CCOW Context Manager Protection Package (CCOWCM)

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Record of Changes

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02/27/2007	0.3	Incorporated revisions suggested by CCOW TC	David Staggs
02/27/2007	0.4	Quality Assurance Review/Revision	Craig Winter
04/26/2007	0.5	Incorporated revisions by Ed Coyne	David Staggs
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11/13/2007	1.0	Edits in preparation for balloting	David Staggs
1/16/2008	1.1	Edits to reconcile comments from CCOW Ballot	David Staggs

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Preface

This document is intended for use with a Protection Profile conforming to the Common Criteria for Information Technology Security Evaluation Common Criteria Maintenance Board (CCMB)-2005-07-001, aligned with International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 15408:2005 (October, 2005) at Evaluation Assurance Level (EAL) 3. It was produced to address a need to improve the clinical sign-on process to provide both efficiency and security. It contains functionality specific to the coordinating component of the architecture known as the context manager, as discussed in the CCOW standard promulgated by the Health Level 7 international standards development organization. More specifically, this protection package describes CCOW-specific functional security requirements required of the CCOW-compliant context manager component as defined in the HL7 CCOW standard.

Foreword

This document, *CCOW Context Manager Protection Package*, is issued by the Health Level Seven (HL7) standards development organization. This Protection Package is based on the *HL7 Context Management "CCOW" Standard: Technology- and Subject-Independent Component Architecture* Version 1.5, dated May 2004 (further referred to as *CCOWSpec*) and *HL7 Context Management "CCOW" Standard: Subject Data Definitions*, Version 1.4, January 2002 (further referred to as *CCOWData*).

This Protection Package is in conformance with the requirements of the Common Criteria (CC) for Information Technology Security Evaluation (CC v3.0). A Protection Package is defined as:

> A package is a named set of security requirements. A package can be a functional package and contain only Security Functional Requirements (SFRs). A package can be an assurance package and contain only Security Assurance Requirements (SARs). Mixed packages containing both SFRs and SARs are not allowed. A package can be defined by any party and is intended to be reusable. To this goal it should contain requirements that are useful and effective in combination. [...] Packages are used in the construction of larger packages, [Protection Profiles] PPs and [Security Targets] STs (*CC v3.0 §8.2*).

The functionality presented in this Protection Package may also be referenced from a Protection Profile as assignable criteria. The concept of assignable criteria and test steps was introduced by the Certification Commission for Healthcare Information Technology (CCHIT) in 2006:

> Assignable Criteria and corresponding Assignable Test Steps represent functions that may, at the vendor's option, be fulfilled by components external to the vendor's Electronic Health Record (EHR) product, such as third-party software, operating systems, hardware, or a network. For items externally Assigned by the vendor, compliance can be demonstrated by supplying suitable documentation and self-attestation. (*Certification Handbook; Ambulatory EHR Products 2006, Ver.1.2, May 1, 2006*)

Alternatively, authors may use this document as a guide for adding CCOW-specific security functional requirements directly to their Protection Profile. Further information, including the status and updates of the Common Criteria, can be found on the Internet at http://www.niap-ccevs.org/cc-scheme/.

Acknowledgements

This Protection Package is based on the joint efforts of the HL7 CCOW Technical Committee and the HL7 Security Technical Committee. Special appreciation is owed to Dr. Ed Coyne for his contributions to the initial draft of this document.

1 Introduction

This document collects functionality that can be referenced or delegated from a parent Protection Profile that describes a target of evaluation implementing the CCOW standard. This section contains document management and overview information similar to that necessary to allow a Protection Profile to be registered through a Protection Profile Registry. The identification below provides the labelling and descriptive information necessary to identify, catalogue, register, and cross-reference this document. The overview summarizes this document in narrative form and provides sufficient information for a potential user to determine whether this document is of interest. The overview can also be used as a stand-alone abstract for catalogs and registers.

1.1 Identification

Title:	CCOW Context Manager Protection Package (CCOWCM)
Registration:	Health Level 7
Keywords:	Clinical Context Object Workgroup, CCOW, health information protection, context management

1.2 Overview

This Common Criteria (CC) CCOW Context Manager Protection Package, hereafter called CCOWCM, specifies a set of security functional requirements for the coordinating component of the CCOW architecture known as the context manager. The context manager simplifies how caregivers gain access to patient information in an environment in which multiple clinical applications are used. This document allows an application Protection Profile to more easily include CCOW functionality by referencing portions of this protection package. In the envisioned system, CCOW-compliant applications will interact with the context manager described herein. Please refer to the companion protection packages CCOW Application Protection Package (CCOWAPP) and CCOW User Authenticating Application Protection Package (CCOWAUTH) for functional requirements specific to CCOW-compliant applications.

The Target of Evaluation (TOE) consists of the context manager, as illustrated in the shaded region in Figure 1. The TOE is capable of interacting with CCOW-compliant applications and an optional mapping and annotation agents. This protection package does not addresses security issues specific to CCOW-compliant applications.

The security functional requirements in this document provides for a level of protection that is appropriate for an assumed non-hostile and well managed user community requiring protection against threats of inadvertent or casual attempts to breach the system security. Reference to this protection package is not intended for Protection Profiles in which protection is required against determined attempts by hostile and well-resourced attackers to breach system security. The