

## Overview

The Patient Access API is used to build applications that enable Virginia Premier Virginia Premier members to easily access their claims and encounter information (including cost), as well as a defined sub-set of their clinical information. This is a RESTful API that conforms to the FHIR standard and provides access to an Virginia Premier member's data.

This section describes the FHIR profiles, resources, and RESTful capabilities that the Patient Access API supports. A **profile** is a set of rules which allows a resource to be constrained or to include extensions so the resource can add additional attributes. The RESTful capabilities are discussed in further detail below.

## Implementation Guidelines

This specification uses **SHALL**, **SHOULD**, and **MAY** as a guideline for required, recommended, and optional data FHIR standards.

1. **SHALL**: An absolute requirement for all implementations. The FHIR server must return this data.
2. **SHOULD**: A best practice or recommendation for the implementation. The FHIR server is recommended to return this data.
3. **MAY**: An optional inclusion for the implementation; not a requirement. The FHIR server may return the data, but there is no requirement to do so.

## Third-Party App Requirements: Developer Application Registration

Follow these steps to register your developer account and get your application authorized so you can begin building your application.

1. Register your developer account.
2. Verify your developer account. After registering your developer account, you will receive an email to verify your account, which contains a verification code. Upon receiving the code, enter it to continue.
3. Log in to your new developer account. Upon successfully registering your account, it's time to start using your account.
4. Register your application.
5. Provide the details for your application. In the application registration form, you will be asked to provide the name of your application, the callback URL, and the scopes.
6. You will receive an email when your application is approved.
7. After your application is approved, you will be given a *Client ID* and *Client Secret* for your application. You will need these, along with the callback URL and scope, to use during authentication.
8. Start using APIs with your newly registered application. Once you have successfully registered your application, you can begin using the APIs.

## Security

All Virginia Premier member access transactions must be secured appropriately and directed by regulations, with access limited to authorized individuals, data protected, and appropriate audit measures taken.

## How to Connect

Below are the steps to use your application's Client ID, Client Secret, authorization codes, and tokens to securely connect your application to the Patient Access API.

## Authorization Overview

The FHIR server supports the standard OAuth 2.0 C web application authorization flow.

## Application Registration

To begin, you must first register your application. When you register your application, you will need to have a callback URL (aka redirect URI) to assign to your application, which will be used during the authorization flow. The Virginia Premier team will perform security review based on information submitted in your application form. Once approved, Virginia Premier will provide you with a Client ID and Client Secret, which you need (along with the callback URL and scope) to use during authentication. Once you have successfully registered your application, you can begin using the APIs.

## Standard Authorization Code Flow

In the standard authorization code flow, to connect to the Member Access API, you will need to use the OAuth 2.0 and OpenID Connect (OIDC) flow for authentication. This flow should only be used by sites that can safely protect the Client ID and Client Secret, such as a site running on a secure server.

## Request Authorization from the User

To allow a user to authorize your application, direct them to our authorization server with your Client ID and callback URL. If the user consents, we will redirect back to your callback URL.

## Exchange Code for Token

After sending the authorization request, the customer will be directed to a sign-in page through browser re-directs, where they will provide their credentials to authenticate themselves. Upon completing sign-in, the customer will be presented with an authorization page. Once the customer authorizes your application, your application can now exchange the code provided.

## Authorization, Authentication, and Registration

Client applications and systems of record SHALL support the standalone launch sequence of the **SMART App Launch framework** for user authorization and client authentication. Systems of record SHALL publish their authorization and token endpoints for discovery in accordance with the SMART App Launch framework.

## Security Guidelines

As per the implementation guide, security guidelines are as follows:

- Systems SHALL establish a risk analysis and management regime that conforms with HIPAA security regulatory requirements.
- Systems SHALL keep audit logs of the various transactions.

### FHIR RESTful API Capabilities

- Implements RESTful behaviors according to the FHIR specification
- Supports JSON source formats for all US Core interactions.
- Returns the following HTTP status codes:

HTTP Status Code	Description
200	Successful Request
400	Invalid Parameter
401	Not Authorized
403	Insufficient Scope
404	Unknown Resource
410	Deleted Resource

## Member Access Resources

These are the endpoints and resources available with the Member Access API. The Member Access API supports the following FHIR-approved implementation guides and the following profiles:

### Implementation Guides

- [US Core Implementation Guide Version 3.1.1](#)
- [CARIN Consumer Directed Payer Data Exchange Implementation Guide Version 1.0.0](#)
- [DaVinci Payer Data Exchange Implementation Guide Version 1.0.0](#)

- [DaVinci Payer Data Exchange US Drug Formulary Implementation Guide Version 1.0.0](#)

## Supported Profiles

- [US Core Profiles](#)
- [CARIN BB Profiles](#)
- [DaVinci PDex CoveragePlan Profile](#)
- [DaVinci PDex FormularyDrug Profile](#)

## Base URL

The base URL for each endpoint:

- 1) **OpenID Configuration:** <https://auth.interop.sentara.com/vphpp-auth/realms/VPHPP/.well-known/openid-configuration>
- 2) **Capability Statement:** <https://vphpp.interop.sentara.com/api/v1/vphpp/metadata>
- 3) **Patient (Member):** Information about an individual receiving healthcare service. The **US Core Patient Profile** is based upon the core **FHIR Patient resource** and designed to meet the applicable patient demographic data elements from the 2015 Edition Common Clinical Data Set. This resource is also based on the **CARIN BB Patient Profile**.

<https://vphpp.interop.sentara.com/api/v1/vphpp/Patient>

Key	Value
_lastUpdated	2022-06-30T06:49:01Z
meta.profile	<a href="http://hl7.org/fhir/us/carin-bb/StructureDefinition/C4BB-Patient">http://hl7.org/fhir/us/carin-bb/StructureDefinition/C4BB-Patient</a>
family	Last Name
given	First Name
birthDate	YYYY-MM-DD
address-city	Name Of the City
address-state	Name Of the State
address-postalcode	Address Postal Code
address	Address Line

gender	Male/Female
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- 4) Coverage:** **Coverage resource** is intended to provide the high-level identifiers and descriptors of an insurance plan, typically the information which would appear on an insurance card, which may be used to pay in part or in whole, for the provision of healthcare products and services.

Supports the **CARIN BB Coverage Profile**.

<https://vphpp.interop.sentara.com/api/v1/vphpp/Coverage>

Key	Value
_lastUpdated	2022-06-30T09:51:57Z
meta.profile	<a href="http://hl7.org/fhir/us/carin-bb/StructureDefinition/C4BB-Coverage 1.1.0">http://hl7.org/fhir/us/carin-bb/StructureDefinition/C4BB-Coverage 1.1.0</a>
type	HIP
subscriberId	Member subscriber Id

- 5) Explanation of Benefit:** This resource provides the claim details, adjudication details from the processing of a claim, and as an option the account balance information for informing the subscriber of the benefits provided. The Explanation of Benefit resources can represent a patient, provider, insurer, care team, facility, and coverage with references to patient, organization, practitioner, practitioner role, location, and coverage resources. The FHIR server can return all patient, practitioner, organization, practitioner role, location, and coverage resources for an Explanation of Benefit via the \_id of the reference resource.

<https://vphpp.interop.sentara.com/api/v1/vphpp/ExplanationOfBenefit>

Key	Value
_lastUpdated	2022-06-30T12:10:56Z
meta.profile	<a href="http://hl7.org/fhir/us/carin-bb/StructureDefinition/C4BB-ExplanationOfBenefit-Outpatient-Institutional 1.1.0">http://hl7.org/fhir/us/carin-bb/StructureDefinition/C4BB-ExplanationOfBenefit-Outpatient-Institutional 1.1.0</a>
type	institutional
identifier.value	Claim Id

- 6) Organization:** A formally or informally recognized grouping of people or organizations formed for the purpose of achieving some form of collective action. Includes companies, institutions, corporations, departments, community groups, healthcare practice groups, payer/insurer, etc.

<https://vphp.interop.sentara.com/api/v1/vphp/Organization/>

- 7) Practitioner:** A person with a formal responsibility in the provisioning of healthcare or related services.

<https://vphp.interop.sentara.com/api/v1/vphp/Practitioner/{id}>