12th ICCRTS "Adapting C2 to the 21st Century"

Information Assurance for Global Information Grid Net-Centric Enterprise Services

Track 8: C2 Technologies and Systems

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ABSTRACT

The capabilities offered by the Internet would be of significant use on the battlefield. The envisioned Global Information Grid (GIG), effectively a military version of the Internet, would be able to provide data-on-demand to soldiers. A well-connected military force could achieve an almost "god-like" knowledge of a hostile situation and have the ability to resolve it more effectively with less risk to American soldiers and equipment.

The Internet was not initially developed with security or assurance in mind at the level needed for the warfighter; attributes that are of paramount importance in situations where technological "glitches" can prove fatal. Despite this, the Internet has been a fantastic success, and there are many examples of well-engineered designs which should be applied to the military networks. Web services are providing a level of interoperability never before achieved. However, many of these web service protocols still do not provide an adequate level of security or assurance.

In this paper, we will discuss the applicability of the current web service protocols to the GIG. We will examine the merits and shortcomings of these protocols, and provide recommendations to improve these technologies to provide better levels of security and assurance for military operations.