



Ministry of
Health

British Columbia
Professional and Software Conformance Standards

Electronic Health Information Exchange

Volume 5C: Transport Protocol – API Gateway

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1.0 Overview

1.1 Introduction

Every prescription dispensed in community pharmacies in British Columbia is entered into PharmaNet.

The introduction of electronic prescribing (e-prescribing) will mean that every prescription written in the community is entered into PharmaNet.

Community pharmacies will retrieve prescriptions for a patient when dispense requests are made eliminating the need for prescribing physicians to hand a piece of paper, often printed, and signed, to the patient during a patient visit.

Instead, the prescription will be sent from the prescriber's electronic medical record (EMR) system to PharmaNet.

The Ministry is developing a suite of API services under a project known as the Health API Gateway to support the transition to e-prescribing and other health IT modernization initiatives with the goal of:

- 1) Supporting the retirement of the aging HNSecure private network;
- 2) Modernizing authorization controls and readying an interaction model that is closer to more widely adopted HL7 FHIR and RESTful API constructs;
- 3) Using identity platforms to transition client application authorization away from the current trusted system privilege model; and
- 4) Using HL7 Version 2 electronic prescription service capabilities.

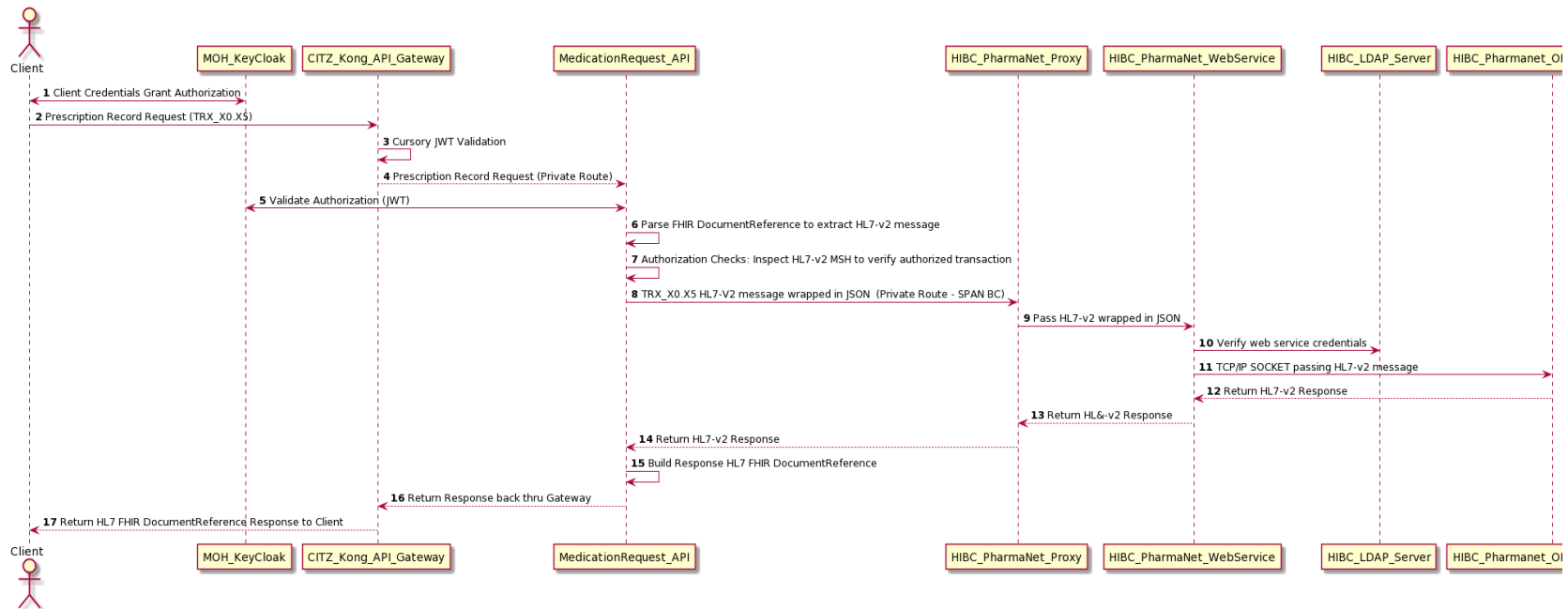


Figure 1 Authentication / Authorization and Messaging Workflow

1.2 Approach

The approach is to guide the vendor community to incrementally move towards an end-state of a modernized integration model with PharmaNet that is built on:

- 1) Highly elastic and scalable HL7 FHIR Restful microservices;
- 2) Common [OAuth2](#) authorization flows;
- 3) Modern cryptographic protocols (e.g., TLS) to support privacy and data integrity;
- 4) Reliable API management and monitoring solutions; and
- 5) A self-service vendor developer portal to explore integration and facilitate production certifications.

1.3 Pre-requisite and Document Scope

The software service organization (SSO) or vendor will need use the publicly accessible [BC Ministry of Health PharmaNet API documentation](#) that fully supplements this document.

Second, to be able to initiate access to the API Gateway, the organization needs to have a signed Vendor Participation Agreement (VPA) with the Ministry.

The rest of the document describes the procedures on how to access and use the APIs in a development setting. In production, it is expected that providing credentials to applications and users may be different.

Note(s): This document will be updated accordingly once the production configuration has been finalized.

2.0 Accessing the APIs

2.1 Access to the Portal

Access to the Ministry API gateway will be through the **API Program Services (APS) Portal**.

The APS portal will be:

- the point of entry to get the proper credentials to use the APIs; and
- used by each SSO (vendors and health authorities) to submit an API access request.

Approved organizations that have signed a **Vendor Participation Agreement** will be allowed access to the non-production API Gateway (sandbox, conformance, or training).

Whitelisting of point-of-service (POS) IP addresses may be required if an access issue is encountered.

Requests for IP address whitelisting must be submitted to:

- HLTH.CISSupport@gov.bc.ca.

2.2 Credentialing

Accessing PharmaNet APIs requires an application to acquire access tokens from the PharmaNet identity platform which is an [OAuth2](#)-compliant identity and authorization server.

The token for access will contain information about the application and scope of resources it will be allowed to access.

2.2.1 Application Authentication

Registration of your client application is required to allow access to the platform. Each new request will be provided with tokens: **Client ID**, **Client Secret** and **Redirect URI/URLs**.

Refer to the [Authentication and Authorization Basics for eRX PharmaNet API](#) of the [PharmaNet API Wiki Site](#) for full documentation.

2.3 Scopes

Authorization scopes are based on the permitted transactions for each POS access type (see Section 2.1 Transaction Permissions by Access Type, Volume 4C: Application Enforced Rules-PharmaNet).

Correct application scopes will be defined in the authorization platform to be able to receive the expected response to the API endpoint being accessed.

For more information refer to [Scopes by System Profile](#) section of the [PharmaNet API Wiki Site](#).

2.4 Redirect URI/URLs

The assigned scopes will determine which of the URI/URLs below can be accessed by an application.

An application needs to invoke the correct URL for a specific [Pharmanet interaction type](#) in order to access the exposed PharmaNet resources.

Refer to section [Invoking PharmaNet APIs](#) and [R70 Interactions](#) of the [PharmaNet API Wiki Site](#) for details on how to call the APIs and PharmaNet interactions.

2.4.1 Token Endpoint

https://common-logon-test.hlth.gov.bc.ca/auth/realms/moh_applications/protocol/openid-connect/token

2.4.2 PPM API Endpoints by Environment

Development	Production
https://pnet-dev.api.gov.bc.ca/api/v1/Claim	https://pnet.api.gov.bc.ca/api/v1/Claim
https://pnet-dev.api.gov.bc.ca/api/v1/Consent	https://pnet.api.gov.bc.ca/api/v1/Consent
https://pnet-dev.api.gov.bc.ca/api/v1/Location	https://pnet.api.gov.bc.ca/api/v1/Location
https://pnet-dev.api.gov.bc.ca/api/v1/Medication	https://pnet.api.gov.bc.ca/api/v1/Medication
https://pnet-dev.api.gov.bc.ca/api/v1/MedicationDispense	https://pnet.api.gov.bc.ca/api/v1/MedicationDispense
https://pnet-dev.api.gov.bc.ca/api/v1/MedicationRequest	https://pnet.api.gov.bc.ca/api/v1/MedicationRequest
https://pnet-dev.api.gov.bc.ca/api/v1/MedicationStatement	https://pnet.api.gov.bc.ca/api/v1/MedicationStatement
https://pnet-dev.api.gov.bc.ca/api/v1/Patient	https://pnet.api.gov.bc.ca/api/v1/Patient
https://pnet-dev.api.gov.bc.ca/api/v1/Practitioner	https://pnet.api.gov.bc.ca/api/v1/Practitioner