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On the Interaction of Interoperability and Innovation

Introduction. The Department of Defense has made great progress in reducing the number of superfluous, redundant, or conflicting military specifications and standards. This action has had a salutary effect on defense acquisition, by moving the Department toward widely-adopted commercial standards and by forcing a review of the military-unique standards that must remain.

We have recognized that commercial industries have the same safety and reliability concerns we have, and that by leveraging the considerable investment in the private sector, we can achieve our goals at a reduced cost.

Standards do a nice job of defining interfaces. The National Electrical Code¹ describes common electrical interfaces. The standard defined by the National Television System Committee (NTSC)² describes the RF interface between televisions and those who deliver content.

Standards must be necessary and sufficient and no more.

Standards must foster innovation by describing interfaces and

We have standards for good reason. Standards prescribe interfaces that industry can

In our present business model, we buy components, not complete systems.

In a few cases, we are buying components, but are believing we are buying complete systems. An example of this is a ship procurement. The ship is a complete system as long as it does not need to communicate with others. If it must operate with others, it is part of a larger system. That implies that it is a module, or component. To effectively field that component, we must have well-defined and controlled interfaces to the outside world.

We are balancing the Government's interest in achieving modularity and interoperability with

¹ National Fire Protection Association, International. <http://www.nfpa.org/Codes/index.asp>

² National Television Standards Committee