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Order Management B2B Integration with the Oracle's Gateway

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BIO

Susan Steckclair, ECI's President, is a recognized expert on B2B trends, having given presentations in Amsterdam and Berlin for EDIFICE (European B2B standards organization for Computer/Electronics); the "2006 Open Oracle World" in San Francisco for the EBIZ SIG; and The "Computing and Technology Industry Association's Breakaway" conference in Orlando, in 2005. She has also spoken at the University of Michigan Business School's visit to Silicon Valley, and at the Santa Clara University Law School. She is a knowledge expert for CompTIA/EIDX's "B2B Forum". She was one of technology industries pioneers in B2B, implementing award-winning EDI projects beginning in 1987 between Philips Semiconductors and Philips' strategic customers. Prior to founding ECI, she was in IT/operational/financial management at Philips Semiconductors and Applied Materials. She has B.S. and M.B.A degrees from the University of Michigan Ann Arbor.

ECI Summary

Electronic Commerce, Inc.'s client list has includes some of the most prestigious Fortune 500 companies including Cisco (in San Jose and Amsterdam), Juniper Networks, AMD, Philips Semiconductors, National Semiconductors, Autodesk, Sun Microsystems, Hewlett Packard, Octel Communications, eLogisitix, Lucent Technologies and Electronic Arts.

B2B projects have focused on Order Management, Supplier Management, Distribution Point-of-Sale and Inventory Management, HIPAA, Cash Application, and 3rd Party Logistics.

Presentation Overview

Based upon 2 Oracle Gateway implementations, this addresses:

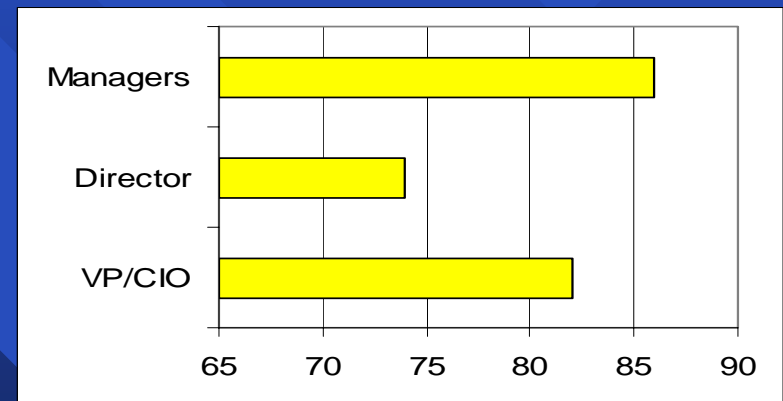
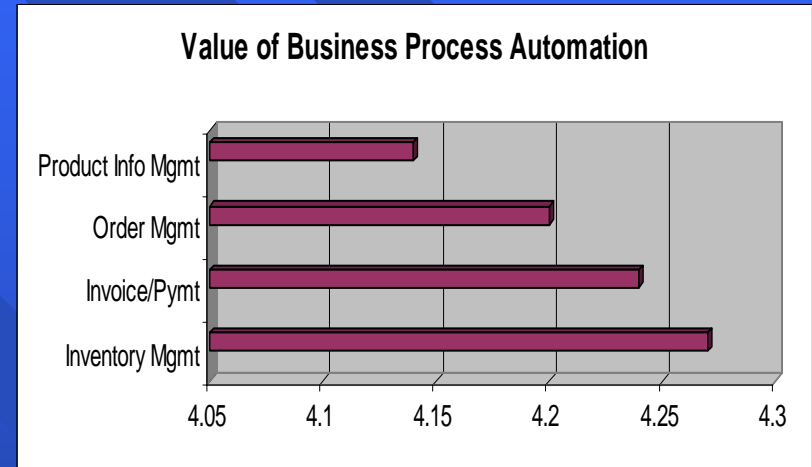
- Getting Started
- Steps
- Costs/ROI
- Process flows

Presentation Overview

- Gantt Chart
- Guidelines
- EC Gateway Config
- Other Resources
- ECI's Products and Services

B2B Business Focus

Over 80% of Senior Executives rate B2B Integration as critical or important to their success in the next 12 months. **



** Source: Yankee Group Aug. 2004

GETTING STARTED

- Learn from your customers, industry association & others
- Perform Architectural Assessment
- Construct Teams
- Agree on Targeted Transactions
- Define your internal requirements
- Select a Beta Customer for design & testing
- Perform GAP analysis/resolve issues between customer/internal requirements

Learning Curve

"Buy, borrow, and copy from other industries and collaborate with ... customers to speed up your own learning curve." **

** Robert Kruppens, Cisco Director of Internet Solutions Group
June 15th, 2005 EDIFICE Plenary in Amsterdam © Cisco

Customer Collaboration

Distribute Questionnaire for Customers

- Simple
- Standards neutral
- When can they staff the project?
- Included your key players, and your technical communication instructions if they exist at this point.

Define Internal Teams

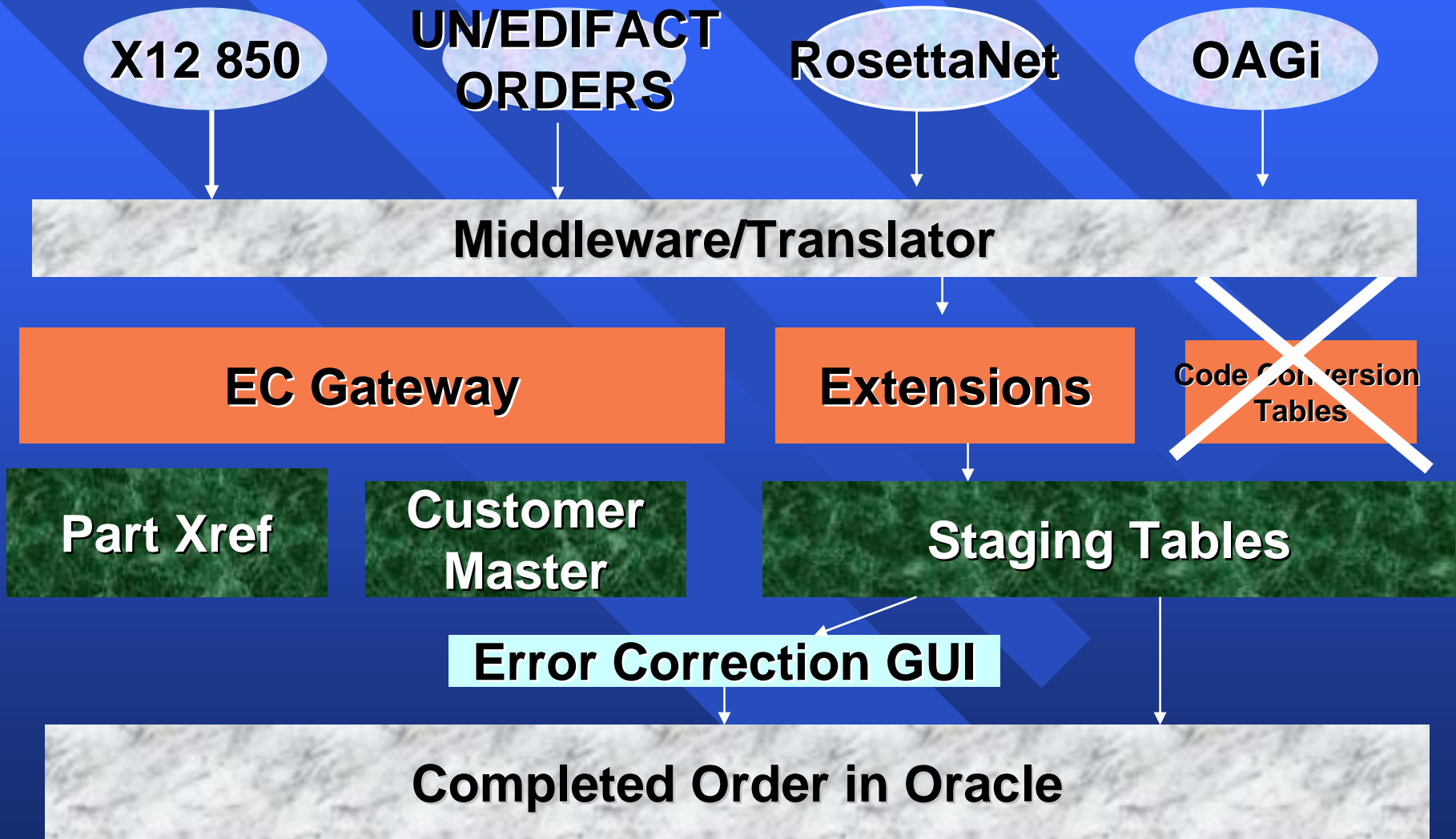
- Cross Functional Steering Committee
- Technical Resources -- Functional & Programmers
- Business Champions
- Business & Technical Team Members

Business Model Considerations

Examples:

- ❖ Regular Product
- ❖ Configured Product
- ❖ Quote References
- ❖ Service Orders
- ❖ Configured Product
- ❖ Drop Shipments

Inbound Process Flow



Outbound Process Flow -- POACK & Invoice

Order Module & AR

EC Gateway

Extensions

~~Code Conversion
Tables~~

Middleware/Translator

X12 850

UN/EDIFACT
ORDERS

RosettaNet

OAGi

Order Mgmt Config -- Orders, Invoices, POacks

Screen Functionality



Ease of Use



Transaction	Type	Transaction Code	Document Standard	Map	Map Type	Enabled	Test
Mc Purchase Order (BAC)	Individual Purchase	ZZZBAC	ABC 002	BC_POA_FF	Flat File	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

Extension Layouts

- File layouts defined by Oracle
- Rich number of fields and attributes
- Outbound can be extended

The screenshot shows the 'Interface File Definition' window. At the top, there are fields for Transaction (INO), Map (EC_INO_FF), and Level (Header). Below this is a table titled 'Interface file' with columns for Interface Column, Record Number, Position, Width, Seq, Layout Code, Layout Qualifier, and Rules. The table lists several columns including COMMUNICATION_METHOD, TP_TEST_FLAG, TP_DOCUMENT_ID, DOCUMENT_TYPE, TP_DOCUMENT_PURPOSE_CODE, TP_DOCUMENT_CODE, TP_TRANSLATOR_CODE, TP_LOCATION_CODE_EXT, TP_DESCRIPTION, and TP_REFERENCE_EXT1.

Interface Column	Record Number	Position	Width	Seq	Layout Code	Layout Qualifier	Rules
COMMUNICATION_METHOD	0010	10	2		CT	CTL	0
TP_TEST_FLAG	0010	20	1		CT	CTL	0
TP_DOCUMENT_ID	0010	30	6		CT	CTL	0
DOCUMENT_TYPE	0010	40	5		CT	CTL	0
TP_DOCUMENT_PURPOSE_CODE	0010	50	2		CT	CTL	0
TP_DOCUMENT_CODE	0010	60	35		CT	CTL	0
TP_TRANSLATOR_CODE	0010	70	30		CT	CTL	0
TP_LOCATION_CODE_EXT	0010	80	35		CT	CTL	0
TP_DESCRIPTION	0010	90	74		CT	CTL	0
TP_REFERENCE_EXT1	0010	100	80		CT	CTL	0

Mapping Instructions Methodology

- Extract of Extension in Excel
- Gap analysis by customer
- Unit Test
- Coordinated mapping & testing with 3rd party

	Interface Column	Record Number	Position	Width	Seq	Vanilla X12 Mapping	Oracle Default	Partner
1								
2	CONTROL	Mandatory						
3		Transaction_Method	10	10	2	"ED" for EDI		"ED" for EDI
4		Test_Indicator	10	20	1	ISA15		For Testing Harc Code "P"
5		Document_ID	10	30	6	"POI"		"POI"
6		Document_Type	10	40	5	null		null
7		Document_Purpose_Code	10	50	2	"PO" GS01		"PO" GS01
8		Document_Code	10	60	35	BEG03		BEG03
9		TP_Translator_Code	10	70	30			"PARTNER"
10		TP_Location_Code	10	80	35	"Sold-to" code		N104 if N101 = "B"
11		TP_Description	10	90	74	null		null
12		TP_Reference_Ext1	10	100	80	IS06		
13		TP_Reference_Ext2	10	110	80	GS02		
14		Transaction_Date	10	120	15	ISA09		
15		Transaction_Run_ID	10	130	15	Transaction Run ID		

Steps to Implementation

- Unit test order import with test data loaded into the extension.
- Design communication process with backup and archives.
- Engage Beta Test customer. Send data via van or point-to-point.
- Process Customer data into Oracle. Resolve any issues.

Guideline Creation

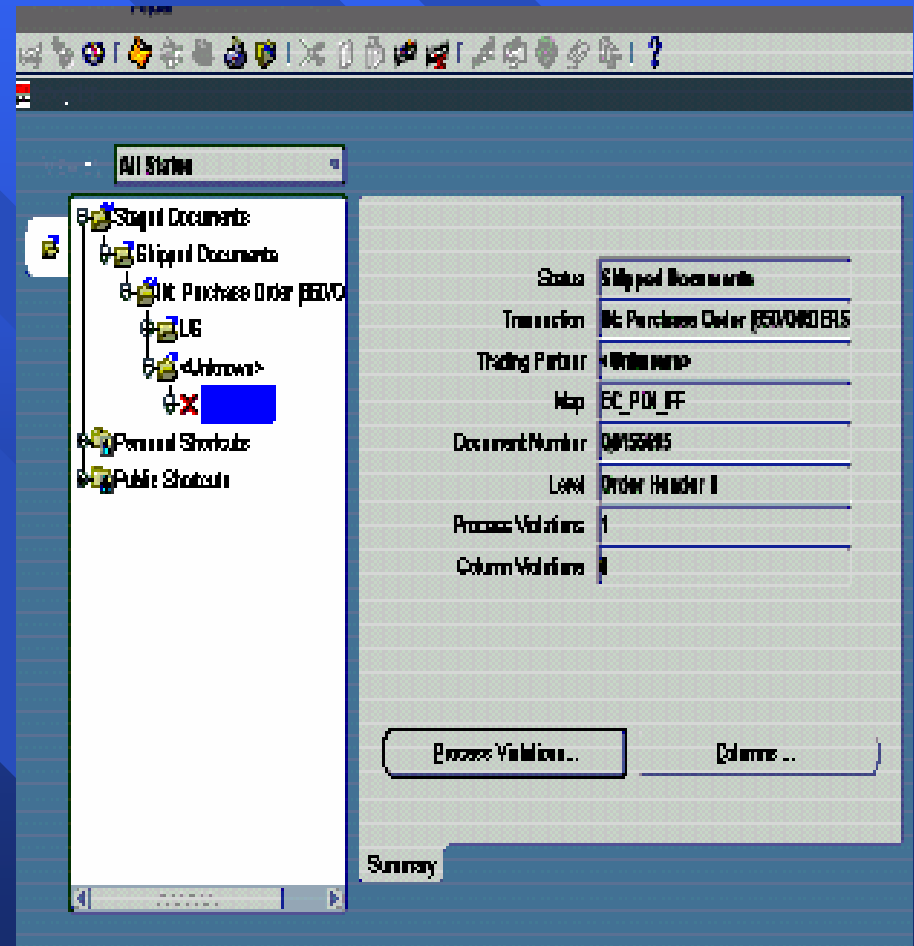
- Recommendation of B2B Tool
- Document design requirements to conform with:
 - ❖ Internal requirements
 - ❖ Common Industry usage
 - ❖ Standards

Electronic Commerce, Inc. ---867-Point-of-Sale-1
 Summary of Segments + Version: 4/1/07

→ POS ID	SEC ID	NAME	REQ. QTY	MAX. QTY
→ 000	ISA	Interchange Control Header	M	1
→ 000	GS	Functional Group Header	C	20000
→ 010	ST	Transaction Set Header	M	1
→ 020	BPT	Beginning Segment for Product Transfer and Resale	M	1
→ 040	CUR	Currency	O	1
→ 080	DTM	Date/Time Reference	O	10
→ 080	DTM	Date/Time Reference	O	10
→ 080	NI	NI (Distributor)	O	8
→ 080	NI	Name	O	1
→ 080	NI	NI (Warehouse)	O	8
→ 080	NI	Name	O	1
→ 010	PTD	PTD-N1-N1-N1-N1-QTY	M	>1
→ 010	PTD	Product Transfer and Resale Detail	M	1
→ 080	NI	NI-N3-N4-REF (Sold to Retailer)	O	8
→ 080	NI	Name	O	1

Trouble Shooting

- Adequate troubleshooting
- The Gateway captures the Staged Documents
- We configured the system to avoid EC Gateway errors



Gantt Chart for Project

2008

Jan Feb Mar April May Jun Jul Aug Sep Oct Nov Dec

Define Teams, Transactions, Questionnaire, Customers, Gather Guidelines, Create MetaData

Write REQ for Middleware, Make Middleware Selection

Install Middleware, Select VAN & Test

Configure Oracle Gateway

Create Guidelines, Trading Partner Instructions, Test Scenarios

Map Transactions to/from Oracle Gateway, Unit Test

Beta Trading Partner Testing

Production

Deploy to Targeted Trading Partners
Improve Process if Necessary

Costs

Highly variable based upon:

- Degree of Customization
- Sophistication & Experience of Team
- Low cost Windows based translator vs. UNIX/LINUX or IBM Mainframe
- # of Customers, Biz Models and # of transactions

Costs

Roughly \$25K per transaction for
Analysis, Install, Unit Testing, and
Testing/Prod with Customer

Can be much more with customization

Middleware can run \$10 K to \$1.5 M

Case Study ROI Savings

Automation of 20 Trading Partners

Accounting for 43% of all inbound orders
or nearly 100,000 annual transactions

Savings of over \$1 million per year on
order entry fees alone.

Analysis did not quantify error reduction
savings or savings for customers.

Conclusions

- Utilize Oracle's Gateway instead of a proprietary solution until Fusion for B2B is a viable solution
- Minimize cross reference mapping
- Robust number of fields
- Some "bugs" that need workaround
- Minimal functional support from Oracle.

Other Oracle Ebiz RESOURCES

- **Oracle: <http://metalink.oracle.com/>**
 - ❖ Oracle eCommerce Gateway Implementation Manual (June 2001)
 - ◆ Part # A75164-03
 - ❖ Oracle eCommerce Gateway User Guide (Aug 2000)
 - ◆ Part # A75089-02
 - ◆ (Use some caution with this documentation as Order Management Documents were not yet integrated into Oracle 11i)
- **Training: education.oracle.com/**
 - ❖ **EC Gateway 2 Day Training Class**
- **Oracle Applications User Group www.oaug.com**
- **Oracle eBiz Sig yahoogroups.ebizsig**

Ecommerce Resources

- **COMPTIA/EIDX** -- Electronic Industry Association for B2B
<http://eidx.comptia.org/>
- **ASC X12** Accredited Standards Committee X12 for EDI
- **DISA** <http://www.disa.org/>
Secretary for ASC X12, Publications, Standards, Meetings, Etc.
- **Industry Groups** (Contact DISA)
- **UN/CEFACT United Nations** <http://www.unece.org/cefact/>
- **Open Applications Group (OAGI)** www.openapplications.org/
- **EDIFICE** -- European Electronic Industry Association
www.edifice.org
- **RosettaNet** -- www.RosettaNet.org
- **BARD** -- Bay Area RosettaNet Deployment rnetbard.intranets.com/
- **Government Stats**
<http://www.census.gov/eos/www/2005/2005reportfinal.pdf>

ECI's Services & Experience

EDI/XML integration since 1993, specializing in Oracle and SAP with many architectures, business models, translation products and prominent clients.

Subject matter expert for CompTIA EIDX "Ebiz Forums", and occasional speaker.

Presentations to the European Electronic Group in Amsterdam and Berlin

Presentations at the EBIZSIG at Oracle World

ECI's Services & Products

e-SupplyLink for integrated order fulfillment (warehouse management) software with custom labeling.

Supports UCC/EAN-128 labels, RFID



Softshare

- Middleware -- low-cost, high performance solution
- Robust mapping capability
- Supports Oracle Extensions for XML and EC Gateway
- Supports prominent EDI and XML standards including RosettaNet
- Supports prominent communication protocols including S/MIME, FTP, AS2, etc.

The End

