

Operating Policy and Procedure

Subject: OPP#15 Hub Message Transformation Inventory		
Status: FINAL	Policy #: OPP- #15	
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I. Purpose

This document establishes the policy and procedure to help ensure the eHealth Exchange Hub message transformations, including intent, are transparent to all eHealth Exchange Participants and those supporting and exchanging with those Participants such as their technology partners and other networks. For purposes of this policy and procedure a message transformation (“Transformation(s)”) refers to the process by which substantive content of an inbound message to the Hub is intentionally modified by the Hub before transmission to the outbound receiver.

II. Policy

To address interoperability challenges caused by Performance and Service Specifications ambiguities, policy discrepancies, technical discrepancies, and technical flaws, when specifically directed by eHealth Exchange Participants and other trusted networks requesting or providing data, eHealth Exchange may configure the eHealth Exchange Hub to adjust messages sent to the eHealth Exchange Hub. All eHealth Exchange Hub inbound messages that are intentionally modified by an eHealth Exchange Hub transformation process must be documented in the *eHealth Exchange Hub Message Transformation Inventory* (the “*Inventory*”) which must be published by eHealth Exchange staff and made available for review by Participants, those supporting Participants’ interoperability, and other trusted members of the interoperability community. The *Inventory* must be maintained by eHealth Exchange staff as described in the following procedure. Entries must be maintained in the *Inventory* permanently for the following reasons:

1. Requested transformations impact certain log files;
2. Requested transformations may impact record keeping; and
3. To help illustrate the modifications to PKI-based chain-of-trust between a message as-received by the ultimate receiver, and the associated transformed message as-transmitted by the original sender.

III. Procedure

Transformations performed by the Hub will be documented by eHealth Exchange Staff, and that documentation will be made available in the *Inventory*, which will be accessible to Participants via the eHealth Exchange website or at other specified location(s) as needed. The *Inventory* will contain at least the following columns:

1. Transformation Start Date and Time

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2. Transformation Stop Date and Time
3. Title
4. Brief Description (including purpose)
5. Sample Message Pre-Transformation
6. Sample Message Post-Transformation
7. Relevant Participants
8. Trigger Event
9. Message Types
10. Comments

Each of the above columns must be populated by eHealth Exchange staff with the exception of the “Comments” and “Transformation Stop Date & Time” fields.

The “Transformation Stop Date & Time” field is populated when any given transformation becomes inactive.

The “Brief Description” column must include the reason (intent) for the transformation, such as to achieve technical interoperability or due to a policy requirement.

The “Relevant Participants” column should document under what conditions the transform is invoked. For example, the transformation is invoked if a message is destined for a certain gateway. The relevant organizations should be listed by a unique criterion such as, “The following Carequality Implementers: Implementer A, HCID:1.2.3.4, Implementer B, HCID: 2.3.4.5.”

The “Trigger Event” column should be populated with the conditions under which the transformation is invoked. For example, trigger a transformation if the source HCID and target HCID matches certain OID values.

The “Message Types” column should indicate which messages types are transformed (e.g., Patient Discovery, Query for Documents, Retrieve Documents, Push, or all message types).

All intentional transformations made by the eHealth Exchange Hub are to be documented in this *Inventory*. Once an entry has been made into the *Inventory*, the entry is never deleted. This allows for a permanent record of intentional transformations and enables historical correlations to occur between messages (potentially many years old) and any associated transformations.

The *Inventory* should be made available to any organization sending or receiving messages to or from an eHealth Exchange Participant where the message is subject to transformation.

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Authorized viewers of the *Inventory* include: a) all eHealth Exchange Participants, b) Participants' technology providers, and c) members of other networks, such as those participating in Carequality. Other individuals and organizations (such as standards bodies, academic researchers, and Participant vendor sub-contractors) may be granted access at the discretion of eHealth Exchange staff.

eHealth Exchange staff will provide regular updates to the Coordinating Committee to inform them of notable Participant requests, categories, and trends.

IV. Definitions

eHealth Exchange Hub: A centralized solution that operationalizes many of the Performance and Service Specifications that have been adopted by the eHealth Exchange. It employs shared infrastructure used to facilitate the transmission of messages for the eHealth Exchange network that may include, but is not limited to, gateway services, healthcare directory, and record locator services.

All other capitalized terms, if not defined herein, shall have the same meaning as set forth in the DURSA.

V. References

"Restatement II of the Data Use and Reciprocal Support Agreement (DURSA)", Version Date: August 13, 2019

- a. Section 15.08, Accuracy of Message Content
- b. Section 15.10, Use of Message Content
- c. Section 17, Disclaimers

VI. Related Policies and Procedures

- a. OPP#4 – Change Process –Performance and Service Specifications
- b. OPP#9 – eHealth Exchange Digital Credentials

VII. Version History

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	Date	Author	Comments
1	12/4/2020	Eric Heflin & Jay Nakashima	Original Version

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Appendix (Examples of Why a Participant may request a Message Transformation)

Example 1	Example 2	Example 3	Example 4
Ambiguous Standard	Technical Interoperability	Policy or Technical Differences	Defect or Design Flaw
No agreement regarding how to interpret the standard e.g. WSA:To issue	e.g. eHealth Exchange uses "Emergency" purpose of use code, but Carequality "Emergency" is a sub-"Treatment" purpose of use code	e.g. Carequality requires use of their certificates	A Carequality Implementer requires non-standard SOAP header e.g. Responding Gateway requires extra signature