

S&I Data Provenance		Source EHR System Events					Exchange	Receiving EHR System Events				TRUST Decision	
HITSC DPROV TF Verbs →		Create (Originate)	Maintain (Retain)	Change (Update)	Assemble	Compose	Export (Transmit)	→→→	Import (Receive)	Disassemble	Decompose	Maintain (Retain)	Access (Use/View)
EHR System Function?		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
w/Human Participant?		Human or Device	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes
Provenance Event?	Exchange No Transform	Yes (new source record entry)	No	Yes (changed source record entry)	N/A	N/A	No	No	No	N/A	N/A	No	No
	Exchange w/Transform	Yes (new source record entry)	No	Yes (changed source record entry)	Yes (new exchange artifact)	Yes (new exchange artifact)	No	No	No	Yes (new receiver record entry)	Yes (new receiver record entry)	No	No
Audit, Traceability Event?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WHO - Entities													
Person	Person who is part of Action Taken and/or identified in record entry created	Person who is identified in maintained record entry	Person who is identified in changed record entry	Person who is identified in assembled exchange artifact	Person who is identified in composed exchange artifact	Person who is identified in exported exchange artifact	→→→	Person who is identified in imported exchange artifact	Person who is identified in disassembled exchange artifact	Person who is identified in decomposed exchange artifact	Person who is identified in maintained record entry	Person who is identified in accessed record entry	
Organization	Organization who is source of record entry	Organization who maintains record entry	Organization who is source of changed record entry	Organization who is assembler of exchange artifact	Organization who is composer of exchange artifact	Organization who exports exchange artifact		Organization who imports exchange artifact	Organization who is disassembler of exchange artifact	Organization who is decomposer of exchange artifact	Organization who maintains record entry	Organization who views/accesses record entry content	
System, Device or Software	System, device or software creating record entry	System, device or software maintaining record entry	System, device or software changing record entry	System, device or software assembling exchange artifact	System, device or software composing exchange artifact	System, device or software exporting exchange artifact		System, device or software importing exchange artifact	System, device or software disassembling exchange artifact	System, device or software decomposing exchange artifact	System, device or software maintaining record entry	System, device or software providing view/access to record entry	
WHO - Entity Roles													
Subject/Target	Patient/Person who is subject of Action Taken and target of record entry	N/A	Patient/Person who is subject/target of record entry	Patient/Person who is subject/target of exchange artifact	Patient/Person who is subject/target of exchange artifact	N/A	→→→	N/A	Patient/Person who is subject/target of record entry	Patient/Person who is subject/target of record entry	N/A	N/A	
Device Author	Device who authored record entry		N/A	N/A									
Accountable Author	Person who authored record entry		Person who authored change to record entry	Person who composed exchange artifact									
Enterer	Person or device who entered record entry												
Verifier	Person who verified record entry												
Attester	Person who attested record entry												
Performer	Person who is performer of Action Taken												
Informant	Person who is informant to Action Taken												
Participant	Person who is participant in Action Taken												
Viewer, Accesser, User	N/A		Person who views/accesses record entry content										
WHAT													
Action Taken	What Action was taken, as documented in record entry	N/A	N/A	N/A	N/A	N/A	→→→	N/A	N/A	N/A	N/A	N/A	
Chain of Trust Event	What event occurred: originate	What event occurred: maintain (retain)	What event occurred: change (update)	What event occurred: assemble	What event occurred: compose	What event occurred: export (transmit)		What event occurred: import (receive)	What event occurred: disassemble	What event occurred: decompose	What event occurred: maintain (retain)	What event occurred: access (use/view)	
Provenance Event	N/A	N/A	• Original source record entry content (retained) • New record entry content (retained)	• Original source record entry content (retained) • New exchange artifact originated	• Original source record entry content (retained) • New exchange artifact originated	N/A		N/A	• Exchange artifact content (retained or deleted?) • New receiver record entry content	• Exchange artifact content (retained or deleted?) • New receiver record entry content	New receiver record entry content (retained)	N/A	
WHEN													
Action Date/Time	When Action was taken	N/A	N/A	N/A	N/A	N/A	→→→	N/A	N/A	N/A	N/A	N/A	
Action Duration	Duration of Action												
Data Event	When record entry was created	When record entry was maintained/retained	When record entry was changed	When exchange artifact was assembled	When exchange artifact was composed	When exchange artifact was exported							When exchange artifact was imported
WHERE													
Action Physical Location	Physical location where Action taken	N/A	N/A	N/A	N/A	N/A	→→→	N/A	N/A	N/A	N/A	N/A	
Data Location	Network address where record entry was created	Network address where record entry was maintained/retained	Network address where record entry was changed	Network address where exchange artifact was assembled	Network address where exchange artifact was composed	Network address where exchange artifact was exported							Network address where exchange artifact was imported
WHY													
Action Reason	Why Action was taken	N/A	Why Action was taken	N/A	N/A	N/A	→→→	N/A	N/A	N/A	N/A	Why record entry was accessed/viewed	
Data Reason	Why record entry content was created		Why record entry content was changed	Why exchange artifact was assembled	Why exchange artifact was composed	Why exchange artifact was exported							
Additional Provenance Metadata													
Author Signature	Digital signature of record entry author	N/A	Digital signature of record entry change author	N/A	Digital signature of exchange artifact composer	N/A	→→→	N/A	N/A	Digital signature of artifact decomposer	N/A	N/A	
System, Device or Software Signature	Digital signature of system, device or software creating record entry		Digital signature of system, device or software changing record entry	Digital signature of system, device or software assembling exchange artifact	Digital signature of system, device or software composing exchange artifact	Digital signature of system, device or software exporting exchange artifact				Digital signature of system, device or software disassembling exchange artifact			Digital signature of system, device or software decomposing exchange artifact