

EMR Certification

eHealth_hub - Home Clinic Enrolment Service Interface Specification

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1 Introduction

The purpose of this document is to provide an overview of the eHealth_hub Home Clinic Enrolment Service (hereafter referred to as the Enrolment Service). The document will describe the high-level architecture of the data submission and data retrieval model, as well as technical details and requirements regarding the web service and web service security.

1.1 Glossary

The following defines key business terms and acronyms used throughout this document.

Table 1: Terms and Acronyms

TERM OR ACRONYM	DEFINITION
Client	A client is an individual seeking and receiving health-care services. May be interchanged with term "patient".
Comprehensive Care Management (CCM) Tariff	The CCM Tariffs are available as of April 1, 2017 to eligible physicians for the annual management of primary care for enrolled clients.
Data Correction(s), or "Enrolment Data Correction(s)"	An enrolment record which requires deletion or invalidation due to an erroneous submission. Data corrections are to be handled outside of the Certified EMR ("EMR") Product using an existing business process.
eChart Manitoba or "eChart"	A provincial, client centric record of key health information about an individual over a long time period, not a detailed record of care, which complements point of care systems and is dependent on information from existing electronic sources.
eHealth_hub	A Business Service that enables electronic delivery of data between eHealth source systems and authorized health-care providers who are using a Manitoba Certified EMR Product.
eHealth_hub Home Clinic Enrolment Service, or "Enrolment Service"	A service providing EMR users with the ability to submit Home Clinic Enrolment data, receive real-time validation of enrolment data submissions, and distribute enrolment remediation messages to Home Clinics.
eHealth_hub Home Clinic Mailbox	An eHealth_hub message queue containing enrolment remediation messages available for retrieval by the Home Clinic's EMR. Manitoba Certified EMR Products will poll and retrieve these messages from this source.
EMR ID	A unique identifier assigned to each EMR instance by Shared Health.
Enrolment,	The process by which a client is recognized to have the Home
or	Clinic as their primary provider of care and the Home Clinic agrees to provide comprehensive continuous primary care and to coordinate care with other health-care providers.
"Home Clinic Enrolment"	Coordinate care with other realth-care providers.



Enrolment Method	There are two methods of enrolment: Passive and Active.
	Passive : Passive enrolment is determined by the Home Clinic, and is based on an inferred relationship between a client and the Home Clinic. Passive enrolment does not involve communication with the client.
	Active: Active enrolment directly involves the client in the enrolment decision. The process involves direct communication (verbal or written) with the client, and ensures his or her understanding of the benefits of Enrolment. The communication also clarifies the responsibilities of both parties: the Home Clinic and the enrolled client.
Enrolment Remediation	Enrolment Remediation refers to the series of activities required to be undertaken by a Home Clinic EMR User, to manage enrolment-related action items such as client enrolment rejections and client de-enrolments.
Health Information Access Layer, or "HIAL"	Shared Health's core integration service which provides the environment and capabilities necessary to establish interoperability between systems. For example, HIAL is a Shared Health Service that enables Business Services such as eHealth_hub.
Home Clinic	A client-centred primary care clinic that serves as a client's home base within the health-care system. Home Clinics are primary care clinics that provide clients with timely access to care, coordinate their health care within the health-care system, and manage their health-care records. Having a home base helps support comprehensive and continuous care throughout a clients' life.
	The composition of a Home Clinic may take many different forms based on the decisions made by the clinic and its eligible providers. Refer to Appendix C for examples.
Home Clinic Client Summary	Pre-defined categories of key client specific information maintained by the Home Clinic, which may be of value to health-care providers and is presented in a consistent predictable format within eChart Manitoba.
Home Clinic Repository	The provincial application that manages and stores Home Clinic and client enrolment data.
Home Clinic Remediation List	A common area in the Manitoba Certified EMR Product where EMR users can view and action Enrolment Remediation messages retrieved from the Enrolment Service.
Main Primary Care Provider, also referred to as: "Associated Provider", or	A health-care provider (family physician or nurse practitioner) within the Client's Home Clinic, who has the lead role and medicolegal responsibility for overseeing the enrolled Client's care. In the context of the Home Clinic model, this provider is known as the main Primary Care Provider (formerly, Most Responsible Provider
"Client Provider	



relationship"	MRP).
	For the purposes of the Enrolment Service, this is identified by the Provider Billing Number.
Manitoba Certified EMR Product (EMR)	An Electronic Medical Record product that has achieved Certification in Manitoba, and is referred to throughout this document as "EMR".
Primary Care Data Extract (PCDE)	The Primary Care Data Extract is used to provide patient care data to Manitoba Health through its agent, Shared Health. The information will be collected, compiled and analyzed in support of provincial programs. For example, data is used to validate chronic disease tariff claims and to provide feedback to participating clinics in support of quality care in clinical practice.
Shared EMR Instance	An EMR instance that is used by more than one clinic. For example, in a regional shared instance, many clinics, including primary care clinics, may 'share' information. The user configurations can vary, but commonly client information is shared (accessed and/or updated) by users across the entire instance.
Simple Object Access Protocol (SOAP)	SOAP is a messaging protocol that allows programs that run on disparate operating systems (such as Windows and Linux) to communicate using Hypertext Transfer Protocol (HTTP) and its Extensible Markup Language (XML).

1.2 Business Objectives & Benefits Summary

The objective of the Enrolment Service is to provide Home Clinics with an efficient method to manage client enrolment and securely submit the enrolment to the Home Clinic Repository. The goals of the Enrolment Service are to:

- Ensure efficient and accurate enrolment:
 - Provide comprehensive capture and submission of Home Clinic relationship data
 (e.g. Client Home Clinic, Client Associated Provider
 - Enable timely submission of client enrolment
- Minimize and streamline Home Clinic Enrolment remediation activities:
 - Reduce enrolment rejections with more complete data capture and business rules for validation in the EMR
 - Deliver information related to enrolment remediation directly to the EMR on a daily basis
- Create a solid foundation for information sharing between the Home Clinic and other health-care providers



1.3 Related Documents

This document references the following companion documents:

Table 2: Related Documents

DOCUMENT

Manitoba EMR Certification – Baseline EMR Requirements Specification

eHealth hub - Home Clinic Enrolment Service Interface Assessment Guide

Manitoba EMR Certification - Primary Care Quality Indicator Reminders and Data Extract

eHealth_hub - Authentication Specification

eHealth_hub - Home Clinic Enrolment Service Interface Assessment Addendum

Upon application for EMR Certification to this specification, Vendors can email EMR@sharedhealthmb.ca or contact their EMR Product Lead to request the associated assessment addendum containing additional configuration and connectivity details necessary for assessment.

2 Enrolment Service Overview

The Enrolment Service provides customers of EMR products with the ability to submit Home Clinic Enrolment data, receive real-time validation of their enrolment data submissions, and retrieve next day enrolment remediation messages (e.g. enrolment rejections, de-enrolments, etc.).

Other key solution features in scope include:

- The concept of enrolment as the relationship between a client and a Home Clinic in the EMR:
- The configuration of a Home Clinic (or multiple Home Clinics) within the EMR;
- A defined set of client enrolment data elements in the EMR, as defined in <u>5.6 Data</u>
 <u>Capture Requirements</u>, which build upon the existing client data elements defined in the Baseline Specification;
- EMR data quality validation of the enrolment data prior to submission to the Enrolment Service; and
- The management of enrolment remediation messages, as retrieved by the EMR each day from the Enrolment Service.



3 High-level Architecture

EMRs using the Enrolment Service will connect through the Health Information Access Layer (HIAL) to submit client enrolment data to the Enrolment Service and retrieve enrolment remediation messages addressed to the Home Clinic. Figure 1 below shows that the EMR Identifier (EMR ID) and the Home Clinic ID are key identifiers to submit enrolment data to the Enrolment Service, as well as retrieve Home Clinic Enrolment remediation messages. The EMR will now contain information about the Home Clinic.

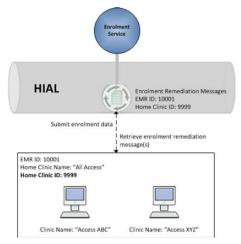


FIGURE 1: ENROLMENT SERVICE OVERVIEW

The sequence diagram in Figure 2 describes the synchronous request and response mechanism used to interface with the Enrolment Service:

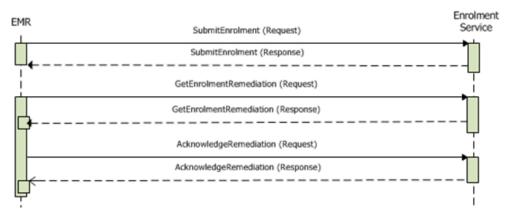


FIGURE 2: ENROLMENT SERVICE SEQUENCE DIAGRAM

When a Home Clinic submits client enrolment information to the Home Clinic Repository, the EMR invokes the <u>SubmitEnrolment operation</u> with a secure message containing client enrolment and demographic information. The EMR then receives a real-time validation response to inform the EMR user of the validity of their enrolment submission.

Once per day, the EMR is expected to invoke the <u>GetEnrolmentRemediation</u> operation for each Home Clinic within the EMR instance in order to retrieve enrolment remediation messages. This



process involves polling the eHealth_hub Home Clinic Mailbox for the list of enrolment remediation messages addressed to the Home Clinic.

The EMR invokes the <u>AcknowledgeRemediation</u> operation after it has successfully received and processed the enrolment remediation messages. This informs the Enrolment Service that enrolment remediation messages have been received by the EMR and are then purged from the eHealth_hub Home Clinic Mailbox. Once in the EMR, enrolment remediation messages are made available for Home Clinic EMR users to remediate when they deem appropriate.

4 Enrolment Service Use Cases

The use cases in this section describe functionality required of the EMR product. They are supported by the requirements detailed in this specification.

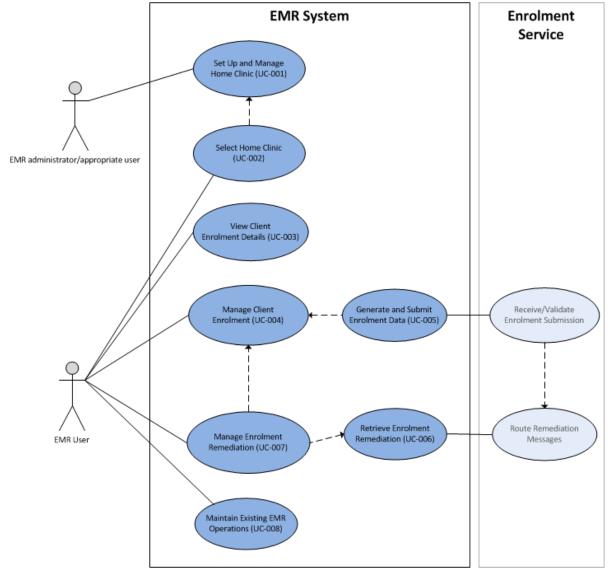


FIGURE 3: HIGH-LEVEL USE CASE DIAGRAM



4.1 Set Up and Manage Home Clinic (UC-001)

This use case describes the required functionality to set up a new Home Clinic in the EMR.

PRIMARY ACTORS

- EMR
- EMR administrator/appropriate user

TRIGGER(S)

Home Clinic is ready to use the Enrolment Service functionality

PRE-CONDITIONS / INPUTS

- EMR functionality has met the certification, business and technical requirements to leverage the Enrolment Service
- Home Clinic administrator/appropriate user has been given the assigned Home Clinic Identifier for their Home Clinic

POST-CONDITIONS / OUTPUTS

• EMR has stored the Home Clinic Identifier and Name

MAIN SUCCESS SCENARIOS (BASIC FLOW)

- 1. EMR administrator/appropriate user accesses the appropriate Home Clinic Details function in the EMR.
- 2. EMR displays the following fields:
 - Home Clinic Identifier <blank>
 - Home Clinic Name <blank>
 - EMR Users assigned to the Home Clinic
- 3. EMR administrator/appropriate user enters the <u>Home Clinic Identifier</u> as assigned by Shared Health, the <u>Home Clinic Name</u>, the EMR Users assigned to the Home Clinic, and saves the Home Clinic details.
- 4. EMR saves the Home Clinic details.

ALTERNATE FLOWS

A1 - Modify Existing Home Clinic Details

Start Alternate Flow at:

- Basic Flow After Step 1
 - 1. EMR administrator/appropriate user accesses the Manage Home Clinic Details function in the EMR.
 - 2. EMR administrator/appropriate user updates:
 - Home Clinic Identifier, and/or
 - Home Clinic Name



- 3. EMR administrator/appropriate user saves the changes.
- 4. EMR saves the Home Clinic details.

EXCEPTION FLOWS

E1 – Modify Existing Home Clinic when multiple Home Clinics are set up in the EMR Start Exception Flow at:

- Basic Flow After Step 1 or
- Alternate Flow After Step 1
 - 1. EMR administrator/appropriate user performs a Select Home Clinic (<u>UC-002</u>) function to place a Home Clinic into context for which to update.
 - 2. Rejoin the A1 Alternate flow at Step 2.

4.2 Select Home Clinic (UC-002)

This use case describes the process to select or search for a Home Clinic in cases where an EMR User manages enrolment for more than one Home Clinic within a Shared EMR Instance.

PRIMARY ACTORS

- EMR
- EMR User

TRIGGER(S)

EMR User has a need to select a Home Clinic to which they have access

PRE-CONDITIONS / INPUTS

• Home Clinic is setup in the EMR

POST-CONDITIONS / OUTPUTS

• EMR has placed the appropriate Home Clinic into context

MAIN SUCCESS SCENARIOS (BASIC FLOW)

- 1. EMR User selects or searches for Home Clinic using <u>Home Clinic Identifier</u> or <u>Home Clinic Name</u>.
- 2. EMR displays list of possible Home Clinics.
- 3. EMR User selects desired Home Clinic.
- 4. EMR places the selected Home Clinic into context.



4.3 View Client Enrolment Details (UC-003)

This use case describes the required functionality to view client enrolment information and/or client provider relationship information for the Home Clinic within the EMR.

PRIMARY ACTORS

- EMR
- EMR User

TRIGGER(S)

EMR User needs to review and/or verify a client's enrolment details in the EMR

PRE-CONDITIONS / INPUTS

- Home Clinic is currently set up in the EMR
- Client record is open in the EMR

POST-CONDITIONS / OUTPUTS

• Client's enrolment relationship with the Home Clinic and any associated provider information is displayed

MAIN SUCCESS SCENARIOS (BASIC FLOW)

- 1. EMR User accesses the appropriate client enrolment function in the EMR.
- 2. EMR displays its current state of client enrolment data.

4.4 Manage Client Enrolment (UC-004)

This use case describes the required functionality to enter, validate and save client enrolment information within the EMR.

PRIMARY ACTORS

- EMR
- EMR User

TRIGGER(S)

- Client agrees to enrol with Home Clinic (Enrolment Method is Active)
- Home Clinic decides to enrol client (Enrolment Method is Passive)
- Home Clinic wishes to update client enrolment information and/or client provider relationship information
- EMR user has navigated from the Home Clinic Remediation List and wishes to update client enrolment information and/or client relationship information

PRE-CONDITIONS / INPUTS

- Home Clinic must be set up within the EMR
- Client record is open in the EMR



POST-CONDITIONS / OUTPUTS

 Client's enrolment relationship with the Home Clinic and/or any associated provider is updated in the EMR

MAIN SUCCESS SCENARIOS (BASIC FLOW)

- 1. EMR User accesses the appropriate Manage Client Enrolment function in the EMR.
- 2. EMR User enters current Home Clinic Enrolment information for the client in the EMR.
- 3. EMR User (or EMR) attempts to save client enrolment information.
- 4. EMR validates enrolment and relationship data against the <u>5.6 Data Capture</u> Requirements and mandatory data conditions.
- 5. EMR saves client enrolment information.

ALTERNATE FLOWS

A1 - Multiple Home Clinics are available within a Shared EMR Instance

 EMR User performs a Select Home Clinic (<u>UC-002</u>) function to place a Home Clinic into context.

A2 – Correcting a previous enrolment submission

1. Refer to Data Correction.

A3 – Clearing previously saved enrolment information

Start Alternate Flow at:

- Basic Flow After Step 1
- 1. EMR User clears current Home Clinic Enrolment information for the client in the EMR.
- 2. EMR User (or EMR) attempts to save client enrolment information.
- 3. EMR saves client enrolment information.

EXCEPTION FLOWS

E1 - Remediating a client enrolment

Start Exception Flow at:

- Basic Flow After Step 5
- 1. EMR User navigates back to Home Clinic Remediation List.
- 2. Follow Manage Enrolment Remediation (<u>UC-007</u>) Step 5.

E2 - Data fails EMR validation

Start Exception Flow at:

- Basic Flow After Step 4
- EMR displays validation failure message(s) to the EMR User. Reference <u>Appendix B EMR Data Validation</u>.



- EMR User revises the enrolment data to be submitted.
- 3. Rejoin Basic Flow at Step 5.

4.5 Generate and Submit Enrolment Data (UC-005)

This use case describes the functionality for the EMR to generate and send client enrolment data to the Enrolment Service.

PRIMARY ACTORS

- EMR
- Enrolment Service

TRIGGER(S)

EMR User is ready to submit the EMR-validated client enrolment data

PRE-CONDITIONS / INPUTS

- Enrolment Service is provisioned for the Home Clinic
- EMR is configured to communicate with the Enrolment Service
- EMR has new or updated enrolment information that needs to be sent to the Enrolment Service (e.g. EMR User has managed client enrolment per <u>UC-004</u>)
- EMR securely connects with Enrolment Service

POST-CONDITIONS / OUTPUTS

EMR has received a response from the Enrolment Service

MAIN SUCCESS SCENARIOS (BASIC FLOW)

- 1. EMR invokes the <u>SubmitEnrolment</u> operation to send the request containing client enrolment and demographic information.
- 2. Enrolment Service receives and validates the request.
- 3. Enrolment Service sends the response indicating successful validation of the originating request.
- 4. EMR receives the response.

EXCEPTION FLOWS

E1 - Enrolment submission fails validation by the Enrolment Service

Start Exception Flow at:

- Basic Flow After Step 2
- 1. Enrolment Service sends the response indicating the failed validation of the originating request.
- 2. EMR receives the response.
- 3. EMR presents validation failure information to the EMR User.



4. EMR User either:

- Addresses the enrolment validation failure (Rejoin Basic Flow at Step 1); or
- Dismisses the enrolment validation failure to be addressed later.
- 5. EMR retains dismissed enrolment validation failure information.

E2 - EMR is unable to connect to Enrolment Service

Start Exception Flow at:

- Basic Flow After Step 1
- 1. EMR displays Enrolment Service unavailable notification to EMR User.
- 2. EMR retains unsent client enrolment information (if applicable) to be re-sent later.
- 3. EMR logs and notifies the appropriate user of error.

E3 – Connectivity to the Enrolment Service is restored

Start Exception Flow at:

- Exception Flow E1 After Step 1
- 1. EMR user or EMR invokes the <u>SubmitEnrolment operation</u> to send each request containing unsent client enrolment and demographic information.
- 2. Rejoin Basic Flow at Step 2 for each request.

E4 - EMR received an error from the Enrolment Service

Start Exception Flow at:

- Basic Flow After Step 1
- 1. EMR receives an error code and message from Enrolment Service.
- 2. EMR displays error information to EMR User.
- 3. EMR retains unsent client enrolment information (if applicable) to be re-sent later.
- 4. EMR logs and notifies the appropriate user of error.

4.6 Retrieve Enrolment Remediation (UC-006)

This use case describes the required functionality in the EMR to poll and retrieve enrolment remediation messages (e.g. rejection and de-enrolment messages, etc.) addressed to a Home Clinic.

Enrolment remediation messages are made available to the Home Clinic each morning.

PRIMARY ACTORS

- EMR
- Enrolment Service



TRIGGER(S)

• EMR has a need to request enrolment remediation messages

PRE-CONDITIONS / INPUTS

- EMR is configured to communicate with Enrolment Service
- EMR securely connects with Enrolment Service

POST-CONDITIONS / OUTPUTS

• EMR receives response from the Enrolment Service

MAIN SUCCESS SCENARIOS (BASIC FLOW)

- 1. EMR invokes the <u>GetEnrolmentRemediation</u> operation to send the request to obtain Home Clinic remediation messages.
- 2. Enrolment Service receives request and sends Home Clinic remediation message(s) response.
- 3. EMR receives the response and sends acknowledgement of receipt using the *AcknowledgeRemediation* operation.
- 4. Enrolment Service receives acknowledgement and sends acknowledgement response to EMR.
- 5. EMR delivers each remediation message to the appropriate Home Clinic Remediation List.

EXCEPTION FLOWS

E1 – Home Clinic has more than 25 remediation messages to retrieve from Enrolment Service:

Start Exception Flow at:

- Basic Flow After Step 5
- 1. EMR has received indication in Basic Flow Step 2 that more than 25 remediation messages are available.
- 2. Rejoin Basic Flow at Step 1.

E2 - EMR is unable to connect to Enrolment Service

Start Exception Flow at:

- Basic Flow After Step 1
- Basic Flow After Step 3
- 1. EMR displays Enrolment Service unavailable notification to EMR User.
- 2. EMR logs and notifies the appropriate user of error.

E3 - EMR received an error from the Enrolment Service

Start Exception Flow at:

Basic Flow – After Step 1



- Basic Flow After Step 3
- 1. EMR receives an error code and message from Enrolment Service.
- 2. EMR logs and notifies the appropriate user of error.

E4 – EMR has not sent back an acknowledgement for a prior request for remediation messages:

Start Alternate Flow at:

- Basic Flow After Step 1
- 1. EMR receives response containing the set of messages that the EMR has not previously acknowledged.
- 2. EMR does not reload or duplicate the remediation messages already received.
- 3. EMR logs and notifies the appropriate user of error.

4.7 Manage Enrolment Remediation (UC-007)

This use case describes the required functionality to manage enrolment remediation messages retrieved into the EMR. These messages are available for retrieval on a daily basis for enrolment remediation (e.g. rejections, de-enrolment messages, etc.). Remediation messages indicate that the Home Clinic needs to update a client's enrolment data in their EMR.

PRIMARY ACTORS

- EMR
- EMR User
- Enrolment Service

TRIGGER(S)

• EMR User has a need to remediate enrolment messages in the EMR

PRE-CONDITIONS / INPUTS

- EMR has retrieved enrolment remediation messages(s) from the Enrolment Service.
- EMR has retained dismissed validation responses from the Enrolment Service

POST-CONDITIONS / OUTPUTS

- Enrolment data marked for remediation is updated in the EMR.
- Remediation messages addressed by the EMR User are cleared from the Home Clinic Remediation List

MAIN SUCCESS SCENARIOS (BASIC FLOW)

- 1. EMR User accesses the Home Clinic Remediation List in the EMR.
- 2. EMR User views the remediation message(s) and the corresponding client enrolment details.



- 3. EMR User selects one of the remediation messages to action.
- 4. Follow Manage Client Enrolment (UC-004) Basic Flow.
- 5. EMR User clears the actioned remediation message from the Home Clinic Remediation List, (e.g. mark items as complete, clear from queue, remove from list, etc.).

4.8 Maintain Existing EMR Operations (UC-008)

This use case describes the required functionality for EMRs to maintain the ability to produce the PCDE and for the overall operation of the EMR.

PRIMARY ACTORS

- EMR
- EMR User

TRIGGER(S)

- EMR User has a need to produce a PCDE for ongoing client care planning
- EMR User has a need to complete a final submission of enrolment data via PCDE
- EMR User has a need to continue with their existing EMR functions, including those unrelated to enrolment

PRE-CONDITIONS / INPUTS

- EMR functionality has met the certification, business and technical requirements to leverage the Enrolment Service
- EMR retains all previous enrolment information used with PCDE

POST-CONDITIONS / OUTPUTS

• EMR workflows unrelated to the new Enrolment Service are retained

MAIN SUCCESS SCENARIOS (BASIC FLOW)

- 1. EMR User produces a PCDE for ongoing client care planning and/or submitting enrolment data before the Home Clinic is ready to use the Enrolment Service.
- 2. EMR generates the PCDE:
 - Reference: Primary Care Quality Indicator Reminders and Data Extract Specification



5 Requirements

This section includes mandatory requirements and guidelines for configuring an EMR to integrate with the Enrolment Service interface.

5.1 Requirement Column Definition

For ease of review and understanding, requirements are documented in a manner consistent with previous EMR Certification documentation. For each requirement, the following information is provided:

- **ID** a unique identifier assigned to the requirement by Manitoba
- Requirement a concise statement describing the requirement
- Guidelines these additional instructions constitute part of the requirement, and are
 relevant to implementation of the requirement in the EMR product. As such, these
 guidelines form part of the assessment criteria and are included in the planned product
 assessment.
- Additional Notes relevant information or examples intended to give additional context to the requirement and to improve understanding
- Status each requirement is clearly identified as:
 - New (not included in previous specifications);
 - o Updated (modification to intent of the requirement from a previous version); or
 - o Previous (unchanged from last issuance of core requirements).
- Assessment The method of assessment is stated in the "Assessment" column for each requirement. All requirements will be assessed using the following method:
 - Assertion Vendors will make an assertion (Yes or No) based on their selfassessment of the product's ability to meet the requirement. Manitoba may choose to audit Vendor assertions as part of the certification process, as authorized within the Agreement.
 - Verification leveraging the Certification Environment, Manitoba will verify the product's ability to meet requirements. Clinical and administrative resources may be involved in the verification process.
 - Demonstration Vendors will demonstrate key functions within their EMR product.
 Demonstrations may be conducted in person, by remote means (e.g. teleconference and Internet) or through recorded video.
 - System Integration Testing this most comprehensive assessment method requires an end-to-end test of key functions such as interoperability between the EMR product and other systems (e.g. eChart Manitoba Launch or eHealth_hub)



5.2 Enrolment Requirements

Unless otherwise stated, all functions must be able to be performed by a typical end-user. EMR administrator/appropriate user privileges should not require vendor intervention.

Table 3: Home Clinic Enrolment Requirements

ID	REQUIREMENT	GUIDELINES	ADDITIONAL NOTES	STATUS	ASSESSMENT
ENR001	Interfaces with the EnrolmentService web service to facilitate EMR enrolment capabilities.	Must support interfacing with the Enrolment Service at the Home Clinic level.		Previous	System Integration Testing
ENR002	Permits enabling and disabling Enrolment Service functionality for a Home Clinic.	This applies to any EMR instances comprised of: • A single Home Clinic • Multiple Home Clinics A combination of Home Clinics and other clinics (Non Home Clinics)	Refer to Appendix C – Home Clinic Composition for an overview of the types of Home Clinics.	Previous	Assertion
ENR003	Maintains Home Clinic details.	At minimum, the EMR must maintain the following Home Clinic data: • Home Clinic Identifier (as assigned by Shared Health) • Home Clinic Name The Home Clinic Identifier and Home Clinic Name must be configurable data elements. The ability to add, edit, or delete Home Clinic details must	Refer to Appendix C – Home Clinic Composition for an overview of the types of Home Clinics, and to the 5.6 – Data Capture Requirements for a description of the data elements outlined in this requirement.	Previous	Demonstration



		be able to be restricted to EMR administrative/appropriate users. The EMR must allow for more than one Home Clinic to exist within a single EMR instance.			
ENR004	Maintains and provides EMR details for each web service request.	At minimum, the EMR must maintain the following EMR information: • EMR Identifier • EMR Application Name • EMR Version Info The EMR Identifier must be a configurable parameter.	Refer to <u>SubmitEnrolment</u> operation for information on how these EMR details are used in conjunction with the enrolment data elements described in <u>5.6 – Data</u> Capture Requirements.	Previous	Assertion
ENR005	Maintains and displays enrolment data between a client and a Home Clinic.	The EMR must support the data elements defined in 5.6 – Data Capture Requirements. The EMR must not: Permit a client to be enrolled to more than one Home Clinic at any given time Permit a client to have more than one Client Provider association at any given time Permit a Client Provider relationship for a client that is not enrolled to the Home	Refer to Data Corrections for information on invalidations to a previously submitted enrolment record. An example of a changed enrolment not requiring a termination is the Home Clinic Enrolment Method changing from Passive to Active.	Previous	Demonstration



		Clinic Require the termination of an existing enrolment that is being changed but not deenrolled Prevent the EMR User from viewing and maintaining pre-existing enrolment data previously used with PCDE		
		An EMR User with access to more than one Home Clinic must be able to select the Home Clinic to which the client is to be enrolled.		
		Where a Client-Provider relationship exists, the EMR must: • Permit the EMR User to select a Provider Billing Number by using the provider's name • Display the provider name when client enrolment information is displayed		
ENR006	Validates Home Clinic Enrolment data.	The EMR must validate enrolment data using the EMR data validation notifications as described in Appendix B – EMR Data Validation.	Previous	Verification
		Submission of enrolment data must not be possible until the successful validation of the		



		data. Validation messages are to be presented to the EMR User so that data may be revised by the		
		EMR User.		
ENR007	Submits client enrolment data to the Enrolment Service using the SubmitEnrolment operation.	 Conform to the XML schema definition (XSD) described in Web Service Documents Omit any optional data elements which appear blank in the EMR or cannot otherwise conform to the XSD for the enrolment submission request Invoke the SubmitEnrolment operation. Permit EMR Users to submit enrolment data to the Enrolment Service without requiring EMR vendor assistance Display unsuccessful validation responses to the EMR User in a manner consistent with the product's existing user notification design. These responses reflect a business error with the enrolment submission 	Previous	System Integration Testing



		Suppress the display of successful validation response status to the EMR User			
ENR008	Provides the ability to defer an unsuccessful validation response received from a <u>SubmitEnrolment</u>	The EMR User must be notified of deferred unsuccessful validation responses and be able to access all deferred responses in the EMR.		Previous	System Integration Testing
	operation.	The EMR must remove notification of previously deferred responses for each client upon the successful submission of client enrolment information.			
ENR009	Retains and resends client enrolment data which had failed submission due to server or system error.	If the submission of enrolment data has failed, the EMR must retain the failed enrolment submission information and permit the EMR User to resubmit (via the SubmitEnrolment operation) once the error(s) have been resolved.	E.g. Due to internet/connectivity issues, invalid certificate issues, etc. May include the ability for the EMR to invoke the SubmitEnrolment operation(s) on behalf of the EMR User.	Previous	System Integration Testing
ENR010	Informs the EMR User of failed client enrolment submissions due to server or system error.	The EMR must inform the EMR User of the client enrolment information for which submission to the Enrolment Service was not possible.	E.g. Due to internet/connectivity issues, invalid certificate issues, etc.	Previous	System Integration Testing
ENR011	Creates and provides a unique transaction	The EMR must provide a unique Transaction ID as	The transaction identifier is used in the	Previous	Assertion



	identifier used for the retrieval of enrolment remediation.	described in <u>SYSD-05</u> of <u>Additional System Data</u> <u>Elements</u> .	GetEnrolmentRemediation operation and corresponding AcknowledgeRemediation operation in order to retrieve remediation messages.		
ENR012	Retrieves remediation messages for each Home Clinic within the EMR instance using the GetEnrolmentRemediat ion operation.	The EMR must: Conform to the XML schema definition (XSD) described in Web Service Documents Invoke the GetEnrolmentRemediation operation to retrieve enrolment remediation messages addressed a Home Clinic Retrieve and save all remediation messages which have previously failed successful retrieval Verify the NumberOfMessages and MessagesRemaining attributes contained in the web response and must request all remaining messages until no more remain Invoke the GetEnrolmentRemediation	The GetEnrolmentRemediation request will return up to 25 messages at a time. For each Home Clinic, the Transaction ID supplied in the initial request will be used in all subsequent GetEnrolmentRemediation and AcknowledgeRemediation requests made within the same polling period.	Previous	System Integration Testing



		operation for each Home Clinic on the EMR instance Display Home Clinic remediation messages within the Home Clinic Remediation List Permit the EMR User to continue working in the EMR while waiting for message(s) to arrive			
ENR013	Sends an acknowledgement of remediation messages received using the AcknowledgeRemediation on operation.	The EMR must: Conform to the XML schema definition (XSD) described in Web Service Documents Invoke the AcknowledgeRemediation operation to submit an acknowledgement to the Enrolment Service following receipt of a preceding GetEnrolmentRemediation response Refer to AcknowledgeRemediation operation in Appendix A for the applicable request and response handling.		Previous	System Integration Testing
ENR014	Polls the eHealth_hub Home Clinic Mailbox at a configurable periodic interval for daily	Message retrieval must be done once per day, scheduled during standard clinical business hours, and be	The Enrolment Service will route remediation messages to the eHealth_hub Home Clinic Mailbox for pickup by	Previous	Assertion



	enrolment remediation message retrieval.	configurable by an EMR administrator/appropriate user.	the EMR.		
ENR015	Provides an event logging and error handling mechanism for the message submission and retrieval process.	Error messages must be notified / reported to the EMR administrator/appropriate user and recorded in the EMR interface log. The EMR interface log must be able to identify the date and time of attempt, error ID, error type, error message and a reference to the submission or message retrieval which created the error. The error message must also include instructions for the EMR User (e.g. contact your EMR	It is acceptable to purge events logged after a period of 90 days. Refer to 6.2.4 – SOAP Fault Response for SOAP message format and samples.	Previous	System Integration Testing
ENR016	Retrieves remediation messages on demand.	An EMR administrator/appropriate user administrator/appropriate user must be able to retrieve remediation messages on demand.	E.g. If the EMR administrator/appropriate user has been notified that the automatic retrieval had failed to run.	Previous	System Integration Testing
ENR017	Displays all remediation messages in a filterable Home Clinic Remediation List accessible by Home Clinic EMR Users.	At minimum, the Home Clinic Remediation Message List must contain the following fields returned from the <u>GetEnrolmentRemediation</u> operation response:	The Home Clinic Remediation List is where all users with access to the Home Clinic may view the list of remediation records.	Previous	System Integration Testing
		Record Creation DateClient Details (<u>Client</u>	A design consideration may include the ability to give the		



	Identifiers, Client Name, Date of Birth, Administrative Sex) Remediation Type Remediation Reason ID Remediation Reason Name Remediation Description At minimum, the Home Clinic Remediation List must: Be sortable by Client and Record Creation Date; Be accessible to all EMR Users working on behalf of the Home Clinic; Make remediation actions an EMR User-driven activity, and not be automated by the EMR on the user's behalf; Allow an EMR User to clear a remediation message item (e.g. mark the item as complete, clear from queue, remove from list, etc.); and Provide the EMR User with a way to access the client enrolment record directly. It is not acceptable to require the EMR User to search for the client enrolment record in order to make the enrolment remediation.	EMR User a way to navigate back to the Home Clinic Remediation List from within a client enrolment record following remediation.		
--	---	--	--	--



ENR018	Displays a summarized view of current client enrolment information when a client is in context.	At a minimum, the summarized view must include: • Home Clinic Enrolment Start Date • Home Clinic Enrolment End Date • Home Clinic Enrolment Method	Previous	Demonstration
ENR019	Provides the ability to manage and send enrolment data for more than one client in a single action.	Permits an EMR User to perform a 'multiple client search', using at minimum, a client's: • Appointment date • Current Associated Provider • Current Home Clinic Permits an EMR User to manage enrolment data elements described in 5.6 – Data Capture Requirements for all clients returned in the 'multiple client search'. Preexisting enrolment data previously used with PCDE must also be selectable and updateable. Enrolment submissions for more than one client must: • Invoke the SubmitEnrolment operation on behalf of the EMR User for each enrolment data	Previous	Demonstration



		 submission. Automatically defer unsuccessful validation responses for such submissions on behalf of the EMR User 		
ENR020	Provides the ability to continue existing EMR workflows in the event the Enrolment Service is not available.		Previous	Demonstration
ENR021	Permits the EMR User to view, manage, and submit enrolment data to the Enrolment Service without needing to navigate to a different screen, tab, or view.	At a minimum, the EMR must display: The enrolment data described in 5.6 – Data Capture Requirements ENDC-03 to ENDC-09.	Previous	Demonstration
ENR022	Manages EMR User access to Home Clinics.	Within the EMR instance, the EMR must permit an EMR User to be: • Associated with no Home Clinics • Associated with one Home Clinic • Associated with multiple Home Clinics At minimum, access to a Home Clinic provides an EMR User with the ability to view and	Previous	Verification



manage Client Summary		
Validation Messages in the		
Home Clinic Remediation List.		

5.3 Baseline and Legacy Requirements

Certified EMR Products must continue to satisfy all requirements listed in the Baseline EMR Requirements Specification. In the context of the Home Clinic Enrolment Service interface specification, the following selected Baseline requirements will be re-assessed using the assessment methods noted below.

Table 4: Baseline Requirements

BASELINE CATEGORY	RELEVANT REQUIREMENT	ASSESSMENT METHOD
Documentation and Document	12-003	Verification
Management	12-004	Verification
	12-014	Assertion
Queries	15-001	Demonstration
Privacy	16-012	Demonstration
	16-014	Assertion
User Interface	18-001	Assertion
Technical	19-001	Assertion
	19-002	Assertion
	19-003	Assertion

EMR Products certified to the Primary Care Quality Indicator (PCQI) Reminders and Data Extract specification must continue to satisfy the full PCQI Reminders and Data Extract specification, including the following requirement:

Table 5: PCQI Requirements

PCQI CATEGORY	RELEVANT REQUIREMENT	ASSESSMENT METHOD
Data Capture	PCDC-11	Verification



5.4 Authentication Requirements

In addition to the specified requirements in this document the EMR must satisfy all requirements in the <u>eHealth_hub_</u>Authentication Specification.

5.5 Data Capture Requirement Column Definition

The data element requirements are documented in a similar manner, with a few variations as described below:

- o **ID** as defined above for requirements
- Data Element the label or name associated by Manitoba for this data element
- o **Description** the meaning or intent of this data element, as defined by Manitoba
- Guidelines as defined above for requirements
- Additional Notes as defined above for requirements
- o Status as defined above for requirements
- Assessment as defined above for requirements



5.6 Data Capture Requirements

The following table contains the list of enrolment-related data elements required of the EMR to support the data capture, validation, and submission of enrolment information.

Table 6: Enrolment Data Elements

ID	REQUIREMENT	GUIDELINES	ADDITIONAL NOTES	STATUS	ASSESSMENT
ENDC-01	Home Clinic Identifier	The unique identifier assigned to the Home Clinic by Shared Health.	The Home Clinic Identifier contains numeric characters only.	Previous	Verification
ENDC-02	Home Clinic Name	A name used to represent the Home Clinic.	Maximum of 70 characters Name is not required to be consistent with legal name or other names used by the clinic (e.g. common name).	Previous	Verification
ENDC-03	Home Clinic Enrolment Start Date	Indicates the date on which the client enrolled with the Home Clinic, regardless of whether the enrolment method was passive or active.	Must not permit entry of a partial date Date must: Not be prior to January 1, 2010 Not be greater than today's date (i.e. future dated) Be equal to or greater than client's date of birth Be greater than the Enrolment End Date	Previous	Verification
ENDC-04	Home Clinic Enrolment Method	Indicates the method of enrolment, active or passive.	The list of values must be limited to: Active	Previous	Verification



			Passive		
ENDC-05	Home Clinic Enrolment End Date	Represents the date the client was de-enrolled.	Must not permit entry of a partial date Date must: Be greater than the Home Clinic Enrolment Start Date Not be greater than current date	Previous	Verification
ENDC-06	Enrolment Termination Reason	The reason that the client enrolment was de-enrolled.	The list of values must be limited to: Client deceased Client moved Client left province Client not in Primary Care Home Clinic initiated Client request Enrolled with other Home Clinic Home Clinic Not Provisioned	Previous	Verification
ENDC-07	Provider Billing Number	Identifies the primary care provider that is the client's Associated Provider.	In the Baseline Specification, this field is referred to as Provider Identifier. For Enrolment Service purposes, this is the Associated Provider's Manitoba Health billing number.	Previous	Verification
ENDC-08	Client Provider Relationship Start Date	Represents the date on which the Associated Provider	Must not permit entry of a partial date.	Previous	Verification



		relationship was established with the client.	Date must: Not be greater than current date Be equal to or greater than Enrolment Start Date		
ENDC-09	Client Provider Relationship End Date	Represents the date on which the Associated Provider relationship with the client was terminated.	Must not permit entry of a partial date. Date must: Not be greater than current date Not be prior to Client Provider Relationship Start Date Not be greater than the Home Clinic Enrolment End Date	Previous	Verification

Additional system and user/operator attributes required for data submission to the Enrolment Service (such as EMR application details, client demographic details, and Home Clinic details) are defined in the Additional System Data Elements table below.

Table 7: Additional System Data Elements

ID	REQUIREMENT	GUIDELINES	ADDITIONAL NOTES	STATUS	ASSESSMENT
SYSD-01	EMR Identifier	The unique EMR identifier assigned to the EMR instance by Shared Health.	Display of this data element to the EMR User is not required.	Previous	Assertion
SYSD -02	EMR Application Name	The EMR product name.	Display of this data element to the EMR User is not required.	Previous	Assertion
SYSD -03	EMR Version Info	The EMR product version	Display of this data element	Previous	Assertion



		required.		
Operator ID	Contains either the User ID of the EMR User performing the SubmitEnrolment operation.	 Display of this data element to the EMR User is not required 	Previous	Assertion
Transaction ID	It is important that the EMR supply a unique identifier for retrieving a set of Home Clinic remediation messages to ensure transactional uniqueness.	Display of this data element to the EMR User is not required	Previous	Assertion
	For each Home Clinic, the Transaction ID supplied in the initial <u>GetEnrolmentRemediation</u> request must be used in all subsequent <u>GetEnrolmentRemediation</u> and <u>AcknowledgeRemediation</u> requests needed to obtain the			
	· 	the EMR User performing the SubmitEnrolment operation. It is important that the EMR supply a unique identifier for retrieving a set of Home Clinic remediation messages to ensure transactional uniqueness. For each Home Clinic, the Transaction ID supplied in the initial GetEnrolmentRemediation request must be used in all subsequent GetEnrolmentRemediation and AcknowledgeRemediation	the EMR User performing the SubmitEnrolment operation. It is important that the EMR supply a unique identifier for retrieving a set of Home Clinic remediation messages to ensure transactional uniqueness. For each Home Clinic, the Transaction ID supplied in the initial GetEnrolmentRemediation request must be used in all subsequent GetEnrolmentRemediation requests needed to obtain the	the EMR User performing the SubmitEnrolment operation. It is important that the EMR supply a unique identifier for retrieving a set of Home Clinic remediation messages to ensure transactional uniqueness. For each Home Clinic, the Transaction ID supplied in the initial GetEnrolmentRemediation request must be used in all subsequent GetEnrolmentRemediation requests needed to obtain the



6 Appendix A: Web Service

6.1 Web Service Definition Language (WSDL)

The Enrolment Service has been exposed to the EMR community as a web service. The web service interaction is defined within an individual WSDL. The WSDL will be exposed on an HTTPS listener where authentication will occur based on prior certificate exchange. Once the EMR passes authentication, their EMR ID contained within the message body is checked to validate they are authorized to use the service. If the EMR fails authentication or authorization, a response containing fault code 5403 will be returned.

Note: Only the WSDL materials provided via the Certification process are supported. It is not recommended to automatically download the WSDL from the Enrolment Service directly.

Web Service Documents

The web service documents may be found in the assessment addendum.

6.2 Request / Response Definitions

SubmitEnrolment Operation

This operation permits the submission of enrolment data from the EMR to the Enrolment Service. Applicable use cases are:

Generate and Submit Enrolment Data (<u>UC-005</u>)

REQUEST AND RESPONSE PARAMETERS

Table 8: SubmitEnrolment Request Parameters

PARAMETER	USAGE	DESCRIPTION
EMRID	Mandatory	See EMR Identifier (SYSD-01).
EMRApplicationName	Mandatory	See EMR Name (SYSD-02).
EMRApplicationVersion	Mandatory	See EMR Version Info (SYSD-03).
EMROperatorID	Mandatory	See Operator ID (SYSD-04).
HomeClinicIdentifier	Mandatory	See Home Clinic Identifier (ENDC-01).
ClientIdentifierID	Mandatory	A unique client identifier, accompanied by the ClientIdentifierType. All available jurisdictional ClientIdentifierIDs (Refer to 7.2 – Client Identifier Types) must be transmitted in this operation.
ClientIdentifierType	Mandatory	The type of identifier associated with the unique ClientIdentifierID(s) submitted in this operation. Refer to 7.2 – Client Identifier Types for a list of valid identifier types.
ManitobaHealthRegistrationNumber	Optional	The identifier assigned to Manitoba individuals or families. See Baseline specification data element



		DE01-14.
FirstName	Mandatory	The client's first name.
MiddleName	Optional	The client's middle name.
LastName	Mandatory	The client's last name.
DOB	Mandatory	The client's date of birth.
AdministrativeSex	Mandatory	The client's administrative sex.
StreetAddress	Optional	The client's street address of residence.
City	Optional	The client's city of residence.
Province	Optional	The client's province of residence.
PostalCode	Optional	The client's postal code.
PhoneCode	Optional	The client's primary phone number.
StartDate	Mandatory	See Home Clinic Enrolment Start Date (ENDC-03).
Method	Mandatory	See Home Clinic Enrolment Method (ENDC-04).
EndDate	Optional	See Home Clinic Enrolment End Date (ENDC-05).
EnrolmentTerminationReason	Optional	See Enrolment Termination Reason (ENDC-06).
ProviderBillingNumber	Optional	See Provider Billing Number (ENDC-07).
ClientProviderRelStartDate	Conditional	See Client Provider Relationship Start Date (ENDC-08). Becomes mandatory upon presence of the ProviderBillingNumber.
ClientProviderRelEndDate	Optional	See Client Provider Relationship End Date (ENDC-09).

Table 9: SubmitEnrolment Response Parameters

PARAMETER	USAGE	DESCRIPTION
CreationDate	Mandatory	The date stamp of the enrolment submission to the Enrolment Service.
Code		An alphanumeric value representing the business validation response returned for the enrolment submission. This value will be blank if originating request successfully passes validation.
Description	Optional	A narrative description of the Code.
SubmissionID	Mandatory	A unique receipt for the EMR's enrolment submission, provided by the Enrolment Service.



SOAP REQUEST SAMPLE

```
<?xml version="1.0" encoding="utf-8"?>
<SubmitEnrolmentRequest
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns="urn:SubmitEnrolment">
 <EMRID>1234</EMRID>
 <EMRApplicationName>str1234/EMRApplicationName>
 <EMRApplicationVersion>str1234/EMRApplicationVersion>
 <EMROperatorID>str1234/EMROperatorID>
 <HomeClinicIdentifier>str1234/HomeClinicIdentifier>
 <Client>
    <ClientIdentifier>
     <ClientIdentifierID>str1234</ClientIdentifierID>
     <ClientIdentifierType>JHNMB</ClientIdentifierType>
     <ClientIdentifierID>str1234</ClientIdentifierID>
     <ClientIdentifierType>JHNON</ClientIdentifierType>
    </ClientIdentifier>
   <ManitobaHealthRegistrationNumber>str1234/ManitobaHealthRegistrationNumber>
    <FirstName>str1234</FirstName>
    <MiddleName>str1234</MiddleName>
    <LastName>str1234
    <DOB>2012-12-13</DOB>
    <AdminstrativeSex>M</AdminstrativeSex>
   <StreetAddress>str1234/StreetAddress>
   <City>Winnipeg</City>
   <Province>MB</Province>
   <PostalCode>R1R1R1</PostalCode>
   <PhoneCode>204-555-1234</PhoneCode>
 </Client>
  <StartDate>2012-12-13</StartDate>
 <Method>ACTIVE</Method>
 <EndDate>2012-12-13</EndDate>
 <EnrolmentTerminationReason>str1234/EnrolmentTerminationReason>
 <ProviderBillingNumbero>str1234</providerBillingNumbero>
 <ClientProviderRelStartDate>2012-12-13</ClientProviderRelStartDate>
  <ClientProviderRelEndDate>2012-12-13</ClientProviderRelEndDate>
</SubmitEnrolmentRequest>
```

SOAP RESPONSE SAMPLE

```
<?xml version="1.0" encoding="utf-8"?>
<SubmitEnrolmentResponse
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns="urn:SubmitEnrolment">
    <CreationDate>2012-12-13</CreationDate>
    <Code>RCUI</Code>
    <Description>str1234</Description>
    <SubmissionID>str1234</SubmissionID>
</SubmitEnrolmentResponse>
```



GetEnrolmentRemediation Operation

This operation permits the retrieval of Home Clinic remediation messages (e.g. rejections, deenrolments, etc.) from the Enrolment Service. Applicable use cases are:

Retrieve Enrolment Remediation (UC-006)

REQUEST AND RESPONSE PARAMETERS

Table 10: GetEnrolmentRemediation Request Parameters

PARAMETER	USAGE	DESCRIPTION
EMRID	Mandatory	See EMR Identifier (SYSD-01).
EMRApplicationName	Mandatory	See EMR Name (SYSD-02).
EMRApplicationVersion	Mandatory	See EMR Version Info (SYSD-03).
TransactionID	Mandatory	See Transaction ID (SYSD-05).
HomeClinicIdentifier	Mandatory	See Home Clinic Identifier (ENDC-01).

Table 11: GetEnrolmentRemediation Response Parameters

PARAMETER	USAGE	DESCRIPTION	
SuccessStatus	Mandatory	A Boolean indicating (false).	success (true) or failure
NumberOfMessages	Mandatory	Number of messages	s contained in the response.
MessagesRemaining	Mandatory	Number of messages mailbox/queue.	s remaining in current
Message	Conditional	when NumberOfMes. The messages return that the messages we EMR queue (FIFO). The messages in the order messages provided was messages provided wattribute.	ssages that will be returned sages is greater than zero. Hed will follow the sequence ere placed on the discrete The EMR must process the er received. The number of will be equal to the number of within the NumberOfMessages er following attributes, where
		CreationDate	The system generated date of the record creation.
		HomeClinicIdentifier	See Home Clinic Identifier (ENDC-01)
		ClientIdentifierID	A unique client identifier, accompanied by the ClientIdentifierType.



	ClientIdentifierType	The type of identifier associated with the unique ClientIdentifierID(s).
	FirstName	The client's first name.
	LastName	The client's last name.
	DOB	The client's date of birth.
	AdministrativeSex	The client's administrative sex.
	Туре	The type of remediation, e.g. Rejection, De-enrolment.
	ReasonID	The reason code for the remediation, e.g. "DASP".
ReasonName	ReasonName	A short name of the remediation reason, e.g. "Active Supersedes Passive"
	Description	A description of the remediation, including any actions needed to remediate the record.

SOAP REQUEST SAMPLE

```
<?xml version="1.0" encoding="utf-8"?>
<GetEnrolmentRemediationRequest
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns="urn:GetEnrolmentRemediation">
    <EMRID>1234</EMRID>
    <EMRApplicationName>str1234</EMRApplicationName>
    <EMRApplicationVersion>str1234</EMRApplicationVersion>
    <TransactionID>str1234</TransactionID>
    <HomeClinicIdentifier>1234</HomeClinicIdentifier>
</GetEnrolmentRemediationRequest>
```

SOAP RESPONSE SAMPLE

```
<?xml version="1.0" encoding="utf-8"?>
<GetEnrolmentRemediationResponse
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns="urn:GetEnrolmentRemediation">
 <SuccessStatus>true</SuccessStatus>
 <NumberOfMessages>2</NumberOfMessages>
 <MessagesRemaining>0</MessagesRemaining>
 <Message>
   <CreationDate>2018-06-13</CreationDate>
    <HomeClinicIdentifier>1234</HomeClinicIdentifier>
      <ClientIdentifier>
        <ClientIdentifierID>str1234</ClientIdentifierID>
        <ClientIdentifierType>JHNMB</ClientIdentifierType>
      </ClientIdentifier>
      <FirstName>str1234</FirstName>
      <MiddleName>str1234</MiddleName>
      <LastName>str1234</LastName>
      <DOB>2012-12-13</DOB>
```



```
<AdminstrativeSex>M</AdminstrativeSex>
    </Client>
    <Type>Rejection</Type>
   <ReasonID>str1234</ReasonID>
   <ReasonName>str1234</ReasonName>
    <Description>str1234/Description>
 </Message>
 <Message>
    <CreationDate>2018-06-13</CreationDate>
    <HomeClinicIdentifier>1234/HomeClinicIdentifier>
    <Client>
      <ClientIdentifier>
        <ClientIdentifierID>str1234</ClientIdentifierID>
       <ClientIdentifierType>JHNON</ClientIdentifierType>
      </ClientIdentifier>
      <FirstName>str1234</FirstName>
      <MiddleName>str1234</MiddleName>
     <LastName>str1234</LastName>
     <DOB>1999-01-01</DOB>
      <AdminstrativeSex>F</AdminstrativeSex>
    </Client>
   <Type>De-enrolment</Type>
    <ReasonID>str1234</ReasonID>
    <ReasonName>str1234</ReasonName>
    <Description>str1234/Description>
  </Message>
</GetEnrolmentRemediationResponse>
```

AcknowledgeRemediation Operation

This operation acknowledges receipt of the successful retrieval of Home Clinic remediation messages. Applicable use cases are:

Retrieve Enrolment Remediation (UC-006)

REQUEST AND RESPONSE PARAMETERS

Table 12: AcknowledgeRemediation Request Parameters

PARAMETER	USAGE	DESCRIPTION
EMRID	Mandatory	See EMR Identifier (SYSD-01).
HomeClinicIdentifier	Mandatory	See Home Clinic Identifier (ENDC-01).
TransactionID	Mandatory	See Transaction ID (SYSD-05).

Table 13: AcknowledgeRemediation Response Parameters

PARAMETER	USAGE	DESCRIPTION
SuccessStatus	Mandatory	A Boolean indicating success (true) or failure (false).



SOAP REQUEST SAMPLE

```
<?xml version="1.0" encoding="utf-8"?>
<AcknowledgeEnrolmentRemediationRequest
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns="urn:GetEnrolmentRemediation">
    <EMRID>str1234</EMRID>
    <HomeClinicIdentifier>123</HomeClinicIdentifier>
    <TransactionID>str1234</TransactionID>
</AcknowledgeEnrolmentRemediationRequest>
```

SOAP RESPONSE SAMPLE

```
<?xml version="1.0" encoding="utf-8"?>
<AcknowledgeEnrolmentRemediationResponse
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns="urn:GetEnrolmentRemediation">
    <SuccessStatus>true</SuccessStatus>
</AcknowledgeEnrolmentRemediationResponse>
```

SOAP Fault Response

The SOAP fault response is produced in the case of an error scenario as opposed to inclusion within the business context response.

Table 14: SOAP Fault Response Structure

PARAMETER	DESCRIPTION	
FaultCode	The category code for a given error. Possible categories are CLIENT and SERVER to designate different error classification.	
FaultString	An explanation of the fault.	
Detail	Description of the given error contains:	
	ErrorID	The identifier corresponding to a specific error.
	ErrorMessage	Description of the given error.

ERROR SCENARIOS

There are two types of error scenarios pertaining to the Enrolment Service transaction:

- Server There was a problem with the server such that the message could not be processed.
- 2. Client The message was incorrectly formed or contained incorrect information or the EMR configuration was incorrect. The errors may be further subcategorized as:
 - a. Business Errors Characterized as errors in message submission or retrieval with the Enrolment Service. These can be trapped by the application and translated to application-specific language to provide context to the requestor as to the nature of the error.
 - b. System Errors Characterized as communication or transport-level errors. These may also include errors which address malformed messaging errors.

Note that the error messages are not encrypted.



ERROR CODES

The following list is a sample of the most common error scenarios that may occur:

Table 15: SOAP Fault Response – Error Codes

ERROR ID	ERROR TYPE (FAULTCODE)	ERROR MESSAGE (FAULTSTRING)
5000	CLIENT	Submit Enrolment validation error
	CLIENT	Get Enrolment Remediation validation error
	CLIENT	Acknowledge Enrolment Remediation validation error
5100	CLIENT	XML schema validation error
5403	CLIENT	EMR Authentication error
6000	SERVER	Service temporarily unavailable

SOAP FAULT SAMPLE



7 Appendix B: EMR Data Validation

7.1 EMR Data Validation List

Enrolment data validation as described below should be managed within the EMR prior to submission to the Enrolment Service.

Table 16: EMR Enrolment Data Validation List

VALIDATION ERROR DESCRIPTION	TRIGGERED WHEN	
Enrolment data does not meet the minimum data set requirements.	The enrolment data set is missing one or more of the following criteria: Home Clinic Identifier Client Identifier (usually PHIN) Client Identifier Type Client First Name Client Last Name Client Date of Birth Client Administrative Sex Home Clinic Enrolment Start Date Home Clinic Enrolment Method	
Home Clinic Enrolment Start Date must not be prior to January 1, 2010	Home Clinic Enrolment Start Date < January 1, 2010	
Home Clinic Enrolment Start Date must not be future dated	Home Clinic Enrolment Start Date > Today	
Home Clinic Enrolment Start Date is earlier than the client's date of birth	Enrolment Start Date < Client's Date of Birth	
Home Clinic Enrolment End Date is earlier than the Home Clinic Enrolment Start Date	Home Clinic Enrolment End Date < Home Clinic Enrolment Start Date	
Home Clinic Enrolment End Date must not be future dated	Home Clinic Enrolment End Date > Today	
Client Provider Relationship Start Date must not be future dated	Client Provider Relationship Start Date > Today	
Client Provider Relationship End Date must not be future dated	Client Provider Relationship End Date > Today	
Client Provider Relationship occurs outside of the client's enrolment with the Home Clinic	Client Provider Relationship Start Date < Home Clinic Enrolment Start Date and/or	
	Client Provider Relationship End Date > Home Clinic Enrolment End Date	



Client Provider Relationship End Date is earlier than the Client Provider Relationship Start Date	Client Provider Relationship End Date < Client Provider Relationship Start Date
Client is not associated with a valid Client Identifier Type	Client Identifier Type does not contain a valid type, as described in 7.2 – Client Identifier Types.

7.2 Client Identifier Types

The following table lists all Client Identifier Types for which Home Clinic Enrolment can be managed:

Table 17: Client Identifier Types

CODE	DESCRIPTION				
JHNAB	Alberta				
JHNBC	British Columbia				
JHNMB	Manitoba				
JHNNB	New Brunswick				
JHNNL	Newfoundland and Labrador				
JHNNS	Nova Scotia				
JHNNT	Northwest Territories				
JHNNU	Nunavut Territory				
JHNON	Ontario				
JHNPE	Prince Edward Island				
JHNQC	Quebec				
JHNSK	Saskatchewan				
JHNYT	Yukon Territory				
JHNAF	Canadian Armed Forces				
JHNVA	Veterans Affairs Canada				
JHNFN	First Nations and Inuit Health Branch				
JHNCO	Corrections Canada				
JHNRC	Royal Canadian Mounted Police				
JHNCI	Citizenship and Immigration Canada				



8 Appendix C: Home Clinic Composition

The composition of a Home Clinic may take many different structures based on the decisions made by the clinic and its eligible providers. The concept of a Home Clinic is different than that of a Clinic, Office, or Site location. Home Clinics may be composed of more than one physical location, or subsets or segments within a single physical location, as outlined in the table below.

Eligible providers include family physicians, general practitioners and nurse practitioners and within the context of the Home Clinic model, are known as Most Responsible Providers or MRP. The only constraint for forming a Home Clinic is that all providers associated with the Home Clinic must share the same EMR instance (also known as Shared EMR Instance).

Table 18: Home Clinic Composition

SCENARIO	DESCRIPTION				
	All eligible providers within the operational clinic agree to form a single Home Clinic. This may include a solo practitioner, all providers within a primary care clinic or the eligible providers within a mixed primary and specialty care clinic.				
	A sub-set of the eligible providers within the operational clinic choose to form a Home Clinic (some eligible providers choose <u>not</u> to be associated with the Home Clinic).				
	Providers in more than one operational clinic (different physical locations) decide to join forces and form a single Home Clinic. All providers must share the same EMR instance.				
	Eligible providers within one operational clinic (single physical location) choose to form more than one Home Clinic. For example, a large clinic may decide to form multiple Home Clinics that align with existing clinic work groups.				
	In rare circumstances, Manitoba may grant an exception to form a Home Clinic even if there is no MRP associated with the clinic. For example, a federal nursing station does not have an eligible provider to serve as MRP.				



9 Appendix D: Use Case to Requirement Traceability

Table 19: Use Case to Requirement Traceability Matrix

	UC-001	UC-002	UC-003	UC-004	UC-005	UC-006	UC-007	UC-008	
Rqmt ID	Set up and Manage Home Clinic	Select Home Clinic	View Client Enrolment Details	Manage Client Enrolment	Generate and Submit Enrolment Data	Retrieve Enrolment Remediation	Manage Enrolment Remediation	Maintain Existing EMR Operations	Totals
ENR001					Х				1
ENR002	X								1
ENR003	Х								1
ENR004	х				х				2
ENR005		X	X	Х					3
ENR006				х					1
ENR007					Х				1
ENR008					х				1
ENR009					х				1
ENR010					х				1
ENR011						х			1
ENR012						Х			1
ENR013						х			1
ENR014						х			1
ENR015					х	х			2
ENR016						х			1
ENR017						х	х		2
ENR018			X						1
ENR019				Х					1
ENR020								х	1
ENR021			Х	Х					2
ENR022	X								1
Totals	4	1	3	4	7	7	1	1	28



10 Release Notes

Version 1.0 October 22, 2018

Initial release

Version 1.1 January 31, 2019

 Corrections to remove response parameters from the SubmitEnrolment request parameters table (Table 9)

Version 1.2 September 11, 2019

- Updated document theme to new organizational visual identity
- Updated Manitoba eHealth to Shared Health to align with new organizational structure, including changes to the EMR Certification contact email address
- Move Alternate Flow A1 in use case UC-005 into a pre-condition for the Manage Enrolment Remediation use case (UC-007)
- Re-formatted last bullet point in ENR012 for improved readability
- Clarified guideline in ENR017 related to EMR Users and assignment to Home Clinics;
 this has been moved to requirement ENR022 and reflected in the main flow of UC-001
- Added note in Appendix A regarding supported WSDL materials
- Updated Appendix E: Use Case to Requirement Traceability
- Corrected the sample XML text in section 6.2.1 for the SubmitEnrolment operation to reference the ProviderBillingNumber data element
- Corrected name of Client Identifier Type JHNNT to "Northwest Territories"
- Updated the descriptions in the SOAP Fault Response table and the Error Types for Error ID 5000 in section 6.2.4 (updated to "CLIENT" from "SERVER")

Version 1.3 March 31, 2020

- Updated Manitoba eHealth to Shared Health in the PCDE glossary item
- Updated Related Documents:
 - Added eHealth_hub Authentication Specification
- Created a dependency to the eHealth_hub Authentication Specification
 - The eHealth_hub Authentication Specification contains the previous security requirements and appendices
 - Deleted previous security requirements and appendices
 - o Renamed Security Requirements to Authentication Requirements



Version 1.3.1 March 3, 2022

- Updated references from "5.7 Data Capture Requirements" to "5.6 Data Capture Requirements" throughout document
- Updated the reference from "MHSAL" to "Manitoba Health" in the glossary term for Primary Care Data Extract (PCDE)
- Updated Table 8 (SubmitEnrolment Request Parameters) to reflect the correct parameter names for ClientProviderRelStartDate and ClientProviderRelEndDate
- Updated Table 11 (GetEnrolmentRemediation Response Parameters) to remove the reference to "base64 encoded" in the description of the Message object
- Updated Appendix Sequencing
 - Updated "Appendix E: Use Case to Requirement Traceability" to "Appendix D: Use Case to Requirement Traceability"
 - Renamed "Appendix F: Release Notes" to "Release Notes"