



Phrazer/**Kitsune** 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

About Phrazer/Kitsune/Kitsune

The Only Purpose Built Medical Journey Solution

GeaCom, Inc. is the inventor and sole provider of the world's only qualified and proven Medical Journey Solution. CITE Medical Journey innovations ensure patient rights, quality and continuity across demographics, patient flow efficiencies and care coordination, operational excellence, staff augmentation, safety and ultimately better community health. GeaCom's mission is to bring never before possible patient equity, new innovation pathways for improved process and harmonization of staff/patient/system performance via breakthrough CITE Solutions. Phrazer/Kitsune/Kitsune is the only FDA grade, secure, infectious disease qualified platform keeping patients, staff and records safe.

Regulatory Coverage

The platform meets Civil Rights and ADA requirements and offers full population coverage. Phrazer/Kitsune/Kitsune meets infectious disease regulation without the use of disposal parts. HIPAA and patient privacy requirements are exceeded across modalities. A significant reduction in risk of civil suits, insurance coverages and oversight policy is the result.

Language Services

Phrazer/Kitsune/Kitsune covers over 98% of patient language needs within CITE Engagements. Where additional language services are needed the platform offers live translation and access to specialty per/minute services via LanguageLine, CyraCom and others. A significant budget reduction is achieved with no-delay to service and continuity and quality of care across demographics.

Charting Services

All areas in a facility become active care zones where patients are empowered to progress their care. Patients perform extensive direct-to-chart services on the platform eliminating the need for scribes, "Computers on Wheels" or misuse of expensive medical personnel and data entry services.

Quality & Continuity

Achieve unparalleled accuracy, prevent unneeded procedures/tests and reduce medical errors caused by communication barriers. Phrazer/Kitsune/Kitsune establishes quality and continuity of care across demographics resulting in an improved patient and staff experience.

Performance Excellence & Efficiency

HCAHPS scores are proven to rise significantly on this platform and staff engagements are more effective. "Door to doctor" time and other performance metrics are assured. A corresponding reduction in staff demand is achieved. The results related to increased reimbursements, lower readmission rates, increased patient compliance with the care plan as well as brand enhancements are powerful.

Cost Reduction & Revenue Pathways

Phrazer/Kitsune/Kitsune reduces the need and cost for point solutions and their overhead. Process improvements, patient flow harmonization, an increased revenue yield, and new reimbursement pathways are established and increase the annual revenue. Downcoding issues are eliminated.

Adaptability & Innovation

CITE Solutions are fully adaptable to workflow, processes and departmental needs. As the only purpose built platform, Phrazer/Kitsune/Kitsune provides streamlined pathways to innovation at no additional cost. New initiatives and previously challenging processes can be operationalized easily.

Service Audit and Performance

Phrazer/Kitsune/Kitsune establishes a full audit trail for patient engagements, provides process adherence guidance for staff and tracks corresponding staff performance measure. The System's Multi-path Realtime Messaging (MRM) feature offers novel resource coordination benefits with rapid resource adjustments and just-in-time adaptations.

Technical Details & Requirements: Phase 1



Data Point Requirements

PatientAdmin	ClinicalSummary
<ul style="list-style-type: none"> - Patient MRN - Patient Name, DOB, Gender, SSN - Patient Address & Phone Number - Patient PCP - Insurance information - Guarantor information - Patient Contact information - Visit IDs - Visit Date/Time & Location - Visit Reason & Diagnoses - Visit Provider - Discharge DateTime - Discharge Disposition 	<ul style="list-style-type: none"> - Patient MRN, Name - Allergies - Medications - Problems - Recent Encounters - Recent Labs - Recent Procedures - Vaccinations

Project Requirements

- VPN connection between Redox and the EHR
- Active outbound ADT HL7v2 feed or corresponding web service
- Active outbound CDA document exchange through one of the following supported exchange methods:
 - MLLP push
 - XDR push
 - XDS.b or XCA query
 - FHIR
 - EHR proprietary API
 - SFTP Exchange

Integration Workflow

Step A: Enrollment of Patients through ED Arrival & Check-In

In order to enroll patients in Phrazer, when there are new patients and admission events in the EHR, messages will be triggered, most likely via an ADT HL7v2 interface. This will apply for patients that are arriving to the ED (or for any unscheduled encounter) as well as for patients that are checking in for a scheduled appointment. Phrazer will receive this information via Redox's [PatientAdmin](#) data model, filtering out the patients that should not be enrolled/listed in their database. When patients are merged in the EHR, messages will be triggered, most likely via an ADT HL7v2 interface. Phrazer will receive this information via Redox's [PatientMerge](#) event and combine those records.

When appropriate, Phrazer can create patients by posting [NewPatient](#) messages to Redox. These messages will be mapped to an inbound ADT HL7v2 interface at the connecting health system to create the appropriate patient record.

Phrazer will also receive messages upon patient discharge through the same ADT HL7v2 interface.

Step B: Querying for Patient ClinicalSummary

Any time after a patient is enrolled in Phrazer, Phrazer 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 history. See the [ClinicalSummary response](#) for a list of all the supported data points that could be returned for patients from this query.

Upon patient discharge, a C-CDA will be sent outbound from the EHR to Redox. Redox will process that message in realtime and map it to the [ClinicalSummary](#) data model, which will be pushed to Phrazer's destination endpoint. This will contain the updated problem list, medications list and allergies.

Technical Details & Requirements: Phase 2



Data Point Requirements

Flowsheet	Results
<ul style="list-style-type: none"> - Patient MRN, Name - Visit ID - Observation Code - Observation Value - Observation Date/Time 	<ul style="list-style-type: none"> - Patient MRN - Order ID - Order Code - Ordering Provider - Result Components and Values - Result DateTime - Result Status - Base64-encoded PDF

Project Requirements

- VPN connection between Redox and the EHR
- Active outbound ORU HL7v2 feed or corresponding web service
- Active inbound ORU HL7v2 feed or corresponding web service

Integration Workflow

Step D: Triage Flowsheet Data & Other Assessments

As patients progress through triage, triage data will be sent through to Phrazer most likely via an outbound ORU HL7 interface. Vitals and other assessments completed in the EHR will be sent in this same way. When assessment data is sent from Phrazer to the EHR, the EHR will also receive messages via an inbound ORU HL7 interface. This data will be sent using the [Flowsheet](#) data model.

Step C: Reading and Writing Back Results Data

When assessment data is sent from Phrazer to the EHR, the EHR will receive messages, most likely via ORU HL7 interface. In order to populate the EHR with device data, these will be sent from Phrazer using the [Results](#) data model, which most likely will translate to an inbound ORU HL7 interface. After the patient has been counseled on these results, Phrazer will send back in a base64 encoded PDF with that counseling information.

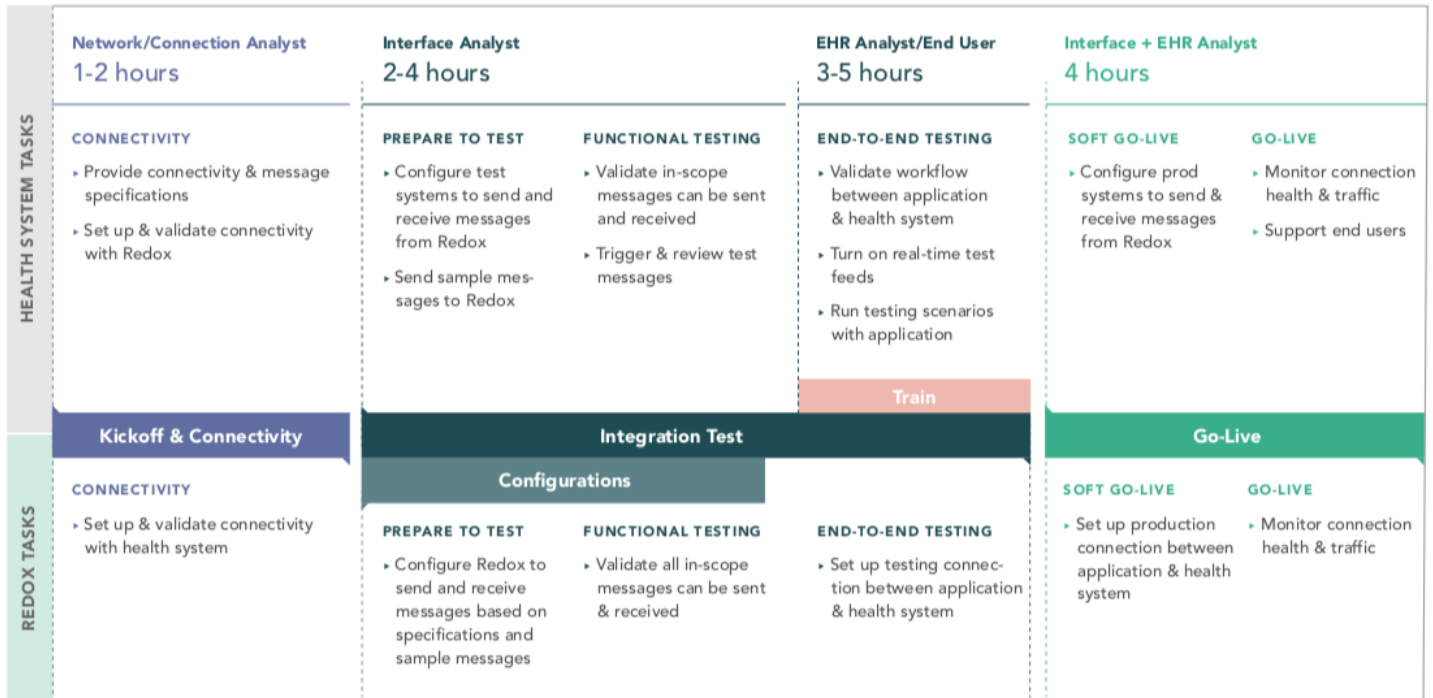
When labs are resulted in the EHR, or the results are updated, messages will be triggered, most likely via an ORU HL7v2 interface. Phrazer will receive this information via Redox's [Results](#) data model.

Additionally, for patients that aren't adhering to their Phrazer-identified plan, this data model and interface will be used to push in abnormal result message to the EHR to alert the provider to the lack of adherence.

Similarly, if a patient meets the criteria for an alert, the following is possible:

- Suggest Decision Support in Phrazer
- Suggest Pathway for alert
- Document pathway that was selected
- Update the result with a base encoded PDF that describes the actions that were performed

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.

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.

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.

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.

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 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.