

# IEEE 802 Plenary Meeting

La Jolla, CA

10<sup>th</sup> – 14<sup>th</sup> July 2000

## 802.1 Meeting Minutes

### 1. Introduction

This is a record of the minutes taken in the 802.1 Working Group meetings, at the IEEE 802 Plenary Meeting, in La Jolla, CA, from 10<sup>th</sup> – 14<sup>th</sup> July 2000.

#### Attendees:

802.1 attendance, July, 2000, La Jolla

Name	Sessions	Status
Glenn Atkinson	1	
Les Bell	8	VM
Alan Chambers	8	VM
An Mei Chen	5	
Lee Chen	2	
Paul Congdon	8	VM
Thomas Dineen	1	
Hesham ElBakoury	7	VM
Norman W. Finn	8	VM
Sharam Hakimi	6	VM
Bob Hott	5	VM
Neil Jarvis	8	VM
Tony Jeffree	7	VM
Toyoyuki Kato	8	VM
Hal Keen	8	VM
Hans Lackner	1	
Choon Lee	8	
Dirk Mohl	2	
Leroy Nash	8	VM
P. K. Nizar	6	
Satoshi Obara	5	VM
Jim Pearl	6	
Tim Plunkett	3	
Anand Richard	7	
Anil Rijsinghani	7	VM
John J. Roese	1	VM
Benjamin Schultz	7	VM
Mick Seaman	8	VM
Andrew Smith	2	VM
Don Stribling	2	
Fouad Tobagi	1	
Devendra Tripathi	1	

### 2. 802.1v - VLAN Classification by Protocol and Port

Current Draft:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/v-drafts/d3/802-1v-d3.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/v-drafts/d3/802-1v-d3.pdf</a>
Comment Disposition:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/v-drafts/d3/802-1v-d3-dis.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/v-drafts/d3/802-1v-d3-dis.pdf</a>

The discussions on 802.1v took place during the “pre-meeting” on Monday morning.

The definitive version of the comment resolutions identified in the Task Group minutes below can be found in the Comment Dispositions, as updated by the Editor(s) of the document. The notes here just summarise (some of) the discussions that occurred.

**Issue 1: Definition of “SNAP\_Other” format**

Clarifications to be added to OUI use, define it just as 5-octet values, without separating out the OUI.

**Issue 2: Conformance: VID Set**

Wording to be clarified in 5.2 l).

**Issue 3: Syntax Of A Protocol Group Identifier**

No need to be specific here. Syntax should be assigned within the MIB, when it is developed.

**Issue 4: Format of LLC\_Other template**

Accept.

**Issue 6: Error Codes for SET operations on the VID Set**

Reject, but... Replace ‘illegal’ with ‘not supported’.

**Issue 7: Conformance: configurability of the Protocol Group Database**

5.2 l) covers this, but it requires clarification.

**Comment 31**

Accept.

**Comment 54**

The commentator was invited to propose new text by the end of the meeting.

Thursday update: The new text did not appear, so no changes are to be made. This may be raised at Sponsor Ballot, or as a future maintenance item.

### **3. 802.1 Plenary**

Les Bell volunteered as Recording Secretary for this meeting only.

#### **3.1 Exec Meeting Summary**

Tony Jeffree presented a summary of the Monday morning Exec meeting.

The IEEE requires maintaining of an electronic roster to indemnification against legal action, etc. This is a self-funding activity. The requirement is to provide Names, company names, etc., on the basis that this will not be used for other purposes.

802.5 has hibernated. 802.8 and 802.14 have disbanded.

There will be a new issue of the CD\_ROM in November.

Friday morning Plenary meetings have been abandoned, as of this meeting. New rules reflecting this will be circulated for approval at the Thursday Exec meeting this week.

Need a scope statement for 802 (related to regulatory bodies – wireless stuff) SEC meeting Tuesday 2 pm.

Tony summarised the ‘Standards distribution programme’ proposals. Most people present were sceptical on the proposed benefits for corporate sponsorship.

There is a proposal for Networking 802 meetings, with a meeting Wednesday 5-6 pm to discuss this.

Pre-registration via the WEB is being looked at.

Maintenance Par for 802.3.

JTC1 IPF fee has been discontinued. Some liabilities outstanding for residual activity.

New proposal for an 802.11 PAR.

RPRSG (Resilient Packet Ring Study Group) – ECSG (Executive Committee Study Group) created in March. Interim meeting in May. Draft PAR and 5 Criteria in progress. More work on 802 compatibility needed. Not clear on how this

will inter-operate with other 802 LANs (possibility of encapsulating Bridges). Will request ECSG extension until November.

RAC (Registration Authority Committee) meeting Tuesday 3-6 pm. There is a proposal to push 64-bit UI for new applications (as opposed to the current 48-bit UI used by Ethernet).

There is a proposal for interim meetings to be formalised. Probably involving a meeting fee. Consensus from 802.1 is that this is okay for those who want to take advantage of it. 802.1 prefers the flexibility provided by the existing arrangements.

### 3.2 Other issues

802.1 Patent policy has been proposed, based on the 802.3 policy. This has been modified to prevent mis-interpretation as 802.1 do not intend to actively perform patent searches, or to actively solicit patent information from non-participants at the 802 meetings. There will be a motion to this effect on Thursday.

802.1X Draft 6 has added a definition for EAPOL Key frames, which includes the use of RC4 encryption (owned by RSA). This probably requires a Patent letter, to cover it. We may be able to side-step this issue in 802.1X.

The Interpretation Request response proposed by Tony Jeffree on the email list was accepted.

We are committed to an Interim meeting in Phoenix, co-located with 802.11, week of 18<sup>th</sup> Spetember. Suggestions for the January 2001 interim are being made, in the Bay area. No details yet.

International Observers: 802.3 have responded to SC6 request for International Observers, allowing them observer rights without meeting attendance. Do we want to do the same? Vote on this on Thursday.

ETSI Identifiers: We have been asked to allocate a (small number of) Ethernet addresses for use by ETSI. It is proposed to do this, on the basis that it is for a standards body, for a standards use, with an official request being made. Vote on this on Thursday.

Agenda:

802.1s: Multiple Spanning Trees	Wed pm 1:30 (refresher Mon pm)
802.1t: 802.1D Maintenance	Mon pm
802.1u.: 802.1Q Maintenance	Mon pm
802.1v: VLAN Classification by Protocol and Port	Mon am 9:00
802.1w: Rapid Reconfiguration	Tue pm 1:30 / Wed am 9:30
802.1x: Port Based Network Access Control	Tue am 9:30
802 Technical Plenary	n/a
802.1: Plenary	Thu pm 1:00

## 4. 802.1t - .1D Maintenance

Current Draft:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/t-drafts/d7/802-1t-d7.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/t-drafts/d7/802-1t-d7.pdf</a>
Comment Disposition:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/t-drafts/d7/802-1t-d7-dis.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/t-drafts/d7/802-1t-d7-dis.pdf</a>

The definitive version of the comment resolutions identified in the Task Group minutes below can be found in the Comment Dispositions, as updated by the Editor(s) of the document. The notes here just summarise (some of) the discussions that occurred.

#### Comment 1: Les Bell

Accept in principle, allow up to 20 hops, with a Path Cost limit of 200,000,000. Update Range in whole table.

#### Comment 2: Les Bell

Accept. Add a NOTE indicating that if BPDUs get reflected, then this may indicate a loopback condition that may have other unpleasant consequences.

This does not fix the underlying problem of blocking the port when the loop is detected, as this is Media dependent and requires more thought than can be offered within the scope of this re-circulation ballot. This will be raised as an issue for the next 802.1D maintenance PAR.

## 5. 802.1u - .1Q Maintenance

Current Draft:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/u-drafts/d6/802-1u-d6.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/u-drafts/d6/802-1u-d6.pdf</a>
Comment Disposition:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/u-drafts/d6/802-1u-d6-dis.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/u-drafts/d6/802-1u-d6-dis.pdf</a>

We have 100% approval.

## 6. 802.1s - Multiple Spanning Trees

Norm Finn, Cisco, gave a quick tutorial on the current proposals in 802.1s.

## 7. 802.1X - Port Based Network Access Control

Current Draft:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/x-drafts/d6/802-1x-d6.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/x-drafts/d6/802-1x-d6.pdf</a>
Comment Disposition:	

There has not been a ballot on 802.1X since the last meeting, so the discussions just presented the major changes since the previous draft.

- 3.3 Call this a Network Access Port and state that it will be referred to as a 'Port' throughout this document.
- 5.1 Unclear from the previous meeting minutes whether EAPOL statistics were to be mandatory or optional. Leave it as optional, people should raise ballot comments if it is wrong.
- 6.3 No comments on the changes made.
- 6.4 No comments on the changes made.
- 6.5 No comments on the new section on Aggregate ports.
- 7.5.4 New packet type for EAPOL-Encapsulated-ASF-Alert. No comments.
- 7.6 Key Descriptor definitions for 802.11 support added. Some concern about using externally defined code points, by reference. Also, should the mechanism be transparent to 802.1X, and let it's use be defined by 802.11. Leave it for now. We need a letter from RSA confirm use of their standard by 802.1X.
- 7.6.5 The use of RC4 should be only an example, not a definitive statement.
- 8.5 New state machine to for authentication direction control.
- 8.5.4 New FORCE\_AUTH and FORCE\_UNAUTH states to reflect administrative controls and inform the Supplicant. Fixed sequence number issues.
- 8.5.6 Fixed sequence number issues. Fix required: In TIMEOUT state, should invoke txFail if port is currently UNAUTHORIZED.
- 8.5.7 New Controlled Directions state machine. Note that the Bridge detection does not fire in the case of a port in loopback. This is based on the detection defined in 802.1t, as modifies by yesterday's ballot comment resolution. Should collapse INITIALIZE and IN\_OR\_BOTH states to a single state, and re-enter if admin != oper state.
- 8.5.8 Supplicant state machine is now held in LOGOFF state, if user is logged off. Other minor fixes from previous ballot comments.

There was a long discussion about the possibility of allowing a Supplicant to accept unicast EAPOL frames. The summary was that this should continue to be disallowed, on the basis that this opens the mechanism up to external abuse.

- 9.4.3 Diagnostics statistics have been separated from other statistics.

Annex A PICS has been updated to reflect the changes in clause 5.

Annex B Add a statement that the expected rate of Alerts will be at most 10 packets per second.

Annex C.1.2 Added the discussion of why Authentication does not work at the Aggregator level.

Annex D New section on RADIUS Usage Guidelines. Add an Editor's Note to reference the URL for the current draft of Bernard Aboba's document. Session Terminate values need further explanation in some cases. The (RADIUS) Idle Timer is not used. The Session Timer is used for the retransmission period during the Authentication Request process, may also be used for Reauthentication Period after a successful login. The Admin Reboot value should be 7 in Table D-1. Remove Table D-2 and associated text.

## 8. 802.1w - Rapid Reconfiguration of Spanning Tree

Current Draft:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/w-drafts/d5/802-1w-d5.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/w-drafts/d5/802-1w-d5.pdf</a>
Comment Disposition:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/w-drafts/d5/802-1w-d5-dis.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/w-drafts/d5/802-1w-d5-dis.pdf</a>

The definitive version of the comment resolutions identified in the Task Group minutes below can be found in the Comment Dispositions, as updated by the Editor(s) of the document. The notes here just summarise (some of) the discussions that occurred.

### Comment 1: Paul Congdon

Accept. Add a note indicating RSTP implies support for internetworking with legacy STP. Add an option in 5.2 of implementing both algorithms, but you only run one at a time for the whole Bridge.

### Comment 2: Ben Schultz

Accept in principle. See disposition.

### Comment 3: Robin Tasker

Covered by existing Notes.

### Comment 5: Les Bell

Change definition to one octet. Add a Note explaining the need for the Version 1 Length.

### Comment 6: Ben Schultz

Withdrawn.

### Comment 7: Ben Schultz

Withdrawn.

### Comment 8: Ben Schultz

Withdrawn.

### Comment 12: Les Bell

Withdrawn. See also comment 5.

### Comment 13: Tony Jeffree

Keep the management operations as they are: add notes where necessary to interpret them in the RSTP world.

### Comment 16: Paul Congdon

Use 'Port State' instead of 'Forwarding State'. Use 'Discarding', etc., as values of Port State. Change Table 17-1 to explicitly map new terminology onto old STP terminology.

### Comment 20: Ben Schultz

Expand on the "other means", by pointing to the next paragraph.

### Comment 21: Les Bell

Remove Figure 17-7 and amend references to point to 17-18, where appropriate.

### Comment 26: Luc Pariseau

New Bridge that is Designated & receiving TCN from an old Bridge should set TC While on the RX port.

**Comment 27: Paul Congdon**

Accept. It is worth pointing out that it would be legal for a Bridge to flush all Ports (not just those called out by the algorithm). Note also that moving addresses from the old root to the new might be a useful optimization.

**Comment 28: Paul Congdon**

New algorithm sets TC Ack if it receives TCN; otherwise it just sets TC. Should change 'TCN' to 'Topology Change' in the diagram.

**Comment 29: Robin Tasker**

?

**Comment 30: Tony Jeffree**

The 'Change Detection Enabled' parameter has been superseded by Admin Edge Port, so it only applies to legacy STP. Add a note to this effect.

**Comment 43: Les Bell**

Accept. Alan Chambers volunteered to provide additional explanatory text of rootInfo and its use.

**Comment 48: Paul Congdon**

Clarify:

- repeat of the same information as before does not result in reselection;
- if info passed from the root port is not better than the port's current info, then the current info does not get overwritten.

**Comment 53: Les Bell**

Accept. See also Comment 43.

**Comment 54: Les Bell**

The event is harmless and deals with the possibility of race conditions in non-instantaneous implementations. Leave the event in.

**Comment 60: Luc Pariseau**

Transition should be "!learning && !forwarding && inSync".

**Comment 62: Paul Congdon**

Clarify in the text that the events in the state diagrams are correct, as in most cases, it is not appropriate to wait for the transitions to learning and forwarding to occur, but when turning these off, it is.

**Comment 63: Keith Klamm**

Accept in principle. Introduce procedures to switch learning on and off. Insert these before assignment of the learning and forwarding variables. State that these do not complete until the hardware has been configured appropriately.

**Comment 69: Luc Pariseau**

Accept. On hold while Mick is looking at the effect on root port transitions.

Accept. Re-define reRooted to be qualified by a "behave like version X" variable. Use "behave like version X" to force transmission of old style BPDUs. Add management operation to allow "behave like version X" to be modified. Make this mandatory.

**Comment 74: Les Bell**

Fix the description in Table 17-5. Use variable names rather than numbers. Need to fix .It too.

**Comment 75: Paul Congdon**

Not a problem.

Aside: when transmitting old BPDUs, should use actual age; when new PDUs, use "stored" age. Need to mention up front that old style BPDUs may carry different information.

**Comment 76: Les Bell**

See earlier comment on this?

**Comment 81: Les Bell**

See comment 74.

**Comment 82: Les Bell**

Change the Hello Time range in Table 17-5 to 1 to 4.

**Comment 87: Luc Pariseau**

Accept. Expand to indicate that full duplex is (probably) point-to-point.

Need to add an admin/oper parameter pair plus a state machine to drive it. Oper indicates point-to-point or not. Admin allows force either way, or auto-detect. Default is auto-detect.

Add these parameters to the service definition (6.4); how they are manipulated is per MAC type (6.5).

**Comment 88: Luc Pariseau**

The progression of cuts is Top Down, from the root, outwards. Clarify text.

## 9. 802.1s - Multiple Spanning Trees

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Comment Disposition:	<a href="ftp://p8021:-go_wildcats@p8021.hep.net/8021/s-drafts/d6/802-1s-d6-dis.pdf">ftp://p8021:-go_wildcats@p8021.hep.net/8021/s-drafts/d6/802-1s-d6-dis.pdf</a>

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**Comment 10: Les Bell**

See Comment 59.

**Comment 59: Mick Seaman**

Discussions on distributing the conflicting information are to be presented on the mailing list.

**Comment 11: Les Bell**

Reject. Add a note to clarify the use. Allow any numbers in the range 1-4095, even if only 2 STGs are supported.

**Comment 13: Les Bell**

Accept in principle. Editors will solicit input to help resolve this.

**Comment 14: Les Bell**

Accept in principle.

**Comment 15: Les Bell**

Accept in principle. Editors will solicit input to help resolve this.

**Comment 17: Les Bell**

Accept in principle. Refer to 802.1u, not 802.1t. Add an Editor's note to resolve the references to .1t, .1u, .1w, etc. to eventually be .1D and .1Q.

**Comment 18: Les Bell**

Reference should be to 802.1w clause 17.

**Comment 21: Les Bell**

See comment 27.

**Comment 24: Alan Chambers**

Accept, subject to review.

Mick Seaman distributed a new paper, entitled "Rational Trees", presenting another simplified view of the MST bridge model.

**Comment 27: Alan Chambers**

Accept. (Merges version 4 into version 3.)

**Comment 30: Paul Congdon**

Suggestion was to add more explanatory text to 6.1. Disposition is to add text to 6.7.2.2.

**Comment 33: Paul Congdon**

See Comment 59.

**Comment 34: Paul Congdon**

How do we deal with having different numbers and instances of STGs? How do we ensure they are consistent?

Suggestion: The ISTP Root could supply both the number and STCs of the STGs. If a Bridge cannot deal with the number of STGs required by an MST region, it could break the MST region at that point, and start another.

**Comment 35: Paul Congdon**

The MST region does not look like a single Bridge to the CST Bridges in some respects, particularly in terms of local Bridge ID and Port ID. Explain this in the text.

**Comment 42: Norm Finn**

Do we just embed 1 MSTP BPDU per ISTP BPDU? Consensus is to pack them, but only include changed MSTP information. John Roese suggests a means of limiting the maximum size of the BPDU, by configuration.

**Comment 45: Norm Finn**

There needs to be a mechanism for complete shutdown (and restoration) of a given VLAN in all Bridges while it is moved from one FID to another (hence the STG changes). This may be driven by the MST Master.

**Comment 54: Mick Seaman**

Suggestion that MSTP BPDU should not repeat what is consistent across all MSTs. Hence the MSTP 'unit' becomes much smaller (and it needs a new name).

**Thursday PostScript: Mick Seaman**

Mick outlined a possible scheme for encoding all relevant VLAN details in a MST BPDU. More details will follow on the mailing list.

## 10. Technical Plenary

There was no technical plenary at this meeting.

Norm Finn suggested a Technical Plenary might be useful, on the need for a MAC indication of a point-to-point link in 802.3, 802.11, 802.15, 802.16. This would simplify the work required in 802.1.

## 11. 802.1w - Rapid Reconfiguration of Spanning Tree (cont.)

The definitive version of the comment resolutions identified in the Task Group minutes below can be found in the Comment Dispositions, as updated by the Editor(s) of the document. The notes here just summarise (some of) the discussions that occurred.

**Comment 91: Subramonia Pillai**

Need to clarify re operation across shared LANs.

Accept. Add extra sections to describe the differences between shared and point-to-point. Point out the use of the new service parameters in this context.

**Comment 94: Subramonia Pillai**

Comment suggests that ROOT\_PORT, or REROOTED states should set learn and forward both TRUE. And remove ROOT\_LEARN and ROOT\_FORWARD states.

Rejected. The Learn and Forward states deal with the case where there are one or more old root ports that have not timed out yet. In such cases the transition may not be immediate due to delays in system hardware instructing other ports to block and the hardware actually blocking the ports.

**Comment 96: Subramonia Pillai**

Comment is that tc is set when a Port goes to the Learning state, instead of the Forwarding state. This is different to 802.1D: is it intended?

Yes it was intended. However, it was decided to revert to the 802.1D approach of setting tc in the Forwarding state.

**Comment 97: Michael Soerenson**

The ROOT\_PORT and REROOT states cycle as long as forward == FALSE.

It is okay, assuming an infinitely fast machine. Resolving this (e.g. by using another variable) is considered to overcomplicate the machine and it is left as an exercise for the reader to solve this problem.

**Comment 98: Michael Soerenson**

Current formulation is okay for infinitely fast machines. Need to clear reselect, perform selection, then check reselect again. Add text to this effect in selectRoles().

**Comment 100: Michael Soerenson**

Message age is not compared when determining if the received BPDU is a Better Designated message. Add a not to that effect. Clarify the specific comparisons using C code.

**Comment 101: Michael Soerenson**

The Task Group concludes it is okay. The commentor is invited to suggest possible clarifications if he feels they are necessary.

**Comment 102: Robin Tasker**

Include the mis-ordering and duplication document as an Annex.

**Comment 103: Robert Barret**

Sync Port is the name of a company owned by Bob Barret and he is asking if the Task Group is concerned about its use within the state machines.

The Task Group is not concerned, and the state machines use 'syncPort' which is obviously different.

## 12. Overview And Architecture

There were no discussions on the Overview and Architecture document at this meeting.

## 13. 802.1: Closing Plenary

Hal Keen went through the list of voting members. No issues were raised.

A permanent Recording Secretary is required. No volunteers came forward.

Motion	Moved	Seconded	Y	N	A	Pass
Approve the minutes from March and May interim.	Finn	Jarvis	All	0	0	Yes

**Patents: 802.1 Proposed Policy**

“The following is the current patent policy of P802.1. It is subject to modification to meet the current requirements of the IEEE.

In support of the patent policy of the IEEE, the 802.1 Working Group has the policy to solicit submissions from participants in 802 who, or whose affiliated organizations, may hold patents (U.S. or foreign) that have been granted or are under application and who feel that such patents cover technology described in an 802.1 standard that is under development or has been approved.

The 802.1 Working Group requests that any such party submit a letter to be kept on file at the IEEE Standards office. These letters will be made available to any party upon request. We ask assurance that any granted patent will be licensed to all applicants on reasonable and non-discriminatory terms. The letter should also include contact information that will be appropriate as a long term reference point.

The submitter should feel free to include any other information that they wish to communicate in such a letter that will be available on a long term basis.

The letter should be addressed and submitted to the Working Group Chair and signed by a responsible party that holds or will hold assignment rights to the patent.”

Motion	Moved	Seconded	Y	N	A	Pass
802.1 adopts the patents policy detailed in the previous slide. The text will be added to the 802.1 website, with links to the relevant IEEE web pages (see 802.3 page for example). The policy is to be presented to attendees at all future 802.1 meetings.	Jarvis	Keen	10	0	1	Yes

#### Use of RC4 in EAPOL Key

RC4 is a proprietary encryption method. The WG Chair will solicit a letter from the owners on the use of RC4 for EAPOL Key information.

#### Interpretation request: Response

"802.1 response to interpretation request from Tony Dal Santo: Whether or not a loss of link causes a spanning tree topology change.

The text of IEEE Std 802.1D:1998 does not explicitly couple the operational state of a MAC to the Disabled Port state; however, the intent of the standard is that detectable failure of a MAC should cause the Bridge Port supported by that MAC to enter the Disabled state, as indicated by the last paragraph of 8.3.5 and the explanation of the port state transitions of type (2) shown in Figure 8-3. A transition to the Disabled Port state causes the Bridge to initiate a topology change notification, unless, for the Port concerned, topology change detection has been explicitly disabled (8.5.5.10).

Current technical and editorial corrections to this standard, proposed under project P802.1t, include a macEnabled and a macOperational parameter in the Internal Sublayer Service definition. The macEnabled parameter allows administrative control over the availability of a MAC; the macOperational parameter reflects the operational state of a MAC, and is set to FALSE if the MAC detects a link failure, or if macEnabled is FALSE. The definition of the Disabled Port state is extended to explicitly state that the Disabled state is entered if macOperational becomes FALSE."

Motion	Moved	Seconded	Y	N	A	Pass
802.1 approves the response to Tony Dal Santo's Interpretation Request as detailed on the previous slide. Chair to transmit response to the IEEE Standards Office.	Jarvis	Seaman	12	0	0	Yes

#### Interim Meetings

Interim meeting options are:

- Phoenix, week of 18<sup>th</sup> September, with 802.11 and 802.15
- Cambridge, Mass, 12-14 September, with 802.3
- Bay area, Jan 2001, with 802.11

The WG chose to remain with the existing arrangements to meet with 802.11/15 in Phoenix. It is too early to decide on our requirements for an interim meeting in January 2001.

#### International Observers

802.3's words to SC6:

“Per the resolution of Berlin, International Observers have been offered the same rights and access to IEEE 802.3 and Working Group documents as existing 802.3 Observers without having to attend a meeting to establish their Observer status. Potential "International Observers" should have an established relationship with their National Body. They may request "International Observer" status by direct e-mail with the chair of IEEE 802.3, Geoff Thompson <thompson@ieee.org>.”

Motion	Moved	Seconded	Y	N	A	Pass
802.1 instructs the chair to make the same offer as .3 to potential International Observers, as per previous slide.	Jarvis	Seaman	12	0	0	Yes

#### ETSI Identifiers

A request has been made for a block of 256 48-bit identifiers, for use by IEEE 1394, HIPERLAN2 BRAN. This is outside of the bounds of the address allocation made by 802.1, but it is useful to keep these in the ISO TR document.

<b>Motion</b>	<b>Moved</b>	<b>Seconded</b>	<b>Y</b>	<b>N</b>	<b>A</b>	<b>Pass</b>
802.1 requests the assignment of EUI-48 code points (Group MAC addresses) to be documented in the ISO TR in recognition of the ETSI request received at this meeting. 802.1 further instructs its secretariat to forward this request through the proper channels.	Jarvis	Seaman	12	0	0	Yes

### **LLC Address Assignment Request**

There has been a request for an LSAP assignment (this should be an LLC address assignment) for use in IEC 61850 TC57 WG12. It is not thought that sufficient information has been provided, and perhaps a SNAP encoding may be more appropriate. The request must come from the WG, not a member, and it should be made through a standards, or a national, body; it is not clear that the work to which this is to be applied is technically stable; there would need to be some assurance that all protocols of this class would share the same code point; need to consider the use of SNAP (see Overview & Architecture and TR 11802-1).

Response of the form:

- Request needs to come from the WG, not a member;
- Should be made once the specification is nearing completion (technically stable);
- Needs to have protocol identification and version identification beyond the LLC address;
- Need to consider use of SNAP rather than LLC address assignment (no requirement for us to be involved) - point them at O&A and TR 11802-1.

### **Funding of “Free” Standards**

The proposals from the Exec Committee were presented, including seeding through \$100 per person from the meeting fees, for the next 3 meetings; Corporate sponsorship, with recognition for sponsors and other benefits. A suggestion came from Alan Chambers that the fees for OUI and Ethertype assignment could be raised and the additional funds used feed the standards development. The consensus was that the one-time corporate sponsorship would be unproductive and quickly fade.

### **Playpen Ethernets**

RAC proposal to allocate some Ethertype values for experimental use, so that universities and other users could develop ideas using these, then get a second “real” value allocated when it became appropriate. Other variations of this scheme may also be considered. The intention is to protect the use of Ethernets, which are a scarce resource, and to prevent the miscellaneous allocations that fall into disuse as companies move on, or for whatever reason the original requirement for the Ethertype fades away. One scheme would be to use an EUI behind the Ethertype, so these values could be self-registered. There may be a PAR raised at the next IEEE Plenary meeting to propose an 802 standard be developed to control this.

## Editorial Motions

Motion	Moved	Seconded	Y	N	A	Pass
802.1 instructs the Editors for P802.1s to revise the document in line with the resolutions agreed in this meeting and to forward the document for a further Task Group ballot to complete before the Sept interim. Pre-authorization granted to forward the revised document (following TG ballot resolution) to WG ballot following the Interim meeting if that is deemed appropriate at that time.	Seaman	Keen	13	0	0	Yes
802.1 instructs the Editor for P802.1t to revise the document in line with the resolutions agreed in this meeting and to forward the document for recirculation ballot. 802.1 instructs the Chair to take steps necessary for conditional approval to forward this document to Sponsor Ballot.	Seaman	Keen	13	0	0	Yes
802.1 instructs the Editor for P802.1u to revise the document in line with the resolutions agreed in this meeting. 802.1 instructs the Chair to take steps necessary for approval to forward this document to Sponsor Ballot.	Seaman	Keen	13	0	0	Yes
802.1 instructs the Editor for P802.1v to revise the document in line with the resolutions agreed in this meeting and to forward the document for recirculation ballot. 802.1 instructs the Chair to take steps necessary for conditional approval to forward this document to Sponsor Ballot.	Seaman	Keen	13	0	0	Yes
802.1 instructs the Editor for P802.1w to revise the document in line with the resolutions agreed in this meeting and to forward the document for Working Group ballot to complete before the Interim meeting. Pre-authorize a further ballot after the Interim (following resolution of comments) if needed.	Seaman	Keen	13	0	0	Yes
802.1 instructs the Editor for P802.1X to revise the document in line with the resolutions agreed in this meeting and to forward the document for a further Working Group ballot.	Seaman	Finn	13	0	0	Yes

## IEEE ISTO Broadband Wireless Internet Forum

There has been a communication from the Exec. Comm. with a draft of a response to the formation of an IEEE ISTO BWIF (Broadband Wireless Internet Forum), which is in direct conflict with IEEE 802.16. This is intended as a press release! The consensus of 802.1 WG was that this should not be a press release, but pursued through the IEEE SA.

### ... And Finally

Motion to adjourn, Jarvis, Second Bell, no objections.