

IEEE 802.11
Wireless Access Method and Physical Layer Specifications

Title: **Bit Ordering**

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Abstract: **This paper proposes a tightening up of the definition of bit ordering within IEEE 802.11.**

1. Introduction

I have taken the bit order principle from the IEEE 802.3 standard (section 3.3), which I have copied almost word-for-word.

I have worked from reference document [1], section 4.1, Basic Frame Format.

2. Proposed Additions to the IEEE 802.11 specification document

2.1. Order of Transmission

Each octet of the MAC frame, with the exception of the Cyclic Redundancy Check (CRC), is transmitted low-order bit first, which is bit 0.

2.2. Type field format

Sub Type bits 0 to 3,
Compressed bit 4,
Encrypted bit 5,
Type bits 6 and 7.

2.3. Control Field Format

From AP bit 0,
To AP bit 1,
Retry bit 2,
Power Management Mode bits 3 and 4,
Elements present bit 5,
More bit 6,

Poll bit 7,
CF ACK bit 8.

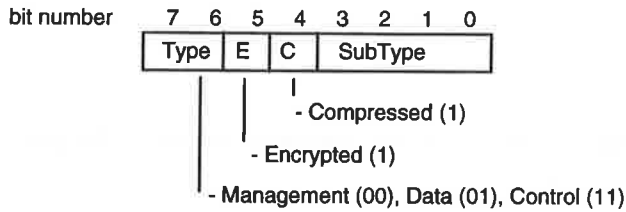
2.4 NID Format

BSSID bits 0 to 9,
ESSID bits 10 to 22,
Infra-structure bit 23.

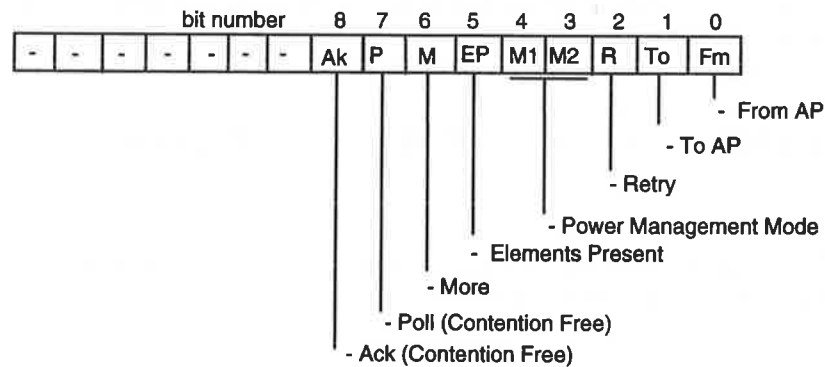
2.5. Frame Format Diagram



Type Field Format



Control Field Format



3. Conclusion

I would like the following motion to be made that:

"All the changes proposed above be made to the IEEE 802.11 draft specification".

4. References

[1] "Draft Standard IEEE 802.11 Wireless LAN", Doc IEEE P802.11-93/20b0.