

Principle 5—Certify conformance

Openness of systems should be verified, validated, and ensured through rigorous and well-established assessment mechanisms, well-defined interface control and management, and proactive conformance testing. The PM, in coordination with the user, should prepare such validation and verification mechanisms as conformance certification and test plans to ensure that the system and its component modules conform to the external and internal open interfaces. This will enable plug-and-play of modules, net-centric information exchange, and reconfiguration of mission capability in response to new threats and technologies.

Identifying and Resolving MOSA Implementation Issues

The instruction memorandum stipulates that the MOSA implementation issues be identified and addressed through the integrated product team process and presented as issues to the MDA only when unresolved at a lower level. Examples of such issues are:

- Harsh environment within which a system must operate (e.g., excessive humidity or temperature extremes)
- Rigid requirements that call for design-specific solutions

- Absence of open standards or widely supported compliant products
- Very expensive test mechanisms
- Unforeseen performance or operational requirement changes that limit open systems development.

DoD programs must address MOSA early in the program and acquisition planning processes (at the concept and technology development phase) to expedite and maximize MOSA benefits. Concept studies should consider open systems implications on total ownership costs and development cycle time of alternative solutions. Moreover, if solutions call for commercial-off-the-shelf product use, system developers must ensure that the interfaces to such products remain open. Technology development projects should also, from the outset, identify the key interfaces between technology-embedded products to ensure continuing access to such technologies throughout the system life cycle.

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