 

IEEE P802.21 Media Independent Handover Services

Minutes of the IEEE P802.21 Working Group (DCN 21-14-0002-00-0000)

Session #59 Meeting, Dallas, Texas

Chair: Subir Das

Vice Chair: H Anthony Chan

Editor: Secretary: Charles E. Perkins

# First Day PM1 (1:30pm-3:30pm): MORENA ; November 11, 2013

## 802.21 WG Opening Plenary: Meeting is called to order by Anthony Chan, Vice Chair of IEEE 802.21WG with opening notes (DCN: 21-13-0201-00-0000).

## November, 2013 Meeting Agenda (DCN: 21-13-0191-00-0000-session-59-agenda)

### Agenda bashing:

### Revised agenda was approved without any objection.

#### 802.24 meetings (Mon/Tue/Wed during PM-2) were added as alternatives with 802.21 credit

#### 802.21d and 802.21m sessions during Tuesday PM-1 and PM-2 were swapped

#### Announcement from Pat Thaler : Monday evening Ethernet anniversary starts at 7:00pm, be there by 6:50pm

#### Tuesday tutorial only from 6:00pm-7:30pm, not 10:30pm – meeting credit

#### Since 802.21c sponsor ballot ends on Wednesday, November 13 all TGc meetings are scheduled on Friday

#### OmniRAN sessions during Tues/Wed PM-1 were added as alternatives with 802.21 credit

#### New agenda was uploaded

## IEEE 802.21 Session #58 Opening Notes (21-13-0223-00-0000)

### Attendance procedures, logistics, breaks

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

### Question on call for Intellectual Property declaration

#### No one declared any patent claims

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

### New attendee: Jin Seek Choi, Hanyang University Korea

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

### Discussion about change of editor: David Cypher’s name was removed, changed to Open (Note: David Cypher indicated that he will not be able to perform this duty due to other assignments within his organization)

### Session #58 minutes (21-13-0195-01-0000) were approved without objection.

### Task group status

### Anthony briefed the EC opening session discussions.

### Brian Kiernan received Computer Society Hans Karlsson Award

### Early bird signup for January Los Angeles meeting ends in three weeks.

### Future meetings: seems that Barcelona is likely in March, 2015

### Future meeting locations: Los Angeles / Beijing / Waikoloa / Manchester San Diego / Athens / San Antonio.

## Working Group Objectives for November meeting

### 802.21c: Single Radio Handovers

* + - * Resolve Letter Ballot comments

### 802.21d : Group Management

* + - * Resolve Sponsor Ballot comments

### 802.21m: Revision Project

#### Discuss the document structure and issues

### 802.21.1: Media Independent Services

#### Use cases and services discussion

## 802.21c agenda and update (DCN: 21-13-0202-01) from H Anthony Chan

### We are waiting for Sponsor Ballot results. We will try to address all the comments after Sponsor Ballot is closed.

## 802.21d agenda and update (DCN: 21-13-0203-01) from Yoshihiro Ohba:

### 802.21d report: results from letter ballot, received 180 comments. This week will be spent full time on comment resolution. Documents have been uploaded with resolution for algorithm explanation, and structure issues. 100 comments are technical (DCN 21-13-0113-00) discussion

## 802.21m agenda and discussion from Charlie Perkins

### No presentations submitted yet

### Agenda is not finalized. Current plan is to go through two text files and issues spreadsheet.

## 802.21.1 agenda and discussion from Anthony Chan (on behalf of Subir Das)

### Two sessions were scheduled

### Objective is to discuss the use cases

# Day 4 PM2 (4:00pm-6:00pm): MORENA; Thursday, Sept. 19, 2013

## 802.21 WG Closing Plenary: Meeting is called to order by Subir Das, Chair of IEEE 802.21WG (21-13-0223-00-0000).

## Revised agenda 21-13-0191-01-0000-session-59-agenda.docx approved

## Revised minutes 21-13-0195-01-0000-nanjing-session-58-meeting-minutes.docx approved

## 802.11 liaison report presented by Clint Chaplain

### See DCN 21-14-0019-00-0000-802-11-liaison-report-for-2013-11

## IETF liaison report

### 6TiSCH created

### 6Lo: nextgen 6lowpan

### DICE: dtls in constrained environments (a profile of DTLS)

### DMM documents >

### Netext

### MIF

### Roll: trickle multicast finished Last Call, submitted to IESG

### Subir: any materials from IETF that are relevant to 802.21

#### Ans: there is sdnrg

### <https://mentor.ieee.org/802.21/dcn/13/21-13-0225-00-0000-ietf-liaison-report.ppt>

## Discussion about OmniRAN comments

### Recount events of last week

#### Charlie’s comments were received after the deadline, and were not addressed

### Subir shows spreadsheet of OmniRAN comment resolution

### Three points from Charlie not addressed:

#### Normative versus “guide”

#### Maintain compatibility with 802.21 protocol mandates

#### Design of Reference Model

### Subir shows Charlie’s comments, discussion ensues

### Charlie agrees to attend EC session on Friday to discuss issues

### Subir agrees to ask OmniRAN chair about addressing the issues

## Teleconferences

### 802.21c BRC Teleconferences:

##### December 05 (Thurs) 9am-10am ET

##### December 12 (Thurs) 9am-10am ET

### 802.21d BRC Teleconferences:

##### November 26 (Tue), 2013 8am-10am ET

##### December 03 (Tue), 2013 8am-10am ET

##### December 10 (Tue), 2013 8am-10am ET

##### December 17 (Tue), 2013 8am-10am ET

### 802.21m Teleconference:

##### January 06 (Mon), 9-11 am ET, 2014

### 802.21.1 Teleconference:

##### None

## TGc SRHO closing note (DCN 21-13-0226-00-srho-802-21c-srho-nov-plenary-report)

### Progress so far

##### Sponsor ballot recir on: IEEE P802.21c/D06 from Oct 14 to Nov 13, 2013

##### 63 votes received (84% of sponsor pool), 93% affirmative rate ☺

##### All comments are resolved as shown in comments resolution file (21-13-0219-01)

### Teleconferences at 9:00am ET on December 3 and December 10.

### WG Motion (full details in 21-13-0223-00)

##### Move to authorize the P802.21c Ballot Resolution Committee (BRC) to resolve SB comments (if any) and approve the related contributions via teleconferences: (9/0/0)

##### Motion to authorize the Working Group chair to initiate SB re-circulation Letter Ballot on the question “Should P802.21c/D07 be forwarded to RevCom?” (9/0/0)

## TGd Multicast Management closing note (21-13-0213-00-MuGM-tgd-novemebr-closing-note)

### LB7a comment resolutions

#### Resolved 170 comments

#### 9 comments are remaining

### Ballot Resolution Committee (BRC) appointed

##### Toru Kambayashi

##### Antonio de la Oliva

##### Yoshikazu Hanatani

##### Lily Chen

##### Karen Randall

##### Subir Das

##### Yoshihiro Ohba

##### Charles E. Perkins

### WG motions passed (full details in 21-13-0223-00)

##### Move to authorize the P802.21d Editor to incorporate all the resolutions of letter ballot #7a comments into P802.21d /D02 and produce P802.21d/D03(9/0/0)

##### Motion to authorize the Working Group chair to initiate LB#7b re-circulation Letter Ballot on the question “Should P802.21d/D03 be forwarded to Sponsor Ballot?” (9/0/0)

##### Move to authorize the P802.21d Ballot Resolution Committee (BRC) to resolve WG LB7b comments and approve the related contributions via teleconferences (8/0/1)

### LB7 BRC Teleconference schedule

##### November 26 (Tue) 8am-10am ET

##### December 3 (Tue) 8am-10am ET

##### December 10 (Tue) 8am-10am ET

##### December 17 (Tue) 8am-10am ET

### Next Step

##### Continue comment resolution via LB7 BRC teleconferences

##### Start next recirculation by January 3, 2013

## TGm 802.21-2008 Revision closing note (21-13-0221-01-REVP-802-21m-session-59-closing-report)

### Progress so far

##### Created document for base 802.21m specification

##### Created document for 802.21.1 handover services specification

##### Issues added to spreadsheet based on comment rejections from 802.21c and 802.21d

##### Reviewed text included as part of base 802.21m specification

##### Received document source for 802.21a and 802.21b

##### Discussed inclusion of text from 802.21b and 802.21a in base (802.21m) specification

##### Received framemaker (.tif) source for document figures

### Agenda for November 2013

#### **Sessions**: Tuesday PM2 and Wednesday AM2

#### Review 802.21m charter and mission

#### Review previous decisions, work plans

##### Discussion of issues spreadsheet (21-13-0182-01-REVP)

##### Review proposed terminology change

##### No discussion of Protocol Mandates or Gap Analysis

#### Discuss problems with document source as received

#### Review current split of 802.21-2008 specification

##### 21-13-0210-00-REVP-802.21-2008\_include

##### 21-13-0211-00-REVP-802.21-2008\_exclude

#### Discuss submission of handover as use case to 802.21.1

#### Discuss handling of 802.21a and 802.21b

#### Teleconference schedule, next steps

#### **Minutes**: DCN 21-13-0224-00-REVP

### Action Items

##### WG chair to attempt to import Framemaker figures into Visio

##### WG chair to change MIH to MIS in all occurrences in document texts and figures

##### WG chair to prepare revised documents for consideration at session #60 during upcoming Interim meeting in January

### Teleconference (Tentative)

##### January 06 (Mon), 9-11 am ET, 2014

### Plan for next meeting

##### Incorporate text from 802.21a and 802.21b into base document for 802.21m

##### Add text to planned submission for handover services to 802.21.1

## 802.21.1 closing note (DCN 21-13-0184-00-SAUC-september-closing-report)

### TG 802.21.1 had three sessions during his meeting

##### Wednesday PM1

##### Wednesday PM2

##### Thursday AM1 (1 hr)

### There were five presentations on use cases

### 21-13-0196-00-SAUC-mih-service-use-cases-for-network-assisted-d2d-communication-of-service-providers-and-network-operators.pptx

### 21-13-0197-00-SAUC-mih-service-use-cases-for-dynamic-frequency-channel-allocation-of-ieee-802-11-wlans.pptx

### [21-13-0198-00-0000-review-on-user-authentication-problem-of-handover-between-heterogeneous-networks.doc](https://mentor.ieee.org/802.21/dcn/13/21-13-0198-00-0000-review-on-user-authentication-problem-of-handover-between-heterogeneous-networks.doc)

### 21-13-0198-00-0000-review-on-user-authentication-problem-of-handover-between-heterogeneous-networks.doc

### [21-13-0218-00-SAUC-onf-wireless-mobility-use-case-proposal.pptx](https://mentor.ieee.org/802.21/dcn/13/21-13-0218-00-SAUC-onf-wireless-mobility-use-case-proposal.pptx)

### Teleconference: <none>

## Motions passed, listed in closing report document

## Future Sessions

### Early hotel registration is November 20, so do this soon.

### Discussion about Beijing meeting – will be expensive, maybe no early bird rate

##### May lose $200k if early bird rate is maintained

##### Advice: bring a mask to defeat pollution

### Sponsorship of meeting rooms in Geneva turned $400k loss into $100k gain

### Looking for sponsor for 2015 Asia meeting

## EC Workshop scheduled for Saturday

## Anthony announces that this is his last face-to-face meeting.

## Discussion about venue

### Complaint about wireless service in hotel rooms

# Future Sessions – 2014

* **Interim: 19-24 January, 2014, Century Plaza, Los Angeles, CA, USA**
  + Co-located with all 802 groups
* **Plenary: 16-21 March, 2014, China World Hotel, Beijing PRC (Pending)** 
  + Co-located with all 802 groups
* **Interim: 11-16 May 2014, Hilton Waikoloa Village, HI**
  + Co-located with all wireless groups
* **Plenary: 13-18, July 2014, Manchester Grand Hyatt, San Diego, CA, USA** 
  + Co-located with all 802 groups
* **Interim: 14-19, September 2014, TBD (Athens likely)** 
  + Co-located with all 802 wireless groups
* **Plenary: 2-7 Nov 2014, Grand Hyatt, San Antonio, TX, USA**
  + Co-located with all 802 groups

# Attendance

|  |  |
| --- | --- |
| Anthony Chan | Huawei Technologies Co. Ltd |
| Chaplin Clint | Samsung |
| Das Subir | Applied Communication Sciences |
| Lidong Chen | National Institute of Standards and Technology (NIST) |
| Antonio De La Oliva Delgado | Universidad Carlos III Madrid |
| Hyunho Park | Electronics and Telecommunications Research Institute (ETRI) , Korea |
| Lee Hyeong Ho | Electronics and Telecommunications Research Institute (ETRI) , Korea |
| Jin Seek Choi | Hanyang University Korea |
| Farrokh Khatibi | Qualcomm Inc |
| Sangkwon Peter Jeong | IMRC |
| Yoshikazu Hanatani | Toshiba Corporation |
| Ohba Yoshihiro | TOSHIBA Corporation |
| Perkins Charles | Futurewei Technologies |
| Liu Dapeng | China Mobile |

# The meeting was adjourned at 6:06pm

 

Minutes of 802.21c Task Group Meeting

Session #59 in Dallas, Texas

Chair: H Anthony Chan

Vice Chair: Dapeng Liu

Technical Editor: Charles Perkins

Secretary: Hyunho Park

# Meeting Minutes of the IEEE P802.21c Single Radio Handover Task Group in November 2013 Plenary (DCN 21-13-0229-00)

## Day4 AM1 (9:00AM-10:00AM): Moreno A; Thursday, November 14, 2013

### Meeting was called to order by H. Anthony Chan, chair of TGc, with agenda (DCN# 21-13-0176-00).

### Chair reported results of Sponsor Ballot on IEEE P802.21c/D06 and discussed comments with TGc members.

### Return rate and approval rate of Sponsor Ballot were 84% and 93%.

### The number of comments for IEEE 802.21c draft document D06 was 66.

### Technical comments for IEEE 802.21c draft document D06 were resolved.

## Day4 AM2 (10:30AM-12:30AM): Moreno A; Thursday, November 14, 2013

### Chair and TGc members discussed technical comments for IEEE 802.21c draft document D06.

* The remained technical comments after discussion in AM1 session were discussed and resolved.
* Editorial comments were discussed and resolved.

## Day4 PM1 (1:30PM-15:30AM): Moreno A; Thursday, November 14, 2013

### Chair and TGc members discussed on editorial comments for IEEE 802.21c draft document D06.

* Remained editorial comments were discussed and resolved.

 

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IEEE P802.21 Media Independent Handover Services

Meeting Minutes of the IEEE P802.21d Group Management Task Group

Chair: Yoshihiro Ohba

Editor: Antonio de la Oliva

# Meeting Minutes of the IEEE P802.21d Group Management Task Group in November 2013 Plenary (DCN 21-14-0001-00)

## Monday, PM2 Meeting, November 11, 2013

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

Call for volunteer to take minutes. Antonio de la Oliva has agreed to take the minutes.

### Meeting Agenda (21-13-0203-01) is presented by the Chair

The IEEE 802.21d task group is scheduled to meet Monday PM2, Tuesday AM1, AM2 and PM1, and Wednesday AM1.

The agenda was approved with no objections.

### Meeting Minutes Approval

Minutes of September 2013 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 (21-13-0204-00) is presented by the Chair

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

Call for essential patents (No one responds)

Latest commentary file is DCN 194r2.

### 802.21d Comment Resolution

Comments resolution started by the Chair

Chair asked the group to provide review of Editorial comments by Wednesday morning.

Editorial comments #5, #6, #68, #75, #2, #22, #27, #125, #172, #173, #174 were discussed.

Technical comments up to section 8 were discussed.

Resolutions are captured in DCN 194r3.

## Recess at : 6:00 PM

## Second Day AM1, AM2 and PM1 Meeting: Tuesday, November 12

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

Comments related to Section 9 and subsequent sections are discussed.

Lilly presented contribution DCN 199, the contribution explains how the GKB works and aims at partly replacing section 9.4.

Farrokh provided some comments regarding the benefits of using the GKB, we have agreed that the contributors of the GKB mechanisms will provide extra simulation results in order to see the benefits obtained by the GKB mechanism. Charles suggested adding signaling cost to simulation to understand the cost of the solution.

Regarding DCN 199, we have also agreed to have Yoshi’s code (DCN 205r0) inside.

Also, we need to identify and define device key, leaf key, node key, etc., maybe as a figure surrounding things in the tree figure.

Resolutions are captured in DCN 194r5.

## Break at 3pm

## Third Day AM1 Meeting: Wednesday, November 13

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

Group manager discussion, not sure where to place the Group Manager. The group agreed to remove Group Manager and add its functionality to CC. CC is an MIH User, there is one common place to store all Device Keys, this can be accessed by multiple CCs. Check in section 9.4 the references to CC as MIH User, sometimes we refer to it as PoS not MIH User, in titles e.g.

Hana presented DCN 212r0 for Comment #109. Lily mentioned that she will check with her colleague on whether use of ECB with digital signature are OK for key wrapping.

Resolutions are captured in DCN 194r6.

## Closing Note by Chair

TG closing note is captured in DCN 21-13-0213r0.

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

* Motion #1: Move to authorize the P802.21d Editor to accept the resolution passed during November, 2013 plenary meeting and by the LB7 BRC during teleconferences and produce P802.21d/D03
* Motion #2: Move to authorize the P802.21 WG Chair to initiate a LB7 re-circulation ballot on the question “Should P802.21d/D03 be forwarded to Sponsor Ballot”

BRC teleconference schedule was discussed. The group agreed on the following tentative schedule.

* + November 26 (Tue) 8am-10am ET
  + December 3 (Tue) 8am-10am ET
  + December 10 (Tue) 8am-10am ET
  + December 17 (Tue) 8am-10am ET

The meeting was adjourned at 10AM

 

IEEE P802.21m Revision Project Group

Chair: Charlie Perkins

Minutes: DCN: 21-13-0224-00

# Meeting Minutes of the IEEE P802.21m 802.21-2008 Revision Project Group in November 2013 Plenary (DCN 21-13-0224-00)

## Sessions: Tuesday PM2 and Wednesday AM2

## Progress so far

##### Created document for base 802.21m specification

##### Created document for 802.21.1 handover services specification

##### Issues added to spreadsheet based on comment rejections from 802.21c and 802.21d

##### Reviewed text included as part of base 802.21m specification

##### Received document source for 802.21a and 802.21b

##### Discussed inclusion of text from 802.21b and 802.21a in base (802.21m) specification

##### Received framemaker (.tif) source for document figures

## Agenda for November 2013

### Review 802.21m charter and mission

### Review previous decisions, work plans

##### Discussion of issues spreadsheet (21-13-0182-01-REVP)

##### Review proposed terminology change

##### No discussion of Protocol Mandates or Gap Analysis

### Discuss problems with document source as received

### Review current split of 802.21-2008 specification

##### 21-13-0210-00-REVP-802.21-2008\_include

##### 21-13-0211-00-REVP-802.21-2008\_exclude

### Discuss submission of handover as use case to 802.21.1

### Discuss handling of 802.21a and 802.21b

## Action Items

##### WG chair to attempt to import Framemaker figures into Visio

##### WG chair to change MIH to MIS in all occurrences in document texts and figures

##### WG chair to prepare revised documents for consideration at session #60 during upcoming Interim meeting in January

## Teleconference (Tentative)

##### January 06 (Mon), 9-11 am ET, 2014

## Plan for next meeting

##### Incorporate text from 802.21a and 802.21b into base document for 802.21m

Add text to planned submission for handover services to 802.21.1

 

## 

IEEE P802.21 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, PM1 Meeting, November 13, 2013

## Meeting called to order by Chair at 1:30PM

Huynho Park presented DCN: 21-13-0196-00-SAUC on MIH Service Use Cases for Network-Assisted D2D Communication of Service Providers and Network Operators

**Comment:** There are two types of D2D: On network and off network

This presentation only addresses the on network case. It was mentioned that this is a good presentation but suggestions were made that all discoveries should be in our scope. Presenter mentioned that this can be extended to cover off network discovery. Off network use case has been solicited. Group communication discovery is also mentioned and it felt that TG should explore this use case as well. Hyunho will capture the use case in Word document either using an agreed template or his own template and present during next meeting.

Huynho Park also presented DCN: 21-13-0197-00-SAUC **on MIH** Service Use Cases for Dynamic Frequency Channel Allocation of IEEE 802.11 WLANs

Members asked clarified questions to understand how the frequency allocations work. The discussion ended due to lack of time and it was decided that TG will continue this discussion during Thursday AM1 if there is time.

## Wednesday, PM2 Meeting, November 13, 2013

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

Sangkwon Peter Jeong presented DCN: 21-13-0198-00-0000 on Review on user authentication problem of handover between heterogeneous networks. There were a lot of discussions on the scope of user authentication in 802.21.1 context. Jin Seek Choi provided reasons why this is required and there is a relationship with handover. Peter and Jin will work to make the use case more compelling and relevance to 802.21.1 with the help from Charlie.

Yoshihiro Ohba presented DCN: 21-13-0174-00 on **Interworking** Service Architecture and Requirements. He explained some questions that were raised during last meeting, for example, what is the relationship with 802.1 bridging? What is the benefit of having IWR instead of traditional GWs. Presenter explained them and it was suggested that a word version of the use case with requirements is desirable. Yoshihiro will capture the use case in Word document either using an agreed template or his own template and present in next meeting.

Charlie E. Perkins presented DCN: 21-13-0218-00-SAUC on 802.21.1 ONF project descriptions. Use case #4 on IEEE 802 was highlighted more. Folks that are interested should work with Charlie and develop a project relevant for ONF. If there are interests, Charlie will work with the team and present it to the ONF.

## Thursday, AM1 Meeting, November 14, 2013 (8:00- 9:00am)

## Meeting called to order by Chair at 8:00AM

Farrokh presented DCN 21-19-13-0217-00 on use case template. There were a lot of discussions on the use case regarding the objective and purpose. It was made clear that all future presentations should follow this template. The objective of this is to understand the use case clearly and generate the requirements that need to be addressed by 802.21.1.

Chair recommended to settle down on the use cases by March 2014 time frame.

Hyunho Park started in explaining few slides of DCN: 21-13-0197-00-SAUC to continue Wednesday PM1 discussion. Some members indicated that this is a good problem but other groups within 802 (e.g., 802.11) may be addressing this problem. It was suggested to explore it more and possibly get others view on this use case. Examples of Self Organizing Network and related research work were mentioned. 802.11r solution was also cited.

It was suggested that presenters should discuss with 802.11 stakeholders and also work with 802.11 WNG Chair and present this idea there too. This will help understanding the use case need since it is 802.11 related. Once we get some feedback, it will be easier to elaborate and discuss it within 802.21.1.