PATHeD Mobile Toolkit Product Documentation

1. Overview

The PATHeD mobile toolkit is a robust reference implementation designed to enhance the MyHealth@EU infrastructure by providing seamless, cross-border access to patient summaries. Developed using ReactNative, the toolkit can be integrated into national health applications to support multilingual display and facilitate interoperability in line with EU eHealth standards.

2. Purpose and Scope

The PATHeD mobile toolkit is developed to assist European Union Member States in adopting a consistent approach to cross-border health data exchange. This toolkit ensures that patient summaries can be accessed in multiple languages, providing a reliable solution for real-time translations. The scope includes rendering HL7 CDA Level 3 (XML) documents, adaptable integration within existing mobile applications, and facilitating access through secure eID authentication.

3. Key Features

Multilingual Display: Capability to render patient summaries in various languages, including the pivot language (English).

ReactNative Integration: Flexible incorporation into existing native mobile applications of EU Member States.

Data Input Parameters: Utilises Friendly B XML documents and selected language specifications.

User-Friendly Interface: Simplified design for selecting display languages, although language choice interfaces remain the responsibility of the integrating national app.

Offline Capabilities: XML caching support for offline access, managed by the national app.

Compliance with EU Standards: Fully adheres to GDPR, eIDAS regulations, and HL7 CDA/FHIR protocols.

4. Architectural Overview

The PATHeD mobile toolkit interacts with national infrastructures through a designated backend (PATHeD Connector). The backend manages translations by first converting the Friendly A document into an eHDSI Pivot format (English) and subsequently translating it to the Friendly B language. The translated document is then rendered within the mobile toolkit.

5. Integration Steps

Initial Setup: Integrate the toolkit into the national mobile application following the provided ReactNative guidelines.

User Authentication: Implement eID-based user authentication services in accordance with national and EU regulations.

Data Retrieval Process: Enable the toolkit to interact with the backend to retrieve and display Friendly B documents.

Error Handling: Ensure the main application handles potential errors, including missing documents and unavailable translations.

Language Selection Interface: Develop custom interfaces for users to select the desired language for viewing the patient summary.

6. Use Cases

Patient-Mediated Access: Patients authenticate using secure eID, and the national backend retrieves and translates their patient summary.

Healthcare Professional Access: Enables professionals to view patient summaries in their native language with patient consent.

Offline Access Scenario: Supports caching of the patient summary for viewing during network disruptions.

7. Technical Specifications

Programming Language: ReactNative.

Backend Connectivity: Interaction with PATHeD Connector through APIs.

Document Type: HL7 CDA L3 XML.

Interface Requirements: The toolkit relies on the national app for language selection UI and error management.

8. Compliance and Security

The toolkit ensures data security through robust eIDAS-compliant protocols and GDPR adherence. National apps must handle user consent and implement appropriate data protection measures.

9. Limitations

The toolkit does not handle user authentication; this must be managed by the integrating national application.

Error message rendering and network failure responses are outside the toolkit’s scope.

Caching mechanisms for offline access need to be supported by the national application.

10. Recommendations for National Integration

Customisation of UI/UX: Ensure the design aligns with national standards for user interface.

Pilot Testing: Initiate with pilot projects to gather user feedback and refine integration.

Training Modules: Develop tutorials and virtual guides to aid user onboarding.

For further technical details, refer to the full documentation on GitHub (access required).

<https://github.com/eszfk/react-native-pathed-renderer>

<https://github.com/eszfk/pathed-connector/blob/main/api-docs.json>

PATHeD Consortium

October 2024