ATIS-0410002-0034

Unified Ordering Model (UOM)

Volume II - Analysis

For Access Service Ordering Guidelines (ASOG)

Version 59

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SUMMARY OF CHANGES
ASOG V59

This issue of the Unified Ordering Model (UOM) – **Volume II** Analysis provides the analysis and details to support the Access Service Ordering Guidelines (ASOG) and the Unified Ordering Model – Volume I Business Requirements for Version 59.

Changes to this document have been made in support of the following issues:

N/A

The following issues went into Final Closure; however, they resulted in no impact to the contents of this document:

3619 3620 3623 3624 3626

The following issues were Withdrawn:

N/A

Global Changes

- Change all ASOG 58 to ASOG 59; Version 58 to Version 59; Issue 33 to Issue 34
- Change ATIS document number from ATIS-0410002-0033 to ATIS-0410002-0034
- Update Issue Date
- Other grammatical and spelling corrections that do not impact the technical content of this document are not reflected in the Summary of Changes

Table of Contents

- Updated to reflect new sections, re-numbered sections, and document re-pagination

SUMMARY OF CHANGES
ASOG V59

UOM-ASR VOLUME II – SUMMARY OF CHANGES FOR ASOG V59			
Section #	**Issue #**	**Model Object or Section Name**	**Description of Change**

Change History

Issue #	Document Release	Description of Changes
34	**R1**	**Initial version for ASR 59**
33	R1	Initial version for ASR 58
32	R1	Initial version for ASR 57
31	R1	Initial version for ASR 56
30	R1	Initial version for ASR 55
29	R1	Initial version for ASR 54
28	R1	Initial version for ASR 53
27	R1	Initial version for ASR 52
26.1	R1	Revision to align Error_ComplexType model with schema
26	R1	Initial version for ASR 51
25	R1	Initial version for ASR 50
24	R1	Initial version for ASR 49
23	R1	Initial version for ASR 48
22	R1	Initial version for ASR 47
21	R1	Initial version for ASR 46
20	R1	Initial version for ASR 45
19	R1	Initial version for ASR 44
18	R1	Initial version for ASR 43
17	R1	Initial version for ASR 42
16	R1	Initial version for ASR 41
15	R1	Initial version for ASR 40
14	R1	Initial version for ASR 39
13	R1	Initial version for ASR 38
12	R1	Initial version for ASR 37
11	R1	Initial version for ASR 36
10	R1	Initial version for ASR 35
9	R1	Initial version for ASR 34
8	R1	Initial version for ASR 33
7	R1	Initial version for ASR 32

6	R1	Initial version for ASR 31
5	R1	Initial version for ASR 30
4	R1	Initial version for ASR 29
3	R1	Initial version for ASR 28
2	R2	Minor changes to synch up with schema affecting the TQ form
2	R1	Initial version for ASR 27
1	R3	Final version of UOM-ASR Volume II for ASR 26
1	R2	Revisions to support synchronization with Volume III XML schema
1	R1	Base line version of UOM-ASR Volume II for ASR 26

Table of Contents

1 UOM Documentation

The document, Unified Ordering Model Volume II – Analysis, (UOM-ASR Volume II) is part of a set of documents that provides an end-to-end structured systems engineering approach to perform the analysis related to unified ordering via electronic interfaces. This document provides the analysis of the detailed business and systems' requirements for an ordering model. It describes the information model and the behavioral model with the intent that service providers, customers, and their vendors understand how the data, business rules and systems rules work together with the behavior of the data and rules. Because of the level of complexities inherent in such an electronic ordering model, Unified Modeling Language (UML) tools by MyEclipse™ have been used to develop this volume. UOM-ASR Volume II utilizes UML for descriptive purposes and in some instances may not strictly adhere to existing UML specifications.

The intent of Unified Ordering Model (UOM) is to develop a complete set of system documentation using an end-to-end structured methodology. The scope of UOM encompasses business requirements, analysis, design, and implementation. Logically, these components are defined within the UOM in four volumes.

UOM-ASR Volume I - Business Requirements

This document describes the business requirements. This volume includes a high-level overview of the three primary processes in ordering: pre-ordering, service request, and post-confirmation activities. It also includes more detailed information in the use cases and activity diagrams. Two appendices include the data dictionary and the functional data matrix. The UOM-ASR Volume I is focused on ordering for access services only. As other services are added in the future, additional Volume I documents may be developed. The OBF Ordering Solutions Committee/Access Service Ordering Subcommittee maintains the UOM-ASR Volume I document.

UOM-ASR Volume II - Analysis

This analysis document provides the logical view of the business requirements stated in Volume I. The primary sections include the information model, sequence diagrams, and behavior model. Both the informational and behavioral models are described using the Unified Modeling Language (UML). UOM-ASR Volume II utilizes UML for descriptive purposes and in some instances may not strictly adhere to existing UML specifications. The UML provides the notation used within Volume II. Because of the level of complexities inherent in such an electronic ordering model, unified modeling language tools (MyEclipse™) have been used to develop this Volume II. Some additional requirements are included in Volume II in order to accommodate fundamental aspects of ordering services via electronic interexchange. Volume II is not specific to any particular technology or protocol. If additional Volume I documents are developed, this Volume II may need to be expanded to address additional requirements. The OBF Ordering Solutions Committee/Access Service Ordering Subcommittee maintains UOM-ASR Volume II.

UOM-ASR Volume III - Design

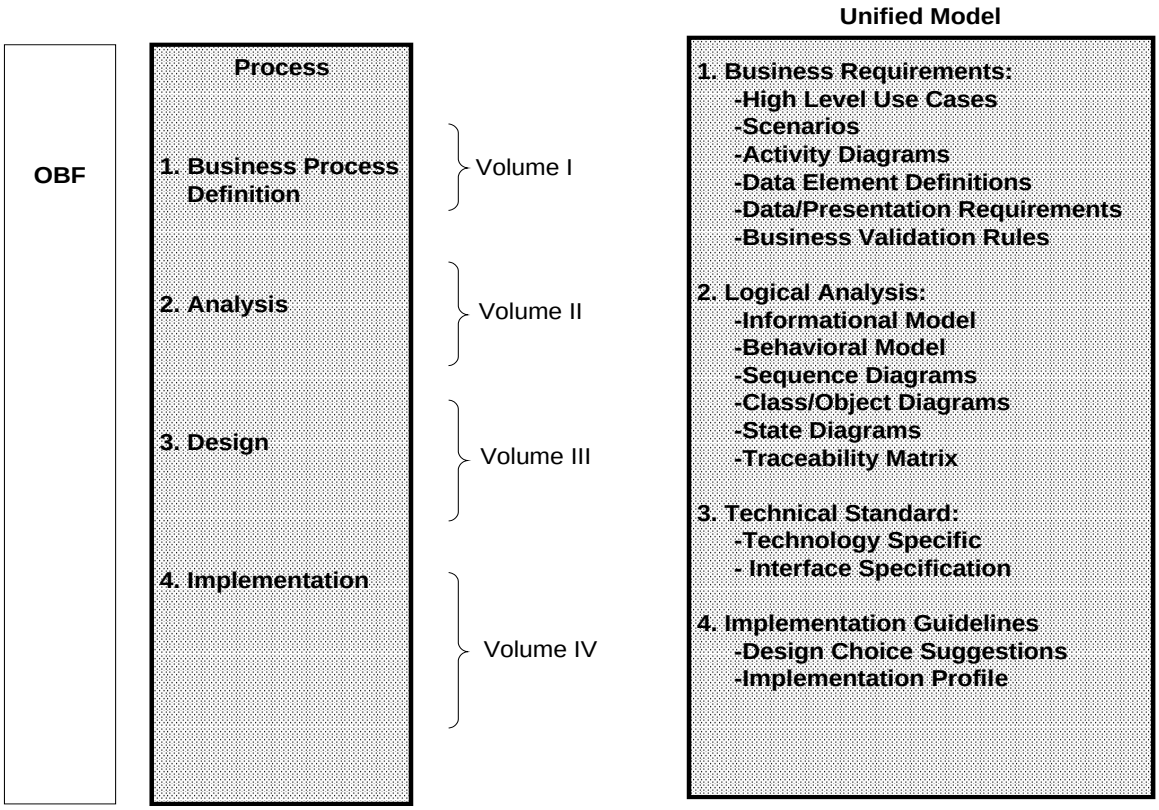
The logical view of the proposed resolution (model), created in the Analysis Phase, is translated into the language appropriate for the selected implementation technology. The first technology selected is XML; therefore UOM-ASR Volume III includes appropriate XML schemas related to unified ordering. This document does not specify a particular protocol as it is assumed that the trading partners will determine the appropriate transport protocol. It may be necessary to repeat the Design Phase when more than one implementation technology is selected. The OBF Ordering Solutions Committee/Access Service Ordering Subcommittee maintains UOM-ASR Volume III.

UOM-ASR Volume IV - Implementation

This document includes implementation specifications that must be addressed before the system specifications can be realized using the selected implementation technology. In addition, a sample Joint Implementation Agreement (JIA) may be included as an appendix for trading partners to use as a starting template. As with the *Design Phase*, the *Implementation Phase* may also have to be repeated in order to

provide support for multiple technologies. The OBF Ordering Solutions Committee maintains UOM-ASR Volume IV – Generic Implementation Guideline.

UOM Process and Document Development



2 Introduction to UOM-ASR Volume II

2.1 Intended Audience

The audience for this volume is the technical and software development staff of service providers and customers. The audience includes anyone who wishes to gain a better understanding of the interface between the customer and the provider, or between providers, in the provisioning of Access Services.

2.2 Purpose

The document is intended to assist providers and customers in the process of conducting the analysis phase of their development steps to realize an electronic, unified ordering system.

2.3 Scope

UOM-ASR Volume II describes the detailed analysis of the informational and behavioral model within a Unified Ordering Model. In addition, it defines at a more detailed level of the business requirements and

systems requirements needed to conduct ordering activities efficiently over an electronic interface. This includes a blending of the pre-ordering, service request and post-confirmation activities.

Specifically, UOM-ASR Volume II-Analysis describes access service ordering as defined in:

- UOM-ASR Volume I
- Access Service Ordering Guidelines (ASOG)
- Multiple Exchange Carriers Ordering and Design (MECOD)
- Design Layout Report (DLR) Guidelines for Access Service

These business requirements are developed and maintained within the Ordering and Billing Forum (OBF) under the auspices of the Ordering Solutions Committee/Access Service Ordering Subcommittee.

UOM-ASR Volume II Analysis contains both the Informational and Behavioral Models that provide the reader a broad understanding of Service Ordering. Specifically, each model provides a dimension to the overall process:

- Informational Model describes the data relationships.
- Behavioral Model describes the data as it acts with stimuli/events over time.

Both the Informational and Behavioral Models are described using the Unified Modeling Language (UML). The UML provides the notation used within UOM-ASR Volume II. Because of the level of complexities inherent in such an electronic ordering model, unified modeling language tools (MyEclipse™) have been used to develop this volume[1].

NOTE: A new UML tool has been chosen for updating class diagrams, starting with ASOG35. With the previous UML tool, 'one and only one' associations displayed a '1' on the association line connecting classes. With this new tool, the '1' is omitted. Any changed class diagrams (moving forward) will no longer display the '1'. The absence of a multiplicity indicator on these association lines should be interpreted as 'one and only one' multiplicity.

2.4 Development Note

The UOM process is iterative in nature. Subsequent iterations of UOM-ASR Volume II - Analysis may expand the functionality or services supported by the model.

3 Overview of UOM-ASR Volume II

3.1 Assumptions of this Document

- UOM-ASR Volume II should be generic and not be technically or protocol specific.
- UOM-ASR Volume II Informational and Behavioral models reflect the current parameters defined within the OBF business rules.
- UOM-ASR Volume II should be backward compatible, flexible, have reusability and add value.
- UOM-ASR Volume II is modeled using synchronous messaging; this is done simply for notation purposes, unless explicitly noted. The synchronous/asynchronous discussion may be revisited in UOM-ASR Volume III and UOM-ASR Volume IV.
- Validation rules and processes are generally left to the customer/provider back end systems.
- System acknowledgements are not explicitly defined within the sequence diagrams.

[1] The use of MyEclipse™ does not reflect a tool recommendation by either the authors or the associated Industry Forums.