Event Based Pedigree

• Why Event Based Pedigree?
• Technical Analysis of the Event Based Pedigree requirements in progress
  • What we know To date
• GS1 US will be operating several Traceability Pilots in the coming months and the learnings from these Pilots will inform what standardization needs there may be
  • Role of Discovery in EBP?
• Assessment of the key components of Discovery continues
  • What to progress on quickly based on community needs
Event Based Pedigree

• Developing Chain of Ownership/Chain of Custody Compliance to secure the supply chain.
  • Driven by current and potential future legislation and supply chain partners' best interest of keeping the supply chain safe

• Provides a more efficient manner of capturing and providing pedigree information
  • Leveraging the architecture that can also be used to provide additional value add to the supply chain through enhanced visibility (recalls, shipping efficiencies, proof of delivery)

• Vision for Event Based Pedigree
  • Utilizes the EPCglobal framework including EPCIS for event data capture
  • Potentially Discovery and/or ONS for locating sources of data for serialized product
  • Must include mechanisms for trading partner authentication, authorization (of the data), verification and non-repudiation
The EPCIS ‘Event’

- Is a record of a Trade Item or Asset being handled in the Supply Chain
- A data capture workflow captures the unique ID of the object [e.g. by reading an EPC from an RFID tag or scanning a GS1 bar code or DataMatrix symbol]
- This record, called an **EPCIS EVENT** is typically recorded in a database by the party capturing the event [data]
- The event can be shared among **known** supply chain partners using EPCIS Query and Response messaging
- EPCIS Events enhance the basic (what, where, when) information with business context to say **why** an event occurred
  - Standard vocabularies are used for this
What is EPCIS Data?

EPC Events answer 4 questions – **What**, **Where**, **When**, and **Why**

| What          | • EPC number (can leverage master data)  
|               | • Manufacturing Data (lot, batch, expiration date)  
|               | • Transactional Data (PO, Shipment, Invoice)  |
| Where         | • Location (can be fixed or moving – leverage master data)  |
| When          | • Event Time  
|               | • Record Time  |
| Why           | • Business Process Step – e.g.: Receiving, Shipping  
|               | • Product State – e.g.: Saleable, Active, In Transit  |

The EPCIS standard enables extending event data
What Can Be Learned from EPCIS Data?

• What do we have?
  • Time stamped data about uniquely identified goods/assets at uniquely identified locations recorded during commonly understood business processes

• What can it tell us?
  • Dwell times
  • Process execution confirmation
Event Based Pedigree - Status

- Network Centric e-Pedigree Joint Requirements Group
  - Requirements developed for pedigree based on shipping, receiving and commissioning use cases – including data, data security and authentication
  - Based on the use of EPCIS as means of capture/sharing of pedigree event data capture/sharing
  - Currently refining the architectural models for the technical solution for EBP

- EPCIS and the GS1 US Healthcare 2015 Readiness Program
  - EPCIS is foundational to Event Based Pedigree Solution
  - This effort has outlined the key supply chain processes important to pedigree
  - Documented the data requirements at each data point
  - Documented any needed enhancements in the EPCIS standard required
  - Simulated what the supply chain processes using EPIC and Discovery Services as part of the simulation to analyze the data
  - Drafting a supply chain guideline for event data capture and sharing in support of pedigree
Summary Analysis & Features Required / Desired

Event-based Pedigree
- Event data on network (can support additional capabilities)
- Less data transferred downstream vs. DPMS
- Tracing upstream
- Robust proof of unbroken chain of custody / chain of ownership
- Non-repudiation
- Data availability/retention

Increased safety, security and efficiency of Pharmaceutical supply chains
Event Based Pedigree - Status

• NCeP – Technical Analysis

  • Focused on the ‘plumbing’ of an event based pedigree solution
    ▪ Message Exchange
    ▪ Message Choreography
    ▪ Message Security
    ▪ Trading Partner Authentication and Authorization

  • Developing a set of architecture models to present back to end user community
    ▪ Focused on 3 basic solution models
      – Centralized
      – Semi-Centralized
      – Fully-Distributed

  • Identification of Standards Development will be enabled by End User community for any standards development required (new or additional)
Are We Headed in the Right Direction?

Inputs from our MO Partners
2015 Readiness Program – Continues

2015 Readiness Pilots – Starting

GS1 US continues 2015 Readiness Program

• Pilot Planning
  • Who will participate?
  • What will be piloted?

• Feedback learning's’ into Global Standards
  • Event Based Pedigree
  • Discovery Need
  • Discovery Use Case Refinement

Same time tomorrow – Bob Celeste, Salon C
THANK YOU