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Network Enabled Abilities - Service-Oriented Architecture for civilian and military crisis management

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Foreword

This CEN Workshop Agreement has been developed by the CEN/ISSS Workshop on Network Enabled Abilities (WS/NEA), launched on 22 September 2004.

Workshop meetings took place on 24-25 November 2004 (Brussels), 2-3 February 2005 (Brussels), 2-4 May 2005 (Stockholm), 28-29 September (Brussels) and 7-8 February 2006 (Brussels).

An electronic endorsement process of the CWA, resulting from the last meeting, was organized, which started on 22 February 2006 and ended on 9 March 2006. This endorsement process demonstrated the consensus reached within the Workshop.

The final document was sent on 21 March 2006 to the CEN Management Centre for publication.

The document has been developed through the collaboration of a number of contributing partners, representing a wide mix of interests. The list of participants supporting this CEN Workshop Agreement is:

Bundesamt für Wehrtechnik und Beschaffung (Germany)
Bundeswehr IT-Office (Germany)
DGA, French Defence Standardisation Center
EADS Defence and Security Systems SA
EADS Deutschland GmbH
EADS Telecom
Eberhardt Consulting
Ericsson Microwave Systems AB
ESG Elektroniksystem- und Logistik- GmbH
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National Land Survey of Sweden
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Introduction

The overall strategic objective of this CEN Workshop Agreement (CWA) is to make more efficient use of multi-national resources in command and control of future European network centric operations (i.e. military as well as civilian operations), e.g. search and rescue operations and environmental protection operations. Such combined military and civil operations include armed forces, police, coast guard, and emergency agencies, etc. Network Enabled Abilities, NEA, address information system abilities for such network centric operations.

This CWA promotes a Service-Oriented Architecture to be used for Network Enabled Abilities, including the aspects to be considered during development and implementation. The Service-Oriented Architecture makes it possible to utilize resources anywhere in a network; they do not have to be channelled to a specific centre or command post.

This CWA promotes an open environment with utilization of common standards. Required functionality, such as maps, radar pictures, live video pictures, weather information, and use of various types of forces, is described as services. For each service, relevant standards, or the need for standards, are listed.

The name "Network Enabled Abilities" and the acronym NEA was chosen in 2001 to also include homeland security and civil emergency operations and, at that time, the discussion on network centric operations was mainly military driven. Today, NEA seems to be equivalent to network centric operations (NCO) or Network Enabled Capabilities (NEC).

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1 Scope

This CWA specifies services and other items mandatory or optional for a Network Enabled Abilities environment. It also includes an inventory of standards and standard-like specifications applicable to each such item. These items include recommended general principles and framework for system design, overall architectures, generic functionality to be considered, concepts, conventions and terminology in order to ensure an optimum multi-purpose interoperability, in particular of national and multi-national military and civil operations.

This CWA is applicable to the full life cycle of information system abilities for network centric operations, including specification, development, deployment, registration, and execution.

The main audience of this document is individuals and organisations participating in the further development of information system abilities for network centric operations.

The identification of services and other items of a NEA environment is non-exhaustive. The items were originally identified as a result of the examination of a number of scenarios.

There might also be other standards and standardisation initiatives than those identified in this CWA. The listed standards are to be regarded as relevant standards known by the workshop participants. However, where there are no standards listed, this might indicate that NEA-specific standards have to be developed.

The evaluation and selection of standards for NEA is identified as a very important task. Yet this is beyond the scope of this CWA and regarded as the subject of a future CWA or standard.

Specifications for design of products and commercial services, decisions on technologies or development of specific applications are issues not in the scope of this CWA.

2 References

This document is an inventory of standards and other specifications relevant for NEA. Due to this, references of these standards and specifications are made at the location where they are mentioned in the document (Chapter 5 - **Items of a network enabled abilities environment**).

3 Definitions, symbols and abbreviations

3.1 Definitions

network centric operations
operations combining military and civil resources

Network Enabled Abilities
information system abilities for network centric operations

NEA environment
environment for managing the full life cycle of network enabled abilities

service area
an abstraction of a set of service types

service
functionality provided through communication and information systems described by an interface
NOTE ISO/IEC TR 14252 defines a service as "distinct part of the functionality that is provided by an entity through interfaces"

service consumer
actor that initiates an execution of a service by making a request

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