12TH ICCRTS Adapting C2 to the 21st Century

Turning Networking Taxonomy Into an Architecture: A Division of Labor for Network Managers

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Abstract

As the US Military increases its dependence on computer and communications networks, it, too, increases its dependence on trained operators, managers and technicians. Currently, the training and detailing of such operators, managers and technicians is handled by individual units and rarely guided by the long-range needs of the services or any comprehensive acknowledgment of the increasing complexity and specialization of such training. A continued move deeper into Network-Centric warfare suggests that these specialists will be ever more in demand and their skill sets ever more critically required. Our current paradigm for network training emphasizes giving as many people as possible a shallow understanding of the entire problem space. This paper will suggest that a new paradigm is required, one that supplements this revolution in military affairs with a industrial revolution-style division of labor and skill set specialization, creating Network Operators, System Administrators and Maintainers/Troubleshooters with an increased depth of knowledge and understanding of their areas of responsibility. While such a move is retrograde to the current trend in military manning, it is neither without precedent nor unnecessary in the current environment.