IHE Change Proposal

Instructions

This is a template to propose changes to IHE technical documents.

Changes may be proposed to:

- IHE Technical Framework volumes (most recently published version)
- Supplements in Trial Implementation
- Supplements in Final Text which have not yet been incorporated into the Technical Framework

Once a Supplement is incorporated into the Technical Framework it is no longer maintained. Relevant CPs must be submitted against the updated Technical Framework.

The CP publication process is described in detail on the IHE Wiki at http://wiki.ihe.net/index.php?title=Category:CPs

In submitting a new Change Proposal, the submitter should assign it an initial filename including the Domain Name (three initials), the submitters initials, and a few words describing the topic, e.g., <CP-ITI-CDC_extend_access_to_radiology_information.docx>. The Domain Technical Committee will assign a name (using the convention described below) when it is accepted for processing.

CPs should be submitted to the Technical Committee of the Domain responsible for the document to be changed.

Please complete the following fields in the Change Proposal Summary Information table:

a) Title

b) Integration Profile(s) affected

c) Submitter name and email address

d) Detailed Rationale for Change

e) Profiles Affected, Actor(s) Affected and Volumes and Sections Affected fields if known at time of submission

Then fill out the Proposed Change(s) section as indicated below.

Red text is explanatory. Please delete this preamble in its entirety and replace the red text below with appropriate responses in black text.

Tracking information

IHE Domain:	IT Infrastructure
Change Proposal ID:	CP-ITI-1333
Change Proposal Status:	Submitted
Date of last update:	20260226
Person assigned:	Vassil Peytchev

Change Proposal Summary Information

XCDR Endpoint Addressing	
Submitter's Name(s) and email address(es):	Vassil Peytchev (vassil@epic.com)
Submission Date:	October 6, 2025
Profile(s) affected:	XCDR
Actor(s) affected:	Initiating Gateway Responding Gateway
IHE Technical Framework or Supplement modified:	Cross-Community Document Reliable Interchange (XCDR), Rev. 1.6, published August 4, 2023
Volume(s) and Section(s) affected:	Volume 1 and Volume 2
Detailed Rationale for Change: Currently, the XCDR specification describes a use case of XDR/XCDR working together to cross community boundaries. There is, however, no discussion or guidance on how the endpoint addressing should work. This proposal will enhance the description of the XDR/XCDR use case with more details about the author and intended recipient metadata elements, and will add actor requirements to facilitate directed delivery.	

Proposed Change(s)

Add the following section after Section 40.2.1:

40.2.2 Targeted Endpoint Addressing Option

An Initiating Gateway shall be able to be configured to use a directory or a similar data source for enabling and supporting the proper routing across communities, and shall include the SubmissionSet intendedRecipient field. When this option is implemented in the XCDR Source Community with XDR use case, the use of the Initiating Gateway's directory should be based on, among other inputs, the information present in the Intended Recipient field of the metadata received in the XDR Provide and Register Transaction. The Initiating Gateway shall be also able to be configured to potentially augment the Submission Set Author field of the metadata to allow responses to the transaction to be properly routed prior to sending the transaction to the Responding Gateway.

A Responding Gateway shall be able to be configured to use a directory (or a similar data source) for

- determining the proper routing within the community based on the information present in the Intended Recipient field of the metadata
- augmenting the Submission Set Author field of the metadata to allow responses to the transaction to be properly routed. Note that in many cases the Submission Set Author field may already have sufficient information, and not additional action would be needed.

<Example>

40.2.2.1 Use of Submission Set Intended Recipient and Submission Set Author for Targeted Endpoint Routing

There are two main use cases for endpoint routing – addressing to or from individuals and addressing to or from organizations. There are certain requirements for populating the Intended Recipient and Author elements in the Submissions Set for each of these cases that will make endpoint routing possible. The information in these fields can be populated or modified by one of more of the source, initiating gateway, responding gateway, or recipient.

40.2.2.1.1 Endpoint Addressing to or from Individuals

When the transaction is intended for an individual, the intendedRecipient element SHALL have both the Organization (XON data type) and Person (XCN data type) populated and MAY have the telecommunications address (XTN data type) populated – in some cases an email-formatted endpoint can help with routing to the recipient.

The Submission Set Author element SHALL have both the authorPerson and authorInstitution slots populated, and MAY have the authorTelecommunication Slot populated – in some cases an email-formatted endpoint can help with routing responses to the sender.

40.2.2.1.2 Endpoint Addressing to or from Organizations

When the transaction is intended for an organization, the intendedRecipient element SHALL have the Organization (XON data type) populated and MAY have the telecommunications address (XTN data type) populated – in some cases an email-formatted endpoint can help with routing to the recipient.

The Submission Set Author element SHALL have the authorInstitution slot populated, and MAY have the authorTelecommunication slot populated – in some cases an email-formatted endpoint can help with routing responses to the sender.

When this option is implemented, the Initiating and Responding Gateways SHOULD be grouped with one or more of the mCSD Directory, mCSD Query Client, or mCSD Data Source actors.

40.2.2.2 Use of mCSD with the Targeted Endpoint Addressing Option

The mCSD IHE profile contains several profiled FHIR resources. When the Initiating and Responding Gateways are grouped with any of the mCSD actors, the following resource profiles will provide support for endpoint addressing:

- mCSD Practitioner and mCSD PractitionerRole – if there is support for endpoint addressing for an individual practitioner, mCSD Practitioner and mCSD PractitionerRole shall both be supported
- mCSD Organization – this profile shall be supported for both organizational and individual endpoint addressing.
- mCSD Endpoint – this profile shall be supported for both organizational and individual endpoint addressing.

When an endpoint is determined from an mCSD entry, the information needs to be represented in the Intended Recipient and the Submission Set Author metadata elements. The following steps describe the process.

40.2.2.2.1 Endpoint Addressing to or from Individuals

When the transaction is intended for an individual, the information necessary spans the Practitioner, PractitionerRole, Organization, and Endpoint resources, and may include the use of HealthcareService or Location resources. The PractitionerRole links the person to the organization, and the organization provides a list of endpoints for different purposes.

The following table describes the mapping between the FHIR resources and the XCDR metadata fields (the HL7 Version 2 to FHIR Implementation Guide provides information about general mapping between FHIR and HL7 V2 datatypes):

mCSD data element maps to	Submission Set Author	Submission Set Intended Recipient
PractitionerRole.identifier	SubmissionSet.authorPerson – component 1 and component 9 of the XCN datatype	SubmissionSet.intendedRecipient – second part of the value, component 1 and component 9 of the XCN datatype
Practitioner.name	SubmissionSet.authorPerson – components 2 through 6 of the XCN datatype	SubmissionSet.intendedRecipient – second part of the value, components 2 through 6 of the XCN datatype
Organization.identifier	SubmissionSet.authorInstitution – component 10 and component 6 of the XON datatype	SubmissionSet.intendedRecipient – first part of the value, component 10 and component 6 of the XON datatype
Organization.name	SubmissionSet.authorInstitution – component 1 of the XON datatype	SubmissionSet.intendedRecipient – first part of the value, component 1 of the XON datatype

Endpoint.connectionType and Endpoint.address	SubmissionSet.authorTelecommunication – populate the XTN datatype	SubmissionSet.intendedRecipient – third part of the value, populate the XTN datatype

40.2.2.2.1 Endpoint Addressing to or from Organizations

When the transaction is intended for an organization, the information necessary spans one or more Organization resources (for cases where the recipient may be department within a larger organization), an Endpoint resource, and may include the use of HealthcareService or Location resources.

The following table describes the mapping between the FHIR resources and the XCDR metadata fields (the HL7 Version 2 to FHIR Implementation Guide provides information about general mapping between FHIR and HL7 V2 datatypes):

mCSD data element maps to	Submission Set Author	Submission Set Intended Recipient
Organization.identifier	SubmissionSet.authorInstitution – component 10 and component 6 of the XON datatype	SubmissionSet.intendedRecipient – first part of the value, component 10 and component 6 of the XON datatype
Organization.name	SubmissionSet.authorInstitution – component 1 of the XON datatype	SubmissionSet.intendedRecipient – first part of the value, component 1 of the XON datatype
Endpoint.connectionType and Endpoint.address	SubmissionSet.authorTelecommunication – populate the XTN datatype	SubmissionSet.intendedRecipient – third part of the value, populate the XTN datatype

Replace Section X.X by the following:

or

Add the following section after Section X.X: