

29.1	How does 802.11 addresses simulation?	open	In-Prog.
Anx. A	Issues related to Func. Reqs.	open	none

Issue Identification: 1.5 (Topic: 'Standard' Process).

- Is the protocol model, as generated during the July 1992 meeting, to be adopted by 802.11 ?

Alternatives:

- 1) - yes
- 2) - no

References:

- 1) - P802.11-93/140 - MAC/PHY Functional Partitioning
- 2) - P802.11-93/115 - Protocol Layering Alternatives for Practical Implementation
- 3) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments

General:

1.0) - Motion to revise our reference model as proposed in P802.11-93/140 (Reference #1) without the PHY convergence layer and adopt the described approach to refine the MAC/PHY interface and proposed to close this Issue (1.5) by referring to the adopted model. Modify the adopted model such that the Medium Independent sublayer is also removed. - Result (MAC/PHY Group) - Yes-20, no-8, abstain 2.

Amend the amended proposal by assuring that the DCE/DTE interface remains as an optional interface. - Result (MAC/PHY group) - Yes-26, no-9, abstain-9.

2.0) - Modify the current model with the NAC containing the following:

- MAC containing a PHY independent entity
- PMA (PHY Medium adaptation)
- PHY (Medium dependent)
- DTE/DCE interface between PMA/PHY

This proposal failed to pass during the plenary. - Result yes-9, no-4, abstain-4.

Pro:

2.1) - There should be a medium-dependent subdivision added to the MAC (suggested name: 'Physical Medium Adaptation Layer'), and the subdivision of the PHY should be eliminated. This is discussed in detail in the P802.11-93/115 document (Reference #2)

2.2) - There should be a PHY dependent layer added to the MAC and the exposed interface should be specify as placed between MAC and PHY.

2.3) - A reference model with improved features for describing the 802.11 MAC/PHY relationship is proposed in this document (Reference #3).

Con:

Related Issue Identification:

Issue Originator: Simon Black

Issue History:

July 1992: First opened

September 1993: Alternative #1 & #2, Reference #1 & #2, Argument_general #1.0 & 2.0, and Argument_pro #2.1 & 2.2.

November 1993: Reference #3 and Argument_pro #2.3

Issue Status: Open

Issue Identification: 3.1 (Topic: Marketing).

What is the impact of the MAC implementation complexity in regard of 'time-to-market' ?

Alternatives:

- 1) - See the CODIAC protocol proposal - Reference #1

References:

- 1) - The CODIAC Protocol - Centralized or Distributed Integrated Access Control (CODIAC), A Wireless MAC Protocol
- 2) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments:

General:

1): - (Reference #2) - An increase in complexity cannot help, and can hurt, "time-to-market." In a similar manner, an increase in complexity of the specification of the mechanisms needed to support a variety of diverse PHYs under a single MAC protocol cannot help, and can hurt, implementation complexity. While the standard does not define implementation, the simpler the descriptive model and the resulting specifications are, the greater the potential for simplified implementation.

Pro:

1.1) - The CODIAC protocol can be implemented in many levels of complexity. Where time-to-market is of primary concern; a simple implementation could be chosen to accomplish this.

Con:

Related Issue Identification:

Issue Originator:

Issue History:

May 1992: Date first opened.

May 1993: Alternative #1, Reference #1 and Argument_pro #1.1

November 1993: Reference #2 and Argument_general #1.

Issue Status: Open

Issue Identification: 12.1 (Topic: Interfaces).

What is the MAC/PHY interface ?

Alternatives:

1) - A Parametric MAC-PHY Interface Model (Document P802.11-92/99). The paper defines a first cut of defining 'a universal MAC structure, or "load-able" state machine topology. The initial means to conceptualize this MAC structure is by defining a set of PHY independent primitives at the MAC-PHY interface'.

2) Document P802.11-92/100 - Proposed WLAN Architecture.

The paper addresses the following interfaces and Service Access Points (SAPs):

- MAC/PHY logical interface with a MAC-PHY / Medium Independent PHY Layer SAP boundary and a Local Management (PHY specific) / Medium Independent PHY Layer SAP boundary..
- DTE/DCE Interface optional exposed at the Medium Independent PHY Layer / PHY boundary

3) Document P802.11-92/125 - MAC/PHY Interface Specifics in Support of the Use of a Parameter Service Access Point Approach to PHY Independence.

This paper proposes "two Service Access Points between the MAC and PHY":

- The Data Service Access Point (DSAP). It "supports the transmission of normal data packets called MAC Protocol Data Units (MPDU)".
- The Parameter Service Access Point (PSAP). It "supports interactions between the MAC and PHY that can happen on a frame by frame basis in order to improve the ability of stations to access the medium.

4) - Separate data and Management paths support the Data Service Access Point (DSAP and the parameter Service Access Point (PSAP).

5) - MAC/PHY service primitives at the PHY Service Access Point (SAP) (Reference #5):

- PH-DATA-Request (Class, data)
- PH-DATA-indication (class, data)
- PH-DATA-confirm (Status)

6) - The MAC/PHY interface is generally a DTE/DCE interface of the type discussed previously (Reference #6) for the 'optionally exposed interface' between the 'convergence layer' and the 'medium independent layer' within PHY.

7) - The bulk of the paper (Reference #7) describes this MAC/PHY interface

8) - (Reference #8) - The MAC/PHY Interface is the (optionally exposed) DTE/DCE interface that is located between the Physical Medium Adaptation layer of MAC and the Convergence layer of PHY. This interface provides data and parameter transfer facilities that are functionally, electrically and mechanically (if exposed) medium-independent. However, the information transferred over this interface may be medium-dependent subject to the functions performed in the Physical Medium Adaptation layer.

References:

- 1) - P802.11-92/99 - A parametric MAC-PHY Interface Model
- 2) - P802.11-92/100 - Proposed WLAN Architecture
- 3) - P802.11-92/125 - MAC/PHY Interface Specifics in Support of the Use of a Parameter Service Access Point Approach to PHY Independence.
- 4) - P802.11-93/146 - The Need for MAC Data Delimiters in the PHY.

- 5) - P802.11-92/162 - MAC-PHY Service Primitives - Proposed Starting Point Text for Section 6 of Document P802.11/20 [Draft 802.11 Standard].
- 6) - P802.11-93/115 - Protocol Layering Alternatives for Practical Implementation.
- 7) - P802.11-93/140 - MAC/PHY Functional Partitioning
- 8) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments:**Pro:**

- 1.1) - The solution proposed (P802.11-92/99) 'is put forward to overcome the dependency of MAC in PHY implementation techniques. In this way, the idea of a universal MAC can be accomplished. The solution also frees the constraints placed on the system implementors to adopt a particular PHY (?) structure so as to utilize the common MAC hardware. Thus, diverse PHY media such as IR, Sonics and Radio can benefit from the scale economy in the MAC hardware production.
- 2.1) - This paper (P802.11-92/100) captures the sense of the July [1992] discussion.
- 3.1) - The solution proposed (P802.11-92/125) that with 'this simple method a significant amount of flexibility is introduced into the MAC/PHY interface and into the MAC's ability to successfully achieve media access':
 - Low cost in terms of MAC complexity
 - Flexibility to take advantage of emerging technologies
 - Critical to achieving the operation of multiple PHYs using a single MAC.
- 4.1) - It is agreed with support of the parametric MAC-PHY interface model in concept if not in detail. A similar model of this type of interface is the PCMCIA Socket Services.
- 6.1) - The functions at the MAC/PHY interface as described in Reference #6 are:
 - Serial transmit and receive bit streams, using clocks provided by the PHY;
 - Direct control and status signals from transmitter and receiver enable clear-to-send, carrier-sense, and receive-data-enable;
 - Serial command transfers from MAC to PHY for functions such as:
 - setting power levels;
 - setting transmit bit rate;
 - setting receive thresholds and acceptable quality levels;
 - defining Listen-Before-Talk (LBT) deferrals;
 - setting frequencies; and
 - requesting a status transfer; and
 - Serial status transfers from PHY to MAC pursuant to request for information such as receive signal quality, receive bit rate, and PHY specific parameter values.

Con:**Related Issue Identification:****Issue Originator:****Issue History:**

May 1992: First opened

November 1992: Alternatives #1, 2 and 3, Argument-pro #1, 2 and 3 and References 1 to 3.

July 1993: Alternative #4 and Argument_pro #4.1.

September 1993: Reference #4, #5, #6 and #7. Alternative #5, #6 and #7, Argument_pro #6.1. The 802.11 committee agreed that the service primitives described in Alternative #5 and in Reference #5 shall be included in the 802.11 Draft Standard - *Motion: Move to adopt the service primitives as described in Document 93/162 (reference #5) as the service primitives for the PH SAP associated with*

data transfer between MAC and PHY. Those primitives have previously been described in P802.11-92/96, -92/119. - Result (in joint MAC/PHY group): yes-42, no-0, abstention-0.
November 1993: Alternative #8 and Reference #8.

Issue Status: Open

Issue Identification: 12.1A (Topic: Interfaces).

What is the MAC Management/PHY interface?

Alternatives:

1) - (Reference #1) - The MAC Management/PHY interface takes place through the Physical Medium Adaptation Layer. The PMA layer accepts MAC Management information presented at the Parameter Service Access Point (PSAP) in a medium-dependent manner for transfer across the DTE/DCE interface to PHY.

References:

1) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments:

Pro:

Con:

Related Issue Identification:

1) - 12.1 (Interfaces)

Issue Originator: - F.Y. Simon

Issue History:

September 1993: Date first opened

November 1993: Alternative #1 and Reference #1.

Issue Status: Open

Issue Identification: 12.1B (Topic: Interfaces).

What is the Station Management/PHY interface?

Alternatives:

Arguments:

Pro:

Con:

Related Issue Identification:

1) - 12.1 (Interfaces)

Issue Originator: - F.Y. Simon

Issue History:

September 1993: Date first opened

Issue Status: Open

Issue Identification: 12.2 (Topic: Interfaces).

- What interfaces are exposed:
 - MAC/PHY ?
 - Distribution System Services (DSS) ?
 - Distribution System Media (DSM) ?

Editor's note: Ref: 29 (92/58R1)

Editor's note: 11/92 - Break-up of the issue in 3 parts: 12.2_A, 12.2_B, 12.2_C

12.2_A - MAC/PHY?

Alternatives:

- 1) Yes - but optional

Arguments:

Pro:

- 1) Standards defines interfaces, implementation can expose or not expose the interface based on implementation choices - vendors cannot be forced to expose an interface.
However, if the interface is exposed, it must conform to the standard specified interface to claim conformance to the standard.

Con:

Related Issue Identification:

Issue Originator:

Issue History:

May 1992: First opened

November 1992: Alternative #1, Argument-pro #1 and closure of the Issue by a motion to recommend that 'DTE/DCE interface be defined and exposable and that this interface be between the Medium Independent PHY layer and the PHY medium Dependent layer'. Result: yes-23, no-0, abstention-2

Issue Status: Close

12.2-B - ~~Distribution System Services?~~

- Are the infrastructure interfaces exposed? (see Argument-pro #1.2 below).

Alternatives:

- 1) - Yes - The interfaces to the Distribution System Services (DSS) need to be exposed.

References:

- P802.11-92/128 - IEEE 802.11 Distribution System Services Functionality

Arguments:**Pro:**

1.1) - The closure of Issue 5.1 (Distribution Systems) mandates that the standard will specify the Distribution System (DS) interfaces. Therefore, for this specification to be useful, the interfaces must be exposed.

1.2) - To make this Issue (12.2-B) more accurate, the current Issue statement is to be replaced by: 'Are the infrastructure interfaces exposed?' where infrastructure is defined as follow:

The infrastructure includes Distribution System (DS), Access Points (APs) and Portals functions. An infrastructure contains one or more APs and zero or more Portals in addition to a DS. Within the infrastructure there are two exposed interfaces:

- a) - between Stations (STAs) and APs; and
- b) - between APs and DS.

Additionally, DS services are provided between pairs of 802.11 MACs.

Con:**Related Issue Identification:**

- 1) - 5.4 (Distribution Systems)
- 2) - 5.1 (Distribution Systems)

Issue Originator:**Issue History:**

May 1992: First opened

November 1992: Alternative #1, Reference and Related Issue.

January 1993: Change of the Issue statement - Arguments-pro #1 and 2 - Adoption of the Alternative (#1) and the definition of Infrastructure (see argument-pro #1.2).-Result: yes-13, no-0, abstain-2.

Issue Status: Close

12.2_C - Distribution System Media?**Alternatives:**

1) No - It is not necessary for this to be exposed; the standard will not specified the 'internal' of the Distribution System (DS) (see Issue 5.1).

References:

- P802.11-92/128 - IEEE 802.11 Distribution System Services Functionality

Arguments:

Pro:

Con:

Related Issue Identification:

- 5.1 (Distribution Systems)

Issue Originator:**Issue History:**

May 1992: First opened

November 1992: Alternative #1, Reference and Related Issue.

Issue Status: Open

Issue Identification: 12.3 (Topic: Interfaces).

What is the intelligence level at the MAC/PHY interface ?

Alternatives:

- 1) - Dumb interface
- 2) - Smart interface
- 3) - Half-dumb interface
- 4) - Simple
- 5) - Unintelligent

References:

- 1) - P802.11-93/40 - The Wireless Hybrid Asynchronous Time-bounded MAC Protocol
- 2) - P802.11-93/115 - Protocol layering
- 3) - P802.11-93/140 - MAC/PHY Functional Partitioning
- 4) - P802.11-93/146 - The need for MAC data Delimiters in the PHY Partitioning Alternatives for Practical Implementation
- 5) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments:

General:

- 1.0) - The function distribution between MAC and PHY should be such that :
 - The PHY should generate the preamble upon a MAC command.
 - The PHY should generate and detect the start and end delimiters, and should indicate this to the MAC.
 - The PHY should be able to detect the proper bit rate of an incoming signal, when it is supporting multiple bit rates.
 - A signalling field in the PHY preamble will allow future enhancements and proprietary functionality in the PHY.

- 2.0) The MAC/PHY interface should assume a "dumb" PHY. A single MAC can be designed to work effectively with different "dumb" PHY implementation.

Pro:

- 1.1) - Dumb is simple, easy to implement, assumed cheap.
- 1.2) - Dumb must, at least, detect Service Request type
- 1.3) - [Dumb] is desirable to have the PHY 'blind' to the type of data that passes thru it. - PHY must not be required to understand the meaning of bits that passe thru it.
- 1.4) - Minimum needs:
 - Received signal quality
 - Transmit level
 - Handshake
 - Desire to minimize DC power consumption

- 2.1) - Smart is flexible
- 2.2) - Smart may be required if the interface has options
- 2.3) - Smart may be required for one MAC for multiple PHY requirement
- 2.4) - Real time constraints motivate more smarts in the PHY
- 4.1) - A few generic primitives with parameters to control specific PHYs.
- 5.1) - The MAC-PHY interface is an 'unintelligent' interface, permitting a single, 'intelligent' MAC with a replaceable PHY adaptation function to directly attach, both logically and electrically, to a plurality of different PHY types.

5.2) - (Reference #5) - The MAC/PHY interface is an "unintelligent" interface, permitting the common MAC, adapted through the Physical Medium Adaptation layer to encompass the intelligence. This facilitates simple attachment of a wide variety of different PHY types.

Con:

3.1) 'Half-dumb' should not be considered - 'Dumb is Dumb'

Related Issue Identification:**Issue Originator:****Issue History:**

May 1992: First opened

November 1992: Alternatives #1 to #3, Arguments #1.1 to #1.4 and #2.1 to #2.4 and Argument #3.1.

March 1993: Alternative #4 - Reference #1 - Argument_pro #4.1.

September 1993: Alternative #5, Reference #2 to #4, Argument_general #1.0 & #2.0 and Argument_pro #5.1.

November 1993: Reference #5 and Argument_pro #5.2

Issue Status: Open

Issue Identification: 12.4 (Topic: Interfaces).

Is the layer that provides the PHY independence the same as the MAC/PHY interface ?

Alternatives:

- 1) - The Issue is also addressed in Issue 12.1; Alternatives #1, 2 and 3.
- 2) - No

References:

- 1) - P802.11-92/99 - A parametric MAC-PHY Interface Model
- 2) - P802.11-92/100 - Proposed WLAN Architecture
- 3) - P802.11-92/125 - MAC/PHY Interface Specifics in Support of the Use of a Parameter Service Access Point Approach to PHY Independence.
- 4) - P802.11-93/115 - Protocol Layering Alternatives for Practical Implementation.
- 5) - P802.11-93/140 - MAC/PHY Functional Partitioning
- 6) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments:

Pro:

2.1) - (Reference #4) - The independence is implemented in a subdivision of MAC dedicated to PHY adaptation. This permits processing of the relevant information from received frames, after MSDU acceptance and validation by the receiving MAC. This is done without an extra mechanism to return this data to PHY for processing.

2.2) - (Reference #5) - The PHY independence is achieved in a PHY dependent sub-layer within the MAC. This must be a sub-layer because it adds and removes fields in the MSDU header. This must be a MAC function because it involves transfer of the PHY specific information to a peer sublayer and the information is best sent in the protected portion of an MPDU. It also requires formatting and interpreting the MSDU header, which should only be done by the MAC.

2.3) - (Reference #6) - This independence is implemented in a Physical Medium Adaptation layer within MAC. There is also a provision for medium-independent interface functions in the Convergence layer within PHY to facilitate a common representation of items that are common to a plurality of PHYs. This partitioning permits generation of PHY-specific MPDUs for transmission and the processing of PHY-specific information from received MPDUs above the address recognition and FCS validation level. This is done without requiring the passing of information from MAC to PHY and back to MAC to achieve the necessary PHY-specific processing.

Con:

Related Issue Identification:

- 1) - 12.8 (Topic: Interfaces)
- 2) - 12.1 (Topic: Interfaces)

Issue Originator: Dave Bagby

Issue History:

May 1992: First opened

November 1992: Alternative and Related Issue #2

September 1993: Alternative #2, References #4 & #5, and Argument_pro #2.1 & #2.2.

November 1993: Reference #6 and Argument_pro #2.3.

Issue Status: Open

Issue Identification: 12.5 (Topic: Interfaces).

- What entities (other than LLC) will the standard support as MAC layer user ?

Editor's note: Ref: 87 (92/58R1)

Alternatives:

Arguments:

Pro:

Con:

Related Issue Identification:

Issue Originator: John Corey

Issue History:

May 1992: First opened

Issue Status: Open

Issue Identification: 12.6 (Topic: Interfaces).

- What are the MAC services provided to the LLC ?

Editor's note: Ref: 38 (92/58R1)

Alternatives:

Arguments:

Pro:

Con:

Related Issue Identification:

Issue Originator:

Issue History:

May 1992: First opened

Issue Status: Open

Issue Identification: 12.7 (Topic: Interfaces).

- What is the definition of the MAC/LLC interface for Time-bounded services ?

Editor's note: Ref: 36 (92/58R1)

Alternatives:

Arguments:

Pro:

Con:

Related Issue Identification:

- 15.3 (Topic: Services)

Issue Originator:

Issue History:

May 1992: First opened

Issue Status: Open

Issue Identification: 12.8 (Topic: Interfaces).

Does a PHY independence layer need to be specify in the MAC ?

Alternatives:

- 1) - Yes
- 2) - No

References:

- 1) - P802.11-93/40 - The Wireless Hybrid Asynchronous Time-bounded MAC Protocol
- 2) - P802.11-93/115 - Protocol Layering Alternatives for Practical Implementation.
- 3) - P802.11-93/140 - MAC/PHY Functional Partitioning
- 4) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments:

Pro:

- 1.1) - See Reference #2
- 1.2) - See Reference #3
- 1.3) - See Reference #4

Con:

Related Issue Identification:

- Issue 12.1 (Interfaces)

Issue Originator:

Issue History:

May 1992: First opened

November 1992: Related Issue ID.

March 1993: Alternatives #1 and 2 - Reference #1.

September 1993: References #2 & #3 and Argument_pro #1.1 & #1.2.

November 1993: Reference #4 and Argument_pro #1.3.

Issue Status: Open

Issue Identification: 12.9 (Topic: Interfaces).

Should data and control information be passed simultaneously across the MAC / PHY logical interface ?

Alternatives:

- 1) - Yes
- 2) - No

References:

- 1) - P802.11-93/115 - Protocol Layering Alternatives for Practical Implementation.
- 2) - P802.11-93/140 - MAC/PHY Functional Partitioning
- 3) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments:

Pro:

1.1) - It was decided that there should be two separate, independent, bidirectional information paths between the MAC and PHY, one for data and one for management/control. This implies that data and control information can be passed simultaneously.

1.2) - See Reference #1

1.3) - See Reference #2

1.4 - (Reference #3) - Two separate SAPs are available for this purpose, a Data Service Access Point (DSAP) for data and a Parameter Service Access Point (PSAP) for parameters and management information.

Con:

Related Issue Identification:

Issue Originator: Dave Bagby

Issue History:

May 1992: Date first opened

July 1993: Alternative #1 and #2 and Argument_pro #1.1.

September 1993: References #1 & #2 and Argument-pro #1.2 & #1.3.

November 1993: Reference #3 and Argument_pro #1.4.

Issue Status: Open

Issue Identification: 12.10 (Topic: Interfaces).

What specific parameters the MAC requires from the PHY?

Alternatives:

References:

1) - P802.11-93/147 - The Importance of Short Rx-Tx Turnaround time.

Arguments:

Pro:

Con:

Related Issue Identification:

Issue Originator: - W. Diepstraten

Issue History:

September 1993: Date first opened - Reference #1.

Issue Status: Open

Issue Identification: 15.4 (Topic: Services).

What are the services or functions unique to wireless networks ?

Alternatives:

- 1) - The "mobile Connectivity" requirement is unique to wireless networks. The requirement refers to the ability to transparently handle intermittent connectivity as a unit transitions cells.
- 2) - "Hidden Station" characteristic is also a unique problem to wireless LANs.
- 3) - The 802.11 standard must provide a level of security equivalent to wired network physical security to avoid compromising security assumptions of existing LANs.
- 4) - Overlapping networks.
- 5) - (Reference #2) - MAC-visible, time-variant medium usage.

References:

- 1) - P802.11-92/128 - IEEE 802.11 Distribution System Services Functionality
- 2) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments:

Pro:

- 3.1) - The Alternative (#3) is expected to be low cost.
- 3.2) - The Alternative (#3) is acceptable as long as the feature is optional. Making the Alternative mandatory may prevent exportation of 802.11 compliant systems.
- 5.1 - (Reference #2) - In the addition of the items already listed for this Issue (Alternatives #1 to #4), the existence of MAC-visible, time-variant medium usage as a characteristic of a PHY is unique to wireless networking (and unique to Frequency Hopping PHYs among those currently under consideration by 802.11).

Con:

- 3.1) - The implementation of the Alternative (#3) may be costly at higher PHY rates.

Related Issue Identification:

Issue Originator:

Issue History:

May 1992: First opened

November 1992: Alternatives #1 and 2 and Reference.

January 1993: Alternative #3 - Arguments-pro #3.1 and 3.2 - Arguments-con #3.1 - Taken a 'straw poll' regarding Alternative #3:

- How many would like Alternative #3 as a mandatory minimum requirement?: result - 5
- How many would like Alternative #3 as an optional minimum requirement?: result - 12
- How many do not want Alternative #3?: result - 1

May 1993: Alternative #4.

November 1993: Alternative #5, Reference #2 and Argument_pro #5.1.

Issue Status: Open

Issue Identification: 24.3 (Topic: PHY Types).

How multiple PHY support for the MAC be specified ?

Alternatives:

- 1) - In the MAC Layer
- 2) - In the PHY adaptation layer at the bottom of MAC (see Reference #2).
- 3) - In a PHY dependent MAC sublayer (see Reference #3)
- 4) - In the Physical Medium Adaptation layer (see Reference #4)

References:

- 1) - P802.11-93/40 - The Wireless Hybrid Asynchronous Time-bounded MAC Protocol.
- 2) P802.11-93/115 - Protocol Layering Alternatives for Practical Implementation.
- 3) - P802.11-93/140 - MAC/PHY Functional Partitioning
- 4) - P802.11-93/204 - An Improved Reference Model for IEEE 802.11.

Arguments:

Pro:

1.1) - The intelligence should be in the MAC layer. There should be a PHY specific sub-layer in the MAC to accommodate different wireless PHYs. One way to provide parameters to the interface is to provide a field in the MAC header that is used to pass PHY specific information across the MAC/PHY interface, and from MAC to MAC. The WHAT protocol (see Reference #1) follows this approach.

2.1 - (Reference #2) - This adaptation layer processes PHY specific information, inserts and extracts such information to/from MAC headers being exchanged over the wireless media.

3.1) - (Reference #3) - A PHY dependent MAC sublayer will be defined that generates and processes PHY specific information in the MPDU header. There will also be a MAC management entity that implements certain PHY specific functions. The PHY layer will also include PHY specific and PHY independent sublayers.

4.1) - (Reference # 4) - The Physical Medium Adaptation layer within MAC processes PHY-specific information, and inserts / extracts such information to/from MPDUs being exchanged over the wireless media. The MAC and MAC Management functions are PHY-independent, while Physical Medium Adaptation layers are specific to a particular PHY.

Con:

Related Issue Identification:

- 1) - 12.1 (Topic: Interfaces)

Issue Originator:

Issue History:

May 1992: First opened

March 1993: Alternative #1 - Reference #1 - Argument_pro #1.1.

September 1993: Alternative # & #3, References #2 & #3 and Argument_pro #2.1 & #3.1.

November 1993: Alternative #4, Reference #4 and Argument_pro #4.1.

Issue Status: Open

Issue Identification: 25.8 (Topic: Channel).

What are the implications and associated details of Clear Channel Assesment?

Alternatives:

References:

Arguments:

Pro:

Related Issue Identification:

Issue Originator: PHY Group

Issue History:

Novemeber: Date first opened

Issue Status: Open