

IEEE 802.1 Minutes, March 2000

Albuquerque, NM

Paul Congdon
Rosemary Slager

Attendance

IEEE 802.1 Working Group
Attendees, one or more sessions: Mar., 2000
Rosemary Slager, Membership Secretary

Thursday, March 09, 2000

Bernard Aboba
Gil Baruch
Les Bell Q
Alan Chambers Q
Paul Congdon Q
Glenn Connery
Hesham Elbakoury
Norman W. Finn Q
Manjiri Gadagkar
Sharam Hakimi Q
Mark Hane
Bob Hott Q
Neil Jarvis Q
Tony Jeffree Q
Toyoyuki Kato Q
Hal Keen Q
Daniel Kelley Q
Joe Laurence Q
Bill Lidinsky
John Messenger
Dirk Mohl
Tim Moore
Christoph Muench Q
Yaron Nachman Q
Leroy Nash Q
Satoshi Obara Q
Anil Rijasinghani Q
John J. Roese
Bill Schartner

Thomas Schramm
Benjamin Schultz Q
Mick Seaman Q
William Simon Q
Rosemary V. Slager Q
Andrew Smith Q
Michel Soerensen Q
Robin Tasker Q
Manoj Wadekar Q
Jesse Walker
Robert Williams Q
Waldemar Wojdak

Q = Qualifying attendance

Monday PM - 802.1 Plenary

Bill Lidinsky – Results of 802 exec committee

1. We need to re-submit the 802.1X PAR since the original PAR was never carried forward and approved by NESCOM. As a result, we must provide a motion on Thursday to submit, for the first time, to NESCOM a new PAR on 802.1X. Processing this PAR is on the March NESCOM agenda.
2. Both 802.1 and 802.11 must elect new chairs because of term limits. The election will be held on Thursday and nominations will take place today (Monday).
3. The JTC1 funding has been stopped.
4. IEEE-SA wants to be more active in press releases, but will consult 802 before taking action.
5. There has been a call for a more formal process to 802 tutorials
6. There will be an IEEE audit
7. If anyone wants to tape-record or take pictures during any of the official 802 meetings you must make this known to the 802 exec. It is acceptable, but you must make this know.
8. There are discussions about moving to 64-bit addresses for non-802 uses. There is currently a mechanism to handout 36-bit OUIs and a variety of future uses and how they should be controlled and allocated are being discussed within the exec.
9. Howard Fraiser has suggested eliminating the Friday morning meeting since very few people attend. However, this does not provide any additional working time during the week, but it isn't clear this is possible anyway.
10. The SRP (spatial reuse protocol) tutorial will take place this week, and those involved would like to understand the interest in this from 802.1 perspective. Mick would like to assure that existing 802 media can interface to SRP and is therefor suggesting 802.1 participate in a executive study group. There will be a call for interest meeting on Wednesday and members of 802.1 shall attend.

11. Powerline networking will go to TIA
12. 802.14 will close-up shop (disbanding). 802.5 will likely go into hibernation.

Bill Lidinsky – Working Group Officer Election

1. Chair terms are for two years and can not exceed 8-years
2. Chair Nominations
 - Tony Jeffree – nominated by Mick Seamen, Second by Sharam Hakimi
3. Vice Chair Nominations
 - Neil Jarvis – nominated by Tony Jeffree, Second by Mick Seamen
4. Nominations will remain open for the remainder of this meeting

Bill Lidinsky – Misc status

1. 802 OA has a few remaining comments
2. 802.1r PAR has been removed
3. 802.1X must re-submit as described above
4. 802.3ad passed sponsor ballot
5. There will be SEC election this Thursday
6. Request for technical plenary with 802.11 on 802.1X and 802.11's latest QoS PAR

Survey regarding Friday Morning 802 LMSC closing plenary. Two survey questions

1. Should the Friday morning 802 LMSC closing plenary be eliminated, with the summary/recap information distributed via www.ieee802.org? Information will be available no later than the following Friday.

Yes ___17_____ No ___3_____ Abstain ___7_____

2. If the Friday closing plenary were eliminated, and the closing SEC meeting was moved to Friday morning, would your working group benefit from the additional time available for working group meetings?

Yes ___0_____ No ___16_____ Abstain ___12_____

With this item, there is a strong agreement to not allow tutorial or other 802-wide official functions to take place on Thursday nights.

Mick Seaman – Schedule for remainder of the week

Monday

AM – 9:00 – 11:00 802.1u, 802.1t

PM – 1:00 – end 802.1 opening plenary, 802.1t finish

Tuesday

AM – 9:00 – 12:00 802.1w
PM – 1:30 – 5:00 802.1v, 802.1s

Wednesday

AM – 8:00 – 12:00 802.1X with 802.11 technical plenary
PM – 1:00 – 3:00 SRP Interest
PM – 3:00 – 5:00 802.1X finish-up

Thursday

AM – 9:00 – 1:00 802.1s, remaining issues for others
PM – 2:00 – 5:00 802.1 closing plenary

Tony Jeffree – 802.1t continued from pre-meeting

1. Recommended default for adminEdgePort should be FALSE, but this doesn't mean someone couldn't ship a product with certain ports having this parameter set TRUE. The bridge detection machine should be running, which would avoid prolonged loops.
2. Mick pointed out that figure 7-15 still needs additional attention. There is currently no switch showing the MAC operation controls. He feels there should be a separate interface for higher layer entities of type B to control the port state than for higher layer entities of type A. This separate interface is the higher layer entities interface operational controls. However, this is out of the scope of this document. All of these higher layer controls depend upon the lowest layer MAC operation controls and status. The diagram will be modified to show the MAC operational parameters (both the admin and oper status are involved).
3. Other straightforward comment resolutions available in the disposition document from Tony.

Andrew Smith – 802.1v comments

1. Hal Keen objects to the classification of LLC_Other frames. There is certainly more rules which can be applied to further breakdown and separate traffic, however there is a question of how important or practical this is. Since the resolution of this topic is currently unclear, it will be taken offline and potentially balloted upon on Thursday.
2. Currently it is required to support all three frame formats for classifying packets. There are arguments to make this optional, but require at least one. It is important, however, to indicate which formats are supported. The consensus is to require the capabilities to appear in the MIB, and not require all three formats to be supported simultaneously.
3. Non-zero OUI SNAP packets are not currently called out as a separate frame format. This makes it somewhat impossible to support 802.1H and 802.1v together because of AppleTalk and SNAP encapsulated IPX. So, there are two approaches to solve the problem, allow any vendor specific OUI to be matched along with the 16-bit protocol

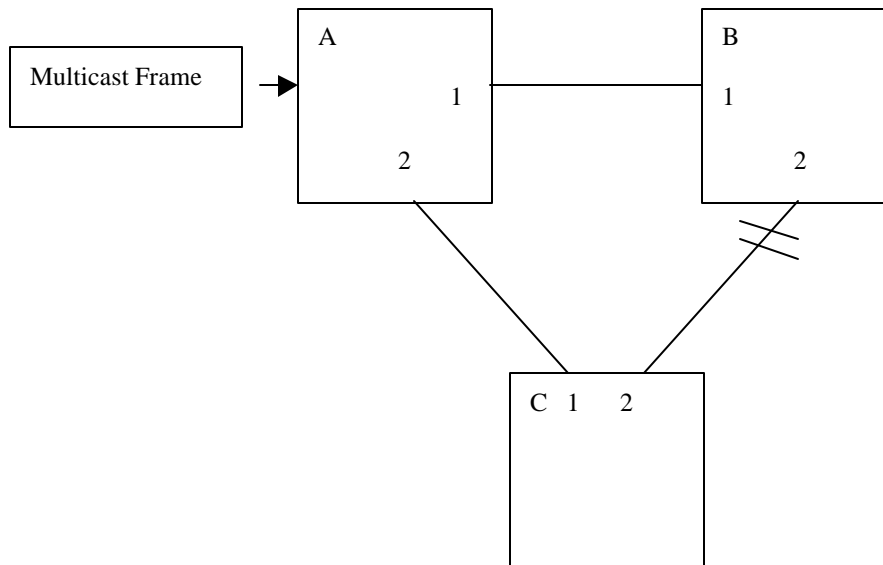
identifier or only support the 802.1H OUI with the protocol identifier. This discussion will also be taken offline to get resolved.

Adjourned for the day at 5:15 PM

Tuesday AM – 802.1w

Tony Jeffree – 802.1w comments generating discussion (see disposition for others)

1. 802.1w must carefully address frame miss-ordering and duplication. Tony has distributed a separate document on the topic. The potential exists within 802.1w to put a port in forwarding much quicker and as a consequence the possibility of miss-ordering and duplication (in certain circumstances) is increased. There is a slight chance of single frame duplication during reconfiguration for unknown destination and multicast frames. Consider the following topology.



A multicast frame is received by bridge A and is forwarded to bridge B and C via ports 1 and 2. However, the delivery of the frame to bridge C is delayed because of congestion on A's output port 2. Meanwhile, the port between A and B goes down and B unblocks the link to C. The original multicast frame from A to C is finally delivered and is now delivered to bridge B twice; once by bridge A before the link went down and again by C after the reconfiguration.

A ring topology such as the one above is the worst case scenario. The problems can be reduced if you require that the input ports be flushed upon a link that has gone down and run short aging timers for a period after reconfiguration.

The resolution to the ballot comments related to miss-ordering and duplication is to acknowledge this can occur in the text at 6.3.3 and 6.3.4.

2. The current specification does not allow message age to equal max age in the BPDU. This is true for both current 802.1D and 802.1w. However, this should not be addressed as a received BPDU validation check because if you process the information you will perform the correct operation. So, ultimately, no change is required because an old implementation will not be checking.
3. Since the new RSTP BPDU includes configuration information and TCN flags there are no separate messages sent as in the old algorithm, however, there appears to be no clear benefit to including all of the information. It isn't clear what information should be checked if the message purpose was simply for a TCN. Arguments for sending the single message are to simplify the process of BPDU generation and that it never hurts to send information that is known to be true.
4. The current statemachines do not allow you transmit a BPDU when in the alternate state, and this is inconsistent with intention of rcvdDC and txmtDC variables in 17.11.3.3. The fix is to allow an alternate port to transmit DC when it sees DI.
5. The betterMsg variable determines when you are going to pay attention to the information within the BPDU. It is TRUE if the priority is higher than the current information OR it is TRUE if it came from the same designated bridge and has the same priority. You want to process the newest information in BPDUs that are at least as good as the current information.
6. The root machine currently shows that rcvdTCN or rcvdTC in the RL2 and RF2 states will cause txmtTCN to go TRUE. This appears to be a unexplained bug in the statemachine (perhaps a cut-paste issue or inappropriately placed bug fix). In an attempt to explain the unexplained, the issue will be taken offline for further analysis.
7. In the designated port machine it has become clear that there are multiple exit conditions from a state which may be evaluated to TRUE at the same time. In this case, it is possible to select any one of the exit conditions. Global conditions, however, take precedence over these exit conditions. A note will be added to the rules for evaluating the exit conditions and it will be placed near the text that describes how global conditions are evaluated.
8. The port role reselection machine is missing some input signals that currently appear in the port transition machine. The original split between these machines was incorrect. Several of the initialization and new information machines will be moved into the port role reselection machine.
9. When to flush entries from the forwarding database needs to be clarified in 17.10. Basically, when connectivity is removed, only the entries for that port are flushed. When connectivity is added, all other ports (n-1) must be flushed because they may now be reachable by another path. Edge ports should have no reason to flush if they receive a TC on another port. Effectively, you never flush addresses on the port where you receive a TCN or a TC. In most topologies, this will allow you the savings of not having to relearn all the addresses in the core of the network (provided that is where the root is located). Note that in RSTP, you don't send a TC back on a port where you received a TCN. Thus the flushing process rolls out as the TCN propagates towards the root.

1. Should the Protocol Group Number be an index or an identifier? We have concluded it is an identifier and the object will be renamed Protocol Group Identifier.
2. Should we return error codes when writing the Protocol Group Database and the VID-set? It isn't clear how this will get used, so there is some desire to avoid returning error codes. We have set precedence in 802.1Q with learning constraints. The proposal is to include the error codes and consider how to return such errors to the user (e.g. SNMP MIB or CLI).

Adjourn for the day - 6:00 PM

Wednesday AM – 801.1X & 802.11 Technical Plenary

1. Paul Congdon gave an overview of 802.1X.
2. Benard Aboba presented the application of 802.1X in an 802.11 environment. Highlights from this presentation include:
 - The current 802.1X protocol uses multicast MAC addresses as the destination for all packets. In an 802.11 environment, this may need to be changed.
 - In order to support per station session key derivation it is needed to augment 802.1X to allow the access point to provide a WEP key to the supplicant. A proposed new EAP message called EAPOW-Key would allow this key distribution. Per station multicast keys are not a requirement, but provide an important additional level of security. The proposed EAPOW-Key message currently does not have an acknowledgement, but in this phase, 802.11 would be using its data retransmission mechanism. This is similar to the EAPOL-Success message, which does not have an acknowledgement., but the difference is if the supplicant does not have receive an EAPOL-Success it will restart. It isn't clear what the supplicant will do if it does not get the EAPOW-Key message.
 - Current EAPOL messages are not integrity protected and a question arises of how and when access should be allowed after a EAPOL-Success message is provided in a 802.11 environment.
 - 802.1X provides an authenticated port of access to the network. If this port is supporting multiple users, then these users will all have access. An additional level of complication is required to support multi-user authenticated interfaces on systems. This is out of the scope of 802.1X.
 - Roaming poses some interesting problems for authentication. It is possible to simply re-authenticate within 802.1X, but fast handoff would likely require Inter-access point communication.
 - Access-point to access-point protocol may be required to clean-up state when a user roams. Does someone have to send an EAP-Logoff message for the end-user after the end-user has roamed to another access point? Perhaps multi-session IDs in EAP could be used to facilitate this.
 - Support for the 'unauthenticated' VLAN via 802.1X is highly desirable. It would simplify access to public ports when access instructions are needed by the end-user. The EAP-Notification message could be delivered to the end-user upon

- authentication failure that provides instructions on how to gain access (e.g. point a browser to a particular URL). This form of access will require the end-user to have access to higher layer services on an unauthenticated LAN.
- Using 802.1X in an ad-hoc networking environment may require new and additional EAP methods to make the process easy. It is possible to use public key systems, but that may be too much of an assumption. It is likely a simple a password scheme would be best, but you would also need to include secure key generation. In any case, the extensibility of 802.1X can be used to support these new methods without upgrading NICs.
 - The goal of bringing 802.1X to 802.11 is to increase the deployment and use of 802.11. Many enterprise customers have concerns about the existing security vulnerabilities in 802.11 and 802.1X can significantly help. Remaining issues to address include roaming, ad-hoc networking, dynamic derivation of WEP keys.
 - The recommended call to action for both groups includes:
 - ✓ Update 802.1X to support 802.11 by including 802.11 wording, adding the EAPOW-Key message, and changing the destination MAC address for 802.11 to use individual DA instead.
 - ✓ 802.11 needs to agree to adopt the 802.1X for key management and enable appropriate methods for this. Additionally there may be MAC changes to improve encryption integrity protection, and the inter-access point efforts will likely have to consider this.
3. Discussion regarding the presentation lead to a discussion on scheduling between the two groups. The changes to 802.1X are fairly small and could be done quickly. There is a concern the MAC changes to 802.11 will take time. Certainly 802.1X will continue to make progress and desire to complete as quickly as possible. 802.11 has agreed that 802.1 should not wait for the completion of new 802.11 MAC changes. Perhaps 802.11 will consider splitting their current PAR into multiple segments in order to accelerate any components that would be useful to implementation using 802.1X.
 4. 802.11 has requested that the next 802.1X draft will be forwarded to the 802.11 mail reflector.
 5. The current 802.11 QoS effort is not well enough defined to discuss. Andrew Smith has recommended that someone for 802.11 participate in the ISSLL group within the IETF to understand how the upper layers are expected to use QoS features available in the lower layers.

Tony Jeffree – 802.1X comments

1. The group is in agreement to make the necessary changes to 802.1X to support 802.11 and the unauthenticated 802.1Q VLAN.
2. How should support for the unauthenticated 802.1Q VLANs be incorporated? There are two cases to consider. Access to a bridge relay service of a particular VLAN without authentication or upon failure of authentication, and after authentication succeeds how to associated the controlled port with a particular VLAN. It may not be necessary to support the second case in 802.1X because this is a policy decision that takes place after authentication. The RADIUS server or SNMP could be used after

authentication to change the port's VLAN. The first case could be handled by associating bridge relay for unauthenticated VLANs with the uncontrolled port. This, itself, would not require changes to 802.1X but rather recommendations in 802.1u.

3. Should we include a non-normative annex on how RADIUS should be used with 802.1X? Bernard has started working on a draft RFC that has this material, but there is no current direction to present this to the IETF. There is a concern that 802.1 shouldn't do this because of confusion, but the IETF is wanting to close-up work in the RADIUS working group. Perhaps we should simply allow the IETF to create an information RFC and we will create an annex that references it.
4. John Roese's question about section 6.3, paragraph 3 on page 11 is not completely clear. We believe the answer is that the standard does not preclude the use described, and that no changes in the spec are necessary.
5. Current EAPOL frames can be 802.1Q tagged. Should they be? There is a concern about interoperability issues if this is not well defined. Since we are only controlling the port perhaps they should be required be untagged frames. However, there will very likely be devices that want to always emit priority tagged frames. The current decision is that EAPOL frames must be either untagged or priority tagged, and may not be VLAN tagged.

Bill Lidinsky – Interim Meeting Discussion

1. Who should 802.1 co-locate with? There is a desire to meet with 802.11 because of potential future work with 802.1X. In the past we have met with 802.3 because of Link Aggregation, but this work is finished. The SRP folks would like to work with 802.1. It doesn't appear that meeting with 802.3 makes sense anymore. A decision will be made after the SRP call for interest.

Tony Jeffree – 802.1X Continuation after SRP Call for Interest

1. Neil Jarvis has new versions of the statemachines. There was some confusion on how the transition from DISCONNECTED to CONNECTING. It calls for a unconditional transfer and gives you the impression that you will enter CONNECTING even if the port isn't up. Since the portEnabled signal is global transition variable so you will stay in DISCONNECTED until this variable goes TRUE.
2. The handling of currentID was not correct. It is necessary to increment currentID after every unique request packet, but not after retransmissions.
3. When EAP is disabled by a global variable the machines must not be started and must be properly exited. This can be handled by forcing the machine into the DISCONNECTED state whenever the controlMode variable goes disabled.
4. The HELD state will ignore any EAP frames received by design, but it isn't explicitly described to discard the frames. Also, other frames on the uncontrolled port may be received by other higher layer entities. This is actually Ok.

Glenn Connery – Functional Requirements for ASF changes and additions to 802.1X

1. The proposal is that the ASF trap frames will encapsulate full ethernet frames in a special EAP wrapper that 802.1X defines. There will be a rate limit of 10 per second or as deemed appropriate by 802.1X. Once this frame has been received and validated, it will be unwrapped and passed through the ingress rules of the uncontrolled port and forward the frame as though it came in unencapsulated. It is somewhat unclear if any special situations exist with the ingress rules (are they for the controlled port or the uncontrolled port).

Thursday AM – finish-up

Tony Jeffree – Remaining work items

2. 802.1v remaining comments
3. 802.1s discussion
4. 802.1X remaining comments and DMTF discussion
5. Interpretation request
6. Q&A sponsor ballot comments
7. Rescuing documents from SC6 (plenary)
8. 802.1X PAR approval (plenary)

Andrew Smith – 802.1v remaining comments

1. IPv6 uses a different Ethertype. This is good because if we needed to go into the IP header to distinguish this traffic then 802.1v wouldn't support it.
2. It was agreed that the updates to support 802.1v do not warrant updating the 802.1Q version number. Instead a new flag will be added that indicates if you support Port and Protocol Based VLANs
3. The configuring the VID set is required. The feature doesn't make sense without this
4. The resolution of Hal's issue from the first day, after offline conversations, is to withdraw the comment and leave out the capability to do masking on the DSAP/SSAP fields.
5. Anil's issue regarding checking the OUI in SNAP encapsulated packets has been narrowed down to two options.; create a new template that checks for SNAP encapsulated packets with OUI=0xf8 for the 802.1H case, or allow the OUI to be checked as part of the Ethertype when SNAP encapsulated (this is more flexible). The room was informally polled and we agreed that our intent is to provide a situation where a new template type is defined that can allow the creation of entries where the OUI is pre-determined, but the ethertype is variable, or both the OUI and ethertype are variable. This is somewhat obscure since it is optional to allow the creation of new entries in the entire protocol group database anyway. Andrew will define something for the next draft.

Alan Chambers – 802.1s discussion

1. Alan provided a summary of where we are since Kauai. We have moved toward a model where we look at the MST (multiple spanning tree) region as one large bridge in the CST (common spanning tree). Each spanning tree in the MST region can use classic spanning tree computation. We don't want these PDUs processed outside of the MST region, so a new protocol value will be used to identify the PDUs. Since this is a new environment, we can use the RSTP algorithm as the base for the MSTP.
2. What is left to work on is to understand the relationship between the IST and CST, the relationship of MST forwarding to CST forwarding on boundary LANs and a mechanism for safe resolution to conflict in association of VLANs to spanning trees.
3. With respect to the ISP and CST it seems easier to define a single new extension to CST than run both inside the MST. Since we are trying to make the MST look like a bridge, it must play in the common spanning tree with the external SST regions. Does it need to do this by running the same spanning tree internally.
4. Alan handed out some scenario diagrams with basic forwarding and blocking rules. Scenario 3 is the most difficult to deal with. See Alan's contribution for this meeting for details.
5. There is remaining work to specify how topology changes are handled. It is important to understand how the CST and MST rules interact. Internal MST changes should not result in topology changes to the external CST. Topology changes on the CST, which occur internally in the MST, should be suppressed.
6. The next steps for Alan are to write-up the above changes in a new draft of 802.1s. This draft needs to be available prior to the interim meeting with sufficient time to review given there will be additional documents to ballot upon (e.g. 802.1v). The current background material in the 802.1s document needs to be updated to describe the current model. An intermediate model is described in Norm's presentation from the Kauai meeting (mi-st.pdf on the FTP server in docs99). In this paper, the model of the MST is as a wire. At the Kauai meeting, we agreed to change this model to that of a bridge.

Neil Jarvis – 802.1X Statemachine Continuation

1. The Authenticator machine has been updated to better illustrate how currentID is used in frames sent and received.
2. The Re-authentication machine has been updated to support the disabled control mode, but there is still a problem showing how a global enable/disable flag is used for re-authentication. The old method used a timer value of 0 to disable the function, but now we have a separate flag.
3. The Backend machine has also been updated to better illustrate how currentID is used.
4. The Supplicant machine has been updated to show how the received currentID is copied into the response packets. Also, a new transition is required for the new EAPOL-Key message. This transition doesn't change state, but represents the point at which an implementation, such as 802.11, would obtain the information it needs to utilize the opaque key.

Tony Jeffree – continuation of 802.1X comments

1. There is a desire to include counters for state transitions to aid in debugging. Should these counters be included in the statemachines? While this is the best place to do this, the only way to properly represent the counters of state transitions would be to create another state. This would complicate the diagram, so we will simply have a verbal description of the counters and how they should be implemented. This will go into clause 8
2. The destination address to use on EAPOL frames needs to be delicately defined. We don't want to listen to the individual address unless we are assured we have a secured association between the Supplicant and the Authenticator. When we are on point-to-point links, we only want to listen to the multicast destination address, and it is the responsibility of the Authenticator to assure that frames with the multicast destination address are contained to the point-to-point link only.
3. Tim Moore suggested updates for 802.11. See disposition
4. The normative text for the EAP packet comes from RFC 2284. We do need to decode some of these fields for the machines to operate correctly, however, how this should be done must be determined by the information specified in RFC 2284.

Tony Jeffree – How to incorporate DMTF proposal into 802.1X

1. We reluctantly agree we need to support this. We have already agreed to support partial control for outbound, so we need support the inbound mechanism. The encapsulated SNMP trap will be placed in a new EAPOL packet type, and an encapsulated RMCP frame would also be in a different EAPOL packet type. These new packet types allow us to know how to validate the frame. However...
2. Validating the frame is a concern and specifying how to do this. The best way to support this for our specification is to require the service to live above the uncontrolled port. Andrew believes this is somewhat of a cop out. Hal believes the service the frames are requesting is frame relay, so it is important to have a wrapper. Norm's position is that we must specify exactly how to validate the SNMP packet, or simply not allow the feature. Mick's recommendation is to force the packets to the uncontrolled port via using a wrapper, but not specifying how the code above the uncontrolled port must validate the packet. It appears it is not our scope to determine how the ASF module above the uncontrolled port must process the packet. We don't pass the frame through the ingress rules of the bridge, we just pass it up to the ASF.
3. Architecturally, there is no need to specify anything here since all traffic goes up both forks of the bridge's port (controlled, and uncontrolled). What is needed is an identifier for something above the uncontrolled port to deal with the frames. For EAPOL, it is our multicast address. We could provide ASF their own multicast address, or we could provide them an identifier in our space as a new packet type. However, the problem ASF is trying to solve has come about because of 802.1X, and it would be desirable to minimize the number of undefined modules above the uncontrolled port if possible.
4. Norm pointed out that end-station using this service now understands the state of the controlled port in order to send their traps. We truly don't want the end-station to have to understand the state of the port, so what will the end-station do? If it always

sends the frame in an EAP packet, the bridge must always forward these. If it doesn't wrap them in EAP, then the code above the uncontrolled port will have a harder time demultiplexing the frames.

5. Norm and Paul conclude that it would be desirable for the frames to find their way to the proper destination when the controlled port is open. Since this all depends upon how the end-station encapsulates the packet, and there appears to be no single way to allow both to occur. We may want to suggest to ASF that they will need to send two copies of the packet when running in a potential 802.1X environment; one encapsulated in EAP and another in its native format.
6. Mick proposes that it isn't clear at this point what our solution should be, and more interaction with the ASF will be needed. We may need to take this offline and come back with some proposals for review with ASF.

Thursday PM – 802.1 closing plenary

Bill Lidinsky – Election of new 802.1 Chair and Vice Chair

1. This takes effect at the close of this meeting, but Bill will take care of business until Friday.
2. Tony does not feel there is much of an issue being both chair and editor on certain drafts.
3. Vote on Tony Jeffree to assume Chair – 15 - yes, 0 - no, 0 - abstain
4. Vote on Neil Jarvis to assume Vice Chair – 15 – yes, 0 - no, 0 – abstain
5. After returning from the vote, Tony requested the following motion:

IEEE 802.1 Resolution – Albuquerque, Thursday, March 9th, 2000

Whereas:

1. Bill Lidinsky has been the Chair of IEEE 802.1 Working Group for the best part of Two Decades.
2. Under his leadership, 802.1 has developed standards that have been of Major Significance in the Development of the LAN Industry.
3. He has performed his duties as Chair with Consummate Skill and Good Humour.
4. He has steadfastly demonstrated his disrespect for needless bureaucracy, as epitomized by his invention and application of the “Principals of Random Compliance”
5. He has consistently applied the principals of Consensus Generation to his chairmanship, despite the onward march of Roberts’ Rules of Order through the fabric of IEEE 802
6. He has, against our wishes, Fallen Victim to the Bureaucratic Rule that limits terms of office for Working Group Chairs.

Therefore:

We, the participants of IEEE 802.1, wish to express our Appreciation of Bill's considerable contribution to our work, our Heartfelt Thanks, and our Best Wishes as Bill retires from the Chair.

Proposed:___ Jeffree ___ Seconded: ___Keen___

For:___ Unanimous ___ Against: _____ Abstain:_____

Alan Chambers – Overview and Architecture Sponsor Ballot Comments

1. A variety of minor technical comments were resolved and agreed upon by the working group. Additionally, a number of editorial comments were also resolved. Refer to Alan's disposition for details. Mick expressed some concern regarding the number of changes taking place during a sponsor ballot.
2. Bill has suggested that Alan make a new draft available no later than April 15th as well as a disposition of comments. We will attempt to take the document out for a re-circulation ballot prior to the next Plenary. This must be cleared with the exec and Bill will take the necessary steps to assure this happens.

Tony Jeffree – Interpretation Request

1. Tony Del Santo has requested an interpretation of the 802.1D specification with respect to whether or not a loss of link causes a spanning tree topology change.
2. The claim is that the last paragraph of 8.3.5 implies that end-stations turning on and off would cause a topology change. Experimentation by a present individual has shown that older bridges do not send TCNs when the edge port goes up and down, but more recent bridges do.
3. Mick's proposed version of the answer is that if link status is down the port goes into the disabled state. However, it will be necessary for us to draft a response with such a statement and post it to the reflector. This response will be available by Friday of next week for members of 802.1 to comment.

Bill Lidinsky – SC6 Liaison Discussion

1. Since SC6 may go away or become more difficult to work with, we may want to decide to pull the liaison. Additionally, the historical reasons for allowing SC6 to administer and manage certain documents and technical reports no longer exists.
2. Tony has drafted a letter to SC6 requesting that documents and technical reports ISO/IEC 15802-1, ISO/IEC TR 11802-1 and ISO/IEC TR 11802-2 be administered and managed by IEEE 802.
3. The proposal is that the LLC Address technical report would be placed on the 802 web site.
4. Text from the letting includes:

Title: Liaison to ISO/IEC JTC 1 SC6 WG1 with respect to ISO/IEC 15802-1,
ISO/IEC TR 11802-1 and ISO/IEC TR 11802-2

Source: IEEE 802.1
Date: 9 March 2000

The IEEE 802 is aware that the following documents,

ISO/IEC 15802-1 (LAN MAC Service Definition)
ISO/IEC TR 11802-1 (LLC Addresses)
ISO/IEC TR 11802-2 (Standard group MAC addresses)

contain information of essential importance to the work of the IEEE 802, and currently form a part of the Program of Work of SC6 WG1.

The IEEE 802 believe that a more effective and efficient means of working would be for the IEEE 802 to take responsibility for these areas of work and, accordingly, propose their transfer from the SC6 WG1 Program of Work to that of the Interworking Task Group of the IEEE 802.1.

The Interworking Task Group of the IEEE 802.1 does not envisage any immediate further development of the LAN MAC Service Definition, but would welcome input from SC6 should any issues arise with respect to this area of work.

The IEEE already has in place the means of administration and management of well known addresses and the IEEE 802 believe that the information contained in both Technical Reports shown above would fit naturally into this structure.

The IEEE 802 view this request as a tangible benefit of the new liaison relationship between the two organisations and look forward to a positive response from SC6 on this matter.

5. A motion for sending the letter to SC6 was held:

802.1 resolves to forward the above letter to SC6 via Robin Tasker

Moved: Keen
Second: Chambers
For: 17, Against: 0, Abstain: 1

Mick Seaman – Resolutions to move task groups forward

1. Approves the PAR for P802.1X as circulated to the LMSC >30 days prior to the Albuquerque 802 meeting and requests the LMSC to approve forwarding of this PAR to NesCom through the usual channels. (This is the same PAR as has been pre-submitted to NesCom).

Moved: Jeffree
Second: Smith
For: 18, Against: 0, Abstain: 0

2. 802.1 instructs the editors for P802.1t, P802.1u, P802.1v, and P802.1X to revise these documents in accordance with the comments received at this meeting and to circulate revised drafts for 802.1 Working Group ballot prior to the May '00 interim meeting. The Interim meeting is granted prior authorization to submit any of these documents for recirculation ballot(s) if so decided.

Moved: Jeffree
Second: Tasker
For: 18, Against: 0, Abstain: 0

3. 802.1 instructs the editors for P802.1s and P802.1w to revise these documents in accordance with the comments received at this meeting and to circulate revised drafts for task group ballot prior to the May '00 interim meeting. The Interim meeting is granted prior authorization to submit any of these documents for WG ballot if so decided.

Moved: Jeffree
Second: Chambers
For: 18, Against: 0, Abstain: 0

4. 802.1 resolves to hold an interim meeting, co-located with the 802.3 Interim meeting, week of May 22-25'00, in Ottawa and a further interim meeting, co-located with the 802.11,15 Interim meeting, week of September 18-22 '00, in Phoenix

Moved: Jeffree
Second: Jarvis
For: 12, Against: 1, Abstain: 6

5. 802.1 resolves to hold a pre-meeting, Monday 10th July at the next 802 Plenary in La Jolla, CA

Moved: Jeffree
Second: Chambers
For: 16, Against: 0, Abstain: 3

Bill Lidinsky – IEEE 802 Standards Availability Principals – Survey

1. IEEE 802 would like to see its standards available on the WEB, without any encumbrances, to all parties, World Wide. IEEE-SA staff organization supports this goal.

2. Need to implement program to ensure that revenue shift/drop from IEEE 802 Standards are offset by other income sources.
3. In order to understand view of this program, the following questions are being asked of 802 membership:
 - 1) Would you consider to offset the IPT fees and contribute the \$100 per meeting to initiate this program (No net fee change)? Yes:11, No:1, Abstain:5
 - 2) Would you consider soliciting your company to be an 802 sponsor for this program for about \$10K per year, Yes:9, No: 2, Abstain: 2, N/A: 4
 - ✓ Sponsor recognition on special WEB page for Downloading
 - ✓ Companies able to advertise that they are IEEE 802 Sponsors.

Rosemary Slager – Liaisons:

1. RVS will send a note addressed to the 802 committee chairs asking about the their liaisons to 802.1. This note will go to Tony, who will then send it to the 802 Executive exploder. The job of these liaisons will be to review / vote on our document ballots. The no-ack result (by a certain date - tbd) will be that there is no liaison.
2. Quid Pro Quo, we decided that we need Liaisons to 802.3 and 802.11. These must be voting members of 802.1 (see ftp site...). Alan Chambers volunteered to be the liaison to 802.11. We need a recruit for 802.3 document balloting. RVS to send a note to the 802.1 exploder... recruiting.

Bill Lidinsky – 802.1 Web Site, FTP and Mail

1. Kudus to Neil Jarvis for fixing up our web site... Have a look at the following URL: <http://grouper.ieee.org/groups/802/1/index.html>.
2. Shall we move to IEEE mailer? We will leave this decision up to Bill/Hal/Tony... They will let us know. The FTP site will remain in Bill's arena.

Bill Lidinsky – Closing Motions

1. Motion to approve Jan, 2000 Dallas interim meeting.

Proposed: Hakimi

Seconded: Finn

For: 10, Against: 0, Abstain: 5

2. Motion to approve Nov, 1999 Kaua'i Plenary meeting.

Proposed: Jeffree

Seconded: Keen

For: 9, Against: 0, Abstain: 7

3. Motion to Adjourn.

Proposed: Hakimi

Seconded: Jeffree

For: unanimous, Against: 0, Abstain: 0