



Ask The Experts Event Based Pedigree and Traceability

2011 Healthcare Conference



- 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***

<p>What</p>	<ul style="list-style-type: none"> • EPC number (can leverage master data) • Manufacturing Data (lot, batch, expiration date) • Transactional Data (PO, Shipment, Invoice)
<p>Where</p>	<ul style="list-style-type: none"> • Location (can be fixed or moving – leverage master data)
<p>When</p>	<ul style="list-style-type: none"> • Event Time • Record Time
<p>Why</p>	<ul style="list-style-type: none"> • 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

- 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



**CURRENT
FOCUS**

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

- 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