 

IEEE P802.21 Media Independent Handover Services

Minutes of the IEEE P802.21 Working Group (DCN 21-14-0184-00-0000)

Session #65 Meeting, San Antonio, USA

Chair: Subir Das

Vice Chair: Hyeong-Ho Lee

# First Day AM2 (11:00Am-12:30Pm): Room Presidio A; Nov. 3, 2014

## 802.21 WG Opening Plenary: Meeting is called to order at 11:02am by Subir Das, Chair of IEEE 802.21 WG with opening notes

## Nov., 2014 Meeting Agenda (DCN: 21-14-0155-00-0000-session-65-agenda)

### Agenda bashing:

#### 802.21d AM1 session on Wednesday was changed to 802.21.1

#### 802.21m AM2 session on Wednesday was changed to 802.21d

#### 802.21.1 AM2 session on Thursday was changed to 802.21d/802.21m

#### Revised agenda (DCN: 21-14-0155-01-0000) was approved without any objection.

## IEEE 802.21 Session #65 Opening Notes (21-14-0165-01-0000)

### Meeting logistics: all meetings in Room Presidio A.

### <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 in this session

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

## Working Group Status

### 802.21d: Group Management

#### Completed first Sponsor Ballot

#### Resolving the remaining comments

### 802.21m: Revision Project

#### Working on the revised document

### 802.21.1: Media Independent Services

#### Working on the draft document

## Working Group Objectives for November meeting

### 802.21d: Group Management

#### Resolve Sponsor Ballot comments

### 802.21m: Revision Project

#### Work on the revised draft

### 802.21.1: Media Independent Services

#### Work on draft specification

## Future Sessions – 2015

### Interim: 11-16 January, 2015, Hyatt Regency, Atlanta, GA, USA

* + Co-located with all 802 groups

### Plenary: 8-13 March, 2015, Estrel Convention Center and Hotel, Berlin,

* + Co-located with all 802 groups

### Interim: May 10-15, 2015, Hyatt Regency Vancouver

* + Co-located with all wireless groups

### Plenary: 12-17 July 2015, Hilton Waikoloa Village, Hawaii, USA

* + Co-located with all 802 groups

### Interim: September 13-18, 2015, Asia (Centara World, Bangkok)

* + Co-located with all 802 wireless groups

### Plenary: 8-13 Nov 2015, Hyatt Regency Dallas, TX, USA

* + Co-located with all 802 groups

## January IEEE 802 interim meeting logistics

### January 11-16, 2015 at the Hyatt Regency Atlanta, GA, USA

### EARLY BIRD RATE (November 21, 2014\*):  $US 169/Night (plus applicable taxes)

### The Early Bird Rate is subject to availability and will only be available until 50% of the IEEE 802 Group Block has been filled or November 21, 2014 whichever comes first.

### IEEE 802 GROUP RATE:  $US 179/Night (plus applicable taxes)

### Rate applies to Single and Double Occupancy Run of House Rooms, Internet access included.

### IEEE 802 GROUP RATE RESERVATION DEADLINE: Friday December 19, 2014

### The IEEE 802 Group Rate will be available until Friday December 19th or the Group Block has been filled whichever comes first.

### Reserve room online at: <https://resweb.passkey.com/Resweb.do?mode=welcome_ei_new&eventID=11250026>

## March IEEE 802 plenary meeting logistics

### March 8-14, 2015, Estrel Convention Center and Hotel, Berlin, Germany

### IEEE 802 GROUP RATE (SINGLE) - EUR 157.00 per Night

### IEEE 802 GROUP RATE (DOUBLE)  - EUR 188.00 per Night

### Includes service charges & VAT, Basic Internet Access, Full Buffet Breakfast

### IEEE 802 GROUP RATE DEADLINE:  MONDAY, JANUARY 12, 2015 (Germany)

### Cut Off Date is based on Central European Time Zone (UCT +1), For example: 5 PM CET is 8 AM PST

### ROOM RATES SUBJECT TO AVAILABILITY

### The Group Rates are subject to the availability of rooms in the IEEE 802 Group Room Block. If the block is sold out before the deadline date, Monday January 12, 2015 IEEE 802 rates may no longer be available

### HOTEL CANCELLATION POLICY

* + Individual guest room reservations can be cancelled free of charge until 4 weeks prior to arrival date.
  + Information available at

<https://bookings.ihotelier.com/bookings.jsp?groupID=1223675&hotelID=17417>

## Future Sessions – 2016

### Interim: 11-16 January, 2016, Hyatt Regency, Atlanta, GA, USA

* + Co-located with Wireless groups

### Plenary: 13-18 March, 2016, Sands Venetian Hotel, Macau, PRC

* + Co-located with all 802 groups

### Interim: May 15-20, 2016, Hilton Waikoloa Village, HI, USA

* + Co-located with all wireless groups

### Plenary: 24-29 July 2016, Grand Hyatt, San Diego, USA

* + Co-located with all 802 groups

### Interim: September 2016, Europe (TBD)

* + Co-located with all 802 wireless groups

### Plenary: 6-11 Nov 2016, Grand Hyatt, San Antonio, TX, USA

* + Co-located with all 802 groups

## Session #64 minutes will be available and presented at the IEEE 802.21WG closing plenary session on Thursday.

## 802.21d Opening Notes and discussion (21-14-0161-00-0000)

#### Had three SBRC teleconferences after September meeting

#### Produced 802.21d/D06 draft

#### Remaining comments: i-22, i-37 and i-115

#### Latest commentary file: DCN 21-14-0142-04

* + - * + Resolve the remaining comments and prepare for Sponsor ballot

## 802.21m Opening Notes and discussion (21-14-0168-00-0000)

#### Update the progress on action items identified during Session #64

#### Review previous decisions, work plans

#### Discussion of issues spreadsheet 21-14-0121-03-REVP

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

* + 21-14-0067-08-REVP-802.21-2008\_include
  + 21-14-0093-00-REVP-802.21-2008\_exclude

#### Leadership discussion: Need for leadership transition

## 802.21.1 Opening Notes and discussion (21-14-0166-00-0000)

#### Three sessions are scheduled.

#### 5 contributions will be presented and discussed.

* + Use cases of MIS framework to cooperate with SDN wireless access networks – Jin Seek Choi (DCN 21-14-0157-00)
  + Proposed Text of “Radio Resource Management Service” Section for IEEE 802.21.1 Draft Standard – Hyeong Ho Lee (DCN 21-14-0158-00)
  + Proposed Text of “D2D Communications Service” Section for IEEE 802.21.1 Draft Standard – Hyeong Ho Lee (DCN 21-14-0159-00)
  + Proposed text to initiate network assisted D2D communication for IEEE 802.21.1 Draft standard – Hyunho Park (DCN 21-14-0164-00)
  + Media Independent Service Use Case for Open Screen Service Platform – Hyunho Park (DCN 21-14-0163)

## Discussion about 802c PAR proposal

#### To discuss the IEEE 802c draft PAR "Local MAC Addressing”, a discussion session is scheduled on 9:30–10:30 pm Monday evening.

## Discussion about EC Workshop on Sat. 8, Nov. 2014

## WG P&P(Policy & Procedure) Update

## Meeting adjourned at 12:10pm

# Day 4 PM1 (1:30pm-3:30pm): Room Presidio A; Nov. 6, 2014

## 802.21 WG Closing Plenary: Meeting is called to order by Subir Das, Chair of IEEE 802.21WG (21-14-0178-00-0000-session-65-wg-closing-plenary).

## Session #64 minutes (21-14-0172-01-0000-session-64-meeting-notes) was approved without any objection.

## Motions presented for WG vote

### Motion to authorize the P802.21d Editor to accept the resolution described in DCN 21-14-0142-07 and produce P802.21d/D07: moved by Yoshi, Seconded by Lily Chen (5/0/0)

### Motion to authorize the P802.21 WG Chair to initiate a Sponsor Ballot re-circulation for P802.21d/D07: moved by Yoshi, Seconded by Lily Chen (5/0/0)

### Motion to authorize P802.21d SBRC to resolve Sponsor Ballot comments and approve the related contributions via teleconferences: moved by Yoshi, Seconded by Lily Chen (5/0/0)

## TGd Multicast Management closing note (21-14-0175-00-MuGM-tgd-november-closing-note)

### Progress in November 2014 Meeting: Sponsor Ballot comment resolutions

* Resolved all Sponsor Ballot comments

### Sponsor Ballot Resolution Committee

### Next Step: Initiate Sponsor Ballot re-circulation

### SBRC Teleconference Schedule (Tentative)

* December 5 (Friday) 8am-10am EDT
* January 6 (Tuesday) 8am-10am EDT

## TGm 802.21-2008 Revision closing note (21-14-0176-00-REVP-closing-notes)

### Progress in November 2014 Meeting

##### Discussed the current status due to leadership change

##### Yoshihiro Ohba was requested to review DCN 21-14-0067-08

##### Yoshihiro presented reviews on IEEE 802.21Rev:

##### <https://mentor.ieee.org/802.21/dcn/14/21-14-0169-00-REVP-review-of-p802-21rev.ppt>

##### TG discussed the next steps and way forward

### Action Items

##### Charlie will upload latest documents: DCN 21-14-0067-09, DCN 21-14-0121-03

##### Charlie will review 802.21c and suggest what needs to go to 802.21m

##### Yoshi will also do the same for 802.21d

### 802.21m Teleconference (tentative):

* December 16 (Tuesday), 10 am, EDT

## 802.21.1 closing note (DCN 21-14-0177-00-SAUC-closing-notes)

### TG 802.21.1 had three sessions during this meeting

### Following topics were presented and discussed:

* Use cases of MIS framework to cooperate with SDN wireless access networks (DCN- 21-14-0157-00 and 01)
* Proposed Text of “Radio Resource Management Service” Section for IEEE 802.21.1 Draft Standard (DCN- 21-14-0158-00-SAUC)
* Proposed Text of “D2D Communications Service” Section for IEEE 802.21.1 Draft Standard (DCN 21-14-0159-00-SAUC)
* Proposed text to initiate network assisted D2D communication for IEEE 802.21.1 Draft standard (DCN 21-14-0164-00)
* Media Independent Service Use Case for Open Screen Service Platform (DCN-21-14-0163-00-SAUC)

### 802.21.1 Teleconference (tentative):

* January 5 (Monday) 8am-10am EDT

## Teleconferences

### 802.21d SBRC Teleconferences:

* December 5 (Friday) 8am-10am EDT
* January 6 (Tuesday) 8am-10am EDT

### 802.21m Teleconference:

* December 16 (Tuesday), 9am-10 am, EDT

### 802.21.1 Teleconference:

* January 5 (Monday) 8am-10am EDT

### Teleconference (Tentative)

* (none)

### Plan for next meeting

# Future Sessions

## Future Sessions – 2015

### List of upcoming sessions

* **Interim: 11-16 January, 2015, Hyatt Regency, Atlanta, GA, USA**
  + Co-located with all 802 groups
* **Plenary: 8-13 March, 2015, Estrel Convention Center and Hotel, Berlin,** 
  + Co-located with all 802 groups
* **Interim: May 10-15, 2015, Hyatt Regency Vancouver** 
  + Co-located with all wireless groups
* **Plenary: 12-17 July 2015, Hilton Waikoloa Village, Hawaii, USA** 
  + Co-located with all 802 groups
* **Interim: September 13-18, 2015, Asia (Centara World, Bangkok)**
  + Co-located with all 802 wireless groups
* **Plenary: 8-13 Nov 2015, Hyatt Regency Dallas, TX, USA**
  + Co-located with all 802 groups

### Discussion about San Antonio venue

* + Food has been very good
  + Networking was good
  + Recommended for return

## Future Sessions – 2016

* **Interim: 11-16 January, 2016, Hyatt Regency, Atlanta, GA, USA**
  + Co-located with Wireless groups
* **Plenary: 13-18 March, 2016, Sands Venetian Hotel, Macau, PRC** 
  + Co-located with all 802 groups
* **Interim: May 15-20, 2016, Hilton Waikoloa Village, HI, USA**
  + Co-located with all wireless groups
* **Plenary: 24-29 July 2016, Grand Hyatt, San Diego, USA** 
  + Co-located with all 802 groups
* **Interim: September 2016, Europe (TBD)**
  + Co-located with all 802 wireless groups
* **Plenary: 6-11 Nov 2016, Grand Hyatt, San Antonio, TX, USA**
  + Co-located with all 802 groups

## Future Session notifications

* Jan. 2015 Interim Meeting in Atlanta: Collocated with all 802 groups, and there is no penalty if hotel room reservations are canceled prior to 6 pm eastern time on date of arrival.
* March 2015 Plenary Meeting in Berlin: Hotel room reservations can be cancelled free of charge until 4 weeks prior to arrival date.

# Future Project Discussion

* WG is open for any new project proposal
* Subir Das, the Chair of 802.21 WG encouraged WG members to propose new projects and/or to propagate the call for new project proposal.

# Attendance

|  |  |
| --- | --- |
| Chen Lidong | NIST |
| Choi Jin Seek | Hanyang University |
| Das Subir | Applied Communication Sciences |
| Hanatani Yoshikazu | Toshiba Corporation |
| Khatibi Farrokh | Qualcomm Incorporated |
| Lee Hyeong-Ho | ETRI |
| Ohba Yoshihiro | Toshiba Corporation |
| Randall Karen | NSA/IAD |

# The meeting was adjourned at 2:35 pm

 

## 

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

# Tuesday, AM1 Meeting, November 4, 2014

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

Minutes are taken by Yoshihiro Ohba.

## Meeting Agenda (21-14-0160-01) is presented by the Chair

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

Agenda was approved with no objections.

## Meeting Minutes Approval

The following meeting minutes were approved:

DCN 149r0: September meeting minutes

DCN 156r0: SBRC teleconference minutes

## Opening Notes (21-14-0161-00) 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.

There are three comments to resolve.

Commentary file: DCN 21-14-0142-04.

## Sponsor Ballot comment resolution

The group discussed the following three remaining Sponsor Ballot comments.

- Comment i-12: The group agreed to adopt DCN 21-14-0151-04 about certificate revocation list, which added support for X.509 CRL.

- Comment i-36: Hana presented DCN 21-14-0152-03 about revised security processing diagrams. A typo was found. The group agreed to adopt DCN 21-14-0152-04 fixing the typo.

- Comment i-115: Hana presented DCN 21-14-167-00 about revised flow charts. GroupKeyUpdateFlag is used in the primitive but it does not need to be carried in the message. The “step” tags are for specification verification purpose and shall be removed from the figures. Comment i-68 is superseded by this comment.

Hana mentioned he has more contributions related to Bloom Filter. The group agreed to discuss the contributions, once submitted, in Thursday AM1 slot.

The group also agreed to cancel Wednesday AM2 slot for 802.21d.

Meeting recessed at 10:00am.

# Thursday AM1 Meeting, November 6, 2014

## Meeting called to order by Chair at 08:05

## Comment Resolution

### Comment i-12

Hana presented two documents (DCN 21-14-0173-01 and DCN 21-14-174-00) related to Comment i12.

10% reduction of over-the-air communications worth supporting the proposed schemes.

There was a question as to which scheme should be mandatory or optional. The group does not have good understanding of actual deployment to answer the question. A profile will need to be developed anyways to use 802.21d, and such a profile can determine which option shall be used. In that case, making all three schemes optional should be fine.

The group agreed to accept DCN 21-14-174-00 as remedy for Comment i-12.

It was also agreed that DCN 21-14-0173-01 (power point containing data size comparison) can be used as s supporting document during recirculation.

### Comment i-115

Hana presented DCN 21-14-167-01 related to Comment i-115 about fragmentation.

The group agreed to accept DCN 21-14-167-01 as remedy for Comment i-115.

The group addressed all comments.

## Closing Note by Chair

Chair presented closing note (DCN 21-14-175-00).

The following two motions will be brought to the WG in Closing Plenary.

* Move to authorize the P802.21d Editor to accept the resolution described in DCN 21-14-0142-07 and produce P802.21d/D07
* Move to authorize the P802.21 WG Chair to initiate a Sponsor Ballot re-circulation for P802.21d/D07.

The following Sponsor Ballot Resolution Committee calls are tentatively scheduled:

* December 5 (Friday) 8am-10am Eastern Time
* January 6 (Tuesday) 8am-10am Eastern Time

## Meeting adjourned at 10:05am.

 

Meeting Minutes of the IEEE P802.21m Task Group

Chaired by Subir Das

# Tuesday, AM2 Meeting, Nov 04, 2014 (10:30-12:30 pm)

## Meeting called to order at 10:32 am.

## Chair walked through the document [DCN: 21-14-067-08- REVP] and displayed the changes as completed by Charlie.

It was mentioned that Charlie did a very good job in creating this document.

Q: What is Comment [CEP]?

Comment [CEP] means work to be done or it needs to be revisited.

Chair mentioned about the dependencies on 802.21.1. As soon as 802.21.1 decides the use cases, things will move from this document to 802.21.1. It was also mentioned that no WG LB will be initiated before 802.21.1 draft is ready.

Q: It was not clear for others on how much of amendment texts from 802.21a and 802.1b. Chair mentioned that he would verify with Charlie and also seek help from him.

Chair discussed the next steps about this TG and asked for volunteers. During September Interim meeting this was also discussed and few members like Yoshihiro Ohba, Antonio De La Oliva expressed their desire to help. Antonio can do the final editing if TG tells him what to do and add to the document. There was rough consensus that this needs to be done as a group rather than assigning al responsibilities to a single person.

Chair requested Yoshihiro Ohba to review the DCN: 21-14-067-08- REVP and report to the TG on Thursday.

Chair indicated that according to Charlie, there are no major issues but there are minor issues: for example, cross-reference, whether to use the word ‘Subclause’ when using a section cross reference. However, Chair will make an attempt to discuss with Charlie to clarify things before Thursday session.

# Thursday, AM2 Meeting, Nov 06, 2014 (10:30-12:30 pm)

## Meeting called to order at 10:35 am.

Chair was able to discuss with Charlie TG was able to get the update from him. After the discussion, Yoshihiro Ohba presented his review on reviewed DCN: 21-14-067-08- REVP that was captured in DCN: 21-14-0169-00-REVP

It was felt that 802.21c has some common parts that can go to 802.21m specification.

It was decided to remove the section on ‘what is not listed?’

It was mentioned that there will be a requirement in creating a permanent IEEE URL storing the MIIS Basic Schema. There is a need to discuss this point with IEEE-SA.

Several next step discussion took place and following action items were taken:

Charlie will upload latest documents, DCN 0067-09 and DCN 0121-03

Charlie will also review 802.21c and suggest what needs to go to 802.21m

Yoshi will also do the same for 802.21d

Teleconference Date: December 16, 2014, 9-10am, US EST (Tentative)

Meeting was adjourned at 11:40pm.

 

IEEE P802.21.1 Media Independent Services and Use Cases

Meeting Minutes of the IEEE P802.21.1 Task Group

Chair: Subir Das

# Meeting Minutes of the IEEE P802.21.1 Task Group

## Monday, PM1 Meeting, November, 03, 2014 (1:00-3:00 PM)

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

Jin Seek Choi presented DCN: 21-14-0157-00-SAUC

Title:Use cases of MIS framework to cooperate with SDN wireless access networks

Q: Slide #8: Co-location does not impact the Standard. It is an implementation issue? Is it correct?

A: MIS does not allow the resource allocation. So this is needed. However, it is true that there is no need to standard amendment.

Q: Slide #10: It is shown there is signaling between MIS PoS and SDN controller. Let’s say, we do not have MISF. In SDN, there will be a way to configure the SDN Controller. Are you suggesting that MISF replaces the SDN controller configuration function?

A: SDN does not provide the mobility or handover.

Q: But you are not providing mobility or handover here?

There were discussions for understanding the relevance of the MISF here. What are the functionalities that are needed from MISF? What are the controller functions that are added to SDN controller?

A: The proposed approach is to show how MISF can work with SDN

Q: Why can’t 802.21 be implemented independently within an SDN framework? Why the separation is needed? What is the problem?

A: Proposal is that if SDN adopts MISF, several options are available to them.

Q: Is there any Standardization issue for option #1?

A: No, and no changes to 802.21.

Q: Is there any Standardization issue for option #2?

A: There may be but not obvious.

Comment: It is not clear that there is no changes are required for option #2.

Q: Is there any Standardization issue for option #3?

A: Yes, this is an integrated scenario.

Comment: Option #3 is a big task. Option #1 can work as it is and it is an implementation issue.

Comment: TG wants to see more call flows for Option #2.

Comment: TG supports having a use case of SDN

Authors will present more call flows for Option #2.

Hyeong Ho Lee presented 21-14-0158-00

Title: Proposed Text of “Radio Resource Management Service” Section for IEEE 802.21.1 Draft Standard

Q: Is there any MAC changes required to enable this scenario?

A: Most likely not. Only mapping is required.

Q: Is MISF residing in Access Controller?

A: Yes

Authors were requested to outline the dependencies, if there is any, with lower layers.

It was mentioned that only mappings are required.

TG thinks that this may be another use case but it is little bit in a slippery slope. Without knowing how the individual radios do their power management and dependencies with the lower layers, it is hard to finalize the decision. The danger is if we suggest something that will neither be achievable nor the way each lower layer does, the document may not be approved during ballot. Authors were encouraged to elaborate these details and present in future meetings.

## Tuesday, PM1 Meeting, November, 04, 2014 (1:30-3:00 pm)

## Meeting called to order by Chair at PM

Hyeong Ho Lee presented 21-14-0159-00

Title: Proposed Text of “D2D Communications Service” Section for IEEE 802.21.1 Draft Standard

Q: Why Query\_D2D-Tech\_List is required during discovery?

A: MN wants to know the peer’s tech list.

Q: Do we need the tech list during registration? How is the above primitive being used during discovery?

A: It seems duplicated. Discovery may be required for special case.

Q: Why can’t we do this during discovery? Why do we need two times?

A: Yes, it could be done at the discovery time.

Q: It should be either one. Not required during initial time and discovery?

A: It seems that we do not need. This will be updated.

Q: In the case of Off-network, do we still need three-stages; discovery, setup and connection?

A: No registration, just setup and connection.

Q: But there has to be a discovery.

A: Yes.

Q: Off-network, the clarification is required.

A: It will be done

Q: What is MIS\_D2D\_Connection request?

A: This is a request to change the connection

Q: How does Mobile Node know the D2D\_PeerID?

A: It assumes that MIS knows this info

Authors will revise the documents and present it in next meeting. It was suggested to clarify things and present it again. TG has consensus to adopt this use case.

Jin seek Choi presented an updated version of DCN: 21-14-0157-01-SAUC

There were many discussions on the new call flows.

Comment: This does not require any changes to Standards. However, it was decided to capture the use cases. Option #1 and #2 should be included as an appendix but Option #3 should be included since it requires integration with SDN group. Authors will update the document and bring to the next meeting.

## Thursday, AM1 Meeting, November 05, 2014 (10:30-12:30 pm)

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

Hyunho Park presented DCN: 21-14-0163-01-SAUC

Title: Media Independent Service Use Case for Open Screen Service Platform

Q: What is Open Screen Service?

A: This is a project under which the IOT services are investigated.

Comment: The service definition and some detailed description would be helpful?

Q: What can’t this be done by applications?

A: Author thinks that this may be done better using media independent services.

Comment: It was recommended to present this kind of use cases in 802.24 IoT service subgroup once it is created. It will be a stretch to add all these uses cases in 802.21.1. Authors were encouraged to present their research results in future meetings.

Hyunho Park presented DCN: 21-14-0164-01-SAUC

Title: Proposed Text of “D2D Communications Service” Section for IEEE 802.21.1 Draft Standard

Q: In Figure 2, why do we need step 2? It should be under discovery step.

A: PoS needs to initiate this.

Comment: Normally this is done at discovery stage. So this step should be merged within discovery.

Author has agreed to do this next time after discussing with other D2D presentation.

Teleconference Date: January 05 (Mon), 2015, 8-10 am EST (tentative)