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| Project | **IEEE 1900.7 Radio Interface for White Space Dynamic Spectrum Access Radio Systems Supporting Fixed and Mobile Operation <**http://grouper.ieee.org/groups/dyspan/7/index.htm**>** | |
| Title | Convergence sublayer | |
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| Re: | In response to open call for contributions IEEE 1900.7-12/0063r00 | |
| Abstract | This provides a detail explanation for PHY, MAC, convergence sublayers within reference model for 1900.7 network | |
| Purpose | To be discussed and adapted by WG for draft 1900.7 standard | |
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# Convergence sublayer

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# Introduction

# This contribution a detail explanation for Convergence sublayer for 1900.7 network.

# Text Proposal in IEEE 1900.7 Draft

Note:

The text in **BLACK** color: the existing text in the Draft

The text in **~~RED~~** color: the removal of existing text in the Draft

The text in **BLUE** color: the new text added to the Draft

3. Reference model



Figure : Reference Model of the IEEE 1900.7 station

**[*Remedy 1: Replace the existing text with the following in 1900.7 Draft*]**

*[-------------------------------------------------Start of Text Proposal---------------------------------------------------]*

1. 1. Network reference model



Figure : Network Reference Model of the IEEE 1900.7 station

Figure 2 describes a simplified network reference model. Multiple RS or MS may be attached to a BS. MS communicate to the BS over the WS interface.

* + 1. MS and BS Interface

TBD

* + 1. Management SAP (M-SAP)

The Management SAP may include, but is not limited to primitives related to the following:

* System configuration
* Monitoring statistics
* Notifications/Triggers
  + 1. Control SAP (C-SAP)

The Control SAP may include, but is not limited to primitives related to the following:

* Handovers
* Subscriber and Session management
* Security context management
* Radio Resource Management
* AAA (Authentication, Authorization, and Accounting) server signaling, etc.

1. Convergence sublayer
   1. General convergence sublayer

The Convergence sublayer (CS) resides on top of the MAC sublayer. The CS

shall perform the following functions:

* Receiving higher-layer packet protocol data units (PDUs) from the higher layer
* Classifying the higher-layer PDUs into the appropriate connection
* Delivering the resulting CS PDUs to the appropriate service flow through MAC SAP
* Receiving the CS PDUs from the peer MAC SAP

The sending CS is responsible for delivering the MAC Service Data Units (SDUs) to the MAC SAP. The MAC is responsible for delivery of the MAC SDU to peer MAC SAP in accordance with the QoS, fragmentation, concatenation, and other transport functions associated with the service flow characteristics of a particular connection.

The receiving CS is responsible for accepting the MAC SDU from the peer MAC SAP and delivering it to a higher-layer entity.

*[-------------------------------------------------End of Text Proposal----------------------------------------------------]*

# References

[1] IEEE 1900.7-12/0063r00, “Open call for contributions”

[2] IEEE 1900.7-12/0041r01, “Reference Models and Management Model”

[3] IEEE 1900.7-13/0059r00, "Draft 1900.7 standards/D2"