

# GS1 GDSN Overview Healthcare

Sally Herbert, President GS1 GDSN, Inc. UConnect Conference – Orlando, FLA 6 June 2007

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## Healthcare & Data Synchronization

#### Data - dA-ta (plural for datum - dae tEm)

 noun: individual pieces of information that is used to draw a conclusion, as in the collection and analysis of data

#### Synchronization - sing krE naiz shon

 noun: coordinating by causing to indicate the same time, or the relation that exists when things occur at the same time

Data synchronization is sharing accurate information across systems to enable trading partners to operate in unison

# Healthcare Data Synchronization via the GS1 GDSN



# Why Synchronise Data?



# Trading partners today see unnecessarily high costs from:

- supply chain information inefficiencies
- inaccurate data in transactions
- invoices with errors
- manual work-around processes to correct inefficiencies



# Synchronised and harmonised master data between trading partners' systems can promote:

- smooth inter-company flow of goods
- better control of supply chain processes
- increased data accuracy
- reduced costs in the supply chain
- a robust foundation upon which the full benefits of electronic collaboration can be achieved and scaled



# Data Synchronization Challenges in Healthcare

#### **Supplier Impact**

Days Sales Outstanding (DSOs) increase for suppliers,

EDI (electronic orders) rejections and missed orders,

Wasted time for customer service & sales,

Inaccurate Rebates, and

Patient Safety Concerns!

#### Provider/GPO/Hospital Impact

Inconsistent, obsolete, substitutes/replacements items for overall inaccurate item masters in material systems,

Accounts Payable & Invoice mismatches,

Non-contract pricing, because of misidentification,

Inaccurate rebates,

Returns & credits for wrong items into the item master,

Wasted time for clinicians, buyers alike, and

Patient Safety Concerns!



#### What is the Solution?

#### Standardization

- Facilitation of Mass Adoption
- Enumeration via GS1
- Consistent vocabularies
- Interoperability
- Standardized process management

#### Accurate & Credible Data

- Manufacturer & Distributor published and maintained product data
- Mass Adoption for unique data pool(s)
- Detailed data elements to support commerce, clinical & business analysis
- Data accuracy, security, &confidentiality

#### Synchronization

- Publishing & Maintaining Near Real-time
- Connectivity & Platform
- Security & Roles
- Technology, Tools and Standardized/Proven Business Processes

#### Healthcare Data Synchronization via the GS1 GDSN



# What is the GDSN?

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#### What is GS1 GDSN?





GS1 GDSN is an automated, standards-based global environment that enables secure and continuous data synchronisation, allowing all trading partners to have consistent item data in their systems at the same time.

The GS1 Global Data Synchronisation Network connects **retailers and suppliers**, via their selected GDSN-certified **data pools**, to the GS1 **Global Registry**.



## Key elements of the GDSN



#### **GS1 Data Pools**

Electronic catalogues of standardised item data, serving both as a source and/or recipient of master data. Can be run by a GS1 Member Organisation, supplier, customer, exchange or service provider.



# **GS1 Global Registry®**

The GDSN acts as a "yellow pages directory" that

- · Provides information for subscription sharing
- Enables data pool interoperability
- Guarantees uniqueness of the registered items and parties
- Ensures that all data pools in the network are complying with a common basic set of validation rules that support data integrity in the system
- Holds the information about who has subscribed to trade item or party data

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#### The GS1 Standards Behind the GDSN



The GS1 Global Standard Management Process (GSMP) develops the GS1 System of Standards: an integrated set of standard solutions supporting GDSN, Barcode Applications and eCommerce.

For GDSN, this includes:

- Business Message Standards (BMS): contains all necessary information to implement the electronic messages.
- The Global Data Dictionary (GDD): which provides the basis of machine to machine understanding of Item and Party data flowing through GDSN
- GS1 Business Rules: including GTIN usage rules, packaging measurement rules, GDSN validation rules and Data Tolerance rules



## Questions in the trading relationship

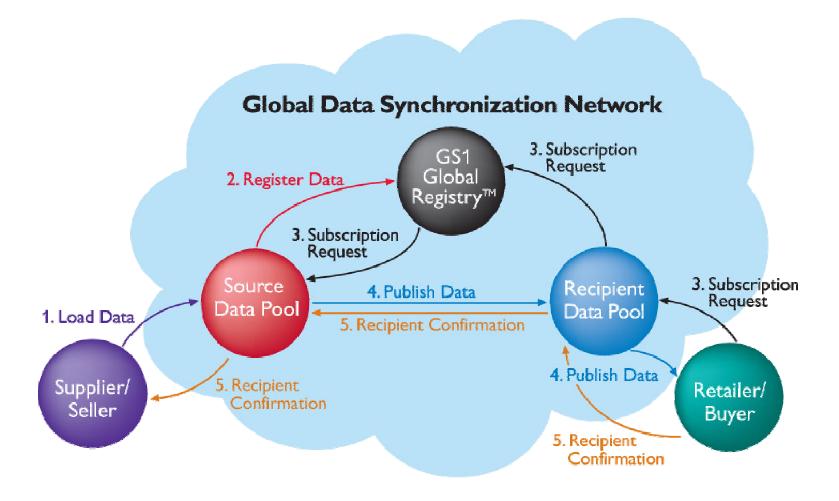
In a trading relationship, you need to define

- WHO you are
- WHERE you are
- WHAT you have to trade
- In WHICH target market you'll be trading
- WHO you are trading with

To answer these questions, GS1 has developed GS1 Identification (ID) Keys – nonsignificant, secure and global unique numbers that support the identification of items, services, locations, logistic units and returnable containers.



# The GDSN Network



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# The Process Global Data Synchronization Network 2. Register Data 3. Subscription Request Registry 3. Subscription Request Recuest 1. Load Data Pool 1. Load Data Synchronization Network 3. Subscription Request 4. Publish Data Data Pool Request 5. Recipient Confirmation Request 2. Recipient Confirmation Request

Recipient Confirmation

Suppliers and retailers who want to synchronise data with each other perform the following steps:

- **1. Load Data:** The seller (*data source*) registers product and company information in its data pool.
- 2. Register Data: A small subset of this data is then sent to the GS1 Global Registry.
- 3. Subscription Request: The buyer (*data recipient*), through its data pool, subscribes to a seller's GLN, product category (GPC), target market, or GTIN to receive the corresponding product and company information. Using the GS1 Global Registry, the data pool containing the requested item and location information is identified and the subscription is forwarded to that data pool.
- 4. **Publish Data:** The seller's data pool then publishes the complete item and party information to the buyer via the buyer's data pool.
- 5. Recipient Confirmation: The buyer then sends a confirmation to the seller through the buyer's data pool directly to the seller's data pool. More than simply an acknowledgement, it informs the supplier of the action taken by the retailer on the item information.

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4. Publish Data

Confirmation

Buyer



# Next Steps for Healthcare ...

#### A global approach to data synchronization is needed

- To fully realise health and economic benefits for all stakeholders, standards need to be truly global and open
- Local needs are incorporated into global standards, but proprietary systems and standards will jeopardise the realisation of such benefits
- Additional efforts may have to be devoted to meeting heterogeneous local standards, adding cost and complexity into the Healthcare supply chain
- Local standards introduce communication barriers, hinder interoperability and compatibility, which significantly reduces the economic benefits
- Global data synchronisation standards also provide significant improvements in the ability to support global e-commerce and supply chain initiatives, such as electronic market places



#### **Next Steps Continued**

#### What is next?

- The Global Data Synchronisation Work Team will:
- Define GDSN-compliant data elements unique to pharmaceuticals and medical device
  - Ensure the development of the GS1 GDSN Healthcare extension
- Continue efforts to promote the adoption of GTIN's (Global Trade Item Number) and GLN's (Global Location Number)
  - These are mandatory to enable GDSN and provide the optimum trading partner and product identification for synchronisation,
- Based on GPC and UNSPSC, ensure other classification systems have access for mapping and usage



# GS1 GDSN

# **Questions & Discussion**

If you do business with a partner that is global, you are a part of the global supply chain!



# Contact details

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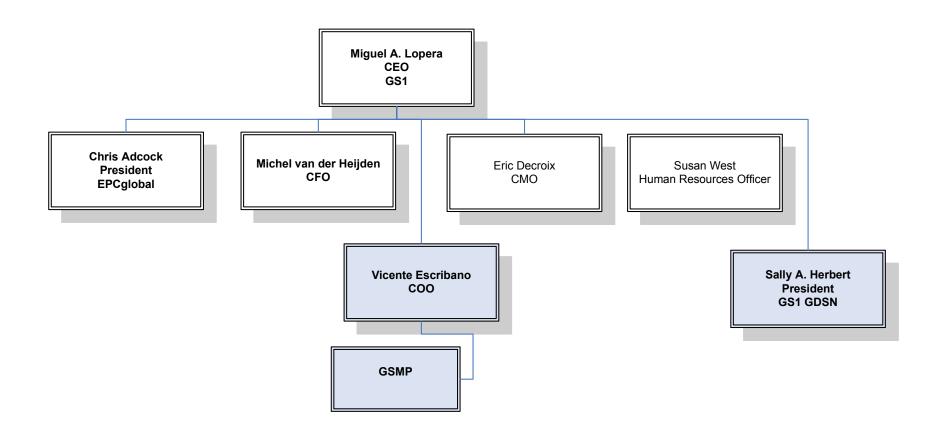
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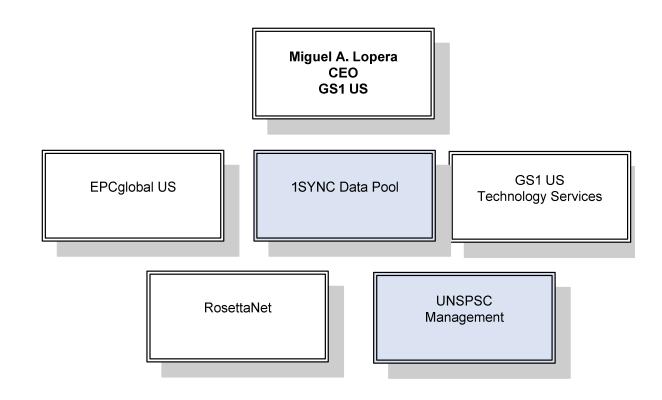
# GS1 GDSN and GSMP Teams



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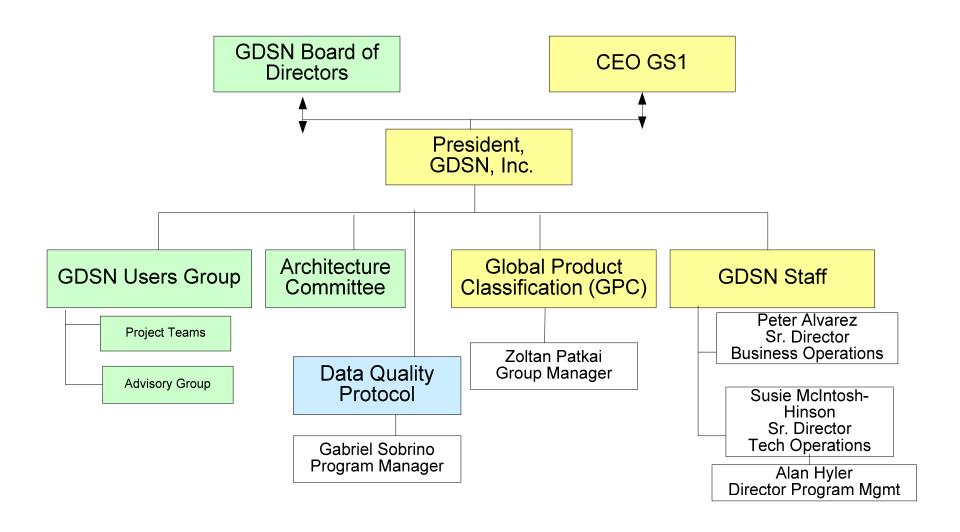
# GS1 US Organization



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# GDSN, Inc. Organisation Chart



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#### **GDSN Governance**

#### **GDSN Board of Directors**

























Pepsico and Kingfisher Executives recently named to Board

The GDSN Board of Directors was established by GS1 to ensure that the GDSN meets the business needs of the user community. It includes representation from suppliers, retailers, GS1 Member Organisations and certified data pools.



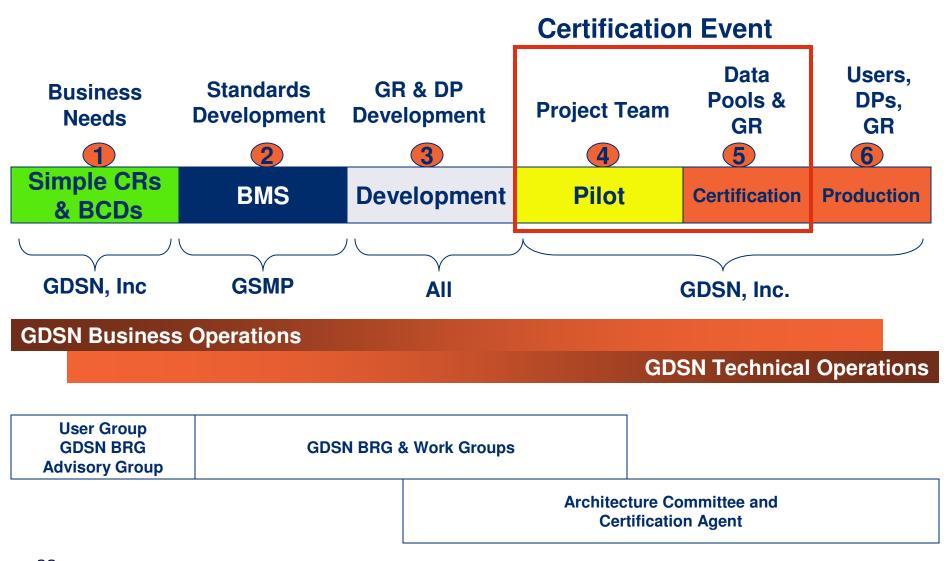
# **GDSN Delivery Process**

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# The GDSN Delivery Process





# Why implement GDSN?

## Why Implement GDSN? Because GDSN...

- provides standardised, reliable data for effective business transactions in both local and global markets
- ensures that trading partners work in a standardised way, reducing duplicate systems and processes
- ensures that item data is consistent between trading partners
- validates accuracy of data against standards and business rules
- ensures that trading partners classify their products in a unique, standardised way (Global Product Classification)
- provides a single point of entry for retailer and supplier trading partners (their chosen Data Pool), so reducing the cost of operating multiple solutions
- guarantees uniqueness of item (product, case, pallet), party and location through the GS1 Global Registry
- certifies that Data Pools and the GS1 Global Registry comply with GDSN rules



# Global Registry Growth 2005 – 2007

	Jan 2005	May 2006	May 2007
Data Pools: Certified	10	23	23
Data Pools: "Trial" Activity	7	9	16
Data Pools: Frequent Activity	2		6
Subscribers / Users	200	5,328	11,570
Retailers		112 retailers	140
Suppliers		5,216 suppliers	11,430
GTINs (Items) Registered	180,000	564,000	1,470,000
Activity: Supplier Publications to Retailer Subscriptions			70% of Publications Sent are Matched