NCVHS Testimony
NHIN Functional Requirements

Gary L. Dickinson
CentrifyHealth
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Minimum Function Rankings

Rankings

XXX Essential

XX Important

X Optional, Desirable

Based on NCVHS NHIN Functional Categories

Functional Category	NHIN	Edge
Audit and Logging:		
• Traceability End-to-End: Source to Receiver	XXX	N/A
• Record Creation and Amendment	XXX	XXX
• Record/Data Interchange	XXX	XX
Authentication:		
• Verified Identity of Users	XXX	XXX
• Verified Identity of Edge Systems	XXX	XXX
• Verified Source/Authorship of Records/Data	XXX	XXX
Authorization:		
• Individual Health Records: Access to Specific Patient's Record	XXX	XXX
• Operations: Access to System Functions	XXX	XXX
• Content: Access to Record/Data Content	XXX	XXX

Functional Category	NHIN	Edge
Confidentiality, ensured by:		
• Credentialing of Users and Systems	XXX	XXX
• User/System Authentication	XXX	XXX
• Source/Authorship Authentication	XXX	XXX
• Authorization	XXX	XXX
• Audit and Logging	XXX	XXX
• End-to-End Traceability of Record Interchange	XXX	XXX
• Identity/Information Correlation	XXX	XXX
Credentialing:		
• Individuals	XXX	XXX
• Organizations	XXX	XXX
• Communicating Systems	XXX	XXX
• Per Individual, Organization or System Role	XXX	XXX

Functional Category	NHIN	Edge
Data Access and Update:		
• System Level Data Access/Update	XXX	XXX
• User Data Access/Update	N/A	XXX
Data Content, enabling:		
• Health Record: Traceable to Persistent Source	XXX	XXX
• Extracted Subset of Health Record: Traceable to Persistent Source	XXX	XXX
• Other Record or Data: NOT Traceable	XXX	XXX
• Interchange Artifacts: transient messages	XXX	XXX
Data Filtering:		
• Including Anonymized, Aliased Records/Data	XXX	XXX

Functional Category	NHIN	Edge
Data Mapping/Translation:		
• Including Audit and Logging	XXX	XXX
• Translation Preserves Original Content	XXX	XXX
Data Quality/Data Integrity:		
• Enable Measures of Record/Data Accuracy, Consistency and Completeness (ref. JCAHO)	XXX	XXX
Data Rendering:		
• Includes Data Mapping/Translation	XXX	XXX
• Data Presentation to User	N/A	XXX
Data Retrieval (pull):		
• Query with Conditional Parameters	XXX	XXX
• Returned Records/Data Constrained by Source Rules	XXX	XXX

Functional Category	NHIN	Edge
Data Routing:		
• Based on Rules	XXX	XXX
Data Source:		
• Authenticated as to Record/Data Source Organization, Individual (author) and System	XXX	XXX
• As Location where Persistent Legal Record is Retained	N/A	XXX
Data Transmission (Push):		
• Based on Rules	XXX	XXX
• Include Subscribe and Publish	XXX	XXX
Data Usage:		
• In User Context	N/A	XXX

Functional Category	NHIN	Edge
Identity/Information Correlation: • Record/Data Bound to Subject: Patient • Record/Data Bound to Source: Individual, Organization, System	 XXX XXX	 XXX XXX
Persistent Data Storage	N/A	XXX
Record Location	XXX	XX
Transient Data	XXX	N/A
Add: Anonymous, Aliased Data	XXX	XXX

Key Standards

HL7 EHRS Functional Model

- Specifies Functional Characteristics (functions) of EHR systems
- Includes EHRS Interoperability Functions
- Is Framework for CCHIT EHRS Certification
- Now: Normative Standard - In Ballot

Key Standards

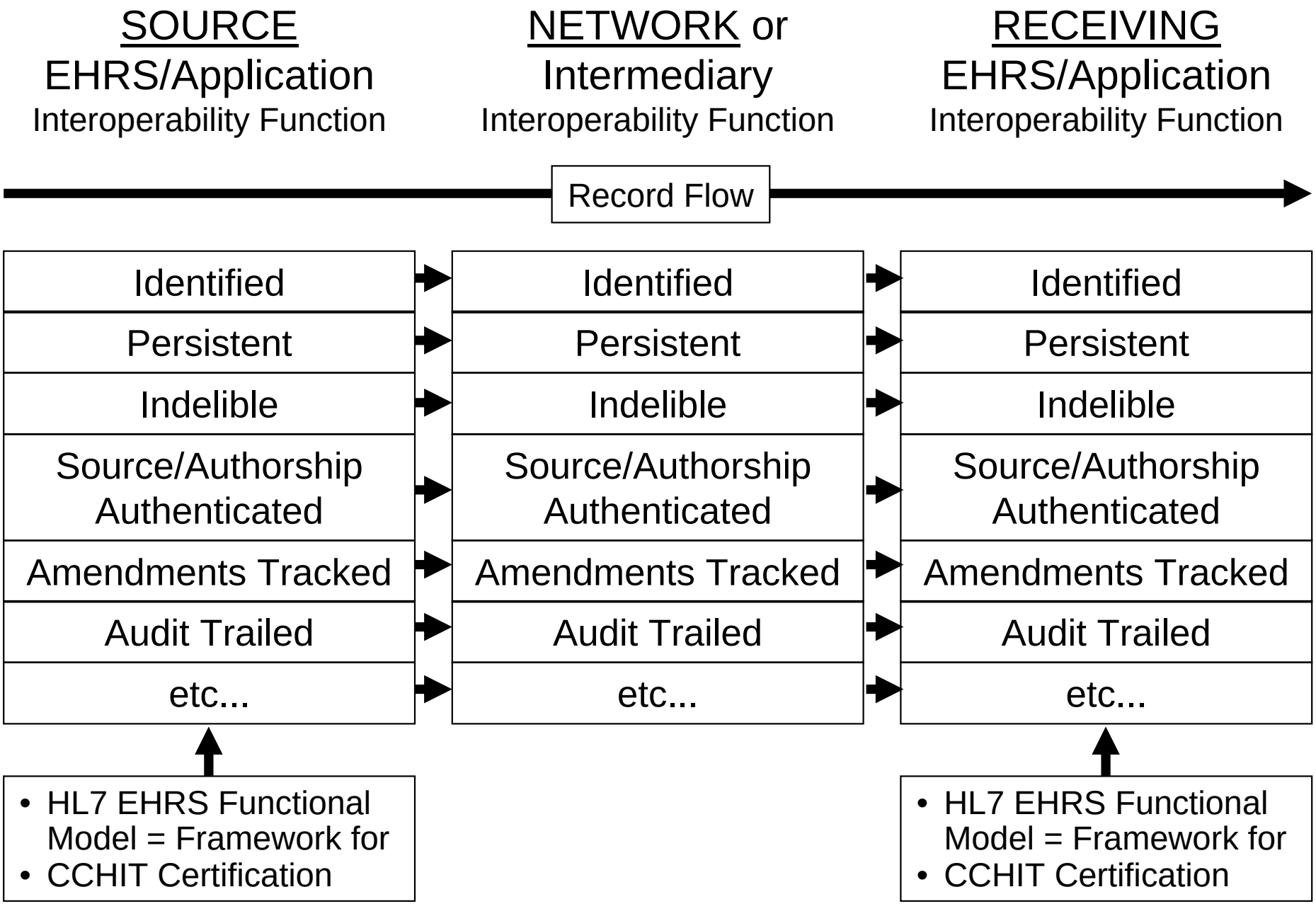
HL7 EHR Interoperability Model

- Specifies Interoperability Characteristics of EHR records
- Complementary with EHRS Functional Model
- Now: Draft Standard for Trial Use - In Ballot

Key Standards

ISO 21089 - Trusted Flows

- ISO 21089 - Health Informatics - Trusted End-to-End Information Flows
- Specifies Persistent Health Record at Key Points in its Flow and Lifecycle:
  - Origination, Amendment, Translation, Verification
  - Access/Use
  - Transmittal and Receipt
  - Archival
  - Anonymization, Aliasing
  - etc.


SOURCE
EHRS/Application
Interoperability Function
NETWORK or
Intermediary
Interoperability Function
RECEIVING
EHRS/Application
Interoperability Function
Record Flow
Identified
Persistent
Indelible
Source/Authorship Authenticated
Amendments Tracked
Audit Trailed
etc...
Identified
Persistent
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• HL7 EHRS Functional Model = Framework for
• CCHIT Certification
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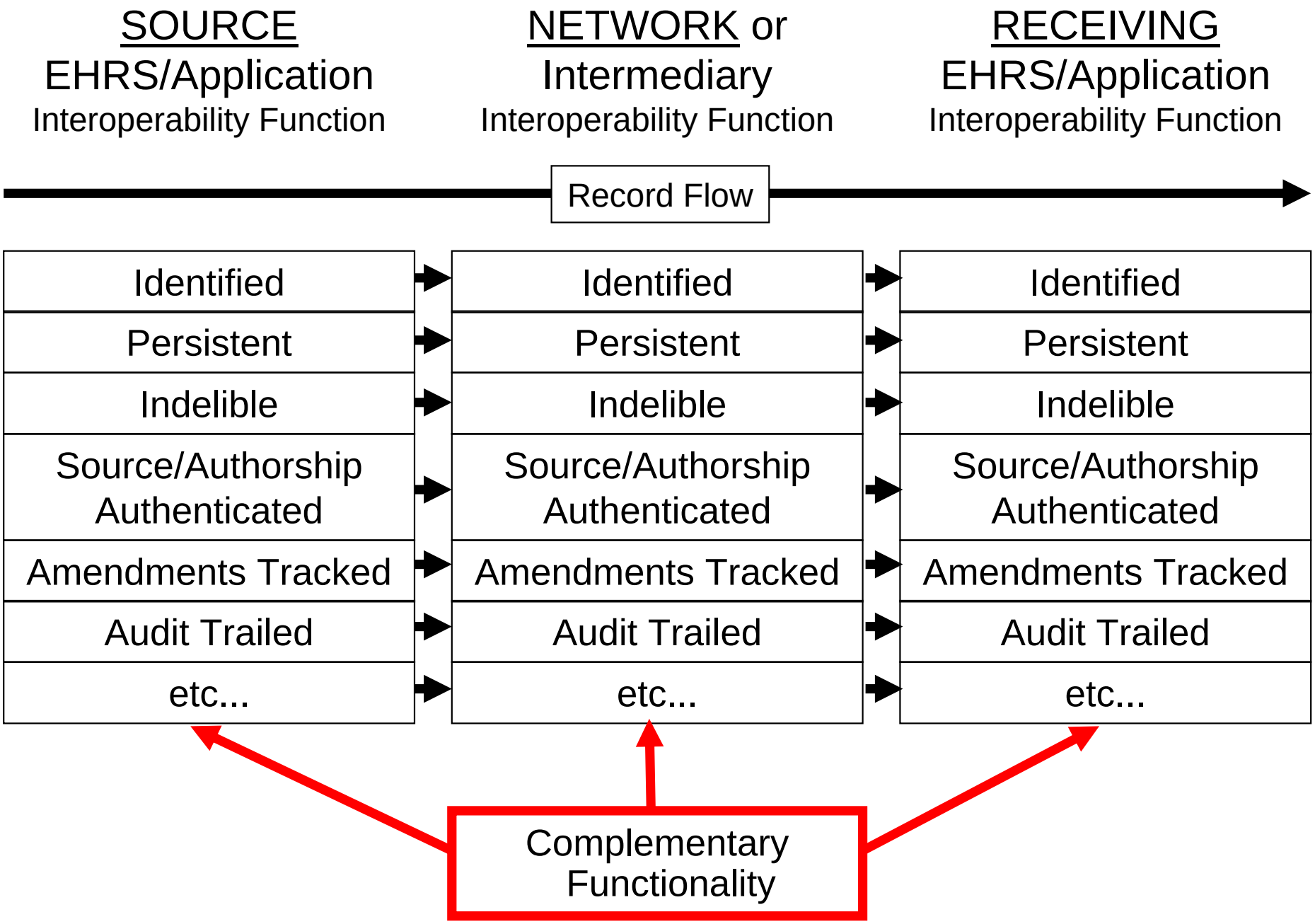
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etc...
Identified
Persistent
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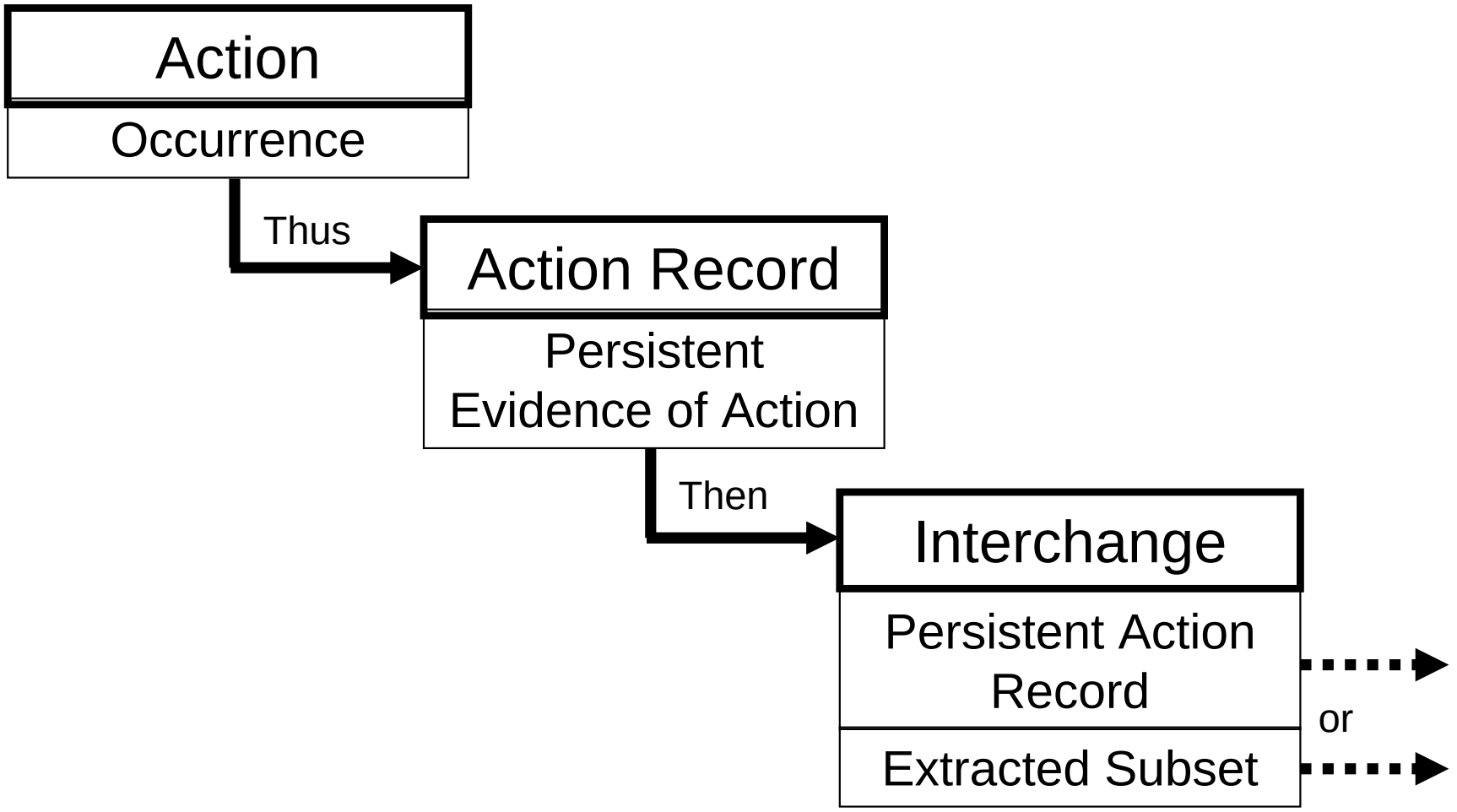
Source/Authorship Authenticated
Amendments Tracked
Audit Trailed
etc...
Complementary Functionality

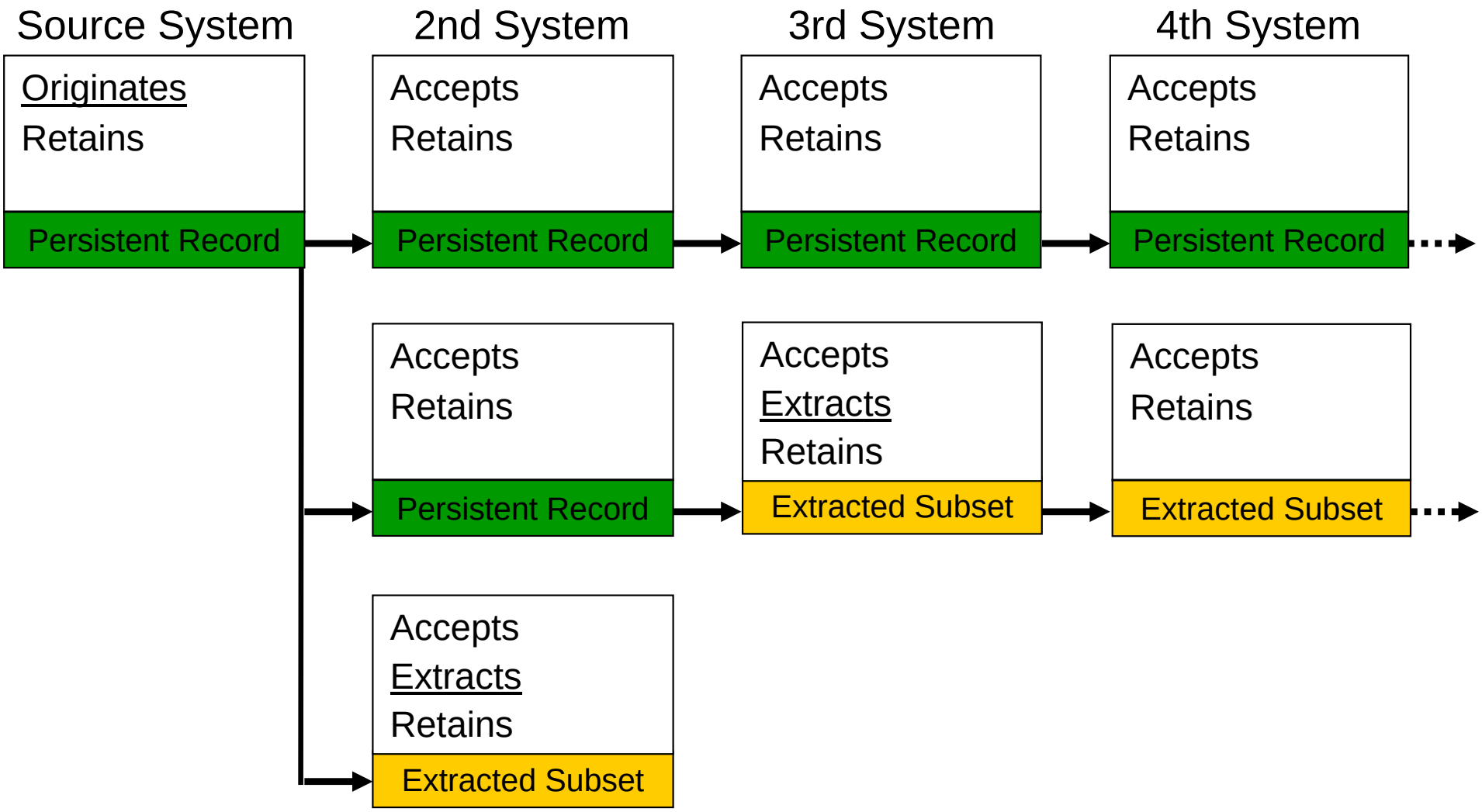
Classes of NHIN Interchange

- Traceable to Persistent Source
  - Individual Health Record
  - Extracted Subset of Health Record
- Not Traceable to Persistent Source
  - Other Records and Data
- Transient Interchange Artifacts
  - e.g., Messages

Key Action Phases



Example Interchange Pattern
Persistent Records and Extracted Subsets



Contact

Gary Dickinson

Director, Healthcare Standards, CentrifyHealth

Chair, US Technical Advisory Group to ISO TC215

Head of US Delegation, ISO TC215

Lead, HL7 EHR Interoperability Project Team

Member, JCAHO HIT Advisory Panel

951-536-7010

gary.dickinson@centrifyhealth.com