Handbook

Message Usage Model

Part 1: History and conceptual framework

This Australian Handbook was prepared by Committee IT-014, Health Informatics. It was approved on behalf of the Council of Standards Australia on 6 June 2006.
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- Commonwealth Department of Veterans Affairs
- HL7 Systems and Services
- La Trobe University
- Michael Legg & Associates
- Ocean Informatics
- SBI Global Australia
- University of Wollongong
- Victoria Avenue Medical Centre

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Preface

This Handbook was prepared by Standards Australia Subcommittee IT-014-06, Messaging and Communication, for Committee IT-014, Health Informatics.

The project was initiated in response to the National Electronic Health Records Taskforce recommendation, in July 2000, that:

'*. . .a message usage model be defined whereby HL7 and UN/EDIFACT can be used in a complementary way in Australia.'*

In defining the Message Usage Model (MUM) Subcommittee IT-014-06 sought to clarify the following questions:

What kind of message types should be used for what and where?

What are the candidate international and national standards?

What standards are the relevant areas of the sector currently using?

Should a preference for the use of particular standards be expressed?

It is important to note that the MUM is not targeted at solving issues of data integrity, communication, overall security, and others inherent when investigating intra-enterprise data exchange.

The MUM is intended for a range of users involved in Australian healthcare messaging, including policy and decision makers, developers, project managers, health informaticians and health consumers.

This Handbook has been divided into two parts as follows:

Part 1: *History and conceptual framework* (this Handbook) provides a descriptive explanation of healthcare messaging, a context for the use of messaging to communicate health information and a high level' strategy for implementation of messaging in Australia.. This part is expected to remain current for some time.

Part 2: *Current Standards* examines the different messaging standards available for implementation and provides a guide for choosing which standard suits which application. This part is expected to be a dynamic document with reasonably frequent updates as new and improved messaging standards are adopted for health care communication.

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FOREWORD

For some years, the health informatics community of Australia has been asking for a statement of principles to explain and guide the choice of standards to be applied by users, designers and developers of health information messaging systems in this country. Many have advocated a simplistic approach by referencing a single international standard specification such as 'HL7 version 2.4' and requiring owners, developers and implementers to either comply or explain and, if necessary, fund the costs of their variation from such a standard. The difficulty with an approach such as this is that both the design complexities and the costs of complying with a 'one size fits all approach' such as this can be much higher than the cost of interfacing between systems built to different standards or bought off the shelf.

Clearly, whatever choice is made in relation to standards applied, there will be issues of costs for redevelopment to make systems compliant and there will be issues of functional advantage or restrictions that are associated with the messaging standard (or version) chosen.

Much has been written about these issues and some of the collected wisdom in relation to these issues is reflected in this Handbook.

The daunting task of describing the principles that underlie the specification of standards to be applied at the interface of messaging systems in health is too complex to be covered in detail in a static publication. For this reason a 'Model' has been used outline the principles that have been agreed in introducing new standards and revising existing ones. The primary intention of these handbooks is to educate, orient and raise understanding of the issues of standards specification rather than to cover every instance to which any particular standard may be relevant. Indeed this is the function of the standards themselves and there would be little point in replicating all the functions of the standards in a separate handbook.

NOTES

1 INTRODUCTION

1.1 Scope

This Handbook provides guidance on the general implementation of healthcare messaging which:

- focuses on messaging strategy; including defining plans, guidelines and directions;
- describes the planning and modelling process;
- outlines the implementation process for healthcare messaging; and
- explains the process of certification and evaluation to determine the success of the healthcare messaging implementation.

It is important to note that the MUM is not targeted at solving issues of data integrity, communication, overall security, and others inherent when investigating intra-enterprise data exchange.

It is equally important to note that it is not within this document's scope to address wider complementary issues, such as:

(a) Accreditation and certification issues, namely:

- current industry perspectives;
- incentives and disincentives;
- options for national accreditation and certification models (e.g. for evaluating health informatics standards conformance); and
- international accreditation and certification issues (including interaction with international agencies).

(b) The need for an analysis statement as to the likely impact of any related high-level policy statement on the health care sector in Australia, particularly software vendors and on national government projects.

Appendix A outlines the seven layers of the Open System Interconnection (OSI) model.