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# Dell Boomi EDI 101 or what am I doing

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Boomi

# Words To Know

- Trading Partner
- Business Process Model
- Value Added Network
- Mapping and Translation
- Document or Transaction Type
- Mailbox
- UPC/ UCC 128/ GTIN
- AS2
- Cloud

# What is EDI

- EDI is the exchange of common business documents from one computer to another using a standardized format

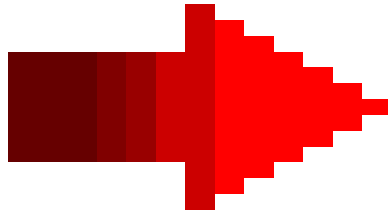
# What is your job?

- If you're a retailer
  - Get orders out
  - Get ASN's in
  - Inventory on shelf
  - UPC's read at the checkout
  - You had a good day
- If you're a vendor
  - Get orders in
  - Get ASN's out
  - Get invoices out
  - No charge backs
  - Boss doesn't yell
  - You had a good day

# Take Out the Humans



Retailer



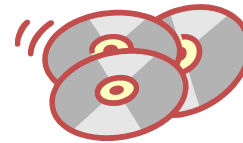
Manufacture

# Evolution of the Standard

1960's	1970's	1980's	1990's
Company Specific	Industry Specific	Cross Industry	Cross Industry
Domestic	Domestic	Domestic	International
Proprietary	TDCC	X12	EDIFACT
Ford	Transportation	VICS	XML????

# How to Begin

- First you will need management commitment
- Money, Money, and Money
- Training, this is your first steps today
- Talk to the experts
- Software
- Communications



# Exchange of Business Documents

Retailer	Document	Manufacture
Purchase Order	850	Sales Order ERP
Forecasting	855	Inventory WIP
PO Change	860	Sales Order ERP
Accounting	810	ERP AP
Loading Dock	856	Shipping System



# The EDI Document

ISA\*00\*            \*00\*            \*01\*094002760        \*12\*9739830888  
\*080116\*1014\*U\*00403\*000008388\*0\*P\*>~  
GS\*IN\*094002760\*9739830888\*20080116\*1014\*8388\*X\*004030VICS~  
ST\*810\*0247~  
BIG\*20080115\*06735933\*20071213\*101235119\*\*\*\*00~  
N1\*ST\*REATILER STORE #587\*92\*0587~  
N1\*RI\*MANUFACTURE CO. INC.\*94\*32~  
ITD\*14\*3\*\*\*\*\*N60~  
DTM\*011\*20080114~  
FOB\*CC\*ZZ\*Collect~  
IT1\*\*1\*EA\*5.89\*\*UP\*082686494557\*VN\*49455PC~  
TDS\*17719~  
CAD\*\*\*\*FDCC\*FEDEX\*\*BM\*332652~  
SAC\*A\*C000\*\*\*187\*\*\*\*\*02~  
SAC\*A\*A260\*\*\*746\*\*\*\*\*02~  
ISS\*132\*EA~  
SE\*29\*0247~  
GE\*248\*8388~  
IEA\*1\*000008388~

# The EDI Header

ISA\*00\*                    \*00\*                    \*01\*094002760                    \*12\*9739830888

Sender

Receiver

\*080116\*1014\*U\*00403\*000008388\*0\*P\*>~

Date

Time

Version

Control

Type

GS\*IN\*094002760\*9739830888\*20080116\*1014\*8388\*X\*004030VICS~

Sender

Receiver

Date

Time Control

Version



Think of a document as a letter you want To send to someone, The ISA and GS would Be the sender/receiver address

# EDI Grouping

ST\*810\*0247~  
SE\*29\*0247~

ST\*810\*0248~  
SE\*30\*0248~

ST\*810\*0249~  
SE\*31\*0249~

ST\*810\*0250~  
SE\*32\*0250~

ST\*810\*0251~  
SE\*33\*0251~

ISA\*  
GS\*

Many to One

# The Document Explained

ST\*850\*000000001

BEG\*00\*SA\*0023-0412345-0551\*\*20090627 (Purpose Type, PO Type, PO Number, PO Date)

REF\*IA\*0132546 (Vendor ID)

REF\*DP\*023 (Department Number)

FOB\*PP (Method of Payment PP=Prepaid)

SAC\*N\*\*VI\*OHPR (Discount Type)

ITD\*01\*2\*\*\*\*\*90 (Terms)

DTM\*037\*20090702 (Ship Date)

DTM\*038\*20090709 (Cancel Date)

TD5\*B\*2\*HYMF\*C (Shipment Routing)

N1\*BY\*RETAILER\*92\*0551 (Ship To)

N3\*7135 HIGHWAY 65 NE

N4\*CITY\*ST\*55432

N1\*MF\*MANUFACTURE (Ship From)

N2\*12345678 VENDOR FACTORY

N3\*1000 MAIN ST

N4\*CITY\*ST\*55555

PO1\*1\*12\*EA\*7\*WE\*CB\*023000500 \*VA\*TWA/4\*UP\*023456789015 (Item Information)

PID\*F\*08\*\*\*V NECK SWEATER (Item Description)

PO4\*6\*\*\*\*\*2 (How to Pack Item in Carton)

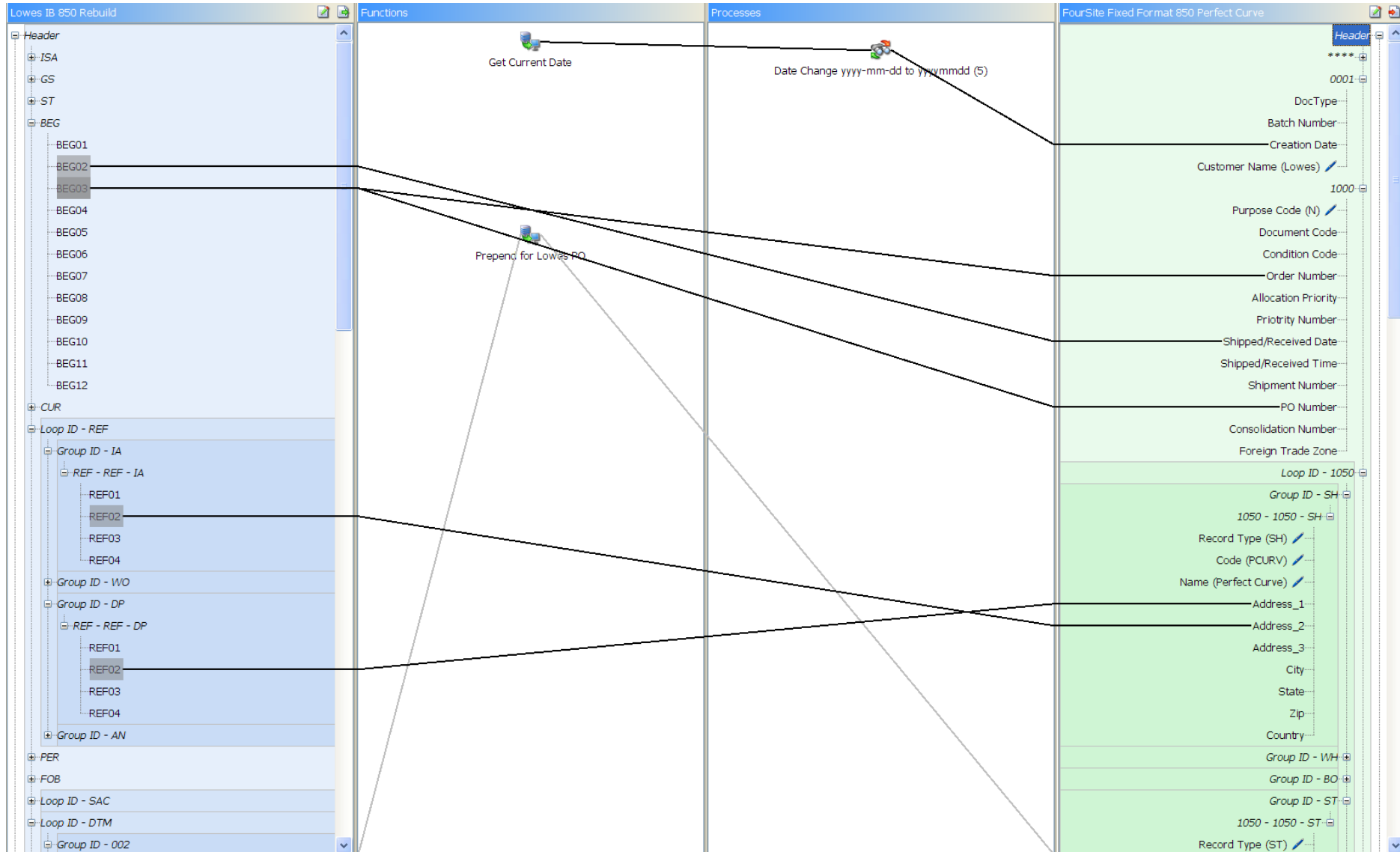
CTT\*1\*12 (Summary Information)

SE\*22\*000000001

# What is Mapping

- Mapping is moving data from the source to the target format
- Great software is available
- Build one to many
- Formats can be EDI, EDIFACT, Flat File, CSV, User Defined, Text and XML

# Mapping



# XML????

```
<?xml version="1.0" encoding="UTF-8"?>
<searchCandidateResponse><CandidateBean><creationDate>2008-09-
02T18:42:09.767Z</creationDate><flexValues><eduSchool1></eduSchool1><eduLevel1></eduLevel1><eduMajor1></eduMajor
1><legacyCandId></legacyCandId><legacyCandStatus></legacyCandStatus><legacyCreatedDate></legacyCreatedDate><compl
etedEducation>false</completedEducation><background></background><_21OrOlder></_21OrOlder><Overtime></Overtime><mi
nimumWage></minimumWage><ageRange></ageRange><education></education><shiftsAvailable></shiftsAvailable><daysAvai
lable></daysAvailable><workHolidays></workHolidays><Source_If_Other></Source_If_Other><ftPtPref>Full
Time</ftPtPref><Suffix></Suffix><Address_Line_1></Address_Line_1><Address_Line_2></Address_Line_2><eduSchool2></ed
uSchool2><SchoolAddress1></SchoolAddress1><School_ddress2></School_ddress2><Major2></Major2><DegreeDiploma1></D
egreeDiploma1><DegreeDiploma2></DegreeDiploma2><Graduated1></Graduated1><Graduated2></Graduated2><EducationLev
el2></EducationLevel2><ElectronicSignature></ElectronicSignature><ElectronicDate></ElectronicDate></flexValues><id>2</id>
<lastUpdated>2008-11-17T20:41:50.247Z</lastUpdated><status>Talent Pool</status><address /><cellPhone /><city
 /><country /><email>pmackinnon@hrchitect.com</email><firstName>Pamela</firstName><gender
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><hiredDate
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><lastName>MacKinnon</lastName><legalStatus
 /><middleInitial /><password>2</password><phone>919 661-9554</phone><race
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><rank>0</rank><reasonRejected
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><referredBy
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><resume Filename
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><source /><startDate
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><state /><submittedBy
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><textResume
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><veteran
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true" /><zipCode
 /></CandidateBean></searchCandidateResponse>
```

# EDI Looping

- N1\*BY\*RETAILER\*92\*0551 (Ship To)
- N3\*7135 HIGHWAY 65 NE
- N4\*CITY\*ST\*55432
  
- N1\*MF\*MANUFACTURE (Ship From)
- N2\*12345678 VENDOR FACTORY
- N3\*1000 MAIN ST
- N4\*CITY\*ST\*55555
  
- REF\*IA\*0132546 (Vendor ID)
  
- REF\*DP\*023 (Department Number)



# The ASN

BSN\*00\*B10211\*20110331\*1816\*0  
001

HL\*1\*\*S

TD1\*CTN\*5\*\*\*\*\*19\*LB

TD5\*\*2\*FDEG

REF\*BM\*B10211

DTM\*011\*20110331

N1\*SF\*Shipper\*92\*12516

N4\*Lebanon\*TN\*37090

HL\*2\*1\*O

PRF\*GL37241

TD1\*CTN\*4

N1\*BY\*SAN ANGELO\*92\*0851

HL\*3\*2\*P

MAN\*GM\*00006186508704200012

HL\*4\*3\*I

LIN\*\*UP\*070970446443

SN1\*\*12\*EA

HL\*11\*1\*O

PRF\*GC34383

TD1\*CTN\*1

N1\*BY\*SAN ANGELO\*92\*0851

HL\*12\*11\*P

MAN\*GM\*00006186508702000027

HL\*13\*12\*I

LIN\*\*UP\*038252377250

SN1\*\*12\*EA

CTT\*13

SE\*44\*0011

# The 204

ST\*204\*0001  
B2\*\*HDSW\*\*0017127890\*L\*PP\*I  
B2A\*00  
G62\*64\*20101019\*1\*1030\*LT  
N1\*SH\*Shipper\*93\*569129  
G61\*SH\*LOAD PLANNER\*TE\*Call Dispatch Office  
N7\*\*0\*326.49\*G\*\*\*\*187530\*E\*\*RT\*\*\*\*5300  
S5\*1\*CL\*32649\*L\*2108\*CA\*1875.3\*E  
L11\*00171278900101\*SI  
L11\*6250025031\*PO  
G62\*10\*20101020\*I\*0000\*LT  
G62\*10\*20101020\*K\*2359\*LT  
NTE\*ADD\*IA361899010  
NTE\*ADD\*DEPT NBR DP00001  
NTE\*ADD\*PO TYPE MR0003  
NTE\*ADD\*REF DP 00001  
NTE\*ADD\*REF MR 0003  
NTE\*ADD\*REF IA 361899010  
NTE\*ADD\*6  
N1\*SF\*Ship From\*93\*583161  
G61\*SH\*LOAD PLANNER CONTACT\*TE\*Call Dispatch Office  
OID\*\*6250025031\*\*CA\*2108\*L\*32649\*E\*1875.3

S5\*2\*CU\*32649\*L\*2108\*CA\*1875.3\*E  
L11\*00171278900102\*SI  
L11\*6250025031\*PO  
G62\*68\*20101025\*G\*0000\*LT  
G62\*68\*20101025\*L\*2359\*LT  
NTE\*ADD\*IA361899010  
NTE\*ADD\*DEPT NBR DP00001  
NTE\*ADD\*PO TYPE MR0003  
NTE\*ADD\*REF DP 00001  
NTE\*ADD\*REF MR 0003  
NTE\*ADD\*REF IA 361899010  
NTE\*ADD\*6  
N1\*ST\*Ship To\*93\*083924  
OID\*\*6250025031\*\*CA\*2108\*L\*32649\*E\*1875.3  
L3\*32649\*G\*\*\*\*\*187530\*E  
SE\*44\*0001

And now for something completely different

## The HL 7 For Healthcare

# The HL7 Document

- **MSH**|^~\&|STAR|A|HUBLINK|A|20140708020030||ADT^A03|25915|D|2.2|25915||AL|||||2.2b
- **EVN**|A03|20140708020030
- **PID**|1|00454324|0000968573^^^A^MR|1820^A28550|TEST^NICEY^""^""||20020123|F||1|25 IAMAKIDD DRIVE^^PETER PAN^AL^36878^^P^99^99|99|(334)555-4565^PRN^PH^^^334^5554565~""^ORN^PH^^^""^""~(334)750-1234^ORN^CP^^^334^7501234~^NET^X.400^nicey@gmail.com|(99)999-9999^WPN^PH^^^999^9999999|E^ENGLISH|S|10|1415700009^^^A|111528741||2||||N|61||N|N||||||||||||||||N
- **PD1**||||2030^LALL^REKHA^""|||||||279^LATTER DAY SAINTS/MORMON^99CHR
- **PV1**|1|R|PTA|3|||2030^LALL^REKHA^""^^^MD^HL70010||""|REH||||2|||2030^LALL^REKHA^""^^^MD^HL70010|SEA|1415700009^^^A|MC||||||||||||DC||A||0|""||201406061116|201407072359||0|||PTA
- **PV2**|||||||||||||||||""||AUBURN OUTPATIENT SERVICES^D^PTA|||||||||N|||||||||N

# Building the Profile

The screenshot shows the 'EDI Profile: ADT A03' configuration interface. A dialog box titled 'Choose a Segment or Segments' is open, displaying a tree view of segments. The 'Header' section is expanded, showing the following segments with checked checkboxes: MSH, EVN, PID, PV1, PV2, and OBX. Below the 'Header' section are 'Detail' and 'Summary' sections, each with a green cube icon. At the bottom of the dialog box are 'OK' and 'Cancel' buttons.

Buttons: Welcome, ADT A03

EDI Profile: ADT A03

Enter Description Here

Data Elements

Standard:

File Options

HL7 Version Info

Choose Version

Description:

Message Type:

Version:

Choose a Segment or Segments

- Header
  - MSH
  - EVN
  - PID
  - PV1
  - PV2
  - OBX
- Detail
- Summary

OK Cancel

# And now you add the Z segment

- MSH|^~\&|STAR|A|HUBLINK|A|20140708020030||ADT^A03|25915|D|2.2|25915||AL|||||2.2b
- EVN|A03|20140708020030
- PID|1|00454324|0000968573^^^A^MR|1820^A28550|TEST^NICEY^""^""||20020123|F||1|25 IAMAKIDD DRIVE^^PETER  
PAN^AL^36878^^P^99^99|99|(334)555-4565^PRN^PH^^^334^5554565~""^ORN^PH^^^""^""~(334)750-1234^ORN^CP^^^334^7501234~^NET^X.400^nicey@gmail.com|(999)999-9999^WPN^PH^^^999^9999999|E^ENGLISH|S|10|1415700009^^^A|111528741|||2||||N|61||N|N||||||||||||||||N
- PD1|||2030^LALL^REKHA^""|||||||279^LATTER DAY SAINTS/MORMON^99CHR
- PV1|1|R|PTA|3|||2030^LALL^REKHA^""^^^MD^HL70010||""|REH|||2|||2030^LALL^REKHA^""^^^MD^HL70010|SEA|1415700009^^^A|MC|||||||||||||DC|||A||0|""||201406061116|201407072359||0|||PTA
- PV2|||||||||||||||||""||AUBURN OUTPATIENT SERVICES^D^PTA||||||||||||N||||||||N
- ZPI|1|N|279||2030^LALL^REKHA^""||||||3|||2^CHILD^99H66^2^CHILD^99EMP
- ZPV|1||Y||||||||||||N||0|0
- ZCV|||ECC|||SEA|0

# What are the Z Segment

- Z segments contain clinical or patient data that the [HL7 Standard](#) may not have defined in other areas
- Is “catch all” for data that does not fit into the HL7 Standard message definitions.
- Z segments are one of the reasons why the HL7 Standard is sometimes called the flexible standard.
- When using Z segments, it is important to have adequate documentation of what is included

# Communications



AS2



Value Added Network



FTP



Wireless



# Value Added Network

- Uses mail boxing to move data (think Post Office)
- One source to send and receive data (unless you are required to use more than one)
- Has a cost to use (usually charge by KC)
- Responsible for moving data (someone to blame)
- Can translate if needed (part of the value add)
- Can do AS2 if needed (at a cost)
- Safe, Secure, Backed Up and Easy (lets you sleep at night)

# AS2

- Can be an additional cost
- One to One communication
- Network guys now involved
- Firewall issues
- Not as easy as originally thought

# Other Ways to Communicate

- FTP, not secure, fast, reliable
- AS1, outdated, not used much these days
- AS3, new to the family, will grow
- Wireless, newer, used only to notify and address issues and errors
- AS4, who will think up the next type

# Business Process Modeling

- Old days, just translation
- Today, better, faster, helps develop and implement ideas
- Database lookups
- Email notifications
- Send error alerts
- Convert data
- GUI interface
- Drag and Drop mapping
- Cross reference tables

# What other ways are there?

## Service Bureaus

- Act as your VAN

- Translates your files, can provide web forms and turn around

- Has the Experts

## Value Added Networks

- Is the Van, can connect with AS2 as needed

- Has in line translation, web forms

- Has Experts as well

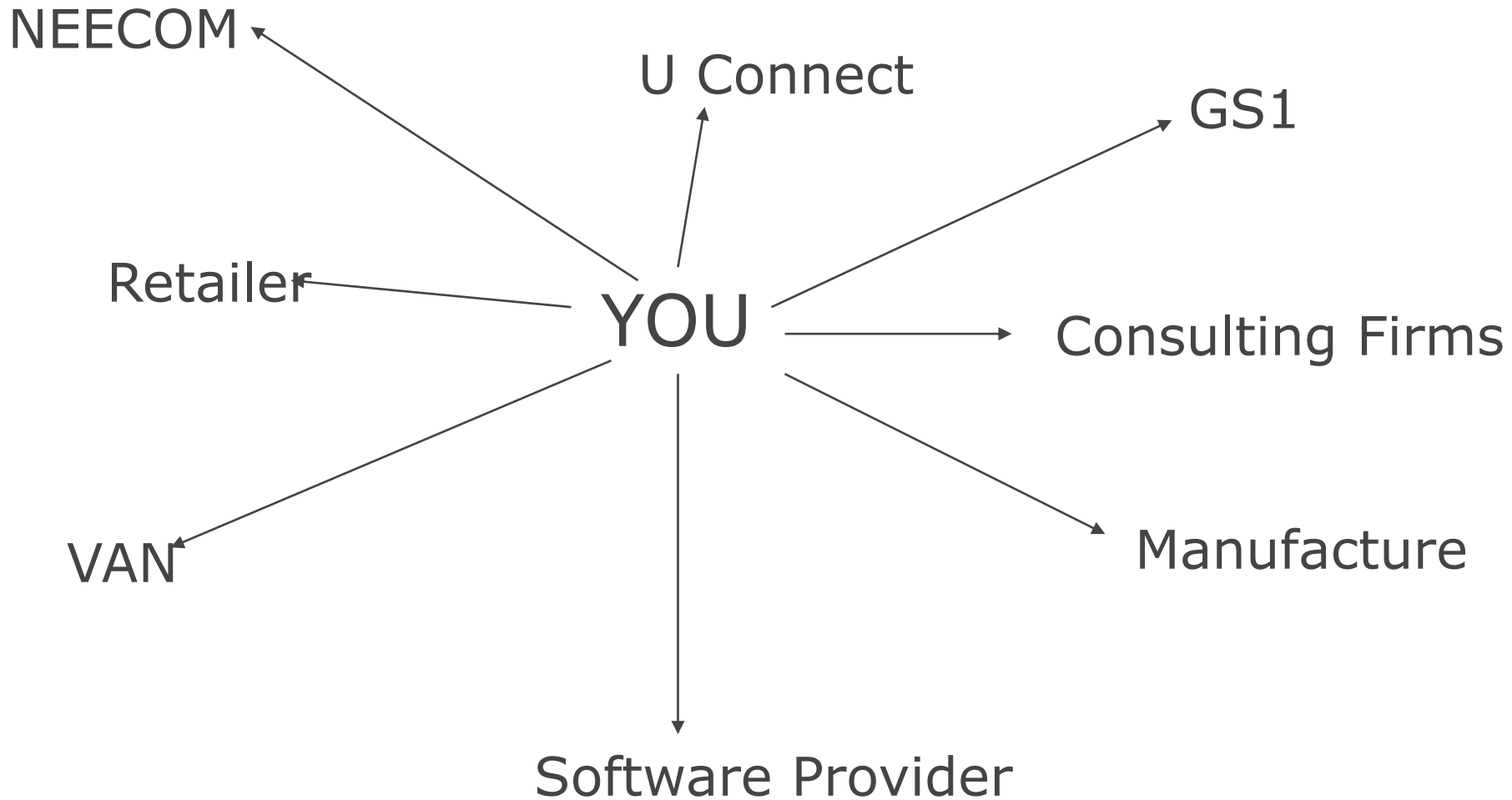
## Software Providers

- Translates and provides AS2 connections

# What is EDI Really?

- An investment in your company's future
- A resource in managing data
- A way to communicate business documents
- Receiving data to mine and report

# Network with Others



# The Future?



# Thank You

## Questions?