CommonWell Health Alliance Specification V4.0

Use Cases (Part 2 of 2)

CommonWell Permitted Purposes

Overview

CommonWell Service Adopters and their customers are made up of many different types of health care providers and services organizations including provider organizations, the foundation upon which the network was built, interoperability vendors, consumer applications, and personal health records (PHRs).

Permitted Purposes Definitions

CommonWell supports the Permitted Purposes of **Treatment** and **Request of the Individual (Patient Access)** (the "Permitted Purposes"). The definitions are from the HIPAA Privacy Rule for Uses and Disclosures for Treatment, Payment, and Health Care Operations and the Individual's Right under HIPAA to Access their Health Information. Excerpts from the HHS sites previously linked are below.

References to the HIPAA Privacy Rule are located at 45 CFR Part 160 and Subparts A and E of Part 164 and referenced documentation for the full language of Treatment and Individual Right to Access.

Uses and Disclosures for Treatment

"Treatment" generally means the provision, coordination, or management of health care and related services among health care providers or by a health care provider with a third party, consultation between health care providers regarding a patient, or the referral of a patient from one health care provider to another.

Individual's Right under HIPAA to Access their Health Information

The Privacy Rule generally requires HIPAA covered entities (health plans and most health care providers) to provide individuals, upon request, with access to the protected health information (PHI) about them in one or more "designated record sets" maintained by or for the covered entity. This includes the right to inspect or obtain a copy, or both, of the PHI, as well as to direct the covered entity to transmit a copy to a designated person or entity of the individual's choice. Individuals have a right to access this PHI for as long as the information is maintained by a covered entity, or by a business associate on behalf of a covered entity, regardless of the date the information was created; whether the information is maintained in paper or electronic systems onsite, remotely, or is archived; or where the PHI originated (e.g., whether the covered entity, another provider, the patient, etc.).

Individuals have a right to access PHI in a "designated record set." A "designated record set" is defined at 45 CFR 164.501 as a group of records maintained by or for a covered entity that comprises the:

- Medical records and billing records about individuals maintained by or for a covered health care provider;
- Enrollment, payment, claims adjudication, and case or medical management record systems maintained by or for a health plan; or
- Other records that are used, in whole or in part, by or for the covered entity to make decisions about individuals. This last category includes records that are used to make decisions about any individuals, whether or not the records have been used to make a decision about the particular individual requesting access.

Treatment Requests

The CommonWell network was built on the foundation of the Treatment use case, for provider-to-provider exchange. This use case allows provider organizations to connect to the network, via their electronic health record (EHR) platform or other health IT vendors and both share and retrieve clinical data for patients with whom they have a treatment relationship. This use case does require a treatment relationship to have been

established between a patient and their provider prior to using the network to retrieve clinical information. Reciprocity requirements are in place to ensure that all applications and systems that have clinical data are sharing it, with the proper consent and authorization in place, within the network for the benefit of all who care for patients.

CommonWell uses the NHIN Authorization Framework for the Treatment purpose of use code. This purpose of use is also applicable to the Carequality framework.

Purpose of use vocabulary	Code
Treatment	TREATMENT

In support of TEFCA, CommonWell will transform the TREATMENT purpose of use to the TEFCA code for Treatment whenever a CommonWell Service Adopter initiates a query to CommonWell and has TEFCA enabled.

Purpose of use vocabulary	Code
Treatment	T-TRTMNT

CommonWell Service Adopters MUST send the NHIN code ("TREATMENT") and must not send the TEFCA code when initiating the transaction.

Patient Access Requests

Patients have a right to access their clinical data, and CommonWell supports that right through the Patient Access Use Case. This Use Case may also be referred to as Individual Access Services (IAS).

For this Use Case document, the following definitions will apply:

Individual Access Services (IAS). The provision of an application or service by an Individual Access Services Vendor that enables an individual to obtain a copy of their PHI under their HIPAA right of access through CommonWell services.

Individual Access Services IAS) Vendor. A CommonWell member or customer thereof that enables IAS on behalf of an individual.

HIPAA-related IAS Vendor. An IAS Vendor that is governed under HIPAA.

nonHIPAA-related IAS Vendor. An IAS Vendor that is not governed under HIPAA.

Kantara Initiative – an identity assurance program that assesses the conformance against the National Institute of Standards and Technology (NIST) 800-63 standards for identity privacy and security.

The Patient Access Use Case can be broken down into two types of user groups:

1 Patients using their Patient Portal that is contractually and technically connected to their provider's EHR. For these systems, the identity of the patient is confirmed by the provider organization. Most often these are HIPAA-related IAS vendors.
2 Patients using a consumer application (IAS) that is not contractually or technically connected to a provider's EHR. For these systems, the identity of the patient must be confirmed by a Kantara certified identity vendor. Most often these are nonHIPAA-related IAS vendors.

CommonWell uses the NHIN Authorization Framework for the Patient Access purpose of use code. This purpose of use is also applicable to the Carequality framework.

Purpose of use vocabulary	Code
Request of the Individual	REQUEST

In support of TEFCA, CommonWell will transform the REQUEST purpose of use to the TEFCA code for Individual Access Services whenever a CommonWell Service Adopter initiates a query to CommonWell and has TEFCA enabled.

Purpose of use vocabulary	Code
Individual Access Services	T-IAS

CommonWell Service Adopters MUST send the NHIN code ("REQUEST") and must not send the TEFCA code when initiating the transaction.

Permitted Purposes and Reciprocity

CommonWell operates under a general understanding that all health organizations connected to the network that have data for shared patients MUST make that data available when queried by initiating gateways. Therefore, CommonWell has the following requirements to ensure that there is reciprocity in data sharing across the network and connected organizations. The terms Must, May and Should have the meanings as provided in RFC 2119.

- **Treatment**
    - Inside of the CommonWell network:
        - A Query Initiator MUST also be a Query Responder
        - Exceptions that MAY permit an organization to be a Query Initiator only for Treatment eligible organizations without Electronic Clinical Information (e.g., 42 CFR Part 2 providers, Emergency Medical Service providers)
        - Organizations with a fully connected EHR acting as a Query Responder may have additional connected products ("Adjacent Products") acting as Query Initiators (e.g., population health, medication reconciliation, document aggregators)
    - Carequality
        - A Query Initiator MUST also be a Query Responder
        - Exceptions to Full Participation may be found in the Carequality Framework Policies. Reference may be found here: https://carequality.org/resources/
    - TEFCA
        - A Query Initiator MUST also be a Query Responder
        - Per the TEFCA Exchange Purposes (XP) SOP, QHINs, Participants, and Subparticipants MUST respond to Treatment requests. Reference may be found here: https://rce.sequoiaproject.org/tefca-and-rce-resources/
- **Request (Patient Access/Individual Access Services)**
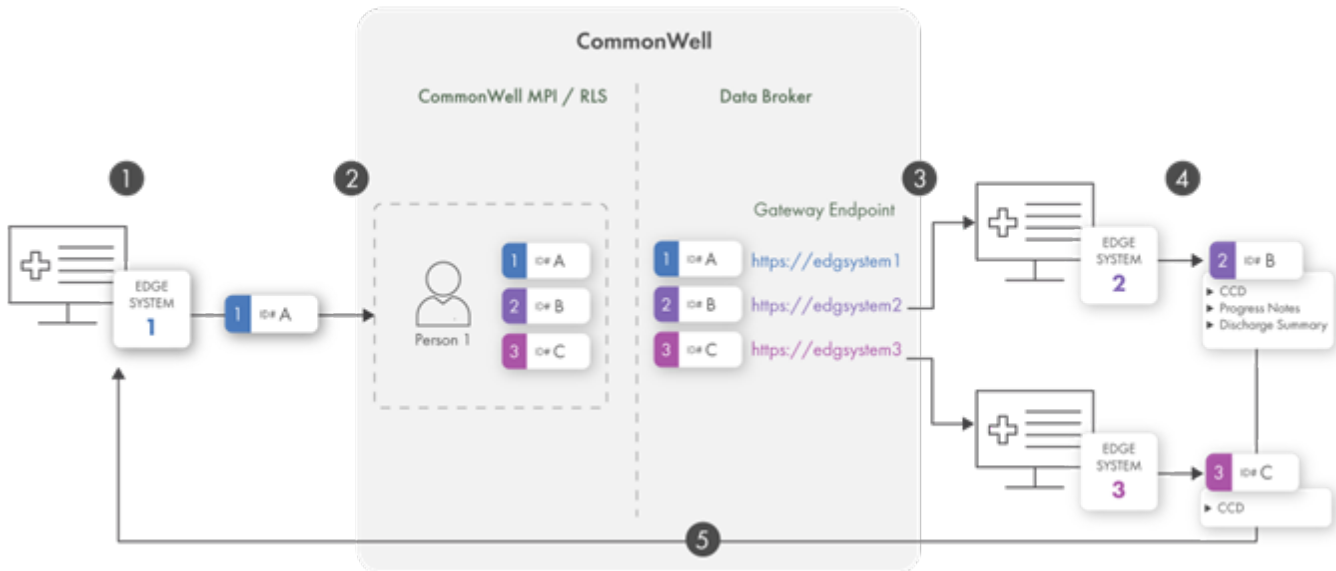   - Inside of the CommonWell network:
        - A Query Initiator MAY also be a Query Responder
        - An organization SHOULD be a Query Responder to REQUEST unless doing so would violate applicable law or the organization's local access policies.
        - Patient Access responses will be enabled by default when organizations are added to the CommonWell network.
    - Carequality
        - Not yet supported in either direction.
    - TEFCA

- A Query Initiator MAY also be a Query Responder
- Per the TEFCA Exchange Purposes (XP) SOP, QHINs, Participants, and Subparticipants MUST respond to IAS (i.e., patient access). Reference may be found here: https://rce.sequoiaproject.org/tefca-and-rce-resources/

High Level Workflow

Below is a high level, end-to-end workflow for how an initiating edge system query and retrieves documents from the CommonWell network.

This flow may vary based on different purposes of use and individual implementation requirements.

1. User at initiating Organization 1 selects a Patient (ID: A) to request records from the CommonWell network.
2. The patient demographic information is sent to the MPI to create/update the local Patient record. The MPI Rules Engine checks to see if the Patient automatches and autolinks to an existing Patient and Person in the MPI.
   a. In the workflow example, Patient ID:A from Org 1 matches to Person 1, which is associated with remote Patient ID:B at Org 2 and Patient ID:C at Org 3.
3. The CommonWell Data Broker uses the patient and location information from the MPI/RLS along with the gateway endpoint information to connect to the remote edge systems.
4. The remote edge systems may have one or multiple documents for the patient.
5. The responding edge systems will send back the corresponding patient documents to initiating organization.

High-level technical sequence diagram

This diagram describes the nominal API flow from patient creation to document retrieval.

This flow may vary based on different purposes of use and individual implementation requirements.
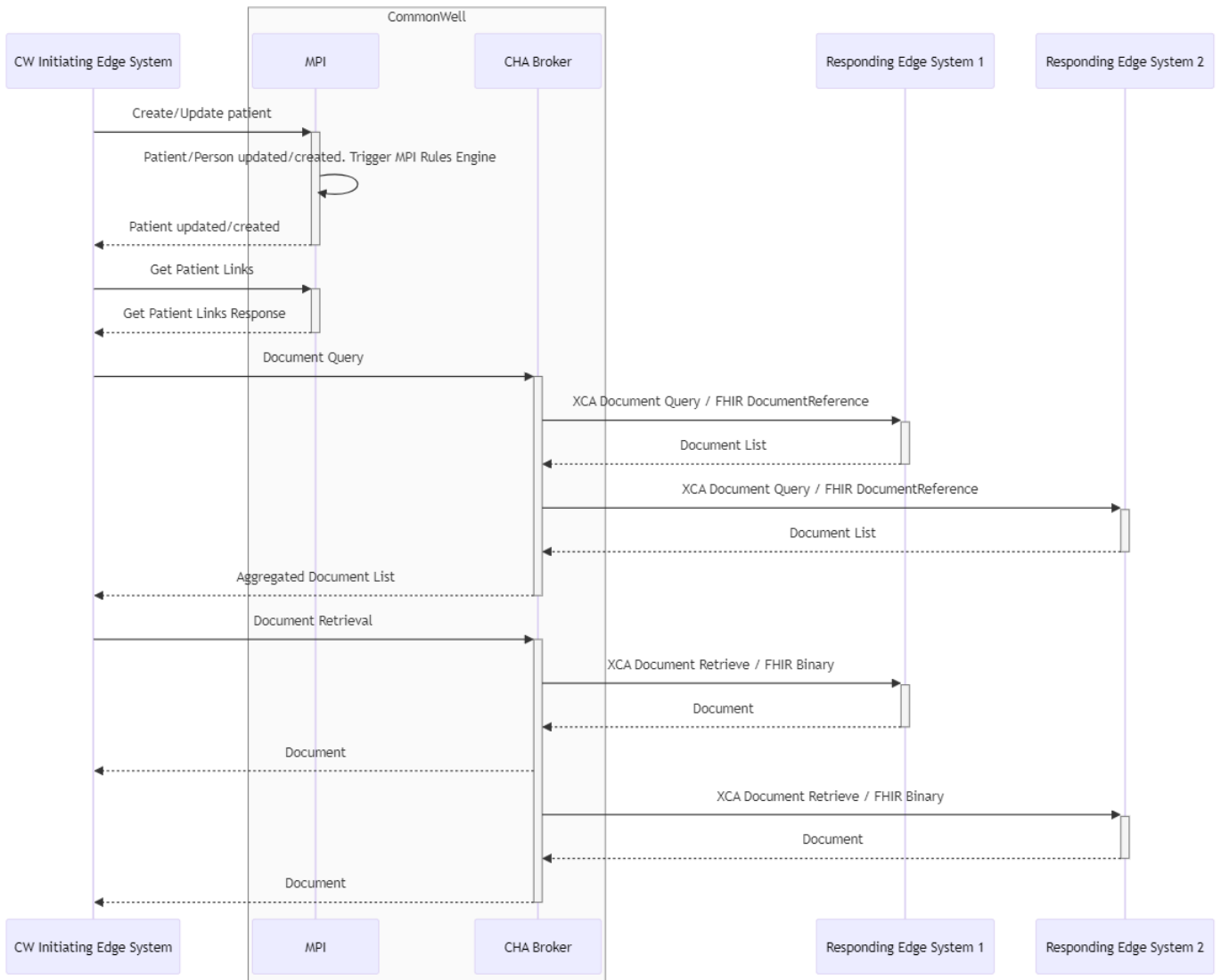
1. CW Initiating Edge System creates or updates a patient record. This action triggers the MPI Rules Engine to create or update the patient record and link the record to an existing Person record or create a new Person record if one does not already exist.
2. CW Initiating Edge System uses Get Patient Links to find all confirmed links to external Edge Systems
3. CW Initiating Edge System sends a document query request to the CHA Broker. The CHA Broker will reach out to the respective Edge System(s)s for the document list and respond with an aggregated document list.
4. CW Initiating Edge System sends a document retrieval request to the CHA Broker. The CHA Broker will reach out to the respective Edge System(s) and return the document.

Patient Management

The scenarios below are applicable to both the Treatment and Patient Access use cases. The scenarios primarily are written from the point of view of the Treatment use case as examples but they are applicable to both use cases.

Scenario 1 – Add Patient to CommonWell

As an Edge System, I want to add my patient, or myself, to CommonWell so that I can exchange data.

Pre-conditions:
- Organization is onboarded to the CommonWell network via their Service Adopter.

Scenario

Frank Nolan is a patient of Dr. Jeffery Geiger, a general practitioner working in the Chicago area. During an encounter at Dr. Geiger's office, an authorized Edge System initiates interactions with CommonWell in accordance with local workflows, policies, and applicable law.

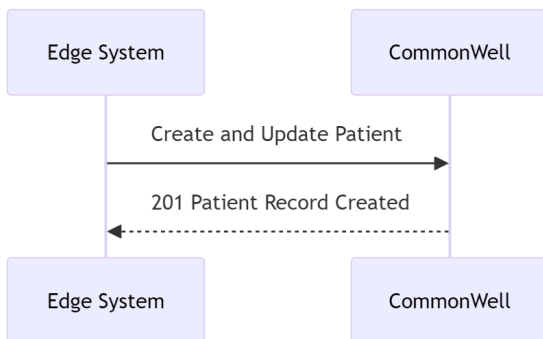Frank is able to participate in CommonWell and his demographic data is sent to CommonWell.

Post-conditions
- Patient record is created in CommonWell MPI, which initiates the rules engine for linking.

Exception Cases

If the patient record has already been created, the API endpoint will update the patient record.

Transactions

Resource links:
- CommonWell Services Specification – Create and Update Patient

Scenario 2 – Update Patient Record

As an Edge System user, I can update patient demographics for a patient registered in CommonWell.

Pre-conditions:
- The Patient exists in the local Organization system.
- The Patient is registered in CommonWell for the local Organization.

Scenario:

Patient Anya Stark comes to her PCP for a scheduled Visit. At the front desk, the authorized Edge System user looks up Anya in the registration system. Anya is found, so she proceeds to review the patient information. The authorized Edge System user updates her home address and phone number. The Edge System sends the demographics to CommonWell. The CommonWell Patient Identity Service processes the information and updates the Patient information for this Organization.

Post-conditions
- The Patient record in CommonWell for this Organization is updated with the new demographic data.

Transactions
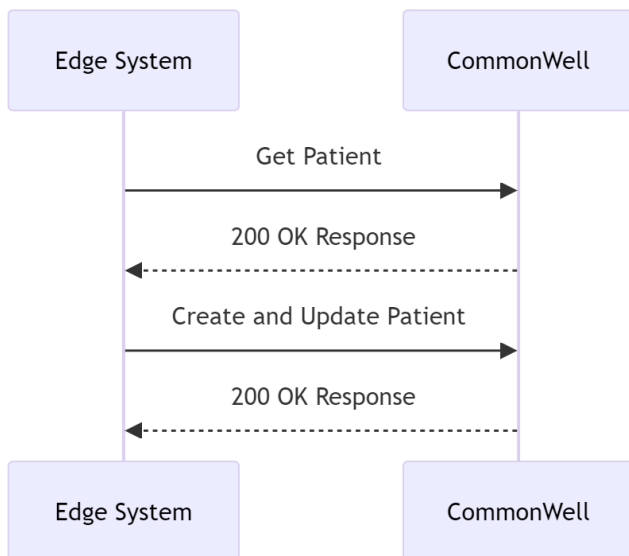
Resource links:
- CommonWell Services Specification – Create and Update Patient

Scenario 3 – Set Disclosure Flag

As an Edge System user, I have a patient that no longer wants to share their records through health information exchange.

Pre-conditions
- The patient is registered in CommonWell at the participating Organization.
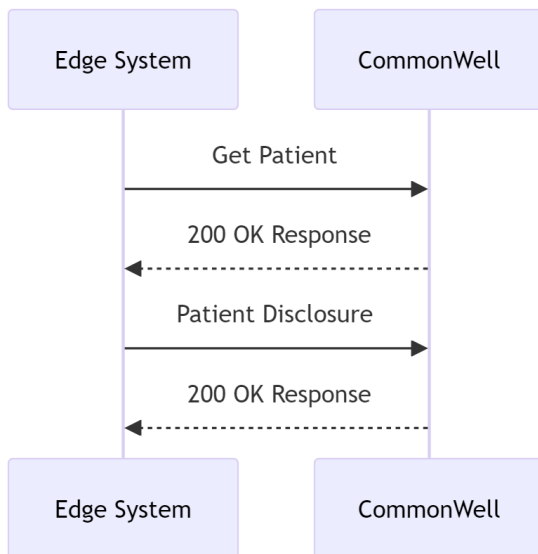
Scenario

Barbara Hyland was initially registered in CommonWell by the participating organization. Barbara tells one of the office staff that she is concerned about her privacy and wishes to opt out of sharing of information.

The authorized Edge System user verifies Barbara's identity. The user sets Barbara's record to no longer disclose her records for any requests. The disclosure can be set at the network/framework level and by purpose of use.

Post-conditions
- Patient record for each network and purpose of use is set to not disclose for the participating Organization.
- CommonWell retains some patient information in the MPI.
- Patient record is not discoverable on the network and will not show up in Get Patient Links or Get Probable Links API responses for the respective purpose of use. The links and patient details remain intact, but they will not be discoverable.

Transactions

Resource links:
- CommonWell Services Specification – Patient Disclosure

Scenario 4 - Duplicate Patient Records

As an Edge System user, I have identified two local patient records that are duplicate of each other.

Pre-condition
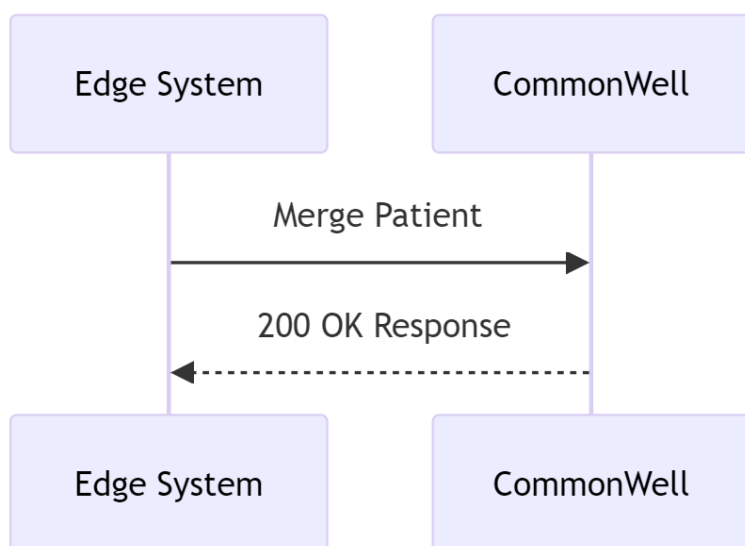- Patient has two records registered in CommonWell MPI in the same local edge system organization.

Scenario

An administrator in Dr. Jeffery Geiger's office accidentally created a duplicate patient record. In a routine system review, they decide to cleanup duplicate records in the system. The administrator identifies the patient record IDs for the two records and determines which record should be the surviving ID.

Post-condition
- Duplicate patient records are merged.
- Edge System users should use the surviving patient ID going forward.

Transactions

```
┌──────────────┐              ┌──────────────┐
│ Edge System  │              │  CommonWell  │
└──────────────┘              └──────────────┘
       │                             │
       │      Merge Patient          │
       │────────────────────────────▶│
       │                             │
       │      200 OK Response        │
       │◀- - - - - - - - - - - - - - │
       │                             │
┌──────────────┐              ┌──────────────┐
│ Edge System  │              │  CommonWell  │
└──────────────┘              └──────────────┘
```

Resource links
- CommonWell Services Specification – Merge Patient

Scenario 5 – Delete Patient

As an Edge System user, I created an erroneous patient record.

**Pre-condition**
- Patient is registered in CommonWell.

Scenario

A newly hired administrator at Dr. Geiger's office accidentally created a test patient record in CommonWell and determines that they need to delete to this record in the production system.

Post-condition
- The patient record is deactivated in the MPI and is no longer available for update. Any future GET requests will return a 404 Not Found.

Transactions
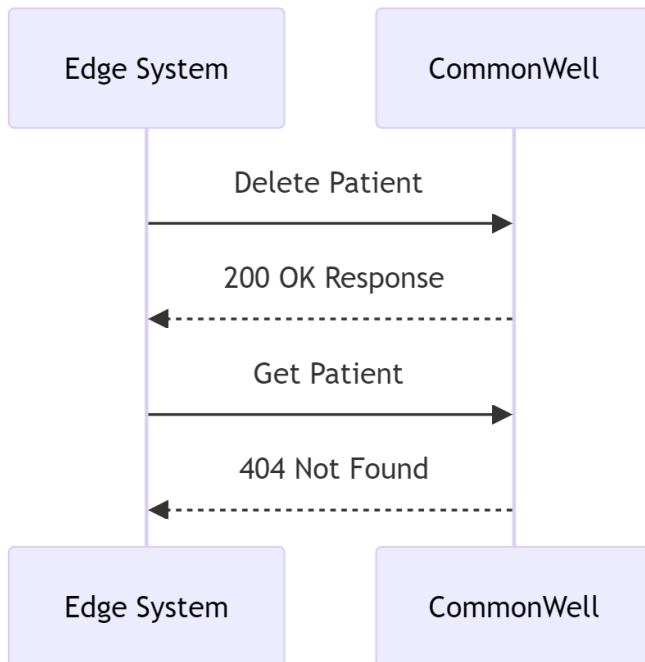
Resource links
- CommonWell Services Specification – Delete Patient

Patient Linking

Patient Linking Background

A link is an association between Patient records or between Patient record and Person. There are two ways create links:

1. <u>System link</u> or <u>autolinking</u> – This link type is done automatically by the Rules Engine and links Patient(s) to Person.
2. <u>Manual link</u> – This link type is done by an Edge System to associate patient records from a list of probable matches. The manual link workflow is available for Treatment exchange only and cannot be used for patient Request/IAS.

The following Patient attributes are considered for Patient matching:
- Given name (required)
- Family name (required)
- Date of birth (DOB) (required)
- Gender
- Address Line 1, City, State, Zip
- Email address
- Phone number(s)
- Strong identifiers (SSN4, Driver's license, Passport number)

The MPI also stores Organization ID and Assigning Authority ID associated with each Patient record. These two attributes are used when determining if the incoming Patient record is new or an existing record that should be updated.

The autolinking algorithm is based off a set of deterministic and rules-based matching using different combinations of the Patient attributes. One example of deterministic rule that will trigger an autolink is if two patient records exactly match on the following attributes: given name, family name, DOB, gender, city, state, zip5, and phone number.

Probabilistic algorithms calculate scores based on weights that are associated with values for specific attributes. Probabilistic matching is based on weightage rules, attribute weights, comparator function, and threshold values. A threshold is applied to total match score to determine probable matches. Any pairs below the threshold value are not considered as matches. Probable matches are assigned LOLA1 network links, which are returned using the Get Probable Links API.

Users may use Get Probable Links as part of their manual linking workflow. Once a manual link has been established, the link is considered a confirmed link and upgraded to LOLA2. Autolinks and manual links are confirmed links at LOLA2. These links are returned in the Get Patient Links API.

Note: definitions for local patient record, remote patient record, organization, and more, see Section 4 Glossary of Terms in the Services Specification.

External Framework Patient Matching

External frameworks such as Carequality and TEFCA has their own set of rules for patient matching.

- Carequality – Each responding organization is responsible for setting their own patient matching algorithm and rules
- TEFCA – Each QHIN is responsible for setting their own patient matching algorithm and rules as part of query-based QHIN-QHIN patient discovery.

For incoming requests from external frameworks, the autolinking algorithm is used for patient matching.

Scenario 1 – Link Patient Records

As an Edge System user, I can associate or manually link my local patient record to a remote patient record.

Pre-conditions
- All organizations are onboarded to the CommonWell network via their Service Adopter.
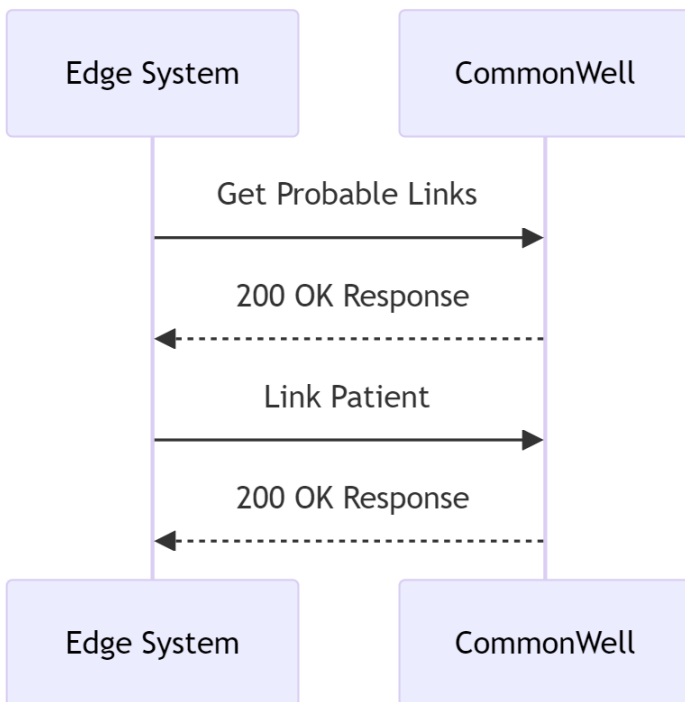- The patient records exist in the CommonWell MPI.

Scenario
- As an Edge System user, I can get probable Patient Matches using demographic information or my local patient ID and find a suitable remote record that matches my local patient record.

Post-condition
- Local patient record and remote patient record are linked.

Transactions

Resource links
- CommonWell Services Specification- Get Probable Links
- Knowledgebase: Link, Unlink, Reset

Scenario 2 – Unlink Patient Record

As an Edge System user, my local patient record is a false positive match to another patient record and should no longer be linked.

Pre-condition
- All organizations are onboarded to the CommonWell network via their Service Adapter.
- Patient records exist in the CommonWell MPI.

Scenario
- A user at local organization discovers that two patient records that are currently linked are not the same patient and should no longer be associated with one another.

Post-condition
- The local patient record is no longer linked to the incorrect patient record at another organization. The system will also prevent linking of the unlinked records in the future.

Transactions
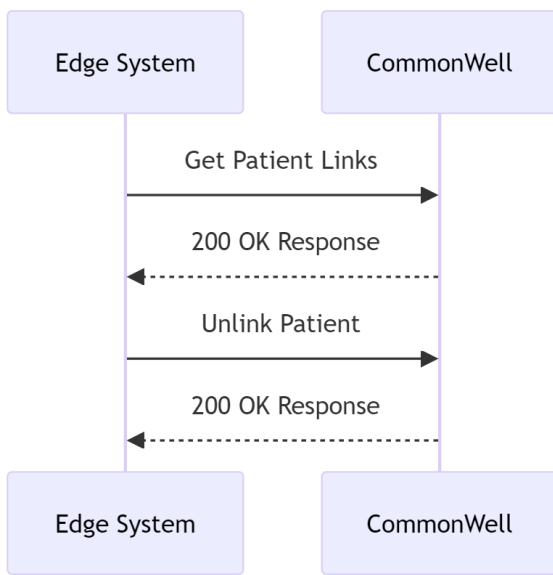
Resource Links
- CommonWell Services Specification – Unlink Patient
- Knowledgebase: Link, Unlink, Reset

Scenario 3 – Reset Patient Record Link

As an Edge System user, I am unsure if the patient records matched correctly and want the rules engine to re-review.

Pre-condition
- All organizations are onboarded to the CommonWell network via their Service Adapter.
- Patient records exist in the CommonWell MPI.

Scenario
- An Edge System user is reviewing the patient links associated with their local patient record and is unsure if they are the same person. However, they also are not confident to know that the record is definitively not the same person. Thus, the user decides to reset the patient links and allow the rules engine to review and determine if the records should be linked.

Post-condition
- The Patient record that is reset will detach and remove all existing links to the patient. In the future, the patient may be linked to the same Patient collection.

Transactions
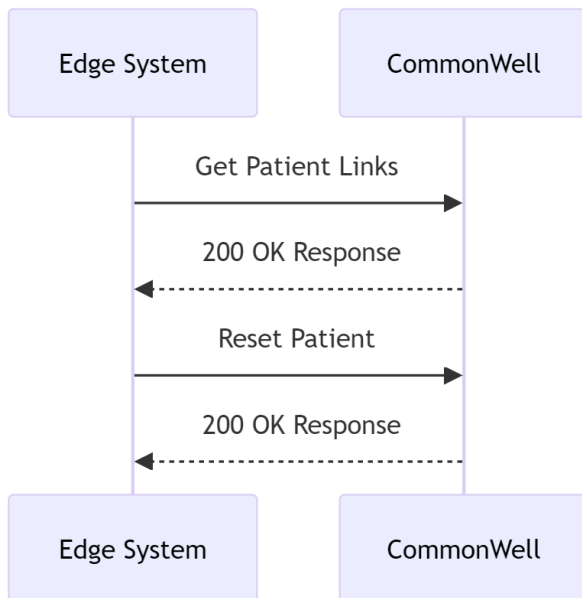
Resource Links
- CommonWell Services Specification – Reset Patient
- Knowledgebase: Link, Unlink, Reset

Historical Data Backload Use Case

As a Service Adopter, I can backload historical Patient and Visit information into CommonWell.

Overview

Batch loading a pool of data from prior visits into CommonWell will seed the patient population for an Organization in CommonWell. As such, it will "kick-start" the matching of patients and accelerate the time-to-value of the service. CommonWell provides two primary interfaces for managing patient identity data: (1) HL7 V2.x ADT and (2) a REST-based service. For each type of interface, CommonWell provides a dedicated endpoint for this type of data feed.

Scenario 1 – Upload New Patient Records (Batch)

As an Edge System Organization, I can upload and register a batch of new Patient Records with visit information.

For the Treatment Use Case, it is recommended to send your active patients into the MPI when new Edge System Organizations are added to the network. It is also recommended that historical addresses, phone numbers, and email addresses are sent in if they are available. For the Patient Access Use Case, this is not a permitted use case.

Pre-conditions
- Organization has registered inside CommonWell.
- The Organization has identified the population of patients to upload to CommonWell based on applicable policies.
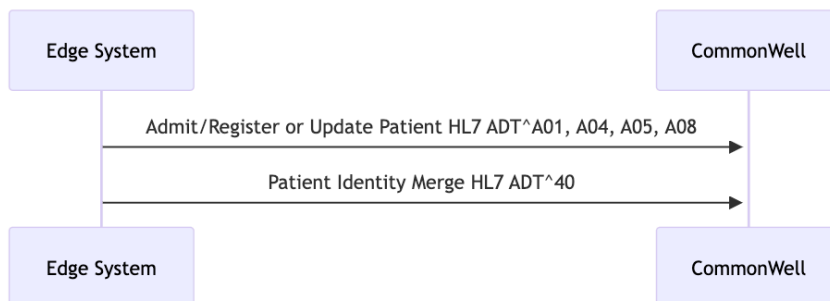
Scenario
Edge System Organization would like to backload their existing Patient Records data into CommonWell.
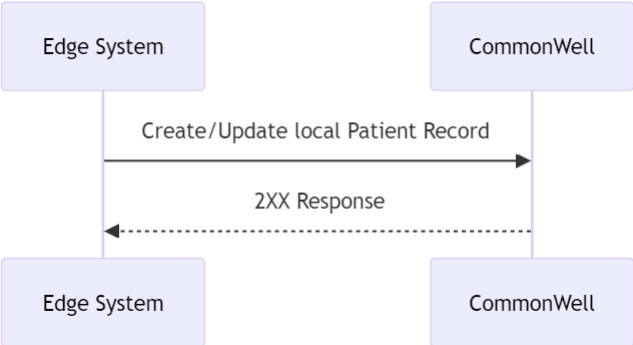
Post-conditions
- CommonWell accepts the backloaded data from the Organization and makes the data available in the network.
- Patients are registered inside CommonWell.

Transactions

PIX-based Historical Feed

REST-based Historical Feed

Organization Management

As a Service Adopter, I can manage my Edge Systems.

Overview

Enables a Service Adopter to create, edit, delete, and view their registered Organizations on the CommonWell network. By making this business workflow self-service, a Service Adopter can more efficiently set up its participating Organizations, thus saving both time and money. This functionality is available both in the UI of the Administrative Portal and can be managed via APIs. The APIs are available on the internal SharePoint site for CommonWell Service Adopters. Refer to the Admin Portal User Guide for organization creation and configuration in the UI.

All Service Adopters MUST review and make updates to their directory entries in a consistent and ongoing manner. As organization information changes, Service Adopters MUST update their directory entries.

For the Treatment permitted purpose, the Organization MUST be the legal entity responsible with the authority to query and retrieve clinical data. For example, the hospital or health system would be listed as the Organization, not the Service Adopter .

For the Patient Access permitted purpose, the Organization MUST be the name of the consumer application as it is publicly known.

Note: definition for organization is in Section 4 Glossary of Terms in the Services Specification.

Scenario 1 – Register an Organization

As a Service Adopter, I can register my Edge Systems.

Pre-Conditions

- Organization doesn't yet exist in CommonWell.
- Required data is available for completion of registration.

Scenario

As an Edge System organization, I MUST provide the identifying information necessary to create an Organization on CommonWell, including:

- R: Organization name
- R: Organization type
- R: Organization Home Community ID
- R: Patient Identity Assigning Authority
- R: Organization location (Address 1, City, State, Zip, Country)
- R: Organization Type
- R: Organization (Type 2) NPI (if querying for Treatment)
- R: Security Key Type
- R: Edge System Service Adopter/Member name
- R: Technical Support Contact (Title, Name, Phone, Email)

Additional fields for organization configuration are required for document query and retrieval include gateway type, gateway endpoints, client certificate, and network configuration.

Post-conditions

- Successful addition of the Organization to the CommonWell network.

Transactions
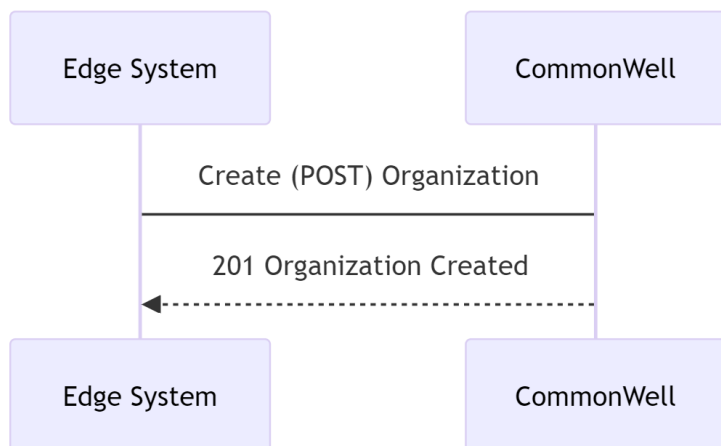
Scenario 2 – Edit an Organization

As a Service Adopter, I am able to edit information about my Organization in CommonWell.

Pre-conditions

- Organization exists inside the CommonWell network.

Scenario

A source system within an Organization requests that their Service Adopter add another gateway to CommonWell. Another example is that Organization A changes its operating name from A to B.

Post-conditions

- Service Adopter is able to modify the profile of the source system and add a gateway to the Organization and/or change their name.

Transactions
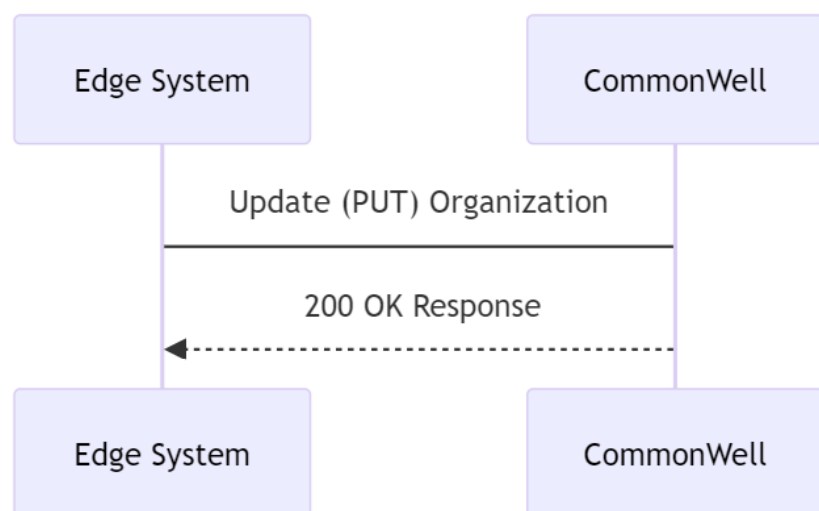
Scenario 3 – Disable an Organization

As a Service Adopter, I can disable my Organization from CommonWell.

Pre-conditions

- The Organization is in the CommonWell network.

Scenario

An Organization goes out of business or changes Service Adopters.

Post-conditions

- The Organization is flagged as disabled in the Edge System Registry.
- The Organization is no longer solicited in document queries.
- All Patient Records in the Patient Identity Service are disabled for that Organization. The Organization's Patient Records are not available for use (e.g., Patient Matching).

Exception Cases

Cleanup of PIX feed Patient flows into CommonWell could be a challenge. If a resource disables an Organization, this doesn't automatically disable the PIX feed. Human intervention would still be needed to stop the flow. Scripted cleanup would be necessary to ensure compliance to privacy/security expected by members.

In the UI: Set the organization status to disabled
Using the API: Use the Update organization endpoint and set "isActive":false.

Scenario 4 – Create Relationships Between Parent Orgs and Facilities

As a Service Adopter, I can create relationships between a parent organization and facilities that are associated with the parent.

Organizations that are facilities underneath a parent that have their own databases, SHALL be listed as facilities in the directory. Organizations that have facilities underneath a parent that do not have their own databases, SHOULD be listed as facilities in the directory. The best practice is to list locations or facilities underneath parent organizations so that they can easily be identified in the directory as belonging to that parent organization.

Pre-conditions

- The parent organization is created in CommonWell.
- Facility information is associated to the parent organization including name (text) and facility identifier (oid).

Scenario

An organization manages the patient identification for one or more child facilities where care is provided. The organization wishes to track activity at both the parent level including all of the associated child facilities as well as at each individual facility associated to the parent organization.

Post-conditions

- All reports related to organizations will support the option of reporting at the parent organization level for both the organization only as well as the organization and all of its facilities.
- All reports related to organizations will support the option of reporting at the individual facility level.
- Any linking of patients to the parent or the facilities will link the patient to all facilities and the parent organization. CommonWell provides facility information for any patient match or potential link match request for display in the Service Adopter product user interface.

Scenario 5 – Network Directory Transparency and Access

As a Service Adopter, I can see the other organizations and basic information about them within the CommonWell network and any other framework(s) that I participate in.

Service Adopters can see the CommonWell network Directory via API call and in the Admin Portal UI. If the Service Adopter is also enabled to support External Frameworks (i.e., Carequality and/or TEFCA), they will also be able to see the organizations that exist within those directories.

Service Adopters can see the following details:
- Service Adopters can view the CommonWell Directory for all active and inactive organizations.
- For the CommonWell directory, all organization entries must include the following details:
    - Which purposes of use they are certified to query for
    - Which purposes of use they are enabled to respond to
    - Which networks/frameworks they participate in
    - Which Service Adopter manages the organization
    - Basic organization details including:
        - HCID
        - AAID
        - Organization type
        - Location address
        - Technical contact
        - Gateway exchange type (XCA or FHIR)
- Service Adopters can view the Carequality and TEFCA Directories if they participate in those networks.

Document Query and Retrieval

As an Edge System user, I can query and retrieve medical records from other CommonWell Organizations.

Overview

Enables an Edge System (or authorized user within that Organization) to get a list of the documents that exist for a specific Patient from another Organization. Document Query should result in a response that includes *zero or more* document names, each with a minimum set of attributes: document name, document type (e.g., CCDA, radiology report, radiology image), document creation date, and document source. By providing this document list (and additional document context), Organizations will benefit from more informed and more targeted data access (i.e., tell me what data exists, so I can decide what data I actually want to retrieve.

Upon viewing the list of documents returned, the Edge System (or authorized user within that Organization) selects the documents they would like to retrieve. The CommonWell Health Alliance (CHA) Broker, a mechanism used to securely broker the exchange, executes the request and returns the document(s). CommonWell will only return patient document metadata and content if the patient at this Organization has established a Patient Link with other Organizations.

Scenario 1 – Document Consumption (Query)

As an Edge System user, I can use CommonWell to query for documents. This scenario is required for both Treatment and Patient Access use cases.

Pre-conditions

- The Organization is already an active CommonWell-registered Organization.
- The Organization has been granted rights internally to access CommonWell.
- The patient has been added (registered) into CommonWell and is linked to other care locations.

Scenario

The patient presents him/herself for an episode of care. The Edge System user opens the patient's chart. The user queries CommonWell for documents. This may also be done "behind the scenes" in advance of a scheduled appointment or automatically querying based on chart access or similar trigger.

This scenario may be accomplished using either IHE protocols or FHIR document reference and binary resources. See CHA Broker section in the Services Specification for more details.

Note: this scenario is written from the Treatment point of view. Example scenario for Patient Access is written in the Patient Access Use Case section.

Post-conditions

- Provider is able to view a list of documents created by responding Organizations along with associated metadata.

Alternate Flows

- Treatment Flows
  - As a clinical user I need to find the clinical discharge summary documents for my patient. **[Document TypeCode]**
  - As a clinical user, I need to find any documents that are relevant to the patient and created after a given date. (e.g. last query date) **[Doc Creation Date]**
  - As a clinical user, I need to find any documents that are relevant to the patient pertaining to treatment after a given date. (e.g. last local visit date). **[Service Start/Stop Dates]**

- Patient Access Flows
  - As a patient, I need to find specific clinical documents from a prior encounter. **[Document TypeCode]**
  - As a patient, I need to find my clinical documents created after a specific date. **[Document Creation Date]**
  - As a patient, I need to find any documents after a given date. **[Service Start/Stop Dates]**

Transactions
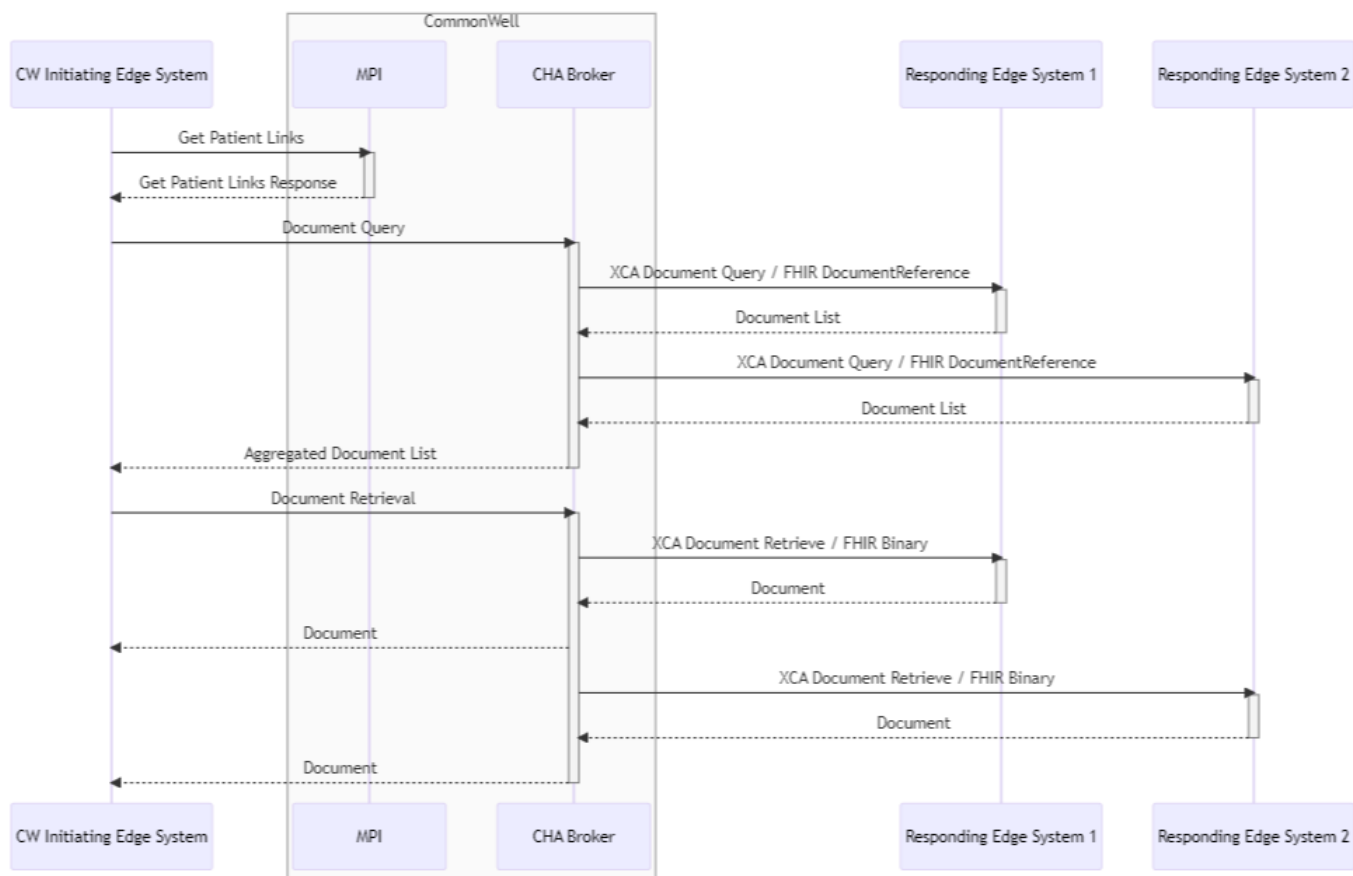
1. The CHA Broker uses the Local Patient Identifier to lookup the Remote Patient Records using Get Patient Links.
2. The CHA Broker references the Responding Gateway configuration for the Organizations corresponding to each of the Remote Patient Records.
3. The CHA Broker sends a Cross-Gateway Query (ITI-38) or FHIR DocumentReference request to each of the Responding Gateways.
4. The CHA Broker aggregates the document lists returned by each of the Responding Gateways.
5. The CHA Broker returns the aggregated document list to the Edge System.

Resources:
CommonWell Services Specification
FHIR - Document Query

XCA – XCA Query

Scenario 2 – Document Consumption (Retrieve)
As an Edge System user, I can retrieve a patient document via CommonWell. This scenario is required for both Treatment and Patient Access use cases.

Pre-conditions
The Edge System user has performed the query use case.

Scenario
As an Edge System user, I can retrieve a Patient document via CommonWell.

This scenario may be accomplished using either IHE protocols or FHIR document reference and binary resources. See CHA Broker section in the Services Specification for more details.

Post-conditions
The Initiating Gateway retrieves the Patient document from the source and returns it to the Edge System user (document consumer).

Transactions
See sequence diagram above for full Query and Retrieve workflow.

1. The Edge System sends a message to the CHA Broker a Cross-Gateway Retrieve (ITI-39) for XCA which includes the identifiers obtained from the query response: HomeCommunityId, RepositoryUniqueId, and DocumentUniqueId. Edge systems using FHIR send a FHIR Binary Resource using the location value obtained from the query response
2. The CHA Broker looks up the Responding Gateway configuration for the Organization corresponding to the requested document.
3. The CHA Broker sends a Cross-Gateway Retrieve (ITI-39) request to the XCA Community's Responding Gateway service endpoint or an HTTP GET request for the FHIR Binary Resource to the FHIR server using the location value obtained from the query response.
4. Once the document is received from the Responding Gateway, the CHA Broker forwards the response to the Edge System.

Resources
CommonWell Services Specification
      FHIR – Document Retrieve
      XCA – XCA Retrieve

Scenario 3 – Document Contribution
As a source system for CommonWell, I can fulfill the request for documents via query and retrieve transactions. This scenario is required for Treatment, unless an organization has an approved exception by the Alliance. This scenario is not required for Patient Access.

Pre-conditions
- The Edge System has registered as an Organization within the CommonWell network.
- The patient is permitted to be disclosed after following applicable law and local policies.
- The patient has been added (registered) into CommonWell and is linked to other care locations.

Scenario
As a Responding Gateway, I can fulfill the request for documents for a patient known to my Organization and to CommonWell.

Post-conditions

- The Document Query returns a list of documents with metadata.
- The Document Retrieve returns a document set to the CHA Broker.

Alternate Flows

No documents available.

Error Conditions

- Organization is no longer a member of CommonWell.
- Patient has revoked consent.
- Document is corrupted.
- Endpoint is offline.

Patient Access Use Case

As a patient, I can use a consumer application or my patient portal to query the CommonWell network to retrieve my own clinical data.

Implementation Guidance

<u>nonHIPAA related Individual Access</u>:

To interact with CommonWell, the patient MUST be identity proofed by a third-party identity proofing service to a level IAL2 or greater. This third-party identity proofing service MUST be Kantara certified. Once the identity verification step has taken place, the IAS vendor can register (add) the patient using the verified demographics into the CommonWell MPI. The MPI will automatically try to automatch and autolink the patient using exact, deterministic matching. No manual/probabilistic matching is permitted for this Use Case. When the patient is linked to their care settings, they can then query the CommonWell network and retrieve clinical data. All patient registration transactions to the CommonWell network require the use of the alternative identifier. Additional requirements exist to interact with external networks (i.e., TEFCA, Carequality).

<u>Patient Portal/HIPAA related Individual Access:</u>

The patient must have their identity verified by the provider organization that grants access to the patient portal. Once that has been achieved, then the patient is able to utilize the portal to query CommonWell for their clinical data.

Background

CommonWell has been a patient-centric network from day one, with the simple vision that health data should be available to individuals and caregivers regardless of where care occurs. The Alliance places significant value in permitting the use of query-based exchange to allow consumers (patients) the ability to find their own medical data. Too often, consumers struggle to collect their medical information that is critical to maintain their own health between medical appointments. They are also more likely to note when something is incorrect or incomplete within their own data set.

The Patient Access use case enables Personal Health Records (PHRs) and Consumer Apps to become certified Service Adopters and query the CommonWell network for clinical data by consumers. When patients have the ability to access and manage their own health information, they in turn become more active participants in their healthcare journey.

The CommonWell Patient Access Use Case offers consumers the ability to leverage the CommonWell network to query and retrieve their own clinical data for aggregation within a consumer app of their choice. The consumer must have an account with a consumer app, and complete identity verification to IAL2 or greater, in order to use the CommonWell network to find their clinical information.

Scenario 1 – nonHIPAA related Individual Access

As a patient/consumer, I can query the CommonWell network using a certified Personal Health Record or Consumer App of my choice to retrieve my clinical data.

Pre-conditions

- Consumer App has a contractual relationship with a <u>Kantara</u> certified ID proofing solution that will perform identity verification to a minimum of IAL2 for each consumer that uses the application to query the CommonWell network.
- Consumer App certifies on the CommonWell network for the REQUEST purpose of use.
- Patient has a relationship with a Consumer App that is a certified CommonWell Service Adopter.

Scenario
- Patient is primary account holder and completes the identity verification requirement within the Consumer App and passes the identity verification to IAL2 level or greater.
- Patient demographics data that have been verified by the ID proofing solution is sent to CommonWell to find patient matches at care locations.
  - If a patient's demographic information should be changed within the Consumer App, the ID proofing process will be required to occur again to ensure that the updated set of demographics passes ID proofing before being sent to CommonWell.
- Only existing patient links will be returned to the consumer. Probable links MUST NOT be returned.
- Patient can query and retrieve clinical documents and use the data retrieved within their consumer App.

Post-conditions
Consumer App maintains a bi-annual attestation with CommonWell to ensure adherence to requirements and that the contract with ID proofing vendor is still valid or notes any changes to moving to a different vendor. If the ID proofing vendor changes at any time, the Service Adopter MUST notify CommonWell of any changes and timelines associated with the change. Re-certification is not required, but the Service Provider will amend the current certification to update to the new ID proofing vendor.

Alternatives Considered/Recorded Decisions
Consumer Apps may want to check if there are any links established for a patient prior to completing the ID proofing step, which has a financial component. Consumer Apps may first query the Get Patient Links API which respects both the organization purpose of use configurations and the patient disclosure flag.

Scenario 2 – HIPAA related Individual Access
As a patient/consumer, I can query the CommonWell network from my patient portal that is contractually and technically connected to my provider's EHR.

Pre-Conditions
- Patient portal has a contractual and technical connection to a provider organization.
- Patient has had their identity verified by the provider organization and then granted access to the patient portal.
- Patient portal is certified to query using the REQUEST purpose of use.

Scenario
- Patient is a user of their provider's patient portal.
- Patient demographics from the patient portal have been sent to CommonWell and automatched within the system.
- Only existing patient links will be returned to the consumer. Probable links MUST NOT be returned.
- Patient can query and retrieve clinical documents into their patient portal.

Alternatives Considered/Recorded Decisions
Patients may receive clinical information from their provider's EHR into the patient portal without needing to initiate queries via the patient portal which is an approved activity and separate from this scenario.

nonHIPAA related IAS Transaction Flow
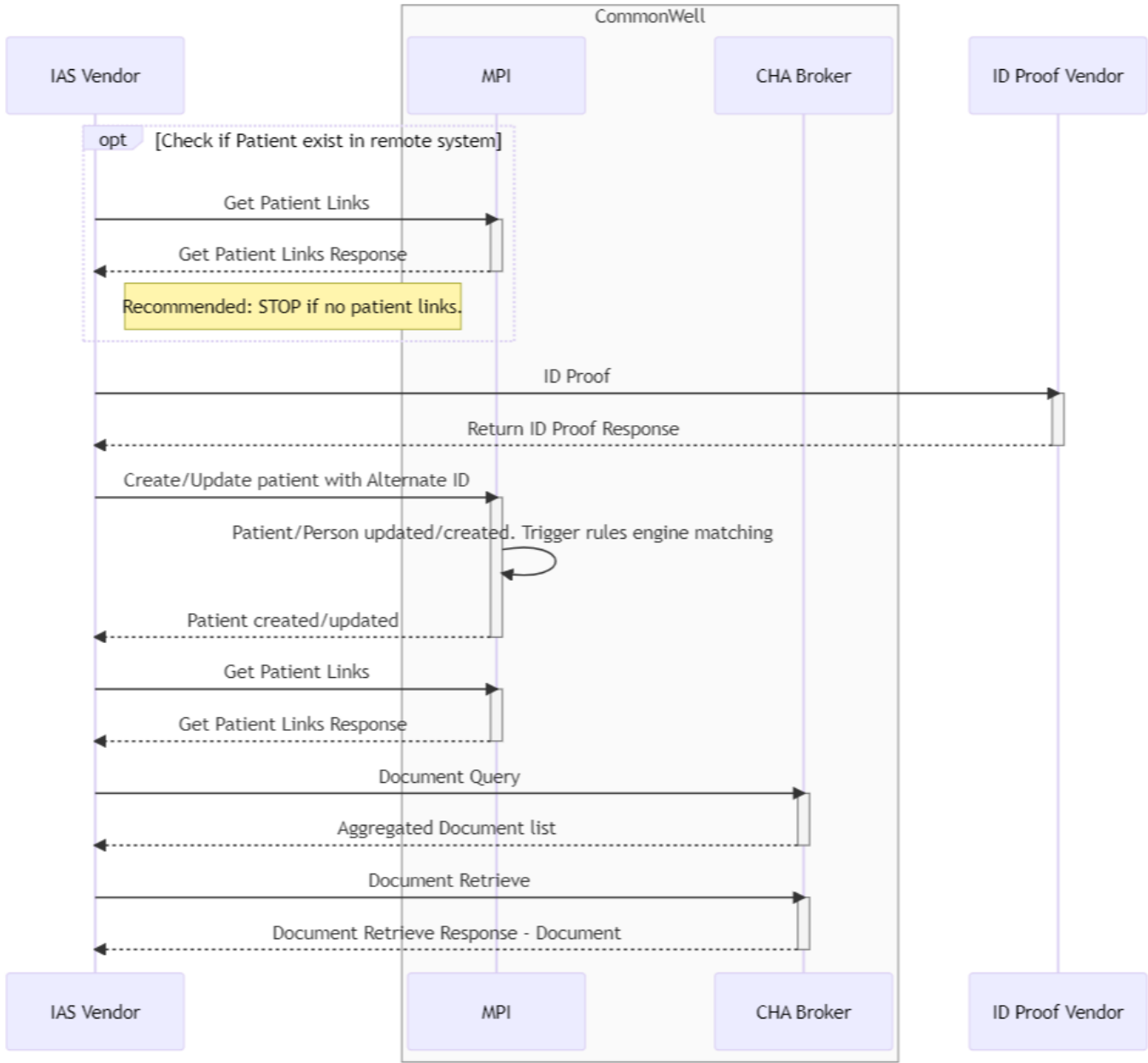
Query Initiator Only for Treatment without Reciprocity

As a Provider Organization, I can use solutions outside of my EHR to query for my patient's clinical data for purposes such as care management, medication reconciliation, document aggregation and enhanced data viewers, and other lawful Treatment use cases for improved patient care coordination activities.

Background

CommonWell currently supports the Permitted Use of Protected Health Information (PHI) of Treatment, which includes the ability for provider organizations to query for clinical data for their patients to better manage their care. The Treatment use case includes reciprocity requirements to provide clinical data to the network if an organization queries for clinical data. The purpose of the Query Initiator Only Use Case is to define the constraints of products and solutions that are "adjacent" to the EHR ("Adjacent Products") as further defined, to ensure that Treatment-based queries made by solutions that are not the EHR understand the applicable requirements.

Adjacent Products are those that are only Query-Initiating and do not provide unique clinical data to the network. Products and solutions that do provide unique clinical data and query the network for the Permitted Use of Treatment SHALL follow the original Treatment use case and the reciprocity requirements associated with it.

For more information on the Permitted Uses, including Treatment, see the Permitted Purposes and definitions section of the specification.

In order to improve patient care, CommonWell expands upon the current use of the Treatment network to permit products and solutions to request clinical data where there is a treatment relationship between the provider and the patient under the Treatment Permitted Use of PHI. In these instances, the Adjacent Product may contribute to and improve patient care, and, at the same time, not have unique clinical data to provide to the network; therefore, in such cases the Alliance provides an exception to the reciprocity requirements of the Treatment Use Case.

Overview

Definitions

- **Adjacent Product** – Solution that is not the primary data holder or producer, but is a product that provider organizations can develop, utilize, or purchase and benefit from being able to get data from the network, and which meets the below requirements.
- **Adjacent Endpoint** – The product instance for a particular customer that meets the below requirements.

Requirements for Adjacent Endpoints and Adjacent Products

- Adjacent Endpoints are query initiator only as they do not have clinically unique data to provide back to the network, and must meet the following:
    - All Adjacent Endpoints MUST be associated to a connected Provider Organization on the network as the primary source of clinical data.
    - The instance must belong to an organization that is already onboarded and connected to the network (likely via their EHR) as the primary data source.
- Adjacent Products:
    - MUST provide proof of BAA in place with provider organization(s) and maintain an associations list between the adjacent endpoint and the EHR endpoint in Management Portal.

- o MAY act as a Connector in addition to offering adjacent solutions in order to connect provider organizations' EHRs that are not already on the network; or may work with existing Connectors to get those provider organizations connected.
- o If acting as Connector for provider organizations, source data connection would fall under traditional Treatment use case and applicable reciprocity requirement.
- o Adjacent Endpoint would be associated to source data endpoint and would be able to be query initiator only.
- o Service Adopters
  - o All Service Adopters that wish to connect a client (Adjacent Endpoint) for this Use Case MUST obtain approval from CommonWell and submit for approvals for each new Organization that gets added to the Directory to ensure compliance as this is an exception to the reciprocity requirement.

Patient and Person Management

- Patient Demographics Adds and Updates
  - o CommonWell SHOULD support two workflows for Adjacent Products to manage patient demographics adds and updates.
  - o Workflow 1: Adjacent Endpoint manages its own unique entry of patient demographic data and generates a unique identifier that is not the same as the identifier from the EHR.
  - o Workflow 2: Adjacent Endpoint receives a feed of patient demographics including identifiers generated from the EHR into the Adjacent Product and leverages those to send into CommonWell. In this workflow, the Adjacent Endpoint should use the Shared ID Link workflow to use the shared MPI identifier to automatically link the records.
- Manual Linking and Autolinking
  - o Adjacent Products and Endpoints MAY use the manual linking workflows based on how their users will (or may not) interact within their solutions.
  - o In addition, for Adjacent Endpoints that utilize Workflow 2 above for Patient Demographics, they may use the Shared ID Link (Enterprise Autolinking) functionality to match patients.

Organization Management

- Adjacent Endpoints will be entered into Management Portal by the Certified Adjacent Product
- Organizations will be entered following the Organization Management requirements outlined in the CommonWell Service Adopter SharePoint site
- Adjacent Products MUST associate the organization entry to an existing EHR organization entry in Management Portal to ensure that the source clinical data is available to be queried
- Adjacent Products MUST follow the Carequality-specific naming conventions to clearly identify the provider organization and the type of product they offer:
  - o [Org Name] #OBO# [Source OID]

Scenario 1 – Individual Patient Queries

As an Adjacent Product, I can query the network for clinical data for a given patient based upon one of the following:

- Receipt of a claim for the given patient, while working on behalf of a provider organization, indicating an encounter occurred.
- Receipt of an ADT notification, indicating an encounter occurred.
- Actively treating patient (any other nominal Treatment based workflow)
- A care coordinator working in the patient's record on behalf of a provider organization, and doing a one-off query for the patient in context.

Pre-conditions

- Adjacent Product is a certified Service Adopter.
- Adjacent Product has identified connected Provider Organization on the network and associated to the primary data source (i.e., EHR) in Management Portal.
- Adjacent endpoint sends patient demographic feed to CommonWell network.

Scenario

- Adjacent Endpoint initiates document query to RLS for a given patient based on an event that has taken place (e.g., receipt of claim(s), event or ADT notification, or care coordinator working in patient's record).
- Adjacent Product initiates document retrieve for any and all documents that are available from responding gateways.

Post-condition

Adjacent Product is able to utilize returned documents for advanced analytics, population health, care coordination, enhanced document aggregator and viewer, etc. for its connected Provider Organization.

Reporting Considerations

- Member report that shows what solutions are associated to the primary EHR source .
- This is an exception to the standard rule where vendor names are not shared across the Alliance in association to provider organizations in an effort to ensure streamlined communication and troubleshooting.
- Example: [Member Name] runs a report of all of their organizations and can see which "adjacent" solutions, indicated by vendor name, that are associated to their provider organizations EHR instances
- Super Admin needs to be able to filter out Organizations that are Query Initiator only for reporting.