Grahame Grieve
Reflections on FHIR AuditEvent and Provenance Resources
Provenance vs. AuditEvent

- Separation of Provenance and AuditEvent is sub-optimal
  - Prefer a single resource with clearly differentiated intent and outcome sections
• The *proximal* focus of the provenance event is the creation of a version of a resource.
  – [Provenance when resource Created or Updated]
  – In W3C Provenance terms, the nature of the proximal event is fixed

• The *distal* focus – reason for creation of provenance resource – is what is coded in the provenance resource
Grahame’s Reflections

Provenance Design, con’t

• [May have] the design wrong in not catering for clarity in the separation of record and real event provenance.
  – It may be too late to fix this [in DSTU-2]
  – If so, we could add a DSTU note for implementers seeking comment on the issue
  – This would be a clear signal that change may be anticipated in a subsequent version (post-Connectathon experience)

• It may be that both .agent and .entity and .entity.agent are unnecessary
Grahame’s Reflections

Provenance Overlaps

• When I did the base design, I had three fundamental choices:
  1) Provenance information in every resource
  2) Provenance information only in the provenance resource
  3) Standard provenance resource handles the provenance information, and selected denormalizations into other resources
Grahame’s Reflections

Provenance Overlaps, con’t

• The first option has several problems
  – Provenance generally applies to groups of resources
  – There are also some RESTful issues with this
  – So we didn't seriously consider it

• When evaluating the second option
  – My concern was that real world practice is that full provenance information can be quite considerable (multi-version, mutli-stage) and detailed
  – So it's often only available through a special operation, sometimes involving back to base procedures such as phone calls
Conclusions

• So both real world practice and my IT experience suggested to me that the full provenance information would easily be left behind

• Hence, as an operational matter, I believed that we should denormalise key provenance information into the individual resources
Grahame’s Reflections

Conclusions, con’t

- It would be reasonable to document this more explicitly than we do
  - To be explicit that the information SHOULD agree
  - To explicitly map overlapping denormalised elements in other resources back to the provenance resource design so that systems can enforce that they do agree
  - That might not be feasible this time around [in DSTU-2], but could be policy in the future