NASA Science Internet Project Office
Ames Research Center
Information and Communications Systems Division

FIRP Update

Milo Medin
Deputy Project Manager, NSIO
Moffett Field, CA 94035
medin@nsipo.nasa.gov

Spring '94 IETF
3/30/94
Seattle, WA

FIRP Charter

- Short and long term issues of internetworking standards
- Role of the TCP/IP and OSI Protocol suites
- Role of proprietary and consortia protocols
- Interoperability in the Federal community and beyond
- Federal networking requirements
- Economics of acquisition and use
- FIPS impacts (specification, testing, applicability)
- Protocol testing
- Federal investments in R&D and infrastructure

Membership

Diane Fountaine, Chair (DoD)

Jason Canon (Treasury)

Walter Houser (VA)

Thomas Rowlett (DOE)

MIchael Corrigan (GSA)

Richard desJardains (NASA)

William Hughes (NTIA)

Stephen Wolff (NSF)

Milo Medin (NASA)

Schedule

- Chartered by NIST (Sept. 93)
- First meeting (Oct 93)
- Held 8 meetings (Oct - Dec 93)
- Draft report for comment (Jan 94)
- Comments received (Feb 94)
- Final report (Apr 94)

Approach and Philosophy

- Interpret charter broadly
- Fix the process, not the specific symptoms
- Getting the agency’s job done is the most important goal
- Focus on the real end goal - interoperability
- Give agencies more discretion to solve their problems
- But hold them accountable for end effects, not check off items
- The Government should make decisions like business does, based on costs and benefits, not mindless pursuit of standards for standards sake!

Recommendations and Conclusions

- Role of oversight and integration across Federal agencies should be strengthened in the Office of Management and Budget (OMB)
- Roles and responsibilities for fostering standards should be refocused and strengthened in Commerce
- Roles and responsibilities for infrastructure development and operations should be defined and assigned through the Information Infrastructure Task Force (IITF)
- Roles and responsibilities of affinity groups should be defined and coordinated through Government Information Technology Services working group (GITS)

Recommendations and Conclusions

- Open, voluntary, international standards should be adopted and used by Federal agencies (from OMB circular A-119)
- The Internet protocol standards should be considered open, voluntary, international standards (specifically IETF standards)
- Current GOSIP policy should be modified by DoC to reflect a wider choice of technologies in the following hierarchy:

  - Open voluntary international standards

  - National voluntary and consortia standards

  - Proprietary standards with multinational prevalence
- No one protocol suite meets all the Government's requirements

Recommendations and Conclusions

- FIPS 146 should be rewritten (no longer called GOSIP) and recognize both the IP and OSI suites, including RFC 1006 and hybrid stacks
- FIPS 146 no longer mandatory (more on this later...)
- The ultimate aim is to converge to a single interconnected, interoperable standards-based network environment, that is a seamless part of the National Information Infrastructure

Comments on the FIRP

- 81 comments received
- Only a few Federal agencies commented
- US Organizations were 2 to 1 in favor
- Comments from outside the US were 3 to 1 against
- Strong negative comments from most “standards” organizations
- In general, real users and real vendors liked it, but “special interests” did not

Likely Changes

- Stress importance of convergence, and interoperability (most likely will occur in the IETF - that's where the "action" is)
- Reiterate the importance of recognition of the IETF and it's process
- IP and OSI will be "mandatory for consideration"
- Proprietary protocols will be "used as a last resort"
- Conformance testing isn't a Government requirement, but interoperability testing may be appropriate in certain cases
- International trade issues may cause additional work
- Steering role of the FIRP panel (at least temporarily)
- Reiterate the importance of the practical issue of security

Personal Comments to the IETF

- The battle is over - reason has (more or less) prevailed
- This battle was in reality over a long time ago
- A large CLNP infrastructure is unlikely to ever to deployed (this conclusion is in the report)
- The real “enemy” wasn’t OSI, it was and is proprietary systems
- The IETF needs to “move up the food chain” and address higher layer functionality (transaction processing, EDI, etc...) to displace proprietary systems
- Convergence will happen due to market forces, not Government fiat