1 committee does not assign the use to an address until an approved protocol exists which will use the address. On review we believe the correct address for your use would be 01-80-C2-00-00-07. At such a time as your protocol is an approved specification of the MEF we would be willing to approve an address for your use.

Thank you for your request. We look forward to assisting you further as you specification moves to approval.

*Attachments*

[1] IEEE P802.1ad Draft 3.0

Proposed Bottorff  
Second Wright  
For 19  
Against 0  
Abstain 0

802.1 appoints Geoff Thompson as a liaison to 802.3, to replace Don Pannell who is no longer able to fulfil this role.

Proposed Messenger  
Second Wright  
For 22  
Against 0  
Abstain 0

Motion to adjourn  
Proposed Wright
Second Messenger
Unanimous