

Comments to: **Standards and Interoperability (S&I) Framework – Data Provenance Initiative (DPROV)**

Comments Supporting: **Formal Objection to Data Provenance Use Case Requirements – Consensus Review**

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[NOTE: I have upcoming business travel, starting with a flight to Europe this Thursday. Next week I attend ISO TC215 meetings in Berlin. Will miss both DPROV calls.]

Echoing the comments of many others including members of the HIT Standards Committee, the Data Provenance Initiative is vital and must be done right. This means (as confirmed by the DPROV Community Charter Statement) we anchor at the point of data/record origination and ensure...

- Data provenance is about truth (authenticity) and trust (assurance).
- Data provenance represents (embodies) the source of truth – the point of data/record origination.
- Data provenance, if properly captured, retained, managed and conveyed from the point of origination forward ensures trust to all downstream users and for all purposes to which health information may be applied.

Specifically:

- 1) Data is anchored at the point of origination – always the source of truth – and bound PAIR-wise with its provenance from that point forward. Provenance is the who, what, when, where and why of each data element or collection originated together.
- 2) Each PAIR – data + provenance – is indivisible.
- 3) Each PAIR is immutable.
- 4) Each PAIR is:
  - a. created at the point of origination;
  - b. securely retained and managed by the source system over time;
  - c. securely conveyed in exchange artifacts (e.g., CCD/CCDA);
  - d. securely retained and managed by the receiving system over time...
- 5) As the function (result) of 1-4, each PAIR (and its chain of trust) evidences truth (authenticity) and ensures trust (assurance) to each downstream user and application.

Our direct stake and commitment to this Initiative is the submission of multiple comments, and participation in multiple teleconferences over the course of the Initiative. We are strongly committed to the open, transparent, consensus process represented by S&I Framework Initiatives.

As a result, we have been particularly disappointed that a number of our comment submissions have been ignored or sidestepped in this Initiative, including the following:

1. 18 August 2014: User Stories with Record Lifecycle & Provenance Events (<https://dl.dropboxusercontent.com/u/10786720/ONC-Data-Provenance-User-Story-Examples-20140818.pdf>)
2. 10 August 2014: Use Case Actors, Roles and Accountability for Data/Record Content (<https://dl.dropboxusercontent.com/u/10786720/ONC-Data%20Provenance-Actors-Roles-Accountability-20140810.pdf>)
3. 2 July 2014: EHR Record Lifecycle Events and Data Provenance Across S&I Initiatives (<https://dl.dropboxusercontent.com/u/10786720/ONC-SI-Provenance-Record-Lifecycle-Events-Across-SI-Initiatives-20140702.pdf>)

Item 1 was submitted to ensure we made data provenance events explicit for each DPROV User Story and Scenario. (Some actually have more than one before the point of exchange.)

Item 1 was submitted to ensure we showed explicit chains of trust (including data provenance threads) starting at each provenance event.

Item 1 was submitted to ensure we showed how EHR and other systems captured, retained and managed chains of trust (including data provenance threads) from the point of origination and at each subsequent data provenance event.

Item 1 was submitted to ensure we showed how EHR and other systems transformed source content (maintaining data provenance threads) to and from exchange artifacts (such as CCDA and FHIR).

Item 1 was submitted to ensure we showed how source data content maybe transformed into 2nd, 3rd and nth order derivatives at each data provenance event – each with its own chain of trust.

Item 2 was submitted to ensure we showed how Actors play accountable Roles to ensure truth and trust in data provenance from source to receiver to point of access/use.

Item 3 was submitted to ensure we showed how uniform requirements for provenance events and chains of trust – from source to receiver to ultimate point of access/use – could be readily applied to virtually all S&I Initiative Use Case Scenarios to date (2011-2014).

Given the lack of these specifics, we believe the Data Provenance Use Case Requirements document is seriously deficient in its ability to guide industry, software design and implementations toward a common and uniform solution for data provenance.

Our Formal Objection will be withdrawn once these specifics (as enumerated on the prior page) are included in DPROV Use Case Requirements.