Electronic Commerce

UCC XML Strategy

10/26/99

The Global Language of Business

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Introduction

The UCC XML Strategy is a component of the overall UCC EC Strategy.

The UCC XML Strategy:
• outlines the UCC position and direction in the EC arena
• is targeted at both business and technical community
• has been developed with industry experts and users participation
The Goal

“To develop a set of global standards, products and services that will enable trading partners to conduct electronic business while leveraging and enhancing their existing investment in electronic commerce”.
EC Market Categories

SMEs
- Did not happen
- 2% only

X12

Reality

Internet

Vendor driven

EDIFACT

No SMEs or Internet
Business Scenarios Supported

The strategy will focus on Business-to-Business (B2B) model but it will also support Business-to-Consumers (B2C).

It will enable the following transaction scenarios:

- EDI Buyer to EDI Seller
- EDI Seller to Internet Buyer
- Internet Seller to EDI Buyer
- Internet Buyer to Internet Seller
Why Need XML Strategy?

Issues with EDI
- Complex to understand and implement
- Implementation costs are high
- Standards change process is slow

EDI Market Position
- Did not penetrate SMEs (only 2%) *
- Full integration of transactions with applications is not common

Internet is changing the way businesses operate
- Internet allows companies to conduct global e-business
- Direct business transactions (no third parties)
- Real time transactions

* CMASS report for EAN International
Alternative Solutions Considered

“Migrate, then Convert”

- Focus on transaction
- Conversion is expensive and time consuming
- Internet opportunity will be missed - someone else will do it

“Convert Directly”

- Focus on Transaction
- Vendor driven
- How do we manage it?
- Migration to new technologies difficult
Let’s do it right

Opportunities
- Industry driven
- XML is manageable
- Unbundle business data from transport mechanism
- Can take advantage of new technologies
- Build bridges to EDI to protect investment
- Can be extended to other industries
**Why XML?**

XML is a technology that offers a solution that can leverage legacy EDI with the new internet world.

- XML is a technology enabling the definitions of customized markup languages (Schemas) for different classes of documents or messages.
- All popular browsers offer XML support.
- Supports robust linking to other documents.
- Is extensible. A complex document can be created from simpler ones.
- XML is a technology that enables disparate systems to exchange structured data.
- XML has support among many vendors, standards organizations and companies.
What is UCC XML Strategy?

Focus on Common Process + XML Technology Foundation + Transparent Trade (Optional Converter) = XML Strategy

XML Pilot (Develop, Validate, Refine)
The XML Strategy Objectives

1. Focus on Process
   To move away from a transaction focus to a process focus. With user community participation, move forward with standards development using Object Oriented Methodology and Unified Modeling Language (UML).
   • A Business Process Library/Data Dictionary will be created to act as a repository of processes and data

2. Technology Foundation
   To establish a foundation that will let users conduct trade using platform independent standards and quickly take advantage of emerging technologies.
   • XML standards and schemas will be created

3. Transparent Trade
   To make it transparent for the users of current EDI (X12, UN/EDIFACT) to conduct trade.
   • Optional XML-EDI Converter

The XML Pilot will validate and refine the approach.
Focus on Process: Process Analysis

Defining Common Processes and Data

EDI Semantics
Business Modeling Committee
Existing EDI Architecture

User
Community

Process Analysis
- Processes
- Data
- Objects

Business Process Library/Data Dictionary

Logical Models

- Use Cases
- Processes
- Data Model

Class Diagrams

- Purchase Order
- ShipTo
- Line Item
- Price
- Quantity

Object Collaboration … and other models

Common Processes ==> Common Data ==> Common XML ==> Common Objects ==> Components
Focus on Process: Benefits

Benefits

• Involve user community experts and industry representatives in defining common processes and data.

• Create Business Process Library / Data Dictionary as a shared repository.

• Leverage EDI Semantics and transition business knowledge embedded in EDI to XML.
Benefits

- Easier to translate business requirements to XML
- Independence: Platform and transport mechanism
- Flexibility: objects can be assembled from multiple components
- Implementing XML now will enable the transition to emerging technologies in the future.
Transparent Trade: Optional Bridge to Legacy EDI Applications

X12

No Conversion

UN/EDIFACT

XML Converter

XML Schema

XML-EDI Bi-Directional Converter
Benefits

- Preserves Legacy EDI Applications and enables Internet trading.
- No time consuming and expensive conversion from X12 to UN/EDIFACT.
- Generic solution will benefit users.
Pilot brings it together

Common Process Model and Data

Technology Enabler (eg. XML)

Bridge to EDI Investment

XML Pilot
Objectives: Develop, Validate, Refine

Fast track iterations:
Purchasing, Shipping, Invoicing
Execution Architecture

Buyer

<table>
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<tr>
<th>Internet only</th>
<th>Optional XML Converter</th>
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<tbody>
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<td>Business Applications</td>
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SELLER

<table>
<thead>
<tr>
<th>Internet only</th>
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<tr>
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</tbody>
</table>

EDI Translator

XML

Internet

EDI (Mailbox)

Optional for current EDI users:
- Direct communications
- VAN
- Internet
- XML

Optional XML Converter
XML Pilot

Inputs
- XML Strategy T. G. and XML Reports
- Industry Research
- Vendors
- Industry Consortia

Outputs
- Common Processes Data Dictionary
- XML Standards & Schemas
- XML Converter

Develop, Validate, Refine
Purchasing, Shipping, Invoicing

1st Iteration Due: Oct 11, 1999
## Pilot Deliverables

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<th>Deliverables:</th>
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<td><strong>Focus on Process</strong></td>
<td>• Common Processes and Data</td>
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<td></td>
<td>• Business Process Library/Data Dictionary</td>
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<tr>
<td><strong>Technology Foundation</strong></td>
<td>• XML Standards and Schemas</td>
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<tr>
<td></td>
<td>• Frameworks (for development and implementation)</td>
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<tr>
<td></td>
<td>• Schemas for Purchasing, Shipping, Invoicing</td>
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<td></td>
<td>• Repository</td>
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<tr>
<td><strong>Transparent Trade</strong></td>
<td>XML Converter Specifications</td>
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XML Pilot Participants

• Cross-section of companies in global presence, company size and technical platforms.

• Pilot Participant Requirement Document is being drafted.

• Several companies are interested.
XML Strategy Milestones

- Task Group (TG) started: Sept. 99
- Strategy Review started: Oct. 99
- TG Review completed: Oct. 99
- EC User Group announcement: Oct. 99
- EC AC review: Nov. 99
- UCC Board review: Nov. 99

Three iterations:
- Purchasing
- Shipping
- Invoicing

- Pilot Participants Selected
- Business Process/Data
- XML Schema
- XML Converter
- User acceptance

Cont’d...

- 1st TG Meeting: Jan. 2000
- TG Involvement: 1st TG Meeting
XML Strategy Implications

- There are many solutions
  Need to surface above proprietary, narrowly focused solutions available from vendors and other XML initiatives. Indications are that the approach will work (RosettaNet).

- Need to develop an accelerated XML standards development process

- Role and participation of EDI and XML organizations and vendors

- UCC has a short window of opportunity and must act now.
XML Strategy Summary

**UCC XML Strategy**

- New standards will be built by focusing on processes. The knowledge embedded in EDI will be leveraged.

- XML will establish technology foundation that will position us to take advantage of emerging technologies.

- Trading for EDI users with non-EDI users using Internet will be transparent.

- XML Pilot is paramount to successfully implement the XML Strategy in a reduced time frame.
Why UCC?

We are well positioned to succeed in implementing the XML Strategy.

UCC has:

• Expertise in standards development.

• Access to experts and user forums.

• Relationship with software providers.

• Relationship with Value Added Networks.

UCC can make it happen faster.
UCC XML Strategy