 

IEEE P802.21 Media Independent Handover Services

Minutes of the IEEE P802.21 Working Group (DCN 21-14-0133-00-0000)

Session #63 Meeting, San Diego, CA, USA

Chair: Subir Das

Vice Chair: Charles E. Perkins

# First Day PM1 (1:30pm-3:30pm): Room Ocean Beach ; July 14, 2014

## 802.21 WG Opening Plenary: Meeting is called to order at 1:30pm by Subir Das, Chair of IEEE 802.21WG with opening notes

## July, 2014 Meeting Agenda (DCN: 21-14-0106-00-0000-session-63-agenda)

### 802.15 SEC –revisiting 802.15.4e security which may be of interest to 802.21 members

### 802.15 IG 6T (IETF 6Tisch interest group) session will be held on Friday PM1

### 802.21d has two sessions

### 802.21m has three sessions

### 802.21.1 has three sessions

### Three tutorials

### Emerging Applications instead of social (experiment) BoF July 16, 6:30pm-9:30pm

### Agenda bashing:

#### Agenda (DCN: 21-14-0106-00-0000) was approved without any objection.

## IEEE 802.21 Session #63 Opening Notes (21-14-0115-00-0000)

### Meeting logistics: all meetings in Room Ocean View

### Discussion about Wi-Fi access

### <http://mentor.ieee.org/802.21/documents>

### Duty to inform slides 1-4, etc.

### Attendance procedures, logistics, breaks

### Request to make Intellectual Property declaration

#### No one declared any patent claims

### LMSC Chair’s Guidelines on Commercialism at meetings

#### Clarification for “formally object”

### Discussion about sponsorship discussion at EC; member poll

#### Should get sponsors to help make a better network

## Working Group Status

### 802.21c: Single Radio Handovers

### Published in July 11, 2014. Congratulations!

### 802.21d : Group Management

* + - Completed WG Letter Ballot recirculation (#7d) on July 05, 2014

### Result announced on July 6, 2014

### http://www.ieee802.org/21/ballot\_7.html

### 19 ballots / 21 members. Return ratio 90.00%

### 17 approve / 00 disapprove / 02 abstain. Approval rate = 100%

### Have 2 sessions in Hawaii for resolving comments

### 802.21m: Revision Project

#### Opening Note: 21-14-0120-00-REVP-802-21m-session-63-OpeningNote

#### Working on the document structure and existing issues

### 802.21.1: Media Independent Services

#### Opening Note: 21-14-0118-00-SAUC-802-21.1-OpeningNote

* + - * + Completed WG Letter Ballot recirculation (#7d) on July 05, 2014

## Future Sessions – 2014

### Interim: 14-19, September 2014, Hilton Athens, Greece

* + Co-located with all 802 wireless groups

### Plenary: 2-7 Nov 2014, Grand Hyatt, San Antonio, TX, USA

* + Co-located with all 802 groups

## September IEEE 802 Interim meeting logistics

### 14-19, September 2014, Hilton Athens, Greece

### Meeting is NoT hosted by Face-to-Face Events but hosted by Airnex

### Meeting Information: <https://ei.eventinfotech.com.au/ei/rs.esp?id=1231&scriptid=HOME>

### REGISTRATION INFORMATION:

#### Early Registration Deadline Before 23 July 2014 : US $850.00

#### Standard Registration Deadline Before 27 August 2014: US $ 1100

#### Late Registration Deadline After 27 August 2014: US $ 1350

### HOTEL RESERVATIONS:

### All delegates are required to pre-register for the Meeting. Please ensure to refer to the schedule and deadlines below. All amounts are quoted in US dollars. IMPORTANT: to qualify for the discounted registration rate, you will need your Hilton Athens confirmation number. If you have not already done so please book your accommodation first. A minimum stay of 3 nights is required for the discount.

## Session #62 minutes (21-14-0107-01-0000) were approved without objection.

## Vice-Chair election candidate (Hyeong Ho Lee) statement

* 6/0/0 - **Dr. Lee is elected**
* **Chair will report to EC for approval on Friday**

## 802.21d Opening Notes and discussion (21-14-0117-00-0000)

* + - * + Document 21-14-0117-00-MuGM-802-21d Opening Notes
        + Discussion about comment #2 in document #110
        + Prepare for Sponsor ballot

## 802.21m Opening Notes and discussion (21-14-0120-00-0000)

#### Discuss the document structure and issues

## 802.21.1 Opening Notes and discussion (21-14-0118-00-0000)

#### Document 21-14-0118-00-MuGM-802-21d Opening Notes

#### Discussion about use cases and services, meaning of “use case”

#### ITS need for support

## 802.24 Scope Extension

## Meeting adjourned at 3:00pm

# Day 2 PM1 (1:30pm-1:45pm): Room Ocean View; Tuesday, July 15

## Election of Dr. Lee as 802.21 vice chair (6/0/0)

# Day 4 PM2 (4:00pm-6:00pm): Room Ocean View; Thursday, July 17, 2014

## 802.21 WG Closing Plenary: Meeting is called to order by Subir Das, Chair of IEEE 802.21 WG (21-14-0123-00-0000-session-63-closing-plenary).

## No IETF liaison report

## Discussion about P802.21d Ballot Result

### Draft History & Statistics (mandatory editorial comments, etc.)

### Draft to be submitted for MEC review (DCN 14-0129-900-0000)

### Sponsor Ballot starts on August 17

## Motions presented for WG vote

### Motion to P802.21d BRC …: moved by Yoshi, Seconded by Clint (5/0/0)

### Motion to authorize 802.21d …: moved by Yoshi, Seconded by Clint (5/0/0)

### Motion to P802.21d be … (CSD = Criteria for Standards Development) Moved by Yoshi, Seconded by Clint (5/0/0)

## Teleconference schedule

## TGm 802.21-2008 Revision closing note (21-14-0129-00-REVP-802-21m-session-63-closing-report)

### Progress in meetings prior to Session #63

##### Initiated working group, determined purpose of the document revision project.

##### Updated base 802.21m document with numerous improvements and repairs to tables and lists.

### Progress since Kona Session #62

##### Updated base 802.21m document specification according to recent action items

##### Issues added to spreadsheet based on problems encountered during document update.

### Agenda for July 2014

#### Three sessions: **Tuesday PM1** and **Thursday AM1, PM1**

#### Review 802.21m charter and mission, previous decisions, work plans

#### Review action items

#### Review base document modifications for acceptance / rejection

#### Determine needs for further editorial staff help with figure creation and modification, document progress

#### Describe function and revisions for figure modification spreadsheet, etc.

#### Minutes: DCN 21-14-0129-00-REVP

### Action Items

#### WG chair to email David Cypher for additional clarification on comment

#### Update spreadsheet for figures and equations

#### Maintain status for each figure and modifications needed

#### Determine need for teleconference on August 20, 2014

#### WG chair / editor to prepare clean document for 802.21m base document, using revisions as modified and approved according to WG discussion from Tuesday PM1 and Thursday AM2 consensus

#### Chair to send a reminder to Yoshi for PICS update

#### (deferred) Recommend 802.21.1 to carry out gap analysis on 802.21m features

## TGd Multicast Management closing note (21-14-0099-00-MuGM-tgd-may-closing-note)

### Progress in May 2014 Meeting: LB7b comment resolutions

### Resolved all editorial comments and most technical comments

### Remaining technical comments are: #58, #79, #83

### LB7 Ballot Resolution Committee

### Next Step: Start next recirculation around April 21, 2014

## 802.21.1 closing note (DCN 21-14-0098-00-SAUC-closing-notes)

### TG 802.21.1 had two sessions during his meeting

### There were four presentations on use cases

* https://mentor.ieee.org/802.21/dcn/14/...

### 802.21.1 Teleconference (tentative):

## Teleconferences

### 802.21c BRC Teleconferences:

* (none)

### 802.21d BRC Teleconferences:

* May 27 (Tue), 8am-10am EDT
* June 10 (Tue), 8am-10am EDT

### 802.21m Teleconference:

* (none)

### 802.21.1 Teleconference:

### Teleconference (Tentative)

##### (none)

### Plan for next meeting

##### Meet with IEEE staff to resolve Microsoft Word problems with 802.21m base document

# Future Sessions

## Future Sessions – 2014

### List of upcoming sessions

* **Plenary: 13-18, July 2014, Manchester Grand Hyatt, San Diego, CA, USA** 
  + Co-located with all 802 groups
* **Interim: 14-19, September 2014, Hilton Athens**
  + Co-located with all 802 wireless groups
* **Plenary: 2-7 Nov 2014, Grand Hyatt, San Antonio, TX, USA**
  + Co-located with all 802 groups

### Discussion about San Diego venue

#### Food has been very good

#### Networking was good

#### Recommended for return

## Future Sessions – 2015

* **Interim: 18-23 January, 2015, Hyatt Regency, Atlanta, GA, USA**
  + Co-located with all 802 groups
* **Plenary: 8-13/15-20 March, 2015, Berlin** 
  + Co-located with all 802 groups
* **Interim: May 2015, Hyatt Regency Vancouver (TBD)**
  + Co-located with all wireless groups
* **Plenary: 12-17 July 2015, Hilton Waikoloa Village, Hawaii, USA** 
  + Co-located with all 802 groups
* **Interim: September 2015, Asia (TBD)**
  + Co-located with all 802 wireless groups
* **Plenary: 8-13 Nov 2015, Hyatt Regency Dallas, TX, USA (TBC)**
  + Co-located with all 802 groups

## Future Session notifications

* Early registration for Athens ends on July 23; rate increases to $1150

# Attendance

|  |  |
| --- | --- |
| Das Subir | Applied Communication Sciences |
| Chen, Lidong | NIST |
| Yazu Hanatani Yoshikazu | Toshiba Corporation |
| Lee Hyeong-Ho | ETRI |
| Ohba Yoshihiro | Toshiba Corporation |
| Perkins Charles | Futurewei Technologies |
| Khatibi Farrokh | Qualcomm Incorporated |
| Turner Michelle | IEEE Editorial |
| Randall Karen | NSA/IAD |
| Roy Dick | SRA |

# The meeting was adjourned at 4:47 pm

 

IEEE P802.21m Revision Project Group

Chair: Charlie Perkins

Minutes Document: DCN: 21-14-0131-01

# Meeting Minutes of the IEEE P802.21d Group Management Task Force (DCN 21-14-0131-01)

## Monday, PM2 Meeting, July 14, 2014

### Meeting called to order by Chair at 4:00PM

Minutes are taken by Yoshihiro Ohba.

### Meeting Agenda (21-14-0116-01) is presented by the Chair

The IEEE 802.21d task group is scheduled to meet Monday PM2 and Tuesday AM2.

Agenda was approved with no objections.

### Meeting Minutes Approval

Minutes of May 2014 TGd session are included in the WG minutes that were already approved in the WG opening plenary. There is no additional minutes to approve.

### Opening Notes (21-14-0117-00) is presented by the Chair

Slides #1-#4 shown, Note Well, Duty to Inform.

Chair called for declaration of potentially essential IPR on 802.21d. There was no response to the call in the meeting. Chair mentioned that there was an IPR declaration during 802.21 WG Opening Plenary meeting in Monday AM2 about 802.21d.

The latest commentary file is DCN 110r0 incorporating LB7c comment resolution made through May Interim meeting and subsequent BRC conference calls in May 27 and June 10..

### Letter Ballot recirculation LB7d Result and Next Step

Chair explained that the latest 802.21d draft D05 achieved 100% approval ratio, the WG Chair has a plan to move forward the draft to Sponsor Ballot, with carrying over seven (7) editorial comments to the Sponsor Ballot.

Detailed plan for the Sponsor Ballot was explained by WG Chair. As soon as an approval from LMEC on forwarding D05 to Sponsor Ballot is obtained in EC Closing Plenary on July 18, Sponsor Ballot invitation will be sent from IEEE SA to form a ballot pool. The invitation period will continue until August 17. If conditions for the ballot pool are met, then 30-day Sponsor Ballot will be started immediately. If everything goes well, we can start SB comment resolution in September meeting.

The group also reviewed the editorial comments. As the comments will be carried over to Sponsor Ballot, no resolution was made for the comments in the meeting.

### 802.21d CSD Discussion

Chair explained that 802.21d CSD (Criteria for Standards Development (previously known as 5C), DCN 2012-0017-01) needs to be reviewed before sending 802.21d draft specification to Sponsor Ballot in order to check whether the content of the draft specification is consistent with the CSD.

The group briefly reviewed the CSD.

Chair asked the members to review the CSD in detail by Tuesday AM2 slot.

Recess at: 17:30 PM

## SECOND DAY AM2 MEETING: TUESDAY, JULY 15

### Meeting called to order by Chair at 10:30AM

### 802.21d CSD Discussion (continued)

The group continued 802.21d CSD discussion.

No issue was raised on the CSD described in DCN 2012-0017-01.

### Closing Note by Chair

TG closing note is captured in DCN 21-14-0124r0.

The following TG Motion was made:

* Approve document number DCN: 21-12-0017-01 as the CSD for IEEE 802.21d Sponsor Ballot initiation
* *Moved by: Farrokh Khatibi*
* Seconded by: Lily Chen
* For: 7
* Against: 0
* Abstain: 0
* Result: Motion passes

The following three motions were mentioned that Chair intends to bring during WG closing plenary.

* Motion #1: Approve document number DCN: 21-12-0017-01 as the CSD for IEEE 802.21d Sponsor Ballot initiation and authorize the WG Chair to request the EC to forward draft D05 to IEEE SA RevCom
* Motion #2: Move to approve the 802.21d 5C (DCN 2012-0017-01) to be used for P802.21d Sponsor Ballot

There will be no conference call until September meeting.

The meeting was adjourned at 11:20pm.

 

IEEE P802.21m Revision Project Group

Chair: Charlie Perkins

Minutes by Charlie Perkins: DCN: 21-14-0128-00

# Meeting Minutes of the IEEE P802.21-2008 Revision Project Group during July 2014 Interim (DCN 21-14-0128-00)

## First Session: 14 July 2014 PM1: 1:40-3:00

### Notes: Subir

### Participation: Subir, Charlie, Hyeong-Ho, Yazu, Farrokh, Lily

### 802.21m meeting is governed by 802.21 IPR disclosure agreements, etc.

### Review agenda: 21-14-00119-00-REVP-802-21m-session-63-agenda.pptx

* 802.21m meeting is governed by 802.21 IPR disclosure agreements, etc.
* Review agenda: 21-14-0119-00-REVP-802-21m-session-63-agenda.pptx
* Detailed review of action items from Session #62 meeting
* Chair mentioned about the issues with MS WORD template. He reiterated the need for having a meeting with IEEE-SA stuff.  A meeting is scheduled during this week with the help from the WG chair. Created spreadsheet for figures and equations.
* Chair presented the issues from DCN 21-14-0121.New Word and jpeg figure files have been received from IEEE
* It  was requested to send a reminder to Yoshi for PICS update.
* Chair will sent a mail to David Cypher to understand one of the comments better.
* Regarding document editing two options were discussed:
  + Take IEEE help to fix the issues and do it in a proper template
  + Prepare a normal MS word document and then let IEEE-SA editors to put it in proper template.
* Clarity of the term service was raised. By ‘Media Independent Services’  do we mean all the three/four services  are same as media independent services. In was clarified that Media Independent Services encompasses all the three/four services.
* It was suggested to change ‘MIH User’ to ‘MIH Application’.
* Chair went over changes in document 21-14-0067-03-REVP-802-21-2008-text-to-be-included; they were being discussed.
* Chair discussed meaning of color tags on issues spreadsheet 21-14-0121-02-REVP-802-21m-issues-spreadsheet
* TG members accepted the changes.  Editor will create a new version.

## Second Session: 17 July 2014 AM1: 8:00am-9:10am

### Notes: Charlie

### Participation: Farrokh, Charlie, Hyeong-Ho, Yazu

### Briefly review agenda: 21-14-0087-00-REVP-802-21m-session-62-agenda.pptx

* Discussed newly uploaded documents
  + 21-14-0121-02-REVP-802-21m-issues-spreadsheet
  + 21-14-0052-01-REVP-802.21m-figures+eqns
  + 21-14-0067-04-REVP-802-21-2008-text-to-be-included
  + 21-14-0067-05-REVP-802-21-2008-text-to-be-included
* Mentioned plan to await IEEE document support for several figures
* Chair went over changes in document 21-14-0067-05-REVP-802-21-2008-text-to-be-included; they were being discussed.
* Chair discussed “clean” issues spreadsheet 21-14-0121-03-REVP-802-21m-issues-spreadsheet, new issues from Michelle
* TG members accepted the changes.  Editor will create a new version.

## Third Session: 17 July 2014 PM1: 2:30pm – 3:05pm

### Notes: Charlie

### Participation: Farrokh, Charlie, Michelle Turner, Hyeong-Ho, Yazu

* Discussed newly uploaded documents
  + 21-14-0121-02-REVP-802-21m-issues-spreadsheet
  + 21-14-0052-01-REVP-802.21m-figures+eqns
  + 21-14-0067-04-REVP-802-21-2008-text-to-be-included
  + 21-14-0067-05-REVP-802-21-2008-text-to-be-included
* Mentioned plan to await IEEE document support for several figures
* Chair went over changes in document 21-14-0067-05-REVP-802-21-2008-text-to-be-included; they were being discussed.
* Chair discussed “clean” issues spreadsheet 21-14-0121-03-REVP-802-21m-issues-spreadsheet, new issues from Michelle
* TG members accepted the changes.  Editor will create a new version.

### WG chair to prepare revised documents for consideration at session #63 during upcoming Plenary meeting in July

### Update spreadsheet for figures and equations

### maintain status for each figure and modifications needed

### create and upload spreadsheet as 802.21m WG document

### (deferred) Recommend 802.21.1 to carry out gap analysis on 802.21m features

### Confer with IEEE editorial staff to repair errors introduced when base document was inappropriately saved as .docx instead .doc

### WG chair / editor to prepare clean document for 802.21m base document, using revisions as modified and approved according to WG discussion from Tuesday PM1 and Thursday AM2 consensus

## Action Items

### WG chair to email David Cypher for additional clarification on comment

### Update spreadsheet for figures and equations

### maintain status for each figure and modifications needed

### Determine need for teleconference on August 20, 2014

### WG chair / editor to prepare clean document for 802.21m base document, using revisions as modified and approved according to WG discussion from Tuesday PM1 and Thursday AM2 consensus

### Chair to send a reminder to Yoshi for PICS update

### (deferred) Recommend 802.21.1 to carry out gap analysis on 802.21m features

 

## 

IEEE P802.21.1 Media Independent Handover Services

Meeting Minutes of the IEEE P802.21.1 Task Group

Chair: Subir Das

Editor:

# Meeting Minutes of the IEEE P802.21.1 Task Group

## Wednesday, AM1 Meeting, July, 2014 (8:00-10:00 am)

## Meeting called to order by Chair at 8:15AM

Hyunho Park presented DCN: 21-14-0111-00-SAUC

Title:Media Independent Service for Radio Resource Management in Heterogeneous Networks

This is an extension of what was being presented (DCN 21-14-0079) in May meeting. This document presents the procedures and call flows of radio resource management in heterogeneous networks.

Q: Why AC only manage PoA-A?

Comment: The definition should be generic and in particular should not be restricted to what it is managing. The generic definition should be “AC (Access Controller): A network entity that can manage radio resources”

Q: Can radio resource under new primitive MIS\_Link\_Resource\_Report, for example, Frequency, Channel and Power parameters, be included in existing primitives that are defined in IEEE 802.21 base specification?

A: Authors think that they are separate and provided some high level reasons.

TG discussed this in details. Two possible existing link events are identified: Link\_Detected and Link\_Parameters\_Report. TG members think that Link\_Detected may be extended to accommodate the new primitive. It was agreed that Hyunho will do the analysis and report it to the list and if required, his co-authors will present the findings during Thursday AM2 session. TG plans to have recommendation to the authors by this meeting.

## Wednesday, PM1 Meeting, July, 2014 (1:30-3:00 pm)

## Meeting called to order by Chair at 1:35PM

Hyeong Ho Lee presented 21-14-0112-00

Title: Considerations for MIS framework to cooperate with SDN

**Slide #5:**

Q: What is the meaning of option #1?

A: To change MIs architecture and incorporate the data plane.

Q: Is SDN referring to only OpenFlow controller?

A: It may or may not be

Comment: Then it would be better to capture as SDN Controller. This looks like a containment diagram. It is better to show in terms of PoS and MISF.

Q: Does the approach #2 mean, SDN encompasses all MIS functions and in approach #1, MIS encompasses SDN functions? Is it not true that the end result is same?

A: Yes but the approaches are different.

Comment: OTH, it does not matter how one does it, there is less practical reason to show approach #1 and #2 separately.

It was mentioned that the approach #3 is more reasonable approach. However, there may be some complexities involved here.

Comment: It appears that we need to decide if we need internal or external interfaces? If the functional components are separate, we need external protocol interface. OTH, if they are not, we possibly need the messages defined.

Comment: We should first understand which SDN interfaces are we talking about? is it ONF defined interfaces or something else? If it is ONF, that is manageable since ONF defines a lot of structure interfaces.

Authors will work with Daniel and Charlie to incorporate these ideas and create a SDN use case.

## Thursday, AM2 Meeting, July, 2014 (10:30-12:30 pm)

## Meeting called to order by Chair at 10:32PM

Hyeong Ho Lee presented DCN: 21-14-0122-00-SAUC to continue the discussion on

Media Independent Service for Radio Resource Management in Heterogeneous Networks that was presented on Wednesday AM1 meeting.

Slide #4:

Suggestion was made that this should be an Information Service not a Command Service.

Slide #5: Parameters such as Transmit power can be equivalent to signal strength.

There was a suggestion that we can possibly change the Link\_Detected\_info primitive to Link\_info. However, the proposed primitive is not an Event Service and therefore existing link primitives are not suitable.

The discussion went to a direction that is this new primitive a command service or information service primitive?

It is recommended that authors will provide additional information and their view on which category of services (e.g., command, Information or management) this new capabilities should belong.

Dick Roy presented DCN:21-14-0125-ITS\_Use cases

Title: ITS use cases for MIH

Q: What is Network of Networks in ITS?

A: it is the same concept as heterogeneous networks, for example, Wi-Fi network, IR networks, cellular connections or networks.

Q: ecall does inband voice. Next generation ecall is IP-based

A: Yes it is correct.

Comment: 802.21 does provide the information but does not make any decision.

A: This fine and that’s what is needed. In particular, the information needs to be relevant to the context of the applications.

Q: Is there any underlying command channel? What is it that supported by ITS systems?

A: There is no single one globally available. In the context of 5.9 GHz I 802.11, control channel is used to send an advertisement.

Q: What is the problem to reduce the number of choices?

A: Market dynamics. But it is converging to IPv6.

Q: What are MI, MN, MF?

A: MI: Management to Interface; MN: Management to Network; MF: Management to Facility

Comment: http://www.iteris.com/cvria may be relevant to this TG.

Q: We heard about term optimal, this has a strong relationship with QoS?

A: Yes that is correct and please refer to 17423.

Chair requested Dick to explore the possibility of having a discussion via telecon with the respective ITS groups or interest groups. The idea is to understand how and where .21 fits in.

Teleconference (tentative) Date: 19th August, 6 pm.