Product Dashboard: Vision, Roadmap, & Projects

Welcome. What are you looking for?

world STRATEGY: Top 3 Directions
three-column RAPID ROADMAP: New, Now, and Next
people DETAILS: Key Projects & How to Get Involved

About

This Product Dashboard is a dynamic, changing space that is open to feedback. The intent is a home-base where anyone, especially day-to-day Implementers interested in the OMRS roadmap, can see at a glance some key initiatives going on around the OpenMRS community: what's happening, who's putting resources in, what needs more support, and where there are specific opportunities to contribute support/investment.

Short Link to this page: om.rs/productdashboard

We are working on a clearer process for this. For now: project contributors are encouraged to update this page, though responsibility for ensuring this is a fair, up-to-date reflection of current community work rests with the OMRS Director of Product. Reach out to Grace Potma; we’d love to hear from you and better understand your initiative so we can broadcast your amazing work! We also regularly review this page in the OMRS Technical Action and Strategy & Operations Committees, to help everyone be on a similar page about key work moving our community forward closer to our strategic priorities.

• Our Platform & Product Vision
  • Rapid Roadmap
  • Key Projects
    • 1. CARE. User Experience: Improve patient-centered care delivery and give care providers a great user experience
      • Friendly, Modern UX in RefApp v3.0
      • Clinically Helpful
    • 2. CONFIGURATION. Implementer Experience: Easier to build & deploy a distribution
      • Plug & Play Architecture
      • Platform & RefApp Maintenance
      • Easier Deployment
    • 3. COMMUNICATION (OF DATA). Data Exchange: Easy, consistent, simplified Data Sharing across other systems & sites
      • HL7 FHIR
      • OpenMRS Dictionary Management
      • Critical External Integrations

Our Platform & Product Vision

We work together in a global fight to improve health care. Tech is one tool we use to bring better care to patients, the providers who care for them, and the organizations who steward health resources. This means the tech we develop together must do the following:

1. For Patients: Ensure patients get the right, timely, and appropriate care
2. For Health Workers: Provide health workers with timely, accurate, and complete information
3. For Organizations: Give organizations data to improve the efficiency and quality of care delivery

Top 3 Strategic Directions for our Product

To achieve this vision, we need Strategic Directions that will guide us over the next 5 years and set us in the right direction. Our top 3 Strategic Directions are:

• 1. CARE. User Experience: Improve patient-centered care delivery and give care providers a great user experience
• 2. CONFIGURATION. Implementer Experience: Easier to build & deploy a distribution
• 3. COMMUNICATION (OF DATA). Data Exchange: Easy, consistent, simplified Data Sharing across other systems & sites
Rapid Roadmap

All of these items are:

- being conducted in a public community process, with involvement & investment from 2+ Organizations
- being shared with /omrs/5 facilitators, and are receiving dedicated support from OpenMRS Inc
- likely to provide wide community value (i.e. fit under the definition of "Shared Assets" for community)

<table>
<thead>
<tr>
<th>CARE: Pt Care &amp; User Experience (via the 3.x Frontend re-do)</th>
<th>Theming 3.x!</th>
<th>Ampath 3.x Live Test (Kenya): End to End Testing with Outpatient HIV Clinicians (Q 4)</th>
<th>Generic Encounter Widget</th>
<th>Full Design System Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status: DONE</td>
<td>PIH AMPATH</td>
<td>Status: DONE</td>
<td>PILOT</td>
<td>Status: NOT STARTED</td>
</tr>
<tr>
<td>(Some input from UCSF)</td>
<td></td>
<td>Status: DONE</td>
<td>AMPATH</td>
<td></td>
</tr>
<tr>
<td>Offline Mode for Mobile/CHWs</td>
<td>Registration, Forms ready for field use offline</td>
<td>Status: IN DEV</td>
<td>Offline Mode for Mobile/CHWs</td>
<td>Status: IN DESIGN</td>
</tr>
<tr>
<td>Status: DONE</td>
<td>PIH OHRI/UCSF</td>
<td>MEKOM ICRC AMPATH</td>
<td>MEKOM ICRC MEKOM ICRC MEKOM ICRC</td>
<td>MEKOM ICRC</td>
</tr>
<tr>
<td>Status: DONE</td>
<td>MEKOM ICRC AMPATH</td>
<td>Status: IN DEV</td>
<td>MEKOM ICRC MEKOM ICRC MEKOM ICRC</td>
<td>MEKOM ICRC</td>
</tr>
<tr>
<td>Status: DONE</td>
<td>PIH</td>
<td>Status: IN DEV</td>
<td>PIH BROWN</td>
<td>PIH BROWN</td>
</tr>
<tr>
<td>Status: DONE</td>
<td>PIH BROWN</td>
<td>Status: IN DEV</td>
<td>PIH BROWN</td>
<td>PIH BROWN</td>
</tr>
</tbody>
</table>

**Recent Work Completed**

**What We're Working on Today (Active Design or Development)**

**Next Priorities**

**Full Design System Project**

Expand the design assets & components currently in our Zeplin Styleguide into a more easily accessible, robust set of guidance that can be directly followed by designers and developers working on 3.x-related features.

**Embedding Allergies/Conditions etc in Form Workflows**

Use case & design input from: TBC (new)

**Appointments Part 1: Scheduling Clerk Workflows**

Goal: Clerk can book and manage pt appointments with 3.x UX. Smaller scope way to intro 3.x without impacting clinician workflows yet. Plan: Work w/ Bahmni Aptms; aim to release end of Feb.

**Appointments Part 2: Clinician/Patient Chart Views**

Will also need endpoint convention in OMRS to connect in-form Appointment Date Checker (e.g. "on this day, how many appointments already booked?")
<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adopted Carbon Design</strong></td>
<td>Updated 3.x Frontend to use 3rd party design system. Result: Faster design &amp; development outputs.</td>
</tr>
<tr>
<td><strong>Share Frontend Widgets with Plug-and-Play Architecture</strong></td>
<td>Microfrontend framework completed; enables implementers to re-use others’ frontend features.</td>
</tr>
<tr>
<td><strong>3.x Guide for Developers</strong></td>
<td>Step by step guide to the new Design System &amp; Microfrontend architecture. Will help Devs implement 3.x for their org, or contribute to Squad.</td>
</tr>
<tr>
<td><strong>Basic HTML Form Entry (HFE) Form Support in 3.x</strong></td>
<td>Workflow to allow users to open HFE forms within a 3.x workflow. (Some input from PIH)</td>
</tr>
<tr>
<td><strong>Medication Dispensing</strong></td>
<td>2.x &amp; 3.x UI to enable Pharmacists to mark drugs and fully or partially dispensed.</td>
</tr>
<tr>
<td><strong>Configurable Lab Results table view</strong></td>
<td>Configurable extension to show labs of interest in a table (timeline) view. (e.g. “Just HIV-Related Labs”)</td>
</tr>
<tr>
<td><strong>Clinical Views</strong></td>
<td>Ability to add specialized program- or condition-specific views. Ideally, able to update config easily to add more - e.g. represent clinical view w/ JSON structure.</td>
</tr>
<tr>
<td><strong>Interactive Forms: Embedding Orders, Conditions...</strong></td>
<td>e.g. Starting an Order within a Form Workflow. Forms/notes become the centring piece for teams - we need to figure out how to represent not just data collection, but also embed widgets into the process (so that user doesn't have to click around the EMR to find the information they need while also trying to do a form).</td>
</tr>
<tr>
<td><strong>High Risk Patient Package</strong></td>
<td>Package for collaborative care for higher-risk HIV patients.</td>
</tr>
<tr>
<td><strong>Patient Lists: Automated (Cohort Builder)</strong></td>
<td>(1) Query for patients who meet a certain criteria, and (2) automated adding/removing of patients from this list (so it’s automatically maintained). E.g. “show me all Patients who missed med pick up...” E.g. “show me all Patients who missed their appointment...” + Actions on that list (e.g. change patient status)</td>
</tr>
<tr>
<td><strong>Use Case Gathering: Offline Mode for Sites</strong></td>
<td>Ability to print things from the EMR, e.g. HIV Clinical Summary</td>
</tr>
<tr>
<td><strong>Rules Engine</strong></td>
<td>(e.g. for Workflow State management; Clinical Decision Support)</td>
</tr>
<tr>
<td><strong>Print</strong></td>
<td>Ability to print things from the EMR, e.g. HIV Clinical Summary</td>
</tr>
</tbody>
</table>
### NCD Use Cases & Design Research
User Research, Designs, & Testing to validate and prepare EMR for NCD care context. E.g. NCD-specific widgets and sections of Patient Chart, NCD Peer Support.

**Status:** IN DESIGN

**(in put from PIH)**

### Lab Orders
**Status:** IN DESIGN

**Lead:** OHRI/UCSF

Use case & design input from

- AMPATH
- PIH
- MEKOM

### 3.x Performance Enhancements
**Status:** IN DEV

- MEKOM
- ICRC

### Team Communication
*E.g. Notifications between team members (within UX of System wide / Global notifications; for 1 user but not about 1 patient)*

**Status:** NOT STARTED

### Bed Management

- MEKOM
- ICRC

### Referrals
3.x UI to send and receive referrals.

*Discussion topic coming for all orgs on Feb 14 3.x design call.*

**Status:** IN DESIGN

### Autosave a Form Draft

**Interested:**

**Status:** NOT STARTED

### Edit Existing Forms

- AMPATH
- MEKOM

**Status:** IN DEV
Group Sessions / Group Visit Management

3.x feature for Group Sessions, starting with Mental Health group sessions. Aka Bulk Data Entry, Line List style, Tabular data entry view.

MEKOM
ICRC

Status: IN DESIGN
Target: ~Q3 '22

CONFIGURATION:
Fast Deployment

Iniz support for Reports

Using OCL/Dictionary Manager to manage all PIH concepts

PIH
REGENSTREF

Status: FINAL UAT

EMR Packages: Tech Definition & Schema

A way to add content (forms, concepts, custom widgets etc) to easily add new program areas to your EMR (e.g. Maternity Package)

Input from:
REGENSTREF
MEKOM
PIH
BROWN
OHRC/UCSF
ICRC
AMPATH

Status: IN DESIGN

Interested: PIH OPEN
Iniz support for OCL & Dictionary Manager work

Copy & Customize a CIEL Concept
Able to re-use a CIEL (or other curated) concept instead of re-creating it manually: copy it and make the non-breaking changes you needed (e.g. change answers, add translations, etc).

OCL Module: Multi-language support
Updating translations for concept updates or new subscriptions that have many languages.

Dictionary Manager webapp (aka OCL for OpenMRS)
MVP live for production use. See: Intro video; and demo video.

Lighter Deployment
Simpler deployment packaging (3.x RefApp will use a much lighter-weight set of modules)

OCL Module Improvements
- Bug fixes related to error messages

Designs for Implementer Tool: EMR Setup UI for Non-Tech folks
Designs to enable: Non-tech users can set up a 3.x EMR in a friendly, no-code UI, similar to designing a website.

3.x OpenMRS Forms: Form Management for Non-Tech folks
A new Form Builder & Form Engine for OpenMRS, using open source code used by OpenMRS implementer for 5+ years. Allow non-coders to set up clinical forms.

OCL Module: Diff Check workflow
"Here’s what will change" UX/UI when subscribing.

OCL Module: Automated tests for different data types

<table>
<thead>
<tr>
<th>Task</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication:</strong></td>
<td><strong>Data Exchange</strong></td>
</tr>
<tr>
<td><strong>FHIR Gaps Review</strong></td>
<td>Using 3.x RefApp, check for areas where REST API is being used where FHIR either could be used or needs support (Done, Doc Here)</td>
</tr>
<tr>
<td><strong>FHIR Module Upgrade</strong></td>
<td>Added support for Immunizations. Note: The FHIR Module already enables the export of OpenMRS data into FHIR format, to help integrate with other systems use FHIR.</td>
</tr>
<tr>
<td><strong>DHIS2 Connector Module</strong></td>
<td>Posts aggregate data from OpenMRS to DHIS2, and gives implementers a User Interface for an easier-to-set-up OMRS to DHIS2 pipeline, that doesn’t need manual code fixes every time there’s a change to reporting indicators. Fixed so this can work in production systems, added automatic data sending, and added support for custom period types.</td>
</tr>
<tr>
<td><strong>Identity &amp; Facility Management</strong></td>
<td>Get iSantePlus Client Registry &amp; Facility Registry workflows set up with FHIR in iSantePlus working in OMRS-core (using FHIR-based workflows)</td>
</tr>
<tr>
<td><strong>Lab Exchange</strong></td>
<td>Get iSantePlus lab exchange module to work in OMRS-core (connects to id &amp; facility mgmt to i.d. right pt and right facility) (using FHIR-based workflows)</td>
</tr>
<tr>
<td><strong>DB Sync</strong></td>
<td></td>
</tr>
<tr>
<td><strong>FHIR Implementation Guide (IG) - Supporting OHIE Facility Registry IG</strong></td>
<td>Goal: Finish &amp; genericize the ITECH FHIR IGs built for Labs, Lab Workflows, and Facility Registries</td>
</tr>
<tr>
<td><strong>FHIR Support for Terminology Services</strong></td>
<td>Currently dependent on REST API for all things concept or terminology related</td>
</tr>
<tr>
<td><strong>Support for OpenMRS Attributes</strong></td>
<td>Support things we don’t currently support in OMRS data model - e.g. pt phone numbers (current support is fragile)</td>
</tr>
<tr>
<td><strong>Odoo integration for Physical Rehabilitation</strong></td>
<td>e.g. Creation of prosthesis and financial / patient billing</td>
</tr>
<tr>
<td><strong>Odoo for Pharmacy</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Odoo integration for Billing</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Odoo integration for Bed Management</strong></td>
<td></td>
</tr>
</tbody>
</table>
## Maintenance & Core Support Needed to Unlock the Above
(Make it possible for implementers to build their features)

### Platform 2.5 Release
- Support for Tomcat 7-9.
- Make Orders, Allergies, Diagnoses, and PatientState form recordable and encounter-able.
- Administration via REST.
- User settings: store larger strings in DB.
- Groundwork for future ReferralOrders support.

### Data Model to support Service Delivery Queues
Support for dynamic vs static lists of patients.

### REST API Test Coverage
- UW ITECH
- FELLOWS

### Thorough Test Coverage: Live OpenMRS QA Dashboard
Automated Workflow Tests applied throughout products

### RefApp 2.12 Release
38 of 42 modules updated. Includes the SPA module that unlocks Microfrontend capability.

### Embracing Greater Modularization of the Platform
Breaking core into modules, & trying to improve upgrade process

### Support Referral Orders
- REGENSTRIEF
- VOLUNTEERS

### API to get obs for Concept Trees
E.g. for Lab Filters /hierarchies. Method to get set of obs based on a concept tree.

### Event Bus
Event bus so that when things happen, they trigger a new process(es) to start. (e.g. patient finishes visit, needs to be moved from one Service Delivery Queue to another) - see OHRI example outlined here

### Access Control List support
- MEKOM
- REGENSTRIEF
- VOLUNTEERS

### Order Templates
E.g. Common Rx's
- REGENSTRIEF

### Order Sets
Support for Sets of anything that's order-able (e.g. COVID assessment set can contain Meds, Labs, Referrals...)

### Additional Security Automated Test Coverage

Timeline estimates (e.g. Q1/Q2/H1/H2 etc) are subject to dynamically changing resources in our opensource community. They refer to 2021, and the calendar year timeline, with Q1 ending when April begins.
### Key Projects

**HEALTHY** = Good support; progressing well. | **GAPS** = Unmet needs slowing progress. | **BIG GAPS** = Slow; +++ unmet needs.

Questions that must be clear before a project can be added here:

1. **Priority**: Does it directly address the top 3 Strategic Themes?
2. **Impact**: Does it have a meaningful impact on a Strategic Theme, for implementations or for end-users? How much?
3. **Resources**: Does prioritizing this project increase the contributions and resources flowing through the community?

---

#### 1. CARE. User Experience: Improve patient-centered care delivery and give care providers a great user experience

Modern UI that’s easy for devs at different levels to contribute to, driven by a professional design process that prioritizes Point of Care user experience.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Friendly, Modern UX in RefApp v3.0</strong></td>
<td>Create a better means for building out a shared UI. Modernizing the entire RefApp frontend, using Carbon Design System for UI consistency and faster dev value. Needs to become a Point of Care application, that’s modern, friendly, and works well on tablets.</td>
<td><strong>REALISTIC</strong></td>
<td><strong>HEALTHY</strong></td>
<td>AMPATH</td>
<td>AMPATH, PIH, Mekom</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rapid Design System</strong></td>
<td>MFE squad using Carbon Design System in all new/3.0 UI designs &amp; dev work.</td>
<td><strong>REALISTIC</strong></td>
<td><strong>HEALTHY</strong></td>
<td>AMPATH</td>
<td>AMPATH, PIH, Mekom</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Patient Chart</strong></td>
<td>End-to-end support for HIV Outpatient Workflow; pilot plan April 2021</td>
<td><strong>REALISTIC</strong></td>
<td><strong>HEALTHY</strong></td>
<td>AMPATH</td>
<td>AMPATH, PIH, Mekom</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medication Order Entry</strong></td>
<td></td>
<td><strong>REALISTIC</strong></td>
<td><strong>HEALTHY</strong></td>
<td>AMPATH</td>
<td>AMPATH, PIH, Mekom</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lab Values Display</strong></td>
<td></td>
<td><strong>REALISTIC</strong></td>
<td><strong>HEALTHY</strong></td>
<td>AMPATH</td>
<td>AMPATH, PIH</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In-Chart Search</strong></td>
<td></td>
<td><strong>REALISTIC</strong></td>
<td><strong>GAPS</strong></td>
<td></td>
<td>Designs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Offline Support</strong></td>
<td></td>
<td><strong>REALISTIC</strong></td>
<td><strong>DESIGNS STARTING</strong></td>
<td>AMPATH</td>
<td>Mekom</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Smart Patient Lists</strong></td>
<td></td>
<td><strong>REALISTIC</strong></td>
<td><strong>DESIGNS STARTING</strong></td>
<td>AMPATH</td>
<td>AMPATH, Mekom</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clinicall Helpful</strong></td>
<td>Present healthcare providers with helpful information at the right time to help make better decisions - and the ability to do program process improvement as a result.</td>
<td><strong>REALISTIC</strong></td>
<td><strong>NOT STARTED</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Real-time Clinical Decision Support calculations</strong></td>
<td>Will likely embed this work in Analytics Engine Squad</td>
<td><strong>REALISTIC</strong></td>
<td><strong>NOT STARTED</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

#### 2. CONFIGURATION. Implementer Experience: Easier to build & deploy a distribution

Make life easier for implementers, and more efficient for developers.

<table>
<thead>
<tr>
<th>Project</th>
<th>About</th>
<th>Investable Solutions</th>
<th>Status</th>
<th>Current Supporters</th>
<th>Current Needs/Gaps</th>
<th>Learn More</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Plug & Play Architecture
Extensible, configurable and independently deployable frontend features. Get your frontend live and updated fast. Frontend architecture designed for extensible and configurable apps and widgets.

## Microfrontend Architecture
HEALTHY
AMPATH, PIH, Mekom

## UI Tools for Easy Configuration
HEALTHY
AMPATH, PIH, Mekom

## Platform & RefApp Maintenance
Update core platform (the universally shared backend of OpenMRS) and the Reference Application (recommended bundle that creates a frontend) with necessary tech stack updates, bug fixes, and urgent feature requests.

### Platform 2.4 Release: Stack Upgrade
RELEASEED
Volunteers, PIH
Testing
download Downl
2.4.0

### RefApp 2.11.0 Release with module updates and urgent bug fixes
RELEASED
Volunteers
Automated tests to reduce manual QA & uncertainty
download Downl
2.11.0

## Easier Deployment
Modernized containerization, Plug & play. Build and deploy easily, both cloud based and on prem deployments.

## Dockerized Deployment
HEALTHY
Mekom, PIH

## Communication (of Data)
Data Exchange: Easy, consistent, simplified Data Sharing across other systems & sites
Enterprise-ready integration with key health information systems, including different sites.

### HL7 FHIR
Exchanging healthcare data in a widely-used, standards-based format, easing integration with external systems and products.

### FHIR Module
HEALTHY
Upgraded Module released. Next version underway.
UW Digi, Brown University, AM PATH, Google Cloud
Developers
configure GitHub
download Demo
people Join /Contact
<table>
<thead>
<tr>
<th>Tools for transforming OpenMRS data into a FHIR based warehouse</th>
<th>HEALTHY</th>
<th>Google Cloud, AMPATH, UW DIGI</th>
<th>configure GitHub info More people Join /Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLIR: Proof of concept using FHIR to extract Patient-Level Indicator data from OpenMRS</td>
<td>HEALTHY</td>
<td>Digital Square (via Notice D award), OMRS Fellows x2</td>
<td>configure GitHub info More people Join /Contact</td>
</tr>
<tr>
<td>OpenMRS Dictionary Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharing concepts first (before forms &amp; reports possible) - semantic interoperability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WebApp for terminologists to manage and share concepts across sites and organizations</td>
<td>GAPS</td>
<td>MSF, OCL, PIH, Volunteers, OMRS Fellow x1</td>
<td>configure GitHub info More videos</td>
</tr>
<tr>
<td>Critical External Integrations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easier data sharing from OMRS to DHIS2</td>
<td>GAPS</td>
<td>Volunteers, Google Summer of Code</td>
<td>configure GitHub videos</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early conformance testing for HIE data exchange via InstantOpenHIE</td>
<td>GAPS</td>
<td>UW</td>
<td>configure GitHub videos</td>
</tr>
</tbody>
</table>