

# GDSN – Getting Started

UDI/Standards Adoption Network  
(USAN) Meeting

4/01/10

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# The Challenge in Supporting Military Forces

- New Items Entering Marketplace and Gaining Market Share
- Obsolete Items Leaving Marketplace—Limited or Not Available
- Changes in Part Numbers
- Manufacturer Naming Disconnects
- Part Number Disconnects
- Packaging Disconnects



*Contingencies magnify  
the disconnects*

# Bad Data ....

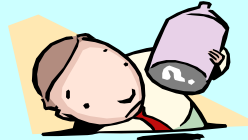
## *Multiple Customer Problems*

Multiple Manufacturer Names



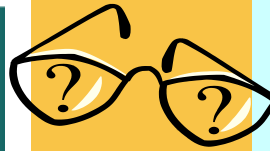
Difficulty in ordering

Multiple Product Numbers



What is it?

Inconsistent Item Descriptions



What you “see” may not be what you want or get

Packaging Issues



Order 50 receive 500  
or  
Order 20 cases, receive 20 boxes

Old product data



Attempting to order  
obsolete products

# Bad Data: Multiple Product #s

***SYRINGE INSULIN & NEEDLE PLASTIC U100 0.50ML 28GA x 1/2IN***

Business Name	Item Number Type	Item Number
BD	Mfg Catalog Number	329461
BD	GTIN	00382903294619
BD	GTIN	30382903294610
BD	GTIN	50382903294614
CARDINAL HEALTH	PV Order Number	BF329461
OWENS & MINOR	PV Order Number	0722329461
OWENS & MINOR	PV Order Number	0723329461
AMERICAN MEDICAL DEPOT	Vendor Catalog Number	777127217
AMERICAN MEDICAL DEPOT	Vendor Catalog Number	777127218
GOVERNMENT SCI SOURCE	Vendor Catalog Number	FSC1482679CS
GOVERNMENT SCI SOURCE	Vendor Catalog Number	FSC1482679PK
ALLIANCE JOINT VENTURE	Vendor Catalog Number	888021932
THOMAS SCIENTIFIC	Vendor Catalog Number	8938M25
THOMAS SCIENTIFIC	Vendor Catalog Number	8938M28
VWR INTERNATIONAL	Vendor Catalog Number	BD329461

***Every level within the Supply Chain has their own # to include Hospitals !!***



# Example of Findings – DoD Pilot Phase I

Type of Problem	Mfr	Dist	GPO	Provider
Missing Middle Packaging Levels	15-20%	1-4%	20-25%	15-25%
Hard “Packaging Quantity” Errors	1%	1%	2%	2-5%
Unit of Measure Confusion/Misuse	2-6%	1-3%	2-5%	Unknown
Missing Packaging—not middle level	3-8%	3-8%	3-7%	5%
Manufacturer Name Problems	n/a	2-5%	1-4%	30%
Obsolete Products	1-4%	2-5%	1-8%	5-15%
Missing Product Brand Names	2-5%	5-10%	5-10%	20-25%
Incomplete Item Descriptions	5-15%	3-12%	5-15%	10-20%
Wrong Customer Unit Prices	Unknown	1-2%	n/a	1-2%
Customer Paid More Than Lowest Contract Price	n/a	Unknown	n/a	3-6%

***Errors increase closest to the customer!***

# Example Results after Data Synchronization

	<u>Becton Dickinson</u>		<u>DoD</u>	
	<u>Before / After</u>		<u>Before / After</u>	
Missing Middle Levels of Pkging	2%	<1%	20-25%	2-5%
Hard “Packaging Quantity” Errors	<1%	0	2%	<1%
Unit of Measure Confusion/Misuse	2%	1%	2-5%	1-2%
Missing Packaging—not Middle Level	1%	<1%	3-7%	1-3%
Manufacturer Name Problems		NA	1-4%	<1%
Obsolete Products		0%	1-8%	<1%
Missing Product Brand Names		0%	5-10%	1-3%
Incomplete Item Descriptions		0%	5-15%	3-5%

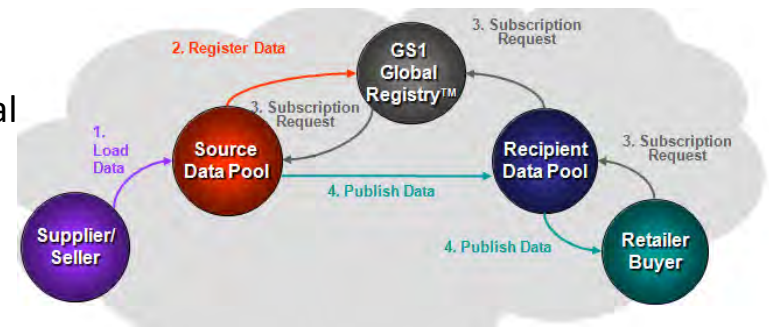
# Industry PDU... Try a Existing Venue

- **Criteria**

- Unique product registry for validated basic information
- Capable of transmitting Healthcare specific attributes
- Governance mechanism to set standards and govern operability
- Global reach and partnership

- **Existing commercial solution GDSN**

- Eliminates major unknowns for transition to Industry PDU
- Established systems network platform for sharing synchronized data used by major US industries, e.g. Wal Mart, Lowe's, etc
- Facilitates implementation of RFID and use of GLNs
- Many major healthcare manufacturers already active participants in GDSN with their retail products



**Manufacturers**



**Distributors**



**Technology**

**GDSN  
Registry**



**Data Pool**



**Payer**



**GPO**

**PREMIER**



**Novation**

**Providers**



**DoD Healthcare  
GDSN Pilot Participants**













# Expectations of Participants

- Executive sponsorship
- Commitment to stay engaged
  - Single POC, regular attendance, responsiveness
  - Resources assigned to accomplish tasking
- Willingness to share
  - Weekly updates become part of pilot record
- Baseline, Goals and Reporting
  - High level “before” visual
  - Hypothesis/expected learning – metrics
  - High level – “after” visual (proposed and final)
  - Execution
  - Incremental progress updates
- Lessons learned reporting

# DoD GDSN Pilot Provider Tasking

- How are new items added?
- What are your required fields?
- How to they compare to the standard?
- What could the process look like with standardized data?
- Data pool testing
- Data receipt from pilot manufacturers

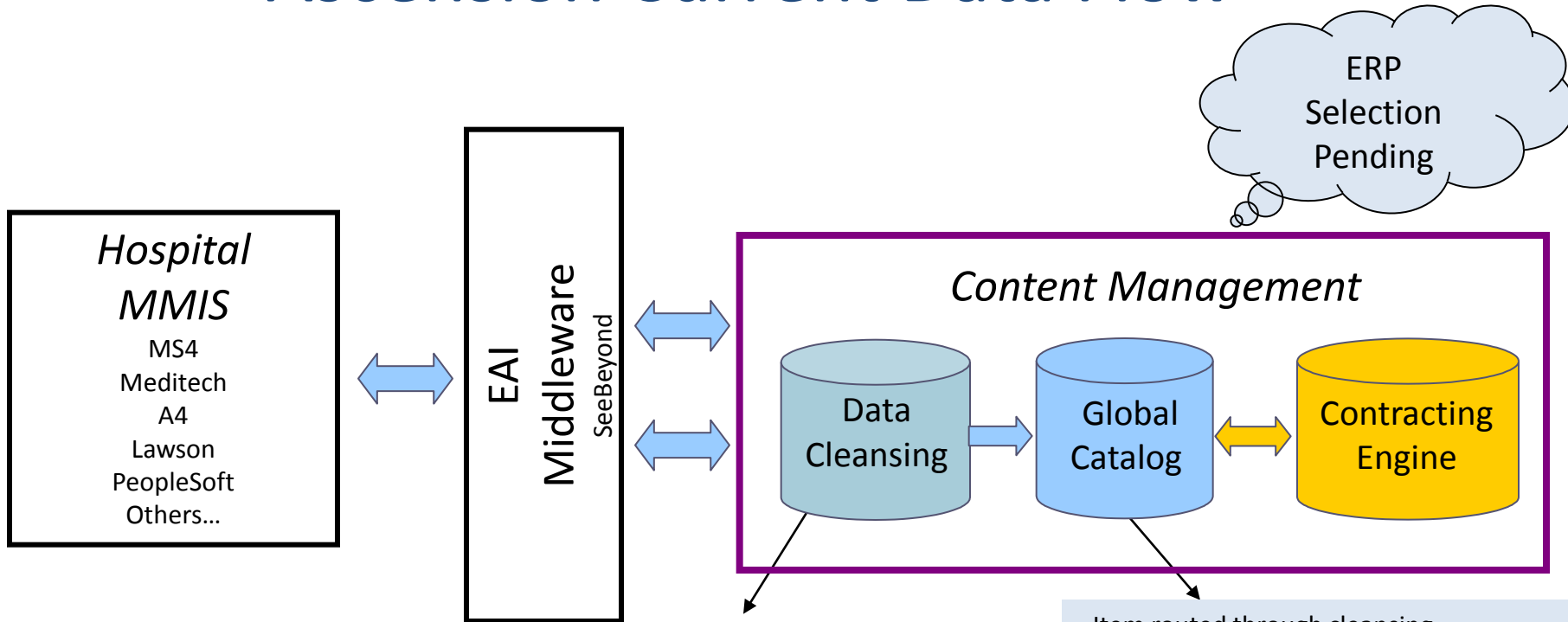
		Task Name
194		<input type="checkbox"/> <b>Duke University Health</b>
195		<input type="checkbox"/> <b>Subscribe to available pilot items</b>
196	<input checked="" type="checkbox"/>	1SYNC contract
197	<input checked="" type="checkbox"/>	Confirm GLN
198	<input checked="" type="checkbox"/>	Ontuet training
199	<input checked="" type="checkbox"/>	Subscribe to manufacturer data
200	<input checked="" type="checkbox"/>	Download Ontuet XML
201		Download Ontuet flat file
202	<input checked="" type="checkbox"/>	<input type="checkbox"/> <b>Data Fields Analysis</b>
203	<input checked="" type="checkbox"/>	Chart new item add process
204	<input checked="" type="checkbox"/>	SAP review and screen shots
205	<input checked="" type="checkbox"/>	Gap analysis
206	<input checked="" type="checkbox"/>	Presentation of findings
207		<input type="checkbox"/> <b>Pilot Data Assessment</b>
208		Chart "after" new item add process
209		Integration testing
210		Assess impact on clinical item add (24 hr. requirement)
211		Confirm "procure to pay" audit findings are satisfied
212		Prepare and Present findings
213		<input type="checkbox"/> <b>Education</b>
214	<input checked="" type="checkbox"/>	GS1 Standard and Attribute governance
215		GS1 List price attributes
216		GS1 Pricing functionality used in retail
217		<input type="checkbox"/> <b>Lessons Learned</b>
218		Field Analysis
219		Process Flow
220		Education

# Duke University Health Healthcare Data Fields Analysis

	A	B	C	D
1	<b>Common Field Name</b>  Highlighted in grey if required on Duke Spreadsheet or Form	GDSN Required (Core 27)	Healthcare Required	Duke Specific observations
2	<b>ITEM ID and Ownership</b>			
3	GTIN	Yes	Yes	Available in SAP - not used
4	Unit Descriptor	Yes	Yes	Required and used in SAP
5	Target Market Country Code	Yes	Yes	n/a
6	Manufacturer Name	Yes	Yes	Required and used in SAP
7	Manufacturer GLN	Yes	Yes	IDs are used in SAP - currently sequential
8	Brand Owner GLN	Yes	Yes	IDs are used in SAP - currently sequential
9	Alternate Trade Item ID Type	No	Yes	Manufacturer and Vendor Item number both
10	Alternate Trade Item Value		Yes	Manufacturer and Vendor Item number both
11	<b>Item Classification</b>			
12	GPC Code	Yes	Yes	n/a
13	Additional Classification	No	Optional	
14	Additional Classification		Optional	UNSPSC is assigned by Analyst team
15	<b>Item Descriptions</b>			
16	Brand Name (35)	Yes	Yes	Field available in SAP - not used
17	Functional Name (35)	Yes	Yes	Field available in SAP - not used
18	Short Description (30)	No	Optional	
19	Medium Description (1-40)	No	Required	40 character SAP description
20	Medium Description (41-350)	No	Optional	SAP will hold, not searchable
21	Long Description (1,000)	No	Optional	SAP will hold, not searchable
22	<b>Packaging</b>			
23	Height	Yes	Yes	Field available in SAP - not used
24	Height UOM	Yes	Yes	Field available in SAP - not used
25	Width	Yes	Yes	Field available in SAP - not used
26	Width UOM	Yes	Yes	Field available in SAP - not used
27	Depth	Yes	Yes	Field available in SAP - not used
28	Depth UOM	Yes	Yes	Field available in SAP - not used
29	Net Content	No	Yes	Required for UOM fields
30	Net Content UOM	No	Yes	Required for UOM fields
31	Gross Weight	No	Yes	Field available in SAP - not used
32	Gross Weight UOM	No	Yes	Field available in SAP - not used
33	Consumer Unit	Yes	Yes	Would assist to populate UOM fields
34	Orderable Unit	Yes	Yes	Would assist to populate UOM fields
35	Invoice Unit	Yes	Yes	Would assist to populate UOM fields
36	Shipping Unit	Yes	Yes	Would assist to populate UOM fields
37	Item Base Unit	Yes	Yes	Would assist to populate UOM fields
38	Item Variable Unit	Yes	Yes	n/a today - perhaps with pharma

	A	B	C	D
1	<b>Common Field Name</b>  Highlighted in grey if required on Duke Spreadsheet or Form	GDSN Required (Core 27)	Healthcare Required	Duke Specific observations
39	<b>Package Markings</b>			
40	Package Marked with Bar	No	Optional	Not currently stored - can add SAP data fields
41	Packaging Marked with Batch	Yes	Yes	Not currently stored - can add SAP data fields
42	Package Marking - Latex	No	Optional	Not currently stored - can add SAP data fields
43	Package Marking - Sterile	No	Future	Not currently stored - can add SAP data fields
44	<b>Heirarchy Information</b>			
45	Parent GTIN	No	Yes	Would assist to populate UOM fields
46	Child Quantity	No	Yes	Would assist to populate UOM fields
47	Child GTIN	No	Yes	Would assist to populate UOM fields
48	<b>Dates</b>			
49	Availability Start Date	No	Optional	
50	Effective Date	No	Optional	
51	Publication Date	No	System	

# Ascension Current Data Flow

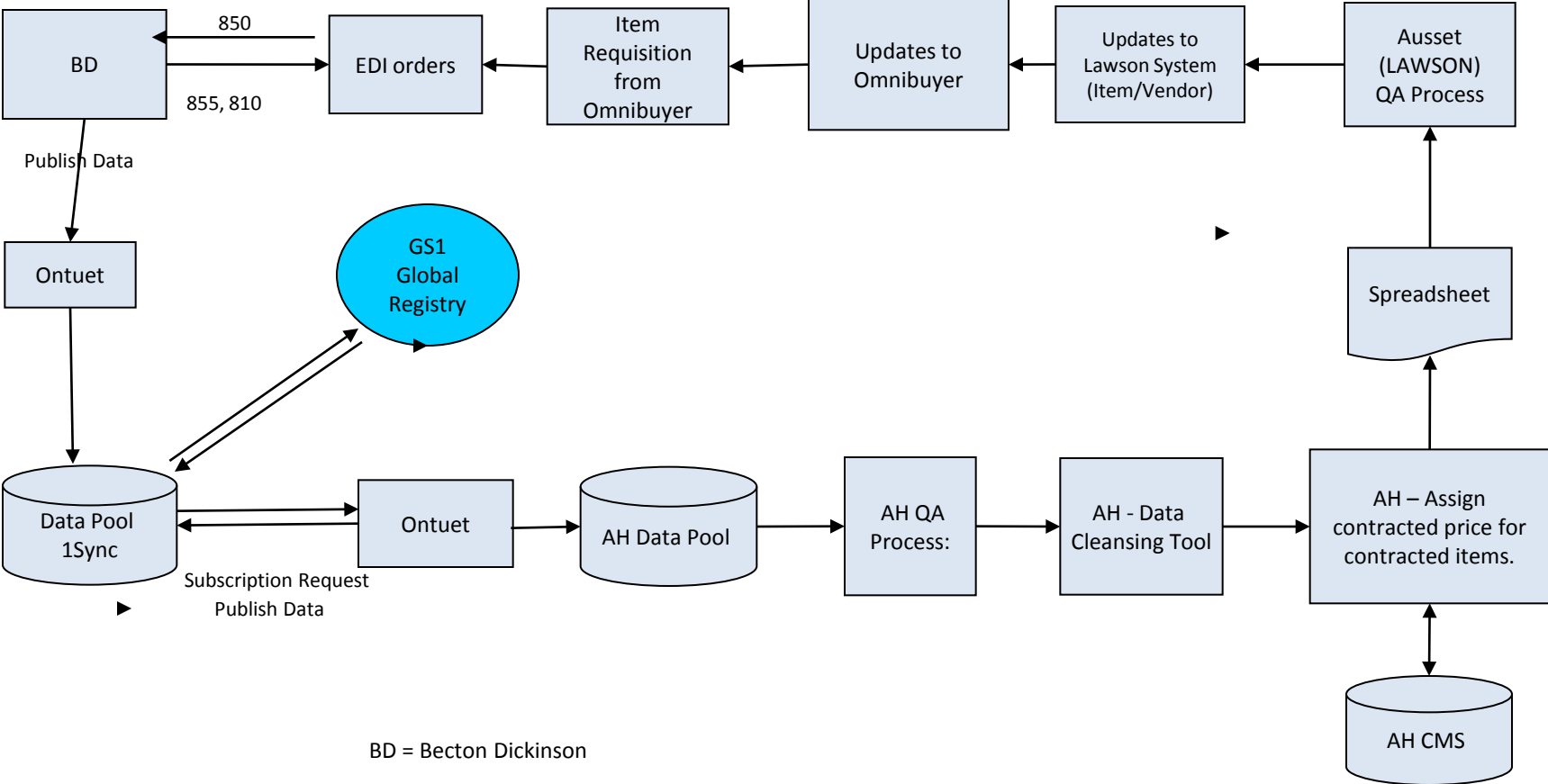


- 29 Regional Ministries
  - Including 73 hospitals
- Buyers enter item data as known
- Purchasing done at each ministry through common web based application
- Item and vendor data sent to corporate for inclusion in Global Catalog

- Description cleansing/standardization
- Item classification
  - In-house classification schema
  - 25 top levels, 3 additional levels
- Matching algorithms
  - Strip known extra characters
  - Pattern matching
- 6 FTE
- 560,000 local items mapped to 220,000 Global items
- 10 to 20,000 item adds/changes per week
- 90% of items match to existing items

- Item routed through cleansing
- Matched and approved as standard
- Passed to Global Catalog
- Item data passed back to Hospitals
- Item data forwarded to common web based application for ordering.

# BD GLN/GTIN Pilot - Phase I (Draft)



BD = Becton Dickinson

AH = Ascension Health

AUSSET = Seton Healthcare Network ( Austin, TX) running Lawson

CMS = Contract Management System



# Observations...where are we now?

- **Global Regulatory activity**
  - Field definitions underway
  - Sum of field definitions = label attribute requirements
  - Harmonization stated as the goal
  - Product information messaging standards development
  - US FDA - GDSN feed acceptable for UDI database
- **Industry activity**
  - Global and US implementation reporting
  - Endorsements, mandates and sunrise timelines
  - GDSN attribute development (see above)
  - Package marking recommendations
  - Med/Surg focus expanding to pharma outreach
- **Provider Readiness**
  - Minimal number of attributes required to add or maintain an item
  - Varying ability to utilize GTIN as a key field today (but most can store as a reference)
  - Offline systems utilized to store cross references could accommodate GTIN quickly
  - Ready to bring in standardized data today and match to current identifiers



# Attribute Discussions Include:

## **GDSN US**

**40 Attributes**

**Device Supply Chain  
Centric, Pharm Outreach,  
Some Safety**

## **GDSN Global**

**Canada, Australia, others**

**Device and Pharma,  
Supply Chain and Some  
Safety Attributes**

## **Regulatory**

**US FDA,  
Emerging Global  
Requirements  
(GHTF, HL7)**

**Label Driven for  
Regulated Products**

# Initial Gap Analysis -- GDSN 40, FDA UDI, GHTF, HL7 SPL

Recommended Initial Attributes for Global Implementation of the GDSN				DRAFT - Feb 18, 2010			
#	Information Relates	GDSN	Common Name	GS1 Global Data Dictionary Tag	FDA Reference	GHTF Reference	HL7 SPL
1	Item	Mandatory	Unique Device Identifier	GTIN	Device Identifier	UDI Code	Unique Device Identifier
2	Item	Mandatory	Pack Level	tradeItemUnitDescriptor	Unit of Measure	Unit of Measure	Package Type
3	Item		Manufacturer Part Number	additionalTradeItemIdentificationType additionalTradeItemIdentificationValue	Device Model Number	Device Model Number	Model Number/Other ID
4	Item		Heirarchy	parentGTIN	Pack Level Quantity	Quantity/Pack Level	Quantity/Pack Level
5	Item		Heirarchy	childGTIN	Pack Level Quantity	Quantity/Pack Level	Quantity/Pack Level
6	Item		Heirarchy	quantityOfChildren totalQuantityOfNextLowerLevelTradeItem	Pack Level Quantity Pack Level Quantity	Quantity/Pack Level Quantity/Pack Level	Quantity/Pack Level Quantity/Pack Level
7	Party	Mandatory	Publisher GLN	informationProviderOfTradeItem			
8	Party	Mandatory	Target Market	targetMarketCountryCode			
9	Party		Brand Owner and GLN	nameOfBrandOwner brandOwner			
10	Party		Manufacturer Name and GLN	nameOfManufacturer manufacturerGLN	Make	Manufacturer name	Labeler Name Labeler Identifier
11	Descriptions	Mandatory	Functional Name	functionalName		Device Name	
12	Descriptions	Mandatory	Brand Name	brandName	Brand/Trade Name	Trade Name	Brand Name
13	Descriptions		Description	additionalTradeItemDescription	Description		Descriptive Name
14	Packaging	Mandatory	Dimensions	height + UoM			
15	Packaging	Mandatory	Dimensions	width + UoM			
16	Packaging	Mandatory	Dimensions	depth + UoM			
17	Packaging		Dimensions	grossWeight + UoM			
18	Packaging		Dimensions	netContent + UoM	Pack Level Quantity	Quantity/Pack Level	
19	Business Rules	Mandatory	Consumer Unit	isTradeItemAConsumerUnit			
20	Business Rules	Mandatory	Orderable Unit	isTradeItemAnOrderableUnit			
21	Business Rules	Mandatory	Invoice Unit	isTradeItemAnInvoiceUnit			
22	Business Rules	Mandatory	Shipping Unit	isTradeItemADespatchUnit			
23	Business Rules	Mandatory	Base Unit	isTradeItemABaseUnit			
24	Business Rules	Mandatory	Variable Unit	isTradeItemAVariableUnit			
25	Markings	Mandatory	Returnable Package	isPackagingMarkedReturnable			
26	Markings	Mandatory	Marked with Lot Number (1 of 3 must be answered)	hasBatchNumber	Control	Control Y/N	Product Control
		Mandatory		isNonSoldTradeItemReturnable			
		Mandatory		isTradeItemMarkedAsRecyclable			
27	Markings		Bar Code Type	barCodeType			
28	Classification	Mandatory	GPC Code	classificationCategoryCode			
29	Classification		Optional Classification Agency and Value	additionalClassificationAgencyName	GMDN added Apr 09	GMDN added Apr 09	GMDN
				additionalClassificationCategoryCode	GMDN added Apr 09	GMDN added Apr 09	GMDN and Display
30	Dates		Start Date	startAvailabilityDateTime			Start Date
31	Dates		Effective Date	effectiveDate			
32	Safety		Shelf Life from Production	minimumTradeItemLifespanFromTimeOfProduction	Expiration	Expiration	
33	Safety		Shelf Life from Delivery	minimumTradeItemLifespanFromTimeOfArrival	Expiration	Expiration	
34	Safety	Future	Contains Blood	Pending			
35	Safety	Future	Implantable	Pending			
36	Safety	Future	Contents of Concern	Pending- Contents of Concern		Contents of Concern	
37	Safety	Future	Reusability Types	Pending- Reusability Types	Single Use	Single Use	
38	Safety	Future	Brand or Generic flag	Pending			
39	Safety	Future	Does Product Contain Latex	Pending	Labeled Allergen		Allergen Info
40			FDA Product Code		FDA Code		
41			FDA Authorization Type		FDA Type		

# Getting Started: Data Creation or Gathering

## Focus On The Core

- GTIN
- Manufacturer Part Number
- Description
- Pack Levels
- Units of Measure
- Quantities
- netContent
- Parent/Child Hierarchy

## Don't Get Distracted by Attribute Creep

## Secure the Core and the Balance Will Follow

- Test a representative set of your products
- Apply lessons learned to gain critical mass
- Develop the strategy for bringing standardized data to your doorstep
- Engage your formal quality system for long-term sustainability
- Synchronization is a “process” not an “event”

