

IEEE 802.1/IETF Discussion

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<http://www.drizzle.com/~aboba/IEEE/8021coord.ppt>

Attendees

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- Bert Wijnen bwijnen@lucent.com, IETF O&M AD
- James Kempf kempf@docomolabs-usa.com, IAB
- Bernard Aboba aboba@internaut.com, IAB
- Bill Arbaugh waa@cs.umd.edu, IRTF Mobility Co-Chair
- Dave Nelson dnelson@enterasys.com, RADEXT Co-Chair
- David Harrington dbh@enterasys.com

Current Trends

- The “joint participation” model has been the cornerstone of the IETF/IEEE 802 relationship.
- Recent events suggest the model is under stress with respect to IETF/IEEE 802.1 liaison activities.
 - Companies less willing to fund participation in both IETF and IEEE 802
 - Evidence: IETF Bridge MIB has not kept up with progress in IEEE 802.1
- How do we deal with this?
 - IETF WGs with liaison to IEEE 802.1 should consider scheduling interim meetings to coincide with IEEE 802.1 interims
 - Need to be able to provide IETF review without necessarily requiring publication of IEEE 802.1 MIBs as IETF RFCs

Case Study: SNMP MIBs for IEEE 802.1

- Observation
 - More energy in IEEE 802.1 than in IETF on IEEE 802.1-related SNMP MIBs
 - Need for review of IEEE 802 MIBs by IETF MIB doctors
 - IEEE 802.1X MIB doesn't compile
 - To be effective, MIB doctors need to be expert in the IEEE 802 technology that is the subject of the MIB
- Recommendation
 - Raise awareness of IETF MIB guidelines document
 - Select an editor for each IEEE 802.1 MIB
 - Publish the MIB as an Internet-Draft early on
 - Assign an IETF “MIB doctor” to review the MIB
 - Publish the MIB as an appendix within the IEEE 802.1 standard
 - If energy is available, request publication as an Informational RFC

Case Study: RADIUS attributes

- Observations
 - RADIUS understanding not as well distributed as SNMP MIB understanding
 - IETF review critical for quality control
 - Past history is uneven
 - RFC 3580 did not require creation of new RADIUS attributes or commands
 - Process worked well: publication as an Internet Draft and IEEE 802.1X appendix, IETF last call and publication as an RFC
 - IEEE 802.11f attempted to create new RADIUS attributes and commands, as well as to redefine meaning of existing attributes
 - An example of what *not* to do going forward!

Case Study: RADIUS Attributes (cont'd)

- Observations
 - RFC 3575 covers RADIUS IANA considerations.
 - New AAA commands cannot be designed in IEEE 802.
 - IEEE 802.1 only needs new attributes, not commands
 - IEEE 802.1 AAA appendices can only define attributes that relate to IEEE 802 work (IEEE 802 restriction)
 - In scope: attributes for VLANs, priority tagging
 - Out of scope: layer 3 attributes relating to IP filtering or Diffserv

Case Study: RADIUS Attributes (cont'd)

- Recommendations
 - IETF handles work on new AAA commands and service-types
 - Note: new commands currently precluded in RADEXT charter
 - IEEE 802 should review IETF AAA specifications relating to IEEE 802 technology.
 - IEEE 802 should publish all AAA appendices as Internet-Drafts well before sponsor ballot
 - Send I-D announcement to AAA-related WG mailing lists
 - IETF needs a “AAA doctors” group to help with review.
 - IETF should develop “AAA implementation errors and fixes” document.
 - AAA documents developed outside IETF often contain serious errors
 - Document would:
 - capture existing wisdom
 - address common implementation problems
 - provide guidelines for “AAA doctors” review
 - Provide advice on use of sub-types
 - Provide advice on design of VSAs

Questions

- What is the appropriate future split of AAA work between IEEE 802 and IETF?
- Is it the intent of IETF to handle all AAA work going forward, or just work on the RADIUS/Diameter protocols?
 - Attributes (“data”) versus commands
- Should IEEE 802 continue to use VSAs?
 - Should IEEE 802 deprecate existing VSA format (IEEE 802.11f)?
 - Answer: probably yes. Doesn’t make sense for each Task Group to define a different VSA format; single byte type code doesn’t make sense for all of IEEE 802.
 - Should future work use IETF standard attribute space, or should a new, more scalable IEEE 802 VSA space be used?
 - More discussion required.

Feedback?

