

A DoD Statement on Open Systems Interconnection Protocols

Status of this Memo

This RFC reproduces a memorandum issued on 2-JUL-87 from the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence (ASDC31) to the Director of the Defense Communications Agency (DCA). This memo is distributed for information only. Distribution of this memo is unlimited.

Memorandum

There has been recent rapid progress in the specification and implementation of computer protocols based on the International Organization for Standardization model for Open Systems Interconnection (OSI). The Government OSI Profile (GOSIP), dated 22 April 1987, contains sufficient information to specify adequately and acquire interoperable vendor implementations of OSI message handling and file transfer capabilities. Therefore, the policy on standardization of host-to-host protocols for data communications, promulgated by USDR&E memo of 23 March 1982, is modified as follows. The OSI message handling and file transfer protocols, together with their underlying protocols as defined in GOSIP, are adopted as experimental co-standards to the DoD protocols which provide similar services (MIL-STDs 1777, 1778, 1780, and 1781). These OSI protocols may be specified in addition to, in lieu of, or as an optional alternative to DoD protocols, in cases where the current DoD protocol applicability statements apply. They are designated as experimental because of the limited operational experience currently available with the OSI protocols and the limited operational, testing, and security environment currently defined in GOSIP. Services and agencies choosing to implement OSI protocols at this time should carefully evaluate these factors and be prepared to deal with the complications which may accompany the introduction of new technology.

It is intended to adopt the OSI protocols as a full co-standard with the DoD protocols when GOSIP is formally approved as a Federal Information Processing Standard. Two years thereafter, the OSI protocols would become the sole mandatory interoperable protocol suite; however, a capability for interoperation with DoD protocols would be provided for the expected life of systems supporting the DoD protocols.

In order to extend the OSI protocol capabilities and provide

interoperability between the DoD and OSI protocols as rapidly as possible, the following actions are requested:

a. The Director, Defense Communications Agency, as the DoD Executive Agent for Data Communications Protocol Standards, should:

- * Publish by November 1987 the DoD-OSI Interoperability and Transition Plan. The plan should provide for interoperation of the DoD and OSI protocols at the application level. A capability for experimental interoperability of DoD and OSI message handling and file transfer capabilities should be provided by March 1988, and a limit operational capability by January 1989.

- * Join the Corporation for Open Systems (COS) as the Department of Defense representative. COS is a non-profit consortium formed to deal with testing and other operational issues relating to OSI protocols. At the request of the Office of Management and Budget, the Services and other defense agencies should not join COS directly, but may participate as the agents of DCA on appropriate COS committees.

- * Coordinate Service and agency participation, in accordance with existing directives, in groups developing OSI standards, specifications and operating and management procedures. These groups include the Government OSI User's Group, the National Bureau of Standards OSI Implementor's Workshop, the Corporation for Open Systems, the Manufacturing and Automation Protocol (MAP) and Technical and Office Protocol (TOP) user's groups, the American National Standards Institute X3S3 and X3T5 committees, and the NATO Tri-Service Group on Communications and Electronic Equipment, Sub-Group 9 (Data Processing and Distribution).

b. The Director, National Security Agency should assure that the efforts of the ongoing Secure Data Network Systems program can be used to provide the security extensions defined as future work items in GOSIP.

c. The Services and defense agencies should share the results and experience of early implementations under the experimental coexistence policy by actively participating in the groups indicated above, under DCA coordination. This experience should be particularly valuable in assuring that military requirements can be satisfied by the developing OSI standards, specifications, and procedures.

This guidance provides for the interim steps necessary to continue progress toward implementation of OSI standards. As the technology

matures and DoD gains additional experience, the final implementation details will be provided in a DoD Directive.

References

- [1] Dinneen, Memorandum of Dec 78, IEN-152.
- [2] Dinneen, Memorandum of Apr 80, IEN-152.
- [3] DeLauer, Memorandum of Mar 82, IEN-207.
- [4] Latham, Memorandum of Apr 85, RFC-945.