13th CCRTS
“C2 for Complex Endeavors”

Title of Paper:
Using Web Service-Based Command and Control to Support Coalition Collaboration in C2 and Simulation

Suggested topics:
Topic 9: Collaborative Technologies for Network-Centric Operations
Topic 7: Network-Centric Experimentation and Analysis
Topic 11: Multinational Endeavors

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Using Web Service-Based Command and Control to Support Coalition Collaboration

Abstract

The NATO Modeling and Simulation Group Technical Activity 48 (MSG-048) was chartered to investigate the potential of a Command and Control (C2) Language for Multinational and NATO C2 collaboration using modeling and simulation. To achieve this, MSG-048 is using an emerging open technical standard based on the US Joint Battle Management Language (JBML) prototype Web services, enhanced to meet coalition requirements. An initial demonstration in December 2007 consisted of three different operational national C2 systems interoperating with three different national simulations, supported by the JBML Web services and a C2 Grammar GUI. In all, eight software systems from five nations successfully interoperated, showing a high likelihood that the approach used can be expanded to support a wide range of coalition collaboration. This capability was achieved in only six months, based on availability of an Internet Reference Implementation that all parties could use to test from their home laboratories, along with a high level of cooperation among technical personnel and military subject matter experts from all participating nations. This paper provides a description of the Web service-based language used, the architecture and components of the overall architecture (with focus on the XML-based language schema), and the operation Web services to support agile and flexible operations.

Suggested topics

- Collaborative Technologies for Network-Centric Operations
- Network-Centric Experimentation and Analysis
- Multinational Endeavors

Outline

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