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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 | PHY, MAC, Convergence sublayer within Reference Models |
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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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# PHY, MAC, Convergence sublayer within Reference Models

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# Introduction

# This contribution a detail explanation for PHY, MAC, convergence sublayers within reference model for 1900.7 network.

# Text Proposal in IEEE 1900.7 Draft

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

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

**5.3.1 PHY, MAC and Convergence sublayer**

The MAC CPS provides the core MAC functionality, manages the system access, including bandwidth allocation, connection management. Data from various CSs goes through MAC SAP and is channelled into various MAC connections.

The PHY includes specifications appropriate to a particular frequency range and application. The PHY specifications are discussed in section 9.

**5.3.2 Security sublayer**

The security sublayer shall guarantee the integrity of the system, shall provide authentication, secure key exchange, and encryption.

**5.3.4 Interface with TV WS database**

The white space database SAP provides the interface to TV WS database which is implementation specific.

**5.3.5 Interface with geolocation device**

This interface consists a set of functions for information exchange with the geolocation device to get the geolocation information. This interface shall follow the IEEE 1900.6a standard.

**5.3.6 Optional Interfaces**

The 1900.7 also specifies three optional interfaces to exchange the information with sensing device, external WS management and WS coexistence system.

- Interface with spectrum sensing device: TBD

- Interface with external WS management: this interface shall follow the 1900.4a standard.

- Interface with WS coexistence system: this interface shall follow the 802.19.1 standard.

*[-------------------------------------------------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 1900.7-13/008r00, "Draft 1900.7 standards"