

May 2008

**Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)**

**Submission Title:** [Call for opinions on VHT and TG3C activities]

**Date Submitted:** [1 June 2008]

**Source:** [Shu Kato]      Company [NICT]

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**Re :** [802.15.3c Call for opinions and conference call]

**Abstract:** [IEEE 802.15 Task Group has been calling opinions on VHT and TG3c activities and setting a conference call]

**Purpose:** [Calling for opinions on VHT and TG3C activities to prepare a face to face meeting planned on July 14 evening]

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# Call for Opinions and Planned Conference Call

- We will have a conference call with VHT people on June 19 and also a face to face meeting in Denver on Monday, July 14 evening as shown in page 10.
- For these, this is to call for your opinions on VHT (refer to the attached liaison report (802.15-08/382r0)) and TG3C activities. Please forward your opinions on this issue to Shu Kato (shu.kato@nict.go.jp), Vice-Chair, IEEE802.15.3c Task Group (TG3C) if you have any opinions by following the guidelines shown below.
  1. Call for opinions on VHT and TG3C activities - to be forwarded to Shu Kato (shu.kato@nict.go.jp) by June 6 AOE
  2. TG3C conference call on June 11, 7:30 AM in JST (June 10, 23:30 in UK, June 10, 6:30 PM in EDT)
  3. The opinions received by June 6 will be tabulated and distributed for the conference call, 24 hours in advance
  4. The conference call logistics will be delivered later

[VHT liaison report] presented at  
Closing Plenary on May 15, 2008  
by James Gilb

15 May 2008 doc.: 802.15-08/382r0  
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**Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)**

**Submission Title:** [VHT liaison report]

**Date Submitted:** [15 May 2008]

**Source:** [James P. K. Gilb]

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**Re:** []

**Abstract:** [Report on the activities of VHT during the May 2008 session.]

**Purpose:** [This document provides a list of the editing staff that will be working on 802.15.3c.]

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# VHT overview

- VHTL6
  - < 6 GHz operation, excluding 2.4 GHz
  - Targets > 1 Gb/s **aggregated** throughput, > 500 Mb/s for a single STA
  - Looking at 80 MHz channel w/ 4x4 or 4x5
- VHT60
  - 60 GHz operation
  - Target > 1 Gb/s throughput
  - Wants to re-use 802.11 upper layers
  - Perhaps use .11 to set up 60 GHz links

# Key actions during the week

- SG approved both PARs/5Cs to be considered at mid-week plenary
- VHTL6 failed to achieve 75% at the mid-week plenary
- VHT60 was tabled until closing plenary
- SG made updates to both PARs/5Cs and approved submitting at closing plenary
- VHT60 will be voted on first in the closing plenary

# VHT60 Scope

- The scope of this project is to define an amendment that shall define standardized modifications to both the 802.11 physical layers (PHY) and the 802.11 Medium Access Control Layer (MAC) to enable operation in the 60 GHz frequency band (typically 57-66 GHz) capable of very high throughput. The MAC and PHY specified in this amendment:
  - Enable a maximum throughput of at least 1 Gbps, as measured at the MAC data service access point (SAP)
  - Enable fast session transfer between PHYs
  - Maintain the 802.11 user experience
  - Address coexistence with other systems in the band

# Additional information for Scope

5.2) Fast session transfer between 60 GHz and 2.4/5 GHz bands will enable typical WLAN coverage for multi-band devices. However, this does not imply that devices must be multi-band. The amendment will specify a mechanism for multi-band devices.

It is in the best interest of users and the industry to strive for a level of coexistence between wireless systems. VHT will investigate coexistence with other systems in the 60 GHz band.



# 5C items

... This will be supported by maintaining backwards compatibility to previous 802.11 standards like: 802.11 i/w for security, 802.11s for mesh networking, 802.11 k/v for network management and much more. ...

Although this amendment proposes to use the same spectrum as the proposed IEEE 802.15.3c PHY, this work will create a solution compatible with existing IEEE 802.11 deployments.

# Upcoming actions for 802.15.3c

- Review current PAR, document 11-08-0223-05-0vht
- Joint conference call, 802.11 VHT and 802.15.3c, (19 June 2008, 11 am EDT)
  - Discuss issues relating to PAR
- Joint 802.11/802.15.3c session, Monday evening in Denver (14 July 2008)
  - Comments on PAR due Tuesday, 15 July 2008

# Fun bits

- An individual suggested that they could improve the speed of IEEE process if majority voting was used for VHT
  - Discussion followed of how it could be changed
  - This would require changes in the SA rules