Accurate Data is Essential for Electronic Processes

- Electronic Processes Require Accurate Data
- Location Data is Particularly Challenging
Session Objectives

1. Understand the challenges related to location identification in healthcare

2. Understand what a GLN is and the initiatives in place by several GS1 Member Organizations

3. Determine barriers & solutions related to implementing GLNs
Agenda

• How is Location Data used in Healthcare?
• Challenge: Synchronizing Location Data
• What is a GLN?
• GS1 GLN Initiatives
  • US
  • Switzerland
  • Canada
  • Australia
  • Other Countries?
• Moving Forward with GLNs
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Location Data in Healthcare*

**Regulatory**
- Track Products
- Administer Recalls
- Track & Trace, Pedigree (Future)
- Ensure Products are shipped to healthcare providers
- Licensing Verification
- Patient Safety

**Internal Uses**
- Spend Analysis (Healthcare Provider)
- Sales Analysis (Suppliers)
- Sales Territory Alignment/Compensation
- GDSN Synchronization Enablement

**Supply Chain/Transactional Processes**
- Shipping Products to the Correct Address
- Billing Accounts Receivable/Accounts Payable
- Pricing Functions
- Aggregate Sales $
- Drop Ship Orders
- Creating and Administering Contracts
- Processing Chargebacks
- GPO Administration Fees
- Aligning Supplier Locations with GTINs
- EDI Processes

* Source: *Making the GLN Work for You in Healthcare*, GS1 Connect 2012, (U.S. Centric View of Location Data Uses)
GLN: Similar Opportunities and Implementation Challenges as GTIN

Manufacturer Product # → Distributor Product # → HOSPITAL PRODUCT #

383520 → 072338520 → 1114985

(GTIN = 00382903835201)
Three Forms of Data Challenges

Many Proprietary Numbers for Each Customer

<table>
<thead>
<tr>
<th>Customer</th>
<th>Product Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Michaels</td>
<td>50003000431</td>
</tr>
<tr>
<td>St Michaels</td>
<td>1000014082</td>
</tr>
<tr>
<td>St. Michael's</td>
<td>1000014769</td>
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<tr>
<td>Saint Michaels</td>
<td>1000042141</td>
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<tr>
<td>CA2053</td>
<td>50003000306</td>
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<td>50003000308</td>
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<td>50003000472</td>
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<tr>
<td>50003000480</td>
<td>2104372</td>
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<td>Just 1 Hospital</td>
<td>2108919</td>
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<td>Saint Michaels</td>
<td>JGGG</td>
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<td></td>
<td>(178 Total)</td>
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</table>

Many Product Numbers for Each Customer

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<thead>
<tr>
<th>Product</th>
<th>Number</th>
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<tbody>
<tr>
<td>BD</td>
<td>329461</td>
</tr>
<tr>
<td>BD</td>
<td>00382903294619</td>
</tr>
<tr>
<td>CARDINAL HEALTH</td>
<td>BF329461</td>
</tr>
<tr>
<td>OWENS &amp; MINOR</td>
<td>0722329461</td>
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<tr>
<td>OWENS &amp; MINOR</td>
<td>0723329461</td>
</tr>
<tr>
<td>AMERICAN MEDICAL DEPOT</td>
<td>777127217</td>
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<tr>
<td>AMERICAN MEDICAL DEPOT</td>
<td>777127218</td>
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<tr>
<td>GOVERNMENT SCI SOURCE</td>
<td>FSC1482679CS</td>
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<tr>
<td>GOVERNMENT SCI SOURCE</td>
<td>FSC1482679PK</td>
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<tr>
<td>ALLIANCE JOINT VENTURE</td>
<td>888021932</td>
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<tr>
<td>THOMAS SCIENTIFIC</td>
<td>8938M25</td>
</tr>
<tr>
<td>THOMAS SCIENTIFIC</td>
<td>8938M28</td>
</tr>
<tr>
<td>VWR INTERNATIONAL</td>
<td>BD329461</td>
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</table>

350+ Ways to Spell BD (1 Customer)

| BD VACUTAINER DIV                | B-D DIAGNOSTICS |
| B-D SUP CHAIN SVCS               | BD / ELASTIC HEALTH SUPPORT |
| BD BLOODCOLLECTION               | B-D ACUTECARE   |
| B-D LABWARE                      | B-D VASCULAR ACCESS |
| BD ACUTECARE                     | BD CONVENTION NEEDLES |
| B-D DIAGNOSTIC                   | B-D MICRO BIOLOGY SYSTEMS |
| B.D. MICROBIOLOGY                | BD ACUTECARE DIV |
| B D DIAGNOSTIC                   | B DICKINSON     |
| B-D MICROBIOLOGY                 | BARD PARKER    |
| BD ACUTECARE DIV.                | BD DBA BEKTON DICKINSON AND CO |
| B&D                              | B-D MICROBIOLOGY SYSTEMS |
| B &D                             | BD BIO SCIENCE  |
| B D DIAGNOSTIC                   | B-D PRIMARY CARE DIAG |
| BARD-PARKER                      | B-D PRIMARY CARE DIAG |
| BD BIO SCIENCES                  | B-D PRIMARY CARE DIAG |
| BD DIAGNOSTIC                    | B-D PRIMARY CARE DIAG |
| BARD-PARKER RESPIRATORY          | B-D PRIMARY CARE DIAG |
| BD DIAGNOSTIC INSTRUMENT SYST    | B-D PRIMARY CARE DIAG |
| B-D / VISITEC                    | B-D PRIMARY CARE DIAG |
Customer Identification: The Healthcare Supply Chain

One Hospital Delivery Point

GPO Membership Alignment MFGR

DIST Eligibility & Pricing MFGR
or Supplier

HOSP Acquisition DIST
or Supplier

MFGR Rebate Processing DIST

MFGR Reporting GPO

DIST Reporting GPO
or Supplier
• BD viewed Geisinger as having approximately 300 accounts
• Approximately 100 were actually in Geisinger’s hierarchy
• Much labor & systems expertise required to prevent errors

* Source: *Making the GLN Work for You in Healthcare*, GS1 Connect 2012,
GLN Matching Process & Results

Looking Up Customers in GLN Registry

Obtain List of Active Customer Accounts

Look for Each Account in GLN Registry

Compare Account Details

Quantitative Breakdown of Match Results

<table>
<thead>
<tr>
<th>Account Category</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEISINGER</td>
<td>99</td>
</tr>
<tr>
<td>DUPLICATE</td>
<td>42</td>
</tr>
<tr>
<td>NOT GEISINGER</td>
<td>47</td>
</tr>
<tr>
<td>&quot;AFFILIATE&quot;</td>
<td>115</td>
</tr>
<tr>
<td>TOTAL</td>
<td>303</td>
</tr>
</tbody>
</table>

* Source: Making the GLN Work for You in Healthcare, GS1 Connect 2012, (U.S. Centric View of Location Data Uses)
Agenda

• How is Location Data used in Healthcare?
• Challenge: Synchronizing Location Data

**What is a GLN?**

• GS1 GLN Initiatives
  • US
  • Switzerland
  • Canada
  • Australia
  • Other Countries?

• Moving Forward with GLNs
What is a GLN?

“Locations

GS1 System has defined two broad classes of entities that are identified with a Global Location Number: **Physical Locations and Parties**. The distinguishing characteristic between the two is one is always an object or point in the physical world (structure, building, or a specific location within a site) and the other is a business or business function (a party to a transaction, a group, or organisation, including regulatory and other public sector agencies), which may be associated with a physical location”.

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What is a GLN?

“Although in some countries the **national GLN database** is administered by the GS1 Member Organisation, it remains the **responsibility of the company issuing the numbers to keep business partners informed of all relevant GLNs related to the trading relationship**. Special care is needed if ownership of the company changes (see Section 1.7).

In business operations, location numbers are of no value if they are not associated with business attributes. The attributes of the location ideally should be established as part of master data management using the GLN as the key to the information.

These attributes, in conjunction with transactional data, answer the three questions of who, what, and where.”
What is a GLN?

“The GLN is designed to improve the efficiency of communication with trading partners and add value to the trading partners involved as well as to consumers. GLNs can identify:

- **Physical locations** – A single point of access with a physical address, such as a particular room in a building, warehouse, warehouse gate, loading dock, delivery point, cabinet, or a cabinet shelf, as well as operational locations such as EDI mailboxes.

- **Legal entities** – The legal organisation that is subscribed to the GS1 System, such as whole companies or subsidiaries, including suppliers, customers, financial services companies, and freight forwarders.

Each GLN points to a unique record that has distinctions created by fields of data that answer three questions: who, what and where. The “who” is the organisation controlling or owning the GLN. The “what” qualifies or states the context of the relationship of the associated data. The “where” is the physical address of the location.”
Manufacturer Example
GS1 Company Prefix = 0061414

Corporate Headquarters
GLN: 0061414000017

Manufacturing Plant
GLN: 0061414000024

Mid-Atlantic Sales
GLN: 0061414000062

Distribution Center A
GLN: 0061414000031

Distribution Center B
GLN: 0061414000048

Distribution Center C
GLN: 0061414000055
Provider Example

GS1 Company Prefix = 0012345

- IDN
  - GLN: 0012345000010

- Hospital A
  - GLN: 0012345000058

- Hospital B
  - GLN: 0012345000065

- Hospital C
  - GLN: 0012345000072

- Accounts Payable
  - GLN: 0012345000058

- Clinic A
  - GLN: 0012345000065

- Clinic B
  - GLN: 0012345000072

- Distribution Center A
  - GLN: 0012345000027

- Distribution Center B
  - GLN: 0012345000034

- Distribution Center C
  - GLN: 0012345000041
Distributor Example
GS1 Company Prefix = 0012345

Corporate Office
GLN: 0012345000010

Buying Office
GLN: 0012345000027

Distribution Center A
GLN: 0012345000034

Distribution Center B
GLN: 0012345000041

Distribution Center C
GLN: 0012345000058
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GLNs in U.S. Healthcare

- Overview of Initiative
- GLN Registry: Yes
- GLN Intended Uses: Rebates & Supply Chain Functions (Matching locations between provider and supplier for accurate shipment & delivery information)
- How are GLNs Created/Validated? – GLN’s are created either in the GLN Registry or by a Manufacturer with a prefix
- Level of Adoption? – Medium (Used by manufacturers/providers and adoption is increasing)

**Challenges:**
- System Upgrades – Development time for systems doesn’t equal the value gained
- Not all trading partners ready
- Lack of a hard ROI around GLN adoption

**Opportunities:**
- Traceability
- Further define the use of GLN in more complex supply chain scenario’s (Cross Docking, Deliver To’s)
GLNs in Switzerland Healthcare

- **Overview of Initiative**
  There are 2 GLN initiatives in Switzerland. The most recent is lead by GS1 Switzerland and focusses on Supply Chain and EDI issues, for any market segment (priority is retail). The second initiative is 20 years old and driven by a third party (Refdata Foundation). We here focus on that second initiative, which concentrates on the Healthcare market.

- **GLN Registry**: Yes

- **GLN Intended Uses**: Healthcare supply chain (including narcotic control), Healthcare invoicing, eHealth, Public monitoring of Healthcare providers

- **How are GLNs Created/Validated?** GLNs are managed centrally on behalf of the Refdata foundation, by cross matching different sources of information such as: national provider associations, Federal Commerce registry, wholesalers and other market players.

- **Level of Adoption?** 100 %
GLNs in Switzerland Healthcare

**Challenges:**
- 100% accuracy
- 100% coverage of the providers
- Avoid duplicates

**Opportunities:**
- Integrate provider internal GLNs to deliver optimal service to the Swiss Healthcare industry
Canadian Healthcare Sector Adoption of GLN

- Canadian healthcare sector aligned with GLN adoption timelines established by US healthcare sector - December 31, 2010
- GS1 Canada launched ECCnet Locations Registry in Fall 2011 at the request of industry to support initial healthcare GLN use cases:
  - Legal Entity Identification
  - EDI (Ship To/Ship From – Bill to/Remit From)
- GS1 Canada is an active partner in the Global GLN Registry Interoperability project
The Driving Pain Point

Multiple identifiers for one healthcare location = confusion & inefficiency

SAINT JOHN'S QUEENS HOSPITAL
0000004570208

ST JOHN'S QUEENS HOSPITAL
100084547

SAINT JOHNS QUEENS HOSPITAL
JAOE

SAINT JOHN'S QUEEN HOSPITAL
50003000431

SAINT JOHN'S QUEEN'S HOSPITAL
CA2053

ST. JOHN'S QUEENS HOSPITAL
OM 12345
Solution: Global Location Number with ECCnet Locations Registry

SAINT JOHN'S QUEENS HOSPITAL

GLN: 000004570208
Initial Assignment
Healthcare Sector GLN

• **Today:** Approximately 2000 Healthcare Provider Global Location Numbers (GLNs) from 8 out of 10 provinces registered within ECCnet Locations:
  - British Columbia
  - Alberta
  - Manitoba
  - Ontario
  - Quebec
  - New Brunswick
  - Nova Scotia
  - Newfoundland

• **Next Step:** Manufacturer Assignment
Order Management Use Case
Healthcare Provider

HOSPITAL
7540004570206

Bill To: Accounting Department
7540004570213

Ship To: Warehouse
7540004570220

Ship To: Pharmacy
7540004570237
Order Management Use Case
Manufacturer
7540006570321

Remit To: Accounting Department
7540006570331

Ship From: Warehouse
7540006570341

Ship From: Distribution Centre
7540006570351
Active Canadian GLN Use Cases

• Data Synchronization to Identify Parties
• New Item Introduction
• Healthcare EDI
• Product Recall
• Brand Owner Certification of Nutritional Data
GLNs in Australian Healthcare

- GLNs are created from either Company’s GS1 Global Company Prefix or issued directly from GS1 MO
- Currently used for:
  - **Data Sync**
    - Identification of source of data and data recipient in GDSN Data Pool / GS1net / NPC
    - Location to which price applies – government data recipients
  - **eMessaging**
    - Ship to, Bill to, Ship from, sender / receiver of messages
    - EDI mailbox identification
- **Degree of adoption:**
  - Many thousands of GLNs have been issued and are being used by:
    - All state and territory health governments
    - Major private sector buyers
    - Major wholesalers / distributors
    - Suppliers
    - etc.
GS1 Locatenet – Australian GLN Registry

• Be a **single source** for all relevant GLN data to the Healthcare sector
• Transfer the **ownership** and responsibility for GLN data management to the owner/user
• Ensure **timely, accurate and effective** exchange of GLNs and associated data between supply chain partners

• **Why?**
  • GLNs were previously stored in a range of locations and communicated in lots of different ways
  • All communication were on a ‘request basis’
    • Are all the records up to date, all the time?
## Challenges and Opportunities

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept of what a GLN is and what it does – continued industry education</td>
<td>Many users can see how GLNs will reduce costs / increase efficiency / reduce manual error / enable analysis</td>
</tr>
<tr>
<td>Industry understanding that GLN data needs to be kept up to date just like GTIN data</td>
<td>Some GLNs have been issued but not yet included in the Australian registry yet</td>
</tr>
<tr>
<td>Ownership / business process modification by GLN issuer - Linking GLNs to own ERP / MRP systems</td>
<td>Buyers are using GLNs for more and more functions – continued growth of understanding</td>
</tr>
<tr>
<td>Understanding of the importance of GLNs and benefits to the business</td>
<td>Engagement of additional parts of the healthcare market – e.g. retail pharmacy</td>
</tr>
<tr>
<td>Priorities: Many initiatives – which one to do first?</td>
<td>Engagement of cross-sector suppliers, e.g., pharmacy OTC also in FMCG</td>
</tr>
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Group Discussion Questions

- Is the GLN Value Proposition Clear?
- How can members learn of GLN initiatives by country?
- Thoughts on GLN Registry alignment?
- How can we collectively drive adoption?
- Use of “GLN Prefix” or “GLN Extensions”?
- Are there unmet GLN needs?
Contact Details

GS1 Global Office
Avenue Louise 326, bte 10
B-1050 Brussels, Belgium
T  + 32 2 788 78 00
W  www.gs1.org