IEEE P802.11
Wireless LANs

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| Clause 6 – Is it serving any real purpose?  |
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Abstract

Look at Clause 6 -

**Background:**

In writing some proposed new text, I realized I needed to add text to Clause 6. I then went through the “boiler plate” routine of writing 3 descriptions for each Request, plus the Response.

I then noticed that Clause 6 consumes 434 pages MORE THAN Clause 11 (398 pages) !!!

Boy, this must be good stuff, thinks I… then I realized that what I am adding, in fact, has no real value that I can see.

Hence, I gave myself the task of looking into this Clause further.

I am informed that it all comes from ITU-T X,210 dated 11/1993, in particular Clauses 6 and 7.

Anyhow, let’s look at what Clause 6 itself says.

6.1. Overview

First some acronyms:

SME – Station management entity

MLME – MAC sublayer management entity

PLME – PHY layer management entity

SAP – Service Access Point

The SME “talks” via SME-MLME SAP

**6.2 Generic management primitives**

This deals with MIBs and is

XX-GET to request the vaue of a MIBattribute

XX-SET to to request a MIB attribute is set to a given value.

Sequence is

XX-GET.request

XX-GET.confirm (success?)

XX-SET.request

XX-SET.confirm

**6.3 MLME SAP interface**

“These services are described in an abstract way…and do not imply any particular implementation….

MLME SAP primitives are of the general form

* ACTION.request primitive,
	+ Initiates request for a procedure
* ACTION.confirm primitive (for an exchange initiated by the SAP client)
	+ Reports result of request (success?)
* ACTION.indication primitive
	+ Result of receipt of request for procedure
* ACTION.response primitive (for an exchange initiated by the MLME)
	+ Initiate transmission of the requested procedure

Let’s look at “Associate”6.3.7. as example:

MLME-ASSOCIATE.request

**The primitive parameters number 27**. All described in detail, but (hopefully) the same as in table in the Association Request frame format. What’s new?

Now let’s look at the frame Association Request frame 9.3.3.5 **I see 45 fields in the framebody**

This is explained as follows:

*Additional parameters needed to perform the association procedure are not included in the primitive parameter list since the MLME already has that data (maintained as internal state)*

OK, but is this list checked and confirmed? I guess it is. But who makes that decision? For example, “Supported Channels” is present, but “Capabilities” and “Extended Capabilites” are not. What does it mean that the MLME already knows? The services *do not imply any particular implementation* so is this independent on implementation as to where certain parameters reside?

Then we have next the:

MLME-ASSOCIATE.confirm

Repeat the same 27 parameters as a list and then in detail in a Table, with STATUS.

Then we have next the:

MLME-ASSOCIATE.indication

Repeat the same 27 parameters as a list and then in detail in a Table.

Then we have the

MLME-ASSOCIATE.response

This is **not the Association Response**, it is the response to the MAC entity that ordered it. Again the list of parameters plus a “Result Code”.

**So I now ask, “where is the Association Request? Does the MAC see to that all on its own?**

Look at all the information in the tables (all 4 of them). Anything new?

**18 pages in all for Association Request !!!**

**Repeat this for Reassociation Request.**

**What about “responses” that provide information? Why does “Measurement Report” only have request and confirm?**

Am informed that MLME-SCAN is useful, but we have 11.1.4.3.2 Active Scanning procedure for a mon-DMG STA and 11.1.4.3.3 for DMG. Is this not good enough?

I am struggling to see why we have both Clause 6 and Clause 11. Clause 11 is readable.

**ARE OTHERS CONCERNED**

I would like to see if there is any support for the direction I am moving in.

I am not an expert in this ISO primitive stuff, so if it is essential for an 802.11 programmer, then OK, but I would then say that the “rules” need to be much better explained such that ordinary folk, such as myself, have a good idea of what to write in this Clause – because I am struggling and all I am proposing is pretty standard Action frame exchanges.

STRAW POLL

Should you agree that Clause 6 needs to be investigated as to:

1. Usefullness
2. Better clarification on how it is used (i.e., clear rules)
3. Accuracy
4. Possible obsolesence