An Approximate History of Internationalizing 802 Standards

Geoff Thompson

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This is my approximate history of the internationalization of IEEE 802 Standards

Any claims of specific accuracy are disowned, clouded by my terrible memory for dates and the mists of time.

Other views and recollections from different participants are welcomed!

(But I will probably fully use my 10 minutes.)

Early Days of 802

- About 1985 we started actually having published standards
  - 802.2 Logical Link Layer (Dave Carlson)
  - 802.3 CSMA/CD (Gary Robinson as VC)
  - 802.4 Token Bus? (Paul Eastman)
  - 802.5 Token Ring (Bob Donnan)
- 802 had interest of and ongoing liaisons w/ ECMA (Ingrid Fromm)

Status Quo, US work on ISO Stds

- US was very active in ISO/IEC
- ANSI held several “Secretariats” both for top level committee and sub-committees
- Country that holds Secretariat picks SC & WG chairs
- Funding for ANSI Int’l activities came directly from “big companies”, e.g.:
  - AT&T
  - IBM
  - DEC
  - H-P

More on Status Quo back then:

- US held ISO/IEC JTC1 SC6 Secretariat
- Charter of SC6 was “Lower 4 layers” (of the ISO 7-Layer Model)
- JTC1 was still hoping it was going to create & “own” standards for all the layers.
- It had not yet definitively lost to:
  - Ethernet/Token Ring
  - TCP/IP
  - SNMP

More on Status Quo back then:

- 802 Folks approached SC6 and cut a deal: Submit all 802 Standards & “supplements” as “new projects” (NPs) in SC6, WG1 & 3
- Int’l versions would be ISO/IEC 8802-n
- Would be jointly pub’d by IEEE & Geneva
  - 802.3 goes to WG3 (Physical Layer Grp)
  - 802.2, .5 go to WG1 (Layer 2)
  - (My memory hazy as to when 802.1 came in)

Big Company Funding Model Broke

- AT&T broke up, lost monopoly status
- IBM lost ownership of business computing
- DEC, going down w/ mini-computers
- H-P was not dominant in new market

- New Proposal: Assess fee on Stds participation “to fund ANSI secretariats”
  - $300 per company per year for corporate membership standards activities
  - $100 per 802 individual per plenary

Result of New Funding Model:

- More individuals than companies participating in standards
- 802 was providing lion’s share of the funding to ANSI for an extended period
- We got tired of doing more than our “fair share”
- Wasn’t clear to us (802) that ISO label for our standards was that valuable incrementally

Result of New Funding Model (2):

- 802 EC decided:
  - Quit mandating ISO submission of 802 Stds
  - Leave submission issue to individ. WGs
    - Stayed in: 802.2, dot3, dot5, dot11, dot12
    - Dropped out: 802.1, ???
  - Quit funding ANSI (w/ 1 year + notice)
  - Divert saved $$ to fund “free distribution of 802 standards”
  - Get to work convincing IEEE about free dist.

Result of New Funding Model (3):

- US/ANSI gave up Secretariat for SC6
- US TAG for SC6 was dissolved
- Vote on SC6 matters -> JTC1 TAG
- US vote on SC6 issues ::= Abstain
- Korea picks up SC6
- 802 Stds that go to Int'l go via:
  - Fast track process
  - Submitted via UK/BSI/Robin Tasker

Result of New Funding Model (4):

- System worked well but was “fragile”
- System was very low overhead
- “Get IEEE 802™” came into place and was/is wildly successful in terms of getting standards into the hands of students & developers everywhere in the world.
- UNTIL the NB of China rocked the boat

The “New System”

- Specific to WG3 <-> 802.3
  - (Not approved by ISO Central Office)
  - Quit publishing ISO version
    (couldn’t keep up, too complex a problem)
  - Go to Fast Track based system via BSI & JTC1
  - List ISO approvals on 802.3 web page & in book
  - Add ISO participants as “Int’l Observer” to .3
- TR 8802-1 supported similar system
- Things got sloppy

The fragility/China problem:

- Situation:
  - 802 has less influence than when SC6 was US chaired and had 802 participation.
  - US & 802 are not official participants in SC6.
  - We are no longer “familiar faces” in SC6
- China is (expected to be) a big player
  - China NB is a new, inexperienced player
  - China NB is being impatient and assertive about getting its due what it believes are its rights.

The Basic Problem:

- Fast track standards are (intended to be) previously approved national or regional standards.
- For an “orderly world”, amending those standards “should” be restricted to the “owning” agency for the base standard.
- China wants to amend a standard sourced from 802. (WAPI “instead of” 802.11i)

In Addition:

- Within ISO/IEC duplicate standards are considered to be a bad thing.
- Therefore, it is part of the job to “pick one”
- That process is, obviously, highly political.

Three Issues:

- Brand management (soft issue):

  If an “outsider” can attach itself to an “unowned” base then it can ride on the success of the base.

- Imperfect Layering:

  Amendments usually have to crack the base document to support themselves, or amdt precludes changes the formulating group wants to do for its own further changes.

- Management Integration

  Amendment management usually requires integration into management of the base standard

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THE END !!