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**Finding**

While the Office of Naval Research is conducting valuable research at the component level, system-of-systems integration to provide flexible and adaptive command and control (C2) is an area of limited emphasis, although it may in fact be the most critical C2 technology need.

**Recommendation**

A strong emphasis on the flexibility and adaptability of components for the Naval network should be put in place. The key to this idea of a flexible and adaptive network of systems, or system-of-systems, is being able to continuously move forward in the research and development of components for command and control (C2). These developing components should have a heavy focus on their ability to be integrated a continuously developing network of systems as to allow for simple, plug and play implementation. Commercial grade components should also be looked into and heavily tested for their ability to be implemented into the C2 network as to prevent reinventing the wheel and allowing for quicker implementation. To maintain the speed necessary for the system-of-systems to update to face newly found threats the components that are under development should be heavily invested in working with the network as it stands and as it may change, this primarily means that the component should be able to communicate over the network without disrupting the flow of traffic that exists and that may be added to the network at a later date. Without this focus and a continuously adapting design architecture the speed at which the system-of-systems can be updated will slow down as more and more components are added to this network. Trying to troubleshoot and otherwise rework the network to fit newly developed components will only hinder the overall growth of the system-of-systems. The Object Modeling Group (OMG) has been developing Model-Driven Architecture (MDA) to allow for rapid modification to software and algorithms to be used across a broader spectrum of computing platforms. This furthers the speed that software can be redeployed to computing systems.