IEEE P802.22 Wireless RANs

|  |
| --- |
| 2017 March Plenary IEEE 802.22 Working Group Minutes |
| Date: 2017-03-13 |
| Author(s): |
| Name | Company | Address | Phone | email |
| Apurva Mody | BAE Systems/ WhiteSpace Alliance | Merrimack, NH, USA | 404-819-0314 / 603-809-0459 | apurva.mody@baesystesms.com; apurva.mody@WhiteSapceAlliance.org  |
| Oliver Holland | King’ s College, London |  |  | oliver.holland@kcl.ac.uk 3 |

**IEEE 802.22 Wireless Regional Area Networks**

**Notice:** This document has been prepared to assist IEEE 802.22. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

**Release:** The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE’s name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE’s sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.22.

**Patent Policy and Procedures:** The contributor is familiar with the IEEE 802 Patent Policy and Procedures

<[**http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf**](http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf)>, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair Apurva N. Mody <**apurva.mody@ieee.org**> as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.22 Working Group. **If you have questions, contact the IEEE Patent Committee Administrator at <****patcom@ieee.org****>**.

Abstract

This document contains the minutes of the IEEE 802.22 Working Group 2017 March Plenary Meeting held in Vancouver from March 13th to March 16th 2017.

**March 2017 Plenary Meeting**

**MINUTES**

##### 13th March Monday PM1 (WG Opening Plenary)

The WG chairman, Dr Mody, called the meeting to order at 1:30 PM local time. There were 9 participants (5 are voting members) in the room at the opening of the session.

WG announced that the meeting was in quorum since it was announced more than 45 days in advance.

**1.1 Approval of Agenda**

**The WG chair, Dr. Mody, explained agenda for the plenary session in San Antonio.**

***Motion - Approval of Agenda***

Move to Approve the Agenda as shown in Document 22-16-0029 Rev1

(<https://mentor.ieee.org/802.22/dcn/17/22-17-0002-01-0000-802-22-march-plenary-working-group-agenda.xls>)

Move: Jerry Kalke

Second: Roger Hislop

For: 4

Against: 0

Abstain: 1

**Motion Passes**. Agenda is approved

**1.2 Approval of the minutes of the last session**

The minutes of the 802.22 November 2017 WG Plenary Meeting can be found at:

<https://mentor.ieee.org/802.22/dcn/16/22-16-0034-01-0000-802-22-november-plenary-meeting-minutes.docx>

***Motion- Approval of Minutes***

Move to approve the 802.22 WG March Plenary meeting minutes held in Macau as shown in Document 22-16-0034 Rev1

(<https://mentor.ieee.org/802.22/dcn/16/22-16-0034-01-0000-802-22-november-plenary-meeting-minutes.docx>)

Move: Roger Hislop

Second: Jerry Kalke

For: 4

Against: 0

Abstain: 1

**Motion Passes**. Minutes are approved

**Working Group Motions**

The IEEE 802.22 Vice Chair slot has been open since Dr. Changwoo Pyo vacated that position.

The 802.22 Working Group gave an acclamation to Dr. Pyo and his leadership to complete the 802.22b Amendment on Enhanced Broadband and Monitoring Applications.

**MOTION – ELECTION OF THE VICE CHAIR TO 802.22 WORKING GROUP**

MOTION TO ELECT THE VICE CHAIR OF 802.22 WORKING GROUP

To elect Oliver Holland, King’s College London, as the Vice-Chair of 802.22

Move: Jerry Kalke

Second: Mike Cotton

For: 5

Against: 0

Abstain: 1

Motion Passes

**2. Administrative Issues**

The WG Chair, Dr. Mody, reviewed the usual administrative slides on Patent Policy, Letter of Assurance, Anti-trust statement, IEEE code of ethics, etc.

The WG Chair, Dr. Mody, reminded everyone that the attendance recording is being done electronically as usual.

##### 13th March Monday PM2 – Spectrum Characterization and Occupancy Sensing

The working group started addressing and resolving various comments that were received on the IEEE 802.22.3 Draft 1 Working Group Letter Ballot.

##### 14th March Tuesday AM2

The working group started addressing and resolving various comments that were received on the IEEE 802.22.3 Draft 1 Working Group Letter Ballot.

##### 14th March Tuesday PM1 – IEEE 802 ISO/IEC/JTC1 Standing Committee

Apurva N. Mody, the Chair of the 802.22 Working Group attended the ISO/IEC/JTC1 Standing Committee. The chair provided the status to the committee on various 802.22 Working Group activities.

The status presentation may be found in the Opening Report:

<https://mentor.ieee.org/802.22/dcn/17/22-17-0017-00-0000-802-22-march-plenary-working-group-opening-report.ppt>

##### 14th March Tuesday PM1 - Spectrum Characterization and Occupancy Sensing

The working group started addressing and resolving various comments that were received on the IEEE 802.22.3 Draft 1 Working Group Letter Ballot.

##### 14th March Tuesday PM2 – 802.24

Members of the 802.22 Working Group attended the 802.24 Meeting on Internet of Things.

##### 15th March Wednesday AM1 Spectrum Characterization and Occupancy Sensing

The working group started addressing and resolving various comments that were received on the IEEE 802.22.3 Draft 1 Working Group Letter Ballot.

##### 15th March Wednesday AM2 Spectrum Characterization and Occupancy Sensing

The working group started addressing and resolving various comments that were received on the IEEE 802.22.3 Draft 1 Working Group Letter Ballot.

##### 15th March Wednesday PM1 Mid-week Plenary and Spectrum Characterization and Occupancy Sensing

The working group started addressing and resolving various comments that were received on the IEEE 802.22.3 Draft 1 Working Group Letter Ballot.

##### 15th March Wednesday PM2 – 802.24

Members of the 802.22 Working Group attended the 802.24 Meeting on Internet of Things.

##### 16th March Thursday AM1 – IEEE 802.22 Revision

Following motions were passed during the Thursday, AM1 Time Slot from 8 am to 10 am local time for the IEEE 802.22 Revision.

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0024-00-0000-correction-item-5.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0024-00-0000-correction-item-5.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: Oliver Holland

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0025-00-0000-correction-6.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0025-00-0000-correction-6.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: Oliver Holland

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0027-00-0000-correction-8-upstream-block-sizes-doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0027-00-0000-correction-8-upstream-block-sizes-doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: Oliver Holland

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0029-00-0000-correction-9-padding-for-octet-slot-and-block-alignment.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0029-00-0000-correction-9-padding-for-octet-slot-and-block-alignment.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: Oliver Holland

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0030-00-0000-correction-12-table-5-errata.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0030-00-0000-correction-12-table-5-errata.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: Oliver Holland

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0031-00-0000-correction-13-padding-at-end-of-ds-sub-frame.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0031-00-0000-correction-13-padding-at-end-of-ds-sub-frame.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: Oliver Holland

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0032-00-0000-correction-21-ofdm-slot-concatenation.docx**](https://mentor.ieee.org/802.22/dcn/17/22-17-0032-00-0000-correction-21-ofdm-slot-concatenation.docx) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: Oliver Holland

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0033-00-0000-correction-22-cbc-req-rsp-information-elements.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0033-00-0000-correction-22-cbc-req-rsp-information-elements.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: William Suriaputra

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0034-00-0000-correction-23-mac-version-redundancy-removal.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0034-00-0000-correction-23-mac-version-redundancy-removal.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: Olliver Holland

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0035-00-0000-correction-24-reg-req-rsp-information-elements.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0035-00-0000-correction-24-reg-req-rsp-information-elements.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: Oliver Holland

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0036-00-0000-correction-25-rng-cmd-information-elements.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0036-00-0000-correction-25-rng-cmd-information-elements.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: William Suriaputra

For: 5

Against: 0

Abstain: 1

Motion passed

**Move to approve the changes as suggested in Document** [**https://mentor.ieee.org/802.22/dcn/17/22-17-0037-00-0000-correction-26-station-id-and-flow-id-modifications.doc**](https://mentor.ieee.org/802.22/dcn/17/22-17-0037-00-0000-correction-26-station-id-and-flow-id-modifications.doc) **to be incorporated in the 802.22 Revision Draft.**

Move: Jerry Kalke

Second: William Suriaputra

For: 5

Against: 0

Abstain: 1

Motion passed

##### 16th March Thursday AM2 – IEEE 802.22 Closing Plenary

The WG chairman, Dr Mody, called the meeting to order at 10:30 AM local time. There were 6 people in the room at the time of 802.22 WG Closing Plenary.

Following motions were passed during the IEEE 802.22 Working Group Closing Plenary

**The WG authorizes the Chair of 802.22 to act as a liaison with 1900.7, in consultation with the IEEE-SA to find ways to synergise the activities.**

Moved: William Suriaputra

Seconded: Jerry Kalke

Discussion: None

For: 5

Against: 0

Abstain: 1

**Approve the WG Chair appointing the following slate of participants to be the Working Group Voting Members based on their continued participation and contribution to the IEEE 802.22 Revision.**

Gerald Chouinard (Amerisys)

Ivan Reede (Amerisys)

Ranga Reddy (Self)

Move: Ken Baker

Second: Jerry Kalke

Discussion: None

No votes against or abstain. Unanimously passed.

**Move to authorize the 802.22 WG chair to schedule teleconference meetings as he sees fit to conduct the business of 802.22 WG from now until November 2017 plenary meeting.**

Move: Jerry Kalke

Second: Oliver Holland

For: 5

Against: 0

Abstain: 1

Motion Passes.

**Move to authorize the 802.22 WG Chair, and the Editor to issue the first 802.22 Revision Draft on or before June 8th 2017 based existing contributions, and start the first working group letter ballot before June 9th 2017.**

Move: Oliver Holland

Second: Jerry Kalke

For: 5

Against: 0

Abstain: 1

Motion Passes.

**By virtue of continued contribution to 802.22.3 TG the WG Chair appoints Gianfranco Miele to be voting member of 802.22 WG.**

Moved: Ken Baker

Seconded: William Suriaputra

Discussion: None

Unanimously approved

**To authorize the Chair to initiate the 802.22.3 PAR modification process if needed, on or before June 9 2017 based on the comment resolution and after all the considerations of the rules of 802 and information from the IEEE-SA Liaison are taken into account.**

Moved: Ken Baker

Seconded: Mike Cotton

Discussion: None

For: 5

Against: 0

Abstain: 1

**Vancouver Location Survey**

Much prettier than expected.

Easy to get to for US participants.

In general good location for future meetings.

**Motion– Motion to adjourn**

Move to adjourn.

Move: Jerry Kalke

Second: Mike Cotton

Any discussions, Any objections.

**Motion Passes.**

The group was adjourned at 11:30 am local time on Thursday 10th November 2016.

**802.22 Attendance List**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bottom of Form

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| [**SA PIN**](https://imat.ieee.org/802.22/attendance-summary?o=5a&b=2457580%2079199&d=2457946%2079199) | [**Name ▲**](https://imat.ieee.org/802.22/attendance-summary?o=0d&b=2457580%2079199&d=2457946%2079199) | **Current Involvement Level** | **Nov 2016** | **Mar 2017** |
| 90257 | Baker, Ken | Observer | [122%](https://imat.ieee.org/802.22/breakout-attendance?p=2204700005&t=9025700001) | [100%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=9025700001) |
| 87588 | Cotton, Michael G | Observer | [122%](https://imat.ieee.org/802.22/breakout-attendance?p=2204700005&t=8758800001) | [100%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=8758800001) |
| 86935 | Finch, Robert | Observer | [11%](https://imat.ieee.org/802.22/breakout-attendance?p=2204700005&t=8693500001) |  |
| 83410 | Furuichi, Sho | Observer |  | [78%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=8341000001) |
| 87266 | Hislop, Roger | Observer | [122%](https://imat.ieee.org/802.22/breakout-attendance?p=2204700005&t=8726600001) |  |
| 15014 | Holland, Oliver | Observer | [33%](https://imat.ieee.org/802.22/breakout-attendance?p=2204700005&t=1501400001) | [111%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=1501400001) |
| 25852 | Kalke, Jerome | Voting Member | [133%](https://imat.ieee.org/802.22/breakout-attendance?p=2204700005&t=2585200001) | [122%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=2585200001) |
| 79679 | Khambekar, Nilesh | Observer | [100%](https://imat.ieee.org/802.22/breakout-attendance?p=2204700005&t=7967900001) |  |
| 91065 | Miele, Gianfranco | Observer |  | [111%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=9106500001) |
| 3751 | Mody, Apurva | Voting Member | [111%](https://imat.ieee.org/802.22/breakout-attendance?p=2204700005&t=375100001) | [44%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=375100001) |
| 11740 | Sasaki, Shigenobu | Voting Member |  | [22%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=1174000001) |
| 22997 | Sato, Naotaka | Observer |  | [22%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=2299700001) |
| 34008 | Sun, Chen | Observer |  | [78%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=3400800001) |
| 89766 | Suriaputra, William | Observer | [89%](https://imat.ieee.org/802.22/breakout-attendance?p=2204700005&t=8976600001) | [100%](https://imat.ieee.org/802.22/breakout-attendance?p=2386700005&t=8976600001) |

 |

**ANNEX**

**Working Group Contributions can be found at** [**https://mentor.ieee.org/802.22/documents**](https://mentor.ieee.org/802.22/documents)