



# Donut Truck Health Integration Strategy Guide

Powered by Redox

# About Redox

## EHR Integration for Healthcare Organizations and Software Developers

Redox provides a scalable integration platform that simplifies the way healthcare organizations exchange data and adopt innovative technology solutions by creating a mid-tier abstraction layer above source systems like EHRs that provides a standardized way to send and receive data. Healthcare organizations and technology vendors connect to Redox once and authorize the data they send and receive across the most extensive interoperable network in healthcare.

### The Redox approach enables

- Faster digital health deployment and connectivity with external applications
- Infrastructure consolidation and scaling including legacy interfaces and systems
- Connectivity with affiliated partners and HIEs
- Efficiency gains and reduced personnel requirements with a full-service integration partner

# Technical Details & Requirements



## Data Point Requirements

<p><b>PatientSearch</b></p> <p>Patient MRN            Patient Name, DOB, SSN            Additional demographics            Insurance (if supported through DC)            Three unique Patient Identifiers</p> <ul style="list-style-type: none"> <li>- Patient Name</li> <li>- Patient Date of Birth</li> <li>- Patient Address</li> <li>- Patient SSN</li> <li>- Phone Number</li> </ul>	<p><b>ClinicalSummary</b></p> <p>Patient MRN, Name            Allergies            Medications            Problems            Recent Encounters            Recent Labs            Recent Procedures            Vaccinations</p>
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<p><b>Flowsheet</b></p> <p>Patient MRN, Name</p> <p>Visit ID</p> <p>Observation Code</p> <p>Observation Value</p> <p>Observation Date/Time</p>	<p><b>SSO</b></p> <p>Provider ID</p> <p>Patient MRN, Name</p> <p>Visit ID</p> <p>User Credentials</p>
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## Project Requirements

- VPN connection between Redox and the EHR
- Active patient search capabilities through one of the following:
  - QRY HL7v2 interface
  - Patient Demographic Query (PDQ)
  - Cross-Community Patient Discovery (XCPD) HL7v3 interface
  - Corresponding web service from EHR
- Active outbound CDA document exchange through one of the following supported exchange methods:
  - MLLP push
  - XDR push
  - XDS.b or XCA query
  - Other proprietary API
  - SFTP Exchange
- Active inbound ORU HL7v2 feed or corresponding web service
- Active SAML token exchange or alternative method (OAuth, SMART on FHIR) for single sign-on

## Integration Workflow

### Step A: Enrollment of Patients through Query

As it encounters patients in the field during its core mission of tasty small fried rings of sweetened dough, Donut Truck Health can take key demographic data points for a given patient and launch a [PatientSearch](#) query. Redox will translate this to the necessary corresponding standard, query the EHR, and synchronously obtain the patient's Medical Record Number (MRN) and full demographics. This query requires a PDQ HL7v3 interface, QRY HL7v2 interface, or a similar web service at the connecting EHR.

If none of the required interfaces are available at the connecting site, the application should be prepared to identify and enroll patients through an alternative method. Two such alternative methods that should be considered:

- The application can receive a [PatientAdmin](#) feed and store the data locally

- The application can require users to enter the patient's MRN so that Data Chateau-supported, identifier-based [PatientSearch](#) queries can be used.

### **Step B: Clinical Data Query**

Any time after a patient is enrolled in Donut Truck Health, Donut Truck Health will be able to initiate ClinicalSummary queries to synchronously obtain the patient's clinical summary, which will include among other things their problem list, medications list, allergies, and social history. This will provide a valuable history of the patient for the Donut Truck mobile field station.

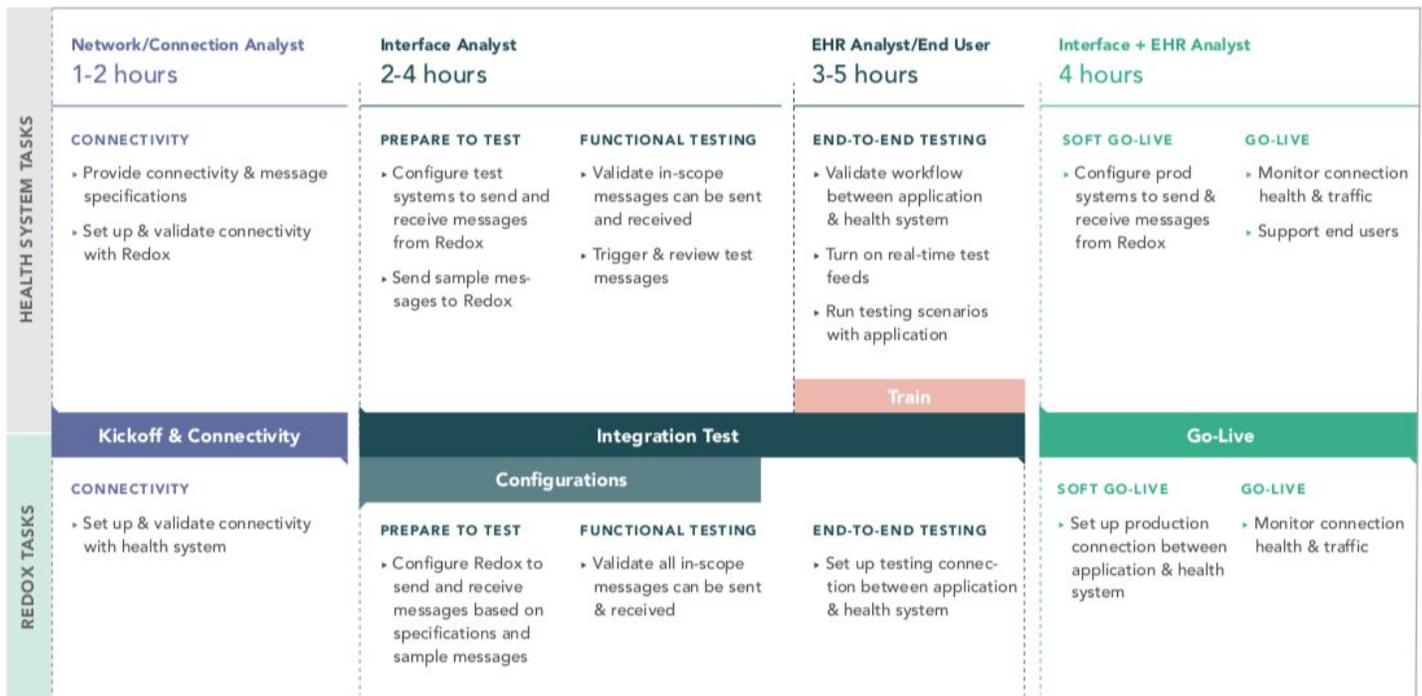
### **Step C: Writing Back Social Determinants of Health**

Discrete SDOH information captured about the patient in Donut Truck Health will be sent to Redox via the [Flowsheet](#) Data Model. After Redox translation, it will be filed back to the EHR in flowsheet-like format via your inbound ORU HL7 feed or equivalent API/FHIR. Examples include caloric intake.

### **Step D: Provider and Patient Single Sign-On**

Provider users within the EHR and patient users from the patient portal will initially click a button available in normal activities on the patient chart. This will generate a SAML token including key data about the patient (depending on EHR capabilities) which Redox will translate to the [SSO data model](#) and send to Donut Truck Health. Donut Truck Health will process the metadata in this SSO data model and return a URL redirecting the user to the appropriate landing page.

# Project Timeline & Resource Needs



## Healthcare Organization Staffing Needs

**Connectivity Analyst**—Ability to provision access to the EHR via VPN establishment, certificate exchange, and/or granting approval for the EHR vendor to allow access

**Integration Analyst**—Knows how to send and receive the required data needed for the integration project; this may be someone from the EHR vendor

**EHR Analyst**—Knows how to do the workflows that trigger message exchange and can validate that information sent back in is filing correctly; this may be the same person as the Integration Analyst

**Project Lead**—Person responsible for ensuring the project is successful; this may be the same person as the Integration Analyst or EHR Analyst

**Subject Matter Expert(s)**—Represents the end user by providing deep knowledge of current workflows, needs, and expectations of the application; this may be the same person as the Integration Analyst, EHR Analyst, or Project Lead

# Allocating IT Staff Responsibilities and Estimating Project Timelines

## Time Needed

Approximately 10-15 hours are needed from the IT team at the health system to complete the tasks required to integrate an EHR with Redox.

## What Our Time Estimates Include

Our goal is to complete the needed set up for the in-scope data to flow between an application and health system. The times presented here represent what's needed for all parties to feel confident that the integration is working as expected.

## How Redox Works

Redox has connected with over 350 different health systems and over 40 different EHRs. Our product is designed to work with existing interfaces, endpoints, and API calls by conforming to what a health system has already done for previous integration needs.

## What We Can't Estimate

There are a variety of nuances that differ across health systems based on their preferences, policies, and how they work with their EHR vendor. Because of this, it's difficult for us to estimate the time needed to set up a net new integration, rather than leveraging an existing one, as well as other standard work they require such as forms, design work, and approval processes.

Some integrations may require adjustments in the EHR or in end-user workflows in order for the expected data to be sent. The process for getting these decisions made, any required EHR build that's needed and completing approval process requirements vary widely across health systems and are not included in the estimates above. Allocating IT staff responsibilities and estimating project timelines correctly; this may be the same person as the Integration Analyst.

# Working with Redox

At its core, Redox is a network of reusable nodes designed to help healthcare organizations adopt digital health solutions faster. Instead of building hundreds of custom connections, we'll help you connect to Redox once, and transform that single connection into a suite of APIs to power applications across the care continuum.

## What does Redox do?

Redox is a full-service integration platform for technology-enabled healthcare organizations. Our engine supports secure, bidirectional data exchange using any standard or protocol, from HL7 to FHIR to vendor-specific APIs—and everything in between.

## During Your Integration Project

Redox works with third-party vendors to design, build, and test integrations. Interfaces from the EHR are reused for subsequent integrations, dramatically reducing the work effort required by IT.

## Why Redox Would Rather Work with Your Specs

Redox is designed to conform to how you prefer to exchange messages. We do not have strict formatting requirements for our product to be able to accept messages—we can easily adjust to what you already have built to reduce your work effort. We can accept messages using the standard HL7 specs and EHR vendor-specific specs. We also work with any existing endpoints and API calls that exist for your vendor. Our work

## Who uses Redox?

Over 500 digital health solutions are already integrated with the Redox platform, and 350 health systems trust Redox to build and manage interfaces across more than 40 different EHR vendors.

## After Your Integration Project

Redox partners with IT teams to maintain a single connection to our platform. That means one VPN to manage, regardless of how many applications you connect.

effort is based on anything unique that your organization does or that is needed for your project. We've integrated with over 350 different health systems and usually find that the updates we need to make to this third tier are nominal and can be completed within a few days.