
Applying Commercial XML Firewall Technology in Multinational Military Networks

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Abstract

With the increase of more economical and flexible web service technology, military organizations are adopting Service Oriented Architecture (SOA) concepts in the interest of improving information exchange. Web services are being envisioned to provide interoperability between US DoD systems and those of its multinational partners via XML vocabularies. As military systems become more service oriented, the need for secure web services arises. The use of XML firewalls shows promise for establishing secure routing and information exchange by providing an array of tools to filter data and to verify the integrity of information exchanged in these environments. In June of this year, we will be exercising and assessing commercially available XML Firewall technology in a multinational, military experiment called the Coalition Warrior Interoperability Demonstration (CWID). CWID is conducted annually to explore potential technological solutions to facilitate information exchange in multinational, military networks. This presentation will provide an introduction to XML Firewall technology and discuss the lessons-learned from our experimentation effort.

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The author did not prepare a paper for the proceedings.

Biography

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Mike holds a master's degree in Computer Science from the College of William and Mary. He has worked in parallel computing (languages and compilers) research at the NASA Langley Research Center and served on the Computer Science faculty at Hampton University in Virginia. Mike has been working with XML and related standards since 1999, and has been involved with the development of XML vocabulary and Schema specifications. In addition to XML technologies in general, his current interests also include web services, web ontology, and efficient interchange of XML infosets (i.e., "Binary XML"). Mike has been with MITRE, a not-for-profit corporation which manages Federally Funded Research and Development Centers (FFRDCs), since 1995. While at MITRE, he has focused on the area of information interoperability. Mike has been a key participant in an international forum for developing XML capabilities to support military information exchange in Joint and Coalition environments. In addition, he has been an active member of the W3C XML Binary Characterization Working Group and has served as a working note editor.

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Marshall Huss has been an Associate Technical Staff member with the MITRE Corporation since 2004. He joined MITRE after working two years with BAE SYSTEMS and has worked in software prototyping, experimentation and requirements testing for DoD projects over the past three years. While at MITRE, he has worked with applying XML Firewall and Really Simple Syndication (RSS) technologies to military information exchange. Marshall is a senior computer engineering and computer science double major at Christopher Newport University and serves as the President of the IEEE chapter established there this year.