



**Business Internet Consortium (BIC)
XML Convergence Workgroup**

Summary of Phase 1 Deliverables

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Version History

Version 0.1	05 September 2001	Jackson He drafted
Version 0.2	25 September 2001	Colin Hulme and Pete Wenzel made changes to make the summary product neutral
Version 1.0	28 September 2001	Final version

Preface

Purpose of the Document

This document summarizes the whitepapers developed by the BIC XML Convergence Workgroup in Q3 of 2001 and establishes connections among them in order to help the reader to understand their relevance.

Intended Audience

The target audience of this document is e-Business architects and business managers who are responsible for strategy and implementing B2B solutions; B2B standard bodies (W3C, OASIS, OAGI, etc.); B2B vendors and solution providers; and Members of other BIC workgroups.

Prerequisites

None

Scope of the Document

This document is a summary of whitepapers from the BIC XML Convergence Workgroup in Phase 1

Acknowledgements

Thanks to everyone on the XML Convergence Workgroup and other content experts who provided value input to the group's Phase 1 deliverables.

1 Summary of Phase-1 white papers

Throughout Phase 1, the XML Convergence Workgroup has been focusing on developing a conceptual model that describes the architectural components needed for B2B Automation. Input from various expert sources resulted in several iterations of reconciliation and modifications to the model. The result is documented in the “High Level B2B Conceptual Model” whitepaper. Three case studies from the member companies link their current implementation with the conceptual model and enforce its validity. The point of these case studies is to show that the conceptual model is not just a bunch of colorful 3D boxes stacked together with fancy names. They actually relate to real systems in production.

The workgroup’s Phase 1 goal was to define such a conceptual model and make it credible to describe the realities of today’s business environment, and what need to happen in the future to drive continued success in the B2B Automation space. Delivery of this set of whitepapers achieves this goal.

- **High Level Conceptual Model for B2B Integration:** Introduces the conceptual model and definitions of each layer
- **Ford Motor Company Case Study:** Describes Ford Motor’s current B2B implementation, which is based on the OAGI specification and other technologies. It shows a strong relationship of Ford Motor’s implementation with the conceptual model.
- **RosettaNet Case Study:** Documents the current RosettaNet architecture components and connections with the conceptual model. It is an instantiation of the model with their current, generalized RosettaNet implementation.
- **Intel Case Study:** Describes how Intel’s specific implementation of RosettaNet. Intel added its own touch to the backend integration, which is not specified by RosettaNet. It also worked with vendors to interpret the RosettaNet specifications in the context of Intel’s business environment. Again, this case study shows that the conceptual model is a true reflection of components needed for B2B Automation.

2 The Current View – What Is Used Today

Based on the case studies, we can summarize the standards and practices applied today to facilitate B2B Automation. Since some of the technology and standards development are in their infancy, there will be inevitable gaps and issues around the current implementations. These are the type of things this workgroup wants to identify through this analysis process.

Name of the Layer in Conceptual Model	Standards or solutions applied today
Backend Integration	Vendor specific solutions, which interface the public process space with a business's private systems, no “standard” way to address this layer yet. It is considered out of scope for RosettaNet
Service-oriented Architecture	Java, JDBC, C++
Network Transport	HTTP, HTTPS, SMTP
Core XML Standards	DTD, XML Schema
Messaging	RNIF, SOAP
Repository	Implementation specific using relational database
Registry Services	Mostly not implemented in production. RosettaNet defines manual process to publish PIP (PIP2A9), UDDI pilot nodes are available from several providers
Business Content Format Definition	Consortium specifications: RNet Business and Technical Dictionary Structure, OAGI BOD
Universal Business Content	Proprietary definition (RN Business Dictionary Content)
Specialized Business Content	Proprietary definition (RN Technical Dictionary Content, Business Model-Specific Content)
Business Content Instance	Business specific – no standards
Service Description Language	Not implemented today
Process Description Language	Proprietary today: PIP interaction diagram, UML model, etc.
Universal Business Process	Consortium specifications: OAGI, RosettaNet processes
Specialized Business Process	Consortium specifications: OAGI, RosettaNet processes
Business Process Instance	Business specific – no standards
Trading Partner Agreement	Only at the business contractual level
Security	SSL, PKCS#7, S/MIME
Management	Many solutions available, but ad hoc and partial

3 Gaps and Issues

As the case studies indicated, there are several areas that need improvement in terms of better standards specifications and adoption of more loosely coupled and flexible architectures. It is also apparent that several layers have multiple contenders, which could be opportunities for convergence. Traversing the model from bottom up, we can see that the first opportunity for convergence is at the messaging layer. RosettaNet has committed to supporting ebXML TRP for its new messaging layer to replace RNIF, or in other words, future RNIF will be based on ebXML Messaging, which is converged and built on top of SOAP. There are still needs to enhance security and reliable messaging on top of today's ebXML Messaging. This is something the XML Convergence Workgroup should help driving in the coming months.

Other opportunities of convergence appear in the Registry, Repository, and Business Process Description Language layers. The case studies indicate the needs for clear definitions of these layers. The XML Convergence Workgroup should focus on collecting requirements and developing more use cases for these layers as well, in addition to the Messaging layer improvements noted above.

In the coming months, the XML Convergence Workgroup will use the definitions of the conceptual model and the gaps identified in the case studies to clearly define customer requirements and document best practices to improve current implementations, while waiting for the standards to improve. Figure 1 indicates the steps needed to move forward. As a next step, we will focus on developing Best Practice guidelines for the "Tactical View" (Phase-2) and collecting requirements for the "Strategic View" (Phase-3). The workgroup's goal for Phase-3 is to develop a complete "Strategic View" of XML-based standard convergence to coordinate and influence the directions of key standard bodies, such as W3C, OASIS, UN/CEFACT, RosettaNet, etc.

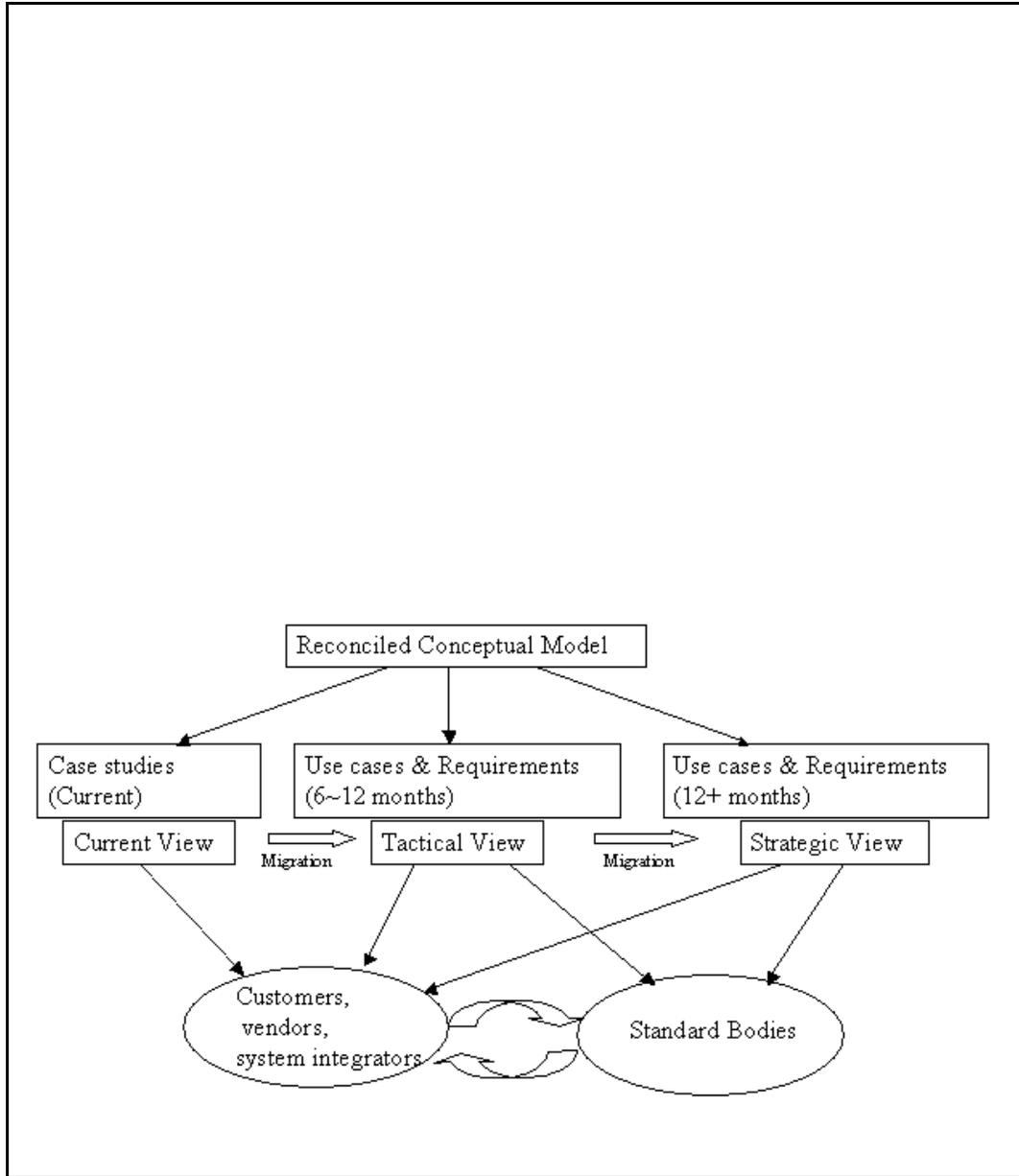


Figure 1. Follow-up work of the B2B conceptual model

APPENDIX A REFERENCES

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APPENDIX B GLOSSARY