Simplify and Accelerate Business Integration

EDI Modernization Case Studies and Best Practices
EDI Modernization Drivers

Disruptive:
- Major ownership / organization changes
- New customer / partner requirements
- Platform changes
- Enterprise application upgrades
- New enterprise applications

Cumulative:
- Customer service / performance issues
- Lost revenue / lost business
- High incidence of processing errors
- Slow partner onboarding / changes
- Mounting costs of licensing, maintaining, and using legacy middleware

External Locations, Partners, and Services

Customers

Suppliers / Service Providers

Cloud/SaaS Applications & Services

Your Business

Enterprise Applications

Operational Data

Data Warehouse

Enterprise Data

Business Intelligence

On-premise Applications, Services, and Data

Windows / Linux / IBM i / VMware

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EDI Modernization Options

1. Do nothing (and deal with the consequences)
2. Plan for an EDI “happy path” and code the exceptions
3. Compensate with point tools and cope with a hybrid environment
4. Engage a service to replace or augment classic EDI
5. Migrate to a “Modern EDI” solution
Key Issues

1. What assets and practices are most affected by EDI modernization?

2. How do different EDI goals and requirements affect modernization strategy?

3. What best practices should you incorporate in your EDI modernization plan?
Simplify and Accelerate Business Integration

EDI Modernization Impacts: Capabilities

Classic EDI System

Modern EDI System

Integration Capabilities

EDI Software / Service Infrastructure

Modern EDI Software Services Infrastructure

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EDI Modernization Impacts: Integration Assets

Classic EDI System

IT Department

Life Cycle Tools and Practices

Configured EDI Processes

Document

Database Insert

Partner Communications

Map

Modern EDI System

Integration Assets

Configured Integration Processes

Integration Capabilities

Modern EDI Software Services Infrastructure
EDI Modernization Impacts: Best Practices

**Classic EDI System**
- IT Department
- Life Cycle Tools and Practices
- Configured EDI Processes
  - EDI Software / Service Infrastructure
    - Transformation
    - Partner management
    - Activity reporting

**Modern EDI System**
- IT Department
- Business Depts
- Life Cycle Tools and Practices
- Configured Integration Processes
  - Modern EDI Software Services Infrastructure
    - Transformation
    - Partner management
    - Real-time integration
    - Application integration
    - Activity monitoring
    - Auditing / diagnosis

**Integration Assets**
- EDI Modernization Impacts: Best Practices
- Classic EDI System
- Modern EDI System

**Integration Capabilities**
- IT Department
- Business Depts
- Best Practices

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EDI Modernization Impacts

Classic EDI System

IT Department

Life Cycle Tools and Practices

Configured EDI Processes

Integration Capabilities

Configuration

EDI Software / Service Infrastructure

Modern EDI System

IT Department

Business Depts

Life Cycle Tools and Practices

Integration Assets

Configured Integration Processes

Modern EDI Software Services Infrastructure

Best Practices

Configured EDI Processes

Integration Capabilities

EDI Software / Service Infrastructure

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Key Issues

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Case Study #1 – Trucking Company

Background:

- Business: Dry van carrier and general commodities transporter
- Environment: Mainframe with in-house ERP & EDI solutions
- Goals:
  - Move off mainframe on or before lease renewal date
  - Leverage existing investments in applications and data
  - Make switch to new EDI platform transparent to trading partners
Case Study #1 – Trucking Company

Legacy System

- comms (FTP / AS2)
- In-house EDI Translator
- Custom Code
- Custom Code
- Interface Files
- In-house ERP / COBOL Apps
- Mainframe

- Firestone
- Nestle
- Hallmark
- Lowes
- OfficeMax
- Other

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Case Study #1 – Trucking Company

Legacy System

- Comms (FTP / AS2)
- In-house EDI Translator
- Custom Code
- Interface Files

Modernized System

- Comms (FTP / AS2)
- ISA/GSA Routing
- ISA/GSA Routing
- Maps
- Interface Files

- 214 Late Code Service

In-house ERP / COBOL Apps

Mainframe

Cobol Apps

TMW Suite

Windows

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Case Study #1 – Trucking Company

Results:

- New ERP and integration platform running on Intel-based architecture
- 7 months from software installation to project completion
- Transparent switch to new integration platform for trading partners
- Increased service availability
- Operational savings of $1M per year
Case Study #2 – Specialty Food Manufacturer

Background:

- Business: Specialty food products supplier to major retailers
- Environment: SAP, on-premise & outsourced EDI, global data synchronization
- Goals:
  - Reduce partner onboarding time, including mapping and testing
  - Move outsourced EDI service in-house and
  - Eliminate multiple manual touch points
  - Expand EDI transactions (Advanced ship notices, Remittance advice, other)
  - Streamline item synchronization process
  - Consolidate integration middleware and tools
Case Study #2 – Specialty Foods Manufacturer

Legacy System

- External EDI Service
- Legacy EDI Translator
  - Text Doc
  - PO (PDF)
  - Invoice
- Maps
  - EDI Spc

- Email
- Email
- Email
- Email
- Email

Distribution

SAP ECC 5.0

Accounting

Sales

Wal-mart

Target

Dollar General

Family Dollar

Other

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Case Study #2 – Specialty Foods Manufacturer

Legacy System

- External EDI Service
- Legacy EDI Translator
- Maps
- PO (PDF)
- Invoice
- Text Doc
- PDFs
- Email

Outbound Processes

- Enveloper
- Comms (AS2 / FTP)
- Extol Data Synchronizer

Inbound Processes

- Router / De-enveloper
- Inbound

Status Log

812 / 864 messages

SAP remote function call (RFC)

Modernized System

- Email
- IDocs

Outbound Processes

- IDocs

Inbound

- IDocs

SAP ECC 6.0

SAP ECC 5.0

Distribution

Accounting

Sales

Wal-mart

Target

Dollar General

Family Dollar

Other

1WorldSync™
Case Study #2 – Specialty Food Manufacturer

Results:

• Completion of ERP upgrade and integration
• Consolidation of internal and outsourced integration to one middleware platform and skill set
• Reduction in manual data entry, process intervention, and partner turnaround time
• Faster trading partner onboarding through pattern reuse
Case Study #3 – 3rd Party Logistics Provider

Background:

- Business: 3PL, Warehousing, Transportation, Fulfillment services
- Environment: Aging, inflexible 3rd party integration environment with multiple 3GL support
- Goals:
  - Upgrade ERP to the latest revision
  - One integration platform and skill set
Case Study #3 – 3rd Party Logistics Provider

Legacy System

Content-based Routing

Maps

Item Exists
Order Exists
Allocated
Order Allocated
Item Lookup
Insert / Update

Food Company

Food Company

Food Company

Food Company

Food Company

Comms (AS2 / FTP)

Maps

ERP Infor V3.10

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Simplify and Accelerate Business Integration
Case Study #3 – 3rd Party Logistics Provider

Legacy System

- Stored Procedures
  - Item Exists
  - Order Exists
  - Allocated
  - Order Allocated
  - Item Lookup
  - Insert / Update

- Maps
- Content-based Routing
- Comms (AS2 / FTP)

Modernized System

- SQL Actions
- Transformation Maps
- Comms (AS2 / FTP)
- Content-based Routing Map
- Transformation Maps
- XML

Food Company

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Case Study #3 – 3rd Party Logistics Provider

Results:

• 5 months, 5 TP’s, 9 Business Documents (X12/5, FlatFile/4),
• Successful ERP upgrade and TP migration
• Full integration with ERP, Doc Tracking and Error Notification Infrastructure
## Case Studies: Summary

<table>
<thead>
<tr>
<th></th>
<th>Trucking Company</th>
<th>Specialty Food Mfr</th>
<th>3PL</th>
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<tr>
<td><strong>Business Issues</strong></td>
<td>Platform change</td>
<td>EDI process efficiency</td>
<td>Aging / Scattered middleware</td>
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<tr>
<td><strong>Trigger</strong></td>
<td>Hardware lease renewal deadline</td>
<td>ERP upgrade</td>
<td>ERP upgrade</td>
</tr>
<tr>
<td><strong>Goals</strong></td>
<td>Scalability &amp; reliability</td>
<td>EDI expansion &amp; process efficiency</td>
<td>Consolidation &amp; single skillset</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>400+ Maps, 300+ TPs</td>
<td>12 Maps, 6 large TPs</td>
<td>50+ Maps, 5 large TPs</td>
</tr>
<tr>
<td><strong>Best Practices</strong></td>
<td>Clearly defined roles and responsibilities</td>
<td>Categorize Partners by map requirements</td>
<td>Separate Test and Prod Environments</td>
</tr>
<tr>
<td></td>
<td>Transaction Analysis, Specs, Sample Data</td>
<td>Integration Pattern Analysis</td>
<td>Pre- &amp; post-project architecture review</td>
</tr>
<tr>
<td></td>
<td>Short development sprints</td>
<td>Weekly Project Retrospective</td>
<td>Life cycle POC before roll-out</td>
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Key Issues

1. What assets and practices are most affected by EDI modernization?

2. How do different EDI goals and requirements affect modernization strategy?

3. What best practices should you incorporate in your EDI modernization plan?
# 15 Steps to EDI Modernization – Pre-project Tasks

<table>
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<tr>
<th>#</th>
<th>Task</th>
<th>Details and Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Catalog EDI infrastructure services</td>
<td>Document baseline EDI requirements and required enhancements</td>
</tr>
<tr>
<td>2</td>
<td>Inventory configured EDI objects</td>
<td>Document partners, interfaces, document types, maps, workflows, etc. including custom code</td>
</tr>
<tr>
<td>3</td>
<td>Profile life cycle tools and processes</td>
<td>EDI implementation / maintenance, schedules, events, workloads, required service levels, exception-handling, scheduled downtime, backups, etc.</td>
</tr>
</tbody>
</table>
| 4   | Perform gap analyses based on current and anticipated use cases | 1. Integration infrastructure  
2. Integration processes / assets  
3. Integration life cycle practices |
| 5   | Choose a modernization strategy                | 1. Stabilize legacy system and apply modern solution as add / change requirements surface  
2. Phase-in modern solution by replacing legacy EDI implementation, partner-by-partner  
3. Replace partner-facing and last-mile integration layer services separately  
4. Replace legacy system with modern solution en masse |
| 6   | Establish modernization timeline               | Including target dates for milestones below                                           |
| 7   | Identify supplemental resource needs           | External assistance needs for planning, implementation, etc.                         |
| 8   | Select modern EDI solution target              | Based on fit to current and anticipated use cases, deployment preference, implementation assistance needed, support, etc. |
# 15 Steps to EDI Modernization – Project Tasks

<table>
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<tr>
<th>#</th>
<th>Task</th>
<th>Details and Options</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>Train planning and migration staff</td>
<td>Ensure understanding of solution capabilities and best practices</td>
</tr>
<tr>
<td>10</td>
<td>Enumerate Goals and Requirements</td>
<td>Identify process improvement opportunities, and processes that need to be preserved. Gather specifications, sample data, supporting documentation.</td>
</tr>
<tr>
<td>11</td>
<td>Define Integration Architecture</td>
<td>Identify process patterns, exception handling strategy, application interfaces and performance considerations.</td>
</tr>
<tr>
<td>12</td>
<td>Develop Migration Strategy</td>
<td>Analyze skills, resources, tools, complexity, timeline, expectations, risk &amp; success factors</td>
</tr>
<tr>
<td>13</td>
<td>Identify Migration Tactics</td>
<td>Enumerate test, development and operational plans; partner priority, impact and schedule.</td>
</tr>
<tr>
<td>14</td>
<td>Perform Migration Activity</td>
<td>Short, prescribed migration “sprints” that follow defined plans and schedule.</td>
</tr>
<tr>
<td>15</td>
<td>Migration Retrospective</td>
<td>Continuous review and refinement of migration activity during and after the migration project.</td>
</tr>
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</table>
EXTOL Simplifies EDI Modernization and Migration

External Locations, Partners, and Services

Customers
Suppliers / Service Providers
Cloud/SaaS Applications & Services

EXTOL Business Integrator

Integration Studio
Design-time Tools

Enterprise Applications
Windows / Linux / IBM i / VMware

Operational Data
Data Warehouse
Business Intelligence

On-premise Applications, Services, and Data

Suppliers / Service Providers

Cloud/SaaS Applications & Services

Dashboard / Reporting / Activity Monitoring

Enterprise Data

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EDI Modernization Success Factors

- For cost justification, leverage baseline metrics for error rates, chargebacks, returns, exceptions, onboarding, and operations
- Invest sufficient time on legacy system inventory, development of object templates, and reuse strategy
- Reduce risk by managing change in increments
- Employ vendor services as appropriate to shorten your learning curve and reduce time to production
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