CNET GLOBAL SOLUTIONS

Design and Development of Inbound and Outbound Interfaces

Electronic Data Interchange (EDI) to enable the processing of data files using Fusion middleware for third-party logistics provider integration.

Introduction:

The customer is one of the renowned logistics company who sought a solution that will enable them to securely transmit and receive business-related documentation through secure, easy, and standardized electronic means

When you are a logistics company with complex operations to manage, it can become a challenge to send and receive the vast amounts of paperwork involved. Any delays or leakages can result in broken trust and have a domino effect on production.

Business Requirement:

The customer was looking for a solution that could help them effectively manage outbound 3PL interfaces that includes items, shipments, purchase orders, sales orders, etc. For inbound shipments, they need means to exchange related documentation.

Since their work required them to interact with generic carriers like FedEx, UPS, Beaver Express, Day and Ross, AAA Cooper, etc., they need to ensure secure business documents interchange. Their accounts payable (AP) invoices have to be shared with their units in Spain and Italy. Whereas their accounts receivable (AR) invoices have to be interfaced with Turkey, Greece, Norway, Denmark, Spain, and Italy.

Customer Profile:
One of the largest cutting-edge logistics company based out of the United States, renowned for transport of Cargos and Bulk carriers across the world which is supported by their state-of-the-art IT infrastructure to track movements and receipts.

Suggested Solution:

When customers approach us for solutions for situations where there is a lot of paperwork resulting in lower efficiency, increased cost, and higher risk due to manual errors, we advise them to consider an EDI solution. This includes:

- Oracle validation for the purchase order, supplier, site, duplicate invoice, contact person, etc.

- The use of E-Business Suite components such as legal entity, GL code combinations, users, employees, responsibilities, hierarchies, AP/PO options, Oracle standard workflow engine, profile options, etc.

Improve the accuracy of the information, using the customer's existing Oracle setup. This will help in the following areas:

- It automatically assigns organization code.

- It also automatically assigns supplier or site.

- Identifies and removes duplicate invoices.

- The setup checks for valid PO, using the existing chart of accounts (COA), code combination, hierarchies, etc.

- Uses Oracle standard workflow engine to get the document processed.

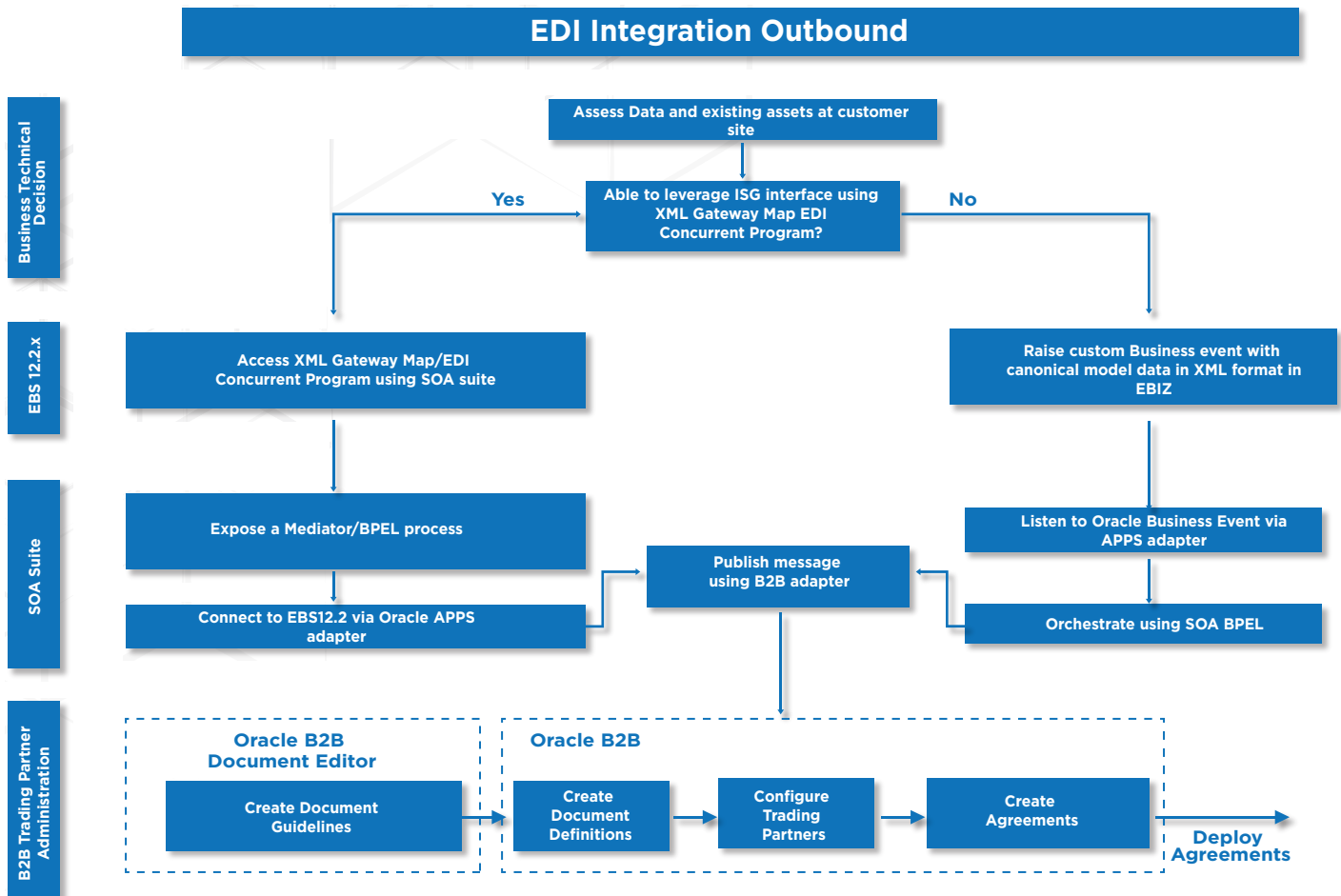- Uses standard Oracle validation rules and hold codes.

Challenges:

The customer was looking for data interchange that will:

- Minimize the use of paper, therefore, bringing down the associated costs. These include costs like printing, filing, postage, mailing, storing, and retrieving these records.

- The quality of data can also be compromised, as manual means often cause errors in data entries, missing of entries, or double entries in some instances.

- There can be a delay in the processing of payments or receiving payments due to paperwork issues.

- Issues like the security of information or data leakages can also increase when you do not have the right means of data interchange.

Highlights:

- We give below the details of the problem and how we helped the customer. The technology stack we used consisted of Oracle EBS, Oracle SOA and BPEL, and integration.

- Using our solution, our client can transform and transmit inbound and outbound messages in XML format as per the OAGI messaging standards.

- The Transaction Management tool helps monitor all the Inbound and Outbound transactions, offers the capability to re-process and helps send error notifications if there are any failures.

Interface Details - Purchase Order Outbound(PO-001)

EDI Integration Outbound

Business Technical Decision	

Assess Data and existing assets at customer site

Able to leverage ISG interface using XML Gateway Map EDI Concurrent Program?

Yes → No →

EBS 12.2.x

Access XML Gateway Map/EDI Concurrent Program using SOA suite

Raise custom Business event with canonical model data in XML format in EBIZ

SOA Suite

Expose a Mediator/BPEL process

Listen to Oracle Business Event via APPS adapter

Connect to EBS12.2 via Oracle APPS adapter

Publish message using B2B adapter

Orchestrate using SOA BPEL

B2B Trading Partner Administration

Oracle B2B Document Editor

Create Document Guidelines

Oracle B2B

Create Document Definitions → **Configure Trading Partners** → **Create Agreements** → **Deploy Agreements**
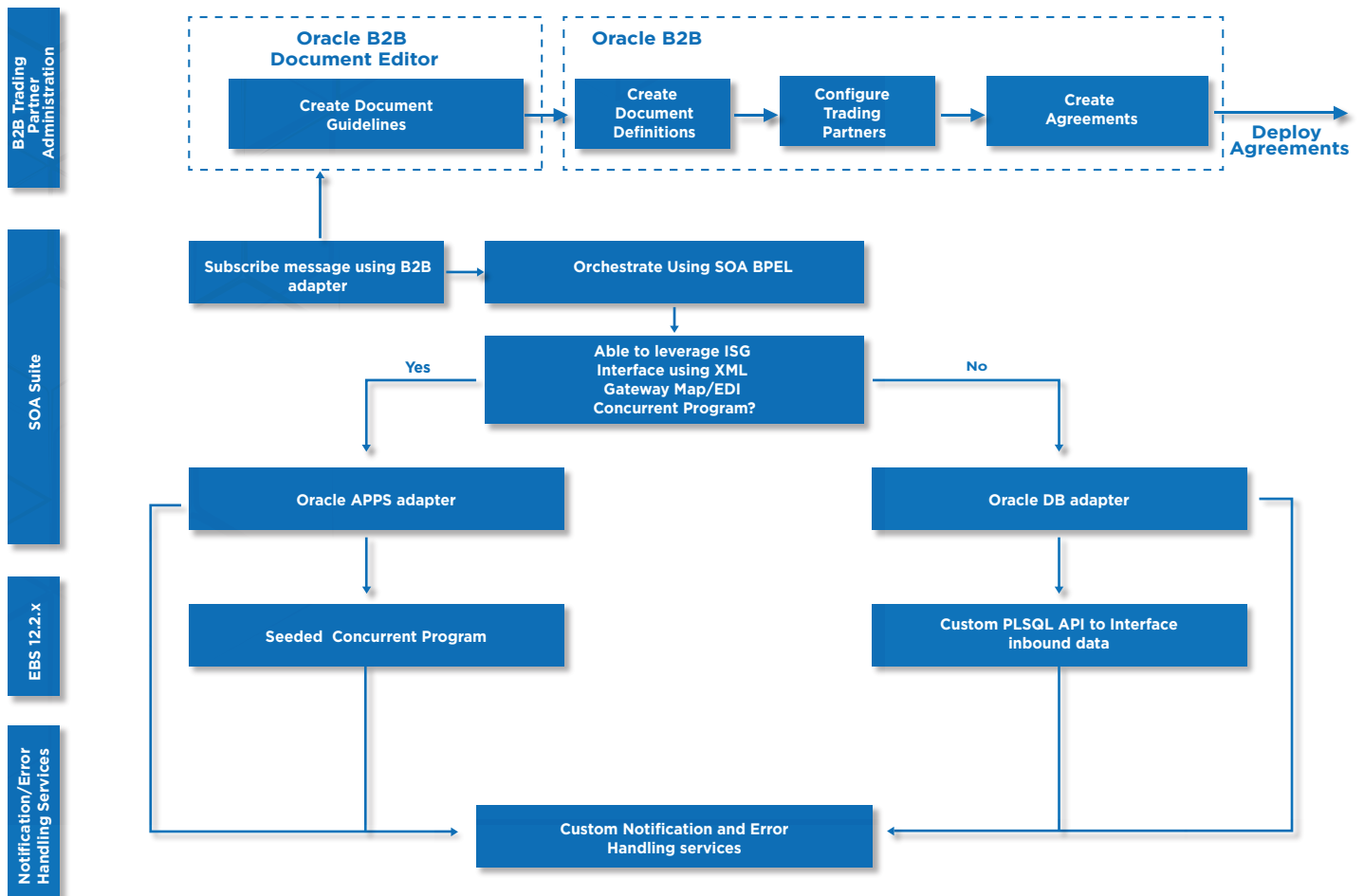
Once the suppliers have been identified, the procurement department, requests for price quotations that include the technical details. After due comparison of specifications, price negotiation, the quote is sent for the creation of a purchase order (PO).

Once the PO is created and approved for the selected supplier, the purchase order will be electronically transmitted to the B2B Hub.

In technical terms:

- Triggering event: PO approved custom business event is raised from PO Approval workflow.

- If the supplier on the PO is setup as B2B Trading Partner, It raises the second event on the BPEL Queue.

- The event is consumed by Oracle SOA.

- Calls EBS custom API(procedure) to get the PO data.

- The PO data is formatted in XML file using OAGI xsl.

- PO Approval Workflow.

- PO Approved Business Event TP.

- Check PO Gen. Event.

- BPEL Queue Oracle SOA B2B Hub.

EDI Integration Inbound

Oracle B2B Document Editor

Create Document Guidelines

Oracle B2B

Create Document Definitions → **Configure Trading Partners** → **Create Agreements** → **Deploy Agreements**

B2B Trading Partner Administration

SOA Suite

Subscribe message using B2B adapter → Orchestrate Using SOA BPEL

Able to leverage ISG Interface using XML Gateway Map/EDI Concurrent Program?

Yes → Oracle APPS adapter

No → Oracle DB adapter

EBS 12.2.x

Seeded Concurrent Program

Custom PLSQL API to Interface inbound data

Notification/Error Handling Services

Custom Notification and Error Handling services

Interface Details

Advanced Shipment Notice Inbound (ASNI)

Technical Details

- Oracle SOA receives ASNI file from B2B Hub.

- Oracle SOA processes the inbound file.

- Trading Partner is validated based on the seller's organization.

- PO info is used to populate data into the staging table.

- Calls custom concurrent program to verify and fill the data into RCV interface tables.

- Calls RCV Transaction process to process the data from RCV Interface tables.

End Result:

What are the benefits of Oracle XML Gateway?

Oracle XML Gateway offers you many benefits. It provides a standard method of extracting data out of or import data into the Oracle E-Business Suite:

- It is based on published XML standards, which makes it machine-readable as well as readable by humans.

- Can be propagated to another instance or transported to a Trading Partner, thereby, cutting down delays and increasing efficiencies.

- Initiated by an application Business Event making it easy to use and cuts down manual efforts.

- Managed by a workflow process, decreasing the chance of manual errors, redundancies due to double entries, etc.

- Available as a web service via WSP.

About CNET Global Solutions

CNET Global Solutions enables its customers to outperform their peers by optimizing existing operations and achieving a faster time to market. We offer legacy application transformation, operations optimization and managed services. We have proven experience in application development, maintenance, and transformation which enables organizations to embark on their digital journey with agility and flexibility.