MEMORANDUM OF UNDERSTANDING  
EHR-HIE INTERFACE & INTEROPERABILITY

This Memorandum of Understanding (“**AGREEMENT**”),dated                                (the “**Effective Date**”), establishes the framework for a collaborative agreement for the EHR/HIE Interface and Interoperability Project (the “**PROJECT**”) between the entity listed below (“**ENTITY**”) and Cal eConnect (each a “**PARTY**” and collectively the “**PARTIES.**”)

|  |  |
| --- | --- |
| ENTITY Name |  |
| Type of Entity | 🗖 EHR Vendor 🗖 EHR Purchaser (Clinic / Provider)  🗖 Hospital 🗖 Integrated Delivery Network 🗖 IPA  🗖 HIO (Public or Private Health Information Exchange Organization)  🗖 Lab 🗖 Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Address |  |
| City, State, Zip |  |
| Point of Contact |  |
| E-mail and Phone |  |
| Alternate Contact |  |
| E-mail and Phone |  |

# PURPOSE

This AGREEMENT sets forth the expectations of the PARTIES to support a standards-based set of common implementation specifications (“**SPECIFICATIONS**”) enabling data exchange between instances of EHR software and a Health Information Exchange Organization (HIO) or another healthcare stakeholder (both referred to as HIO) involved in exchanging health information in the State of California.

# BACKGROUND

Cal eConnect serves as the state’s governance entity for Health Information Exchange. As such, Cal eConnect is responsible for meeting requirements set forth in the State’s grant agreement with the Federal Office of the National Coordinator for Health Information Technology (ONC). Cal eConnect is charged with establishing policies, services and innovations that make possible the appropriate, secure and efficient exchange of electronic health information for the purpose of improving health and health care safety, access and efficiency for all Californians.

Cal eConnect anticipates that other entities signing these AGREEMENTS are organizations that are directly or indirectly involved in patient care and expect to use these SPECIFICATIONS.

# THE OPPORTUNITY

The adoption of certified electronic health records (EHRs) and their capabilities to connect and interoperate with HIOs and other interoperable EHRs are or should be a concern to all stakeholders in the healthcare system. Historically each connection between an EHR and an HIO or other endpoint represents a significant expenditure of resources to develop custom interfaces, and thereby a lost opportunity cost to all stakeholders. Existing methods are too costly, take too much time and often deliver only a sliver of what is possible. Approaches such as Point-to-Point interfaces, the Direct Project, Integrating the Healthcare Enterprise (IHE), and others exist but have had limited adoption or are still in the standards development phase.

An opportunity exists to leverage current HL7 standards using interface and interoperability features already built into most EHR software to create a SPECIFICATION that the PARTIES can support. The goal is a win-win approach for all stakeholders based on a substantial adoption growth curve by providing valuable connection capabilities and reducing the overall connection cost through the SPECIFICATION. The result will be a more robust EHR product with pre-integrated data sharing capabilities for providers that in turn will promote adoption of truly interoperable EHRs.

The potential for technology to support a larger transformation and enable health information exchange is increasingly apparent and the federally designated Regional Extension Centers (REC) in California provide critical technical assistance to the broadest range of providers. The work of the HIO is difficult and the RECs help to promote health data liquidity to enable providers, patients, health care organizations, and other stakeholders to ensure that the right information is available for the right patient at the right time to ensure the highest quality health care is delivered in the most cost-effective manner. True transformation will depend on the conversion of a traditional, disparate, paper-based system into a statewide health information network based on the electronic exchange of data serving the needs of patients, providers, and healthcare decision makers. The goal is to work in collaboration and harness REC services that provide increased of EHR adoption, dissemination of health IT best practices and other health IT initiatives to strengthen HIE efforts.

While Cal eConnect proposes through this AGREEMENT a set of requirements that EHR and HIE vendors, stakeholders and HIOs can support today, the intent is to evolve and improve over time, ultimately leading to “plug-and-play” interoperability as envisioned by Cal eConnect the ONC and the EHR | HIE Interoperability Workgroup[[1]](#footnote-1). The PARTIES to this AGREEMENT agree to support this process.

# THE PROJECT

Participants in the PROJECT have agreed to develop strategies, requirements, technical specifications, and validation criteria based on the SPECIFICATION to connect ambulatory EHRs to HIOs and other endpoints. The parties agree to package and present their products and services for rapid deployment and with transparent pricing to the purchasers. The ultimate goal will be a fully operational bi-directional connection between an EHR and a HIO or another endpoint that can be rapidly deployed at an affordable cost.

# JOINT RESPONSIBILITIES OF THE PARTIES:

1. Promote the SPECIFICATION to healthcare stakeholders in California.
2. Participate in PROJECT meetings, including calls, wiki or web collaboration sites and occasional in-person meetings arranged by Cal eConnect.
3. Collaborate on an on-going basis regarding changes and enhancements to the SPECIFICATION as the industry finalizes new standards and improves existing standards.
4. Support and promote the EHR | HIE Interoperability Workgroup which was organized by NYeC and cooperatively lead by NYeC and Cal eConnect.
5. Support and promote the ONC supported Western Stares Consortium in their effort to develop policies and procedures for sharing data across state borders.
6. Support events such as “California Connects” by attending and participating in a connect-a-thon like atmosphere to show stakeholders what is possible today using the SPECIFICATION as well as test new and emerging standards and capabilities.

# ENTITY ROLES AND RESPONSIBILITIES:

1. Determine the specific approach you wish to take in supporting the SPECIFICATION in Exhibit A of this AGREEMENT. Indicate your choices in the matrix in Exhibit B. Note that Exhibit B will form the basis for how Cal eConnect communicates your level of commitment to this AGREEMENT and how Cal eConnect represents your product or services to other stakeholders.
2. Actively promote the elements called out in this AGREEMENT to your clients, employees, members or constituents as appropriate.
3. EHR Vendor agrees to offer an Orderable Kit meeting the SPECIFICATIONS more fully defined in Exhibits A and B at prices they set to any healthcare stakeholder in California that is currently using a licensed EHR under maintenance from the EHR vendor or has entered into an agreement to purchase an EHR from that EHR vendor.
4. EHR Vendors that are participating in REC Group Purchasing programs agree to offer the Operability Kit to REC member at pricing that is better than or equal to pricing currently included in the GPO agreements.

# Cal eConnect RESPONSIBILITIES:

1. Collaborate and coordinate with Regional Extension Centers in California to develop and implement a marketing and outreach campaign including branding, website and collateral intended to promote the benefits of purchasing a EHR that has signed an EHR-HIE INTERFACE & INTEROPERABILITY AGREEMENT.
2. In collaboration with the RECs in California, create and publish a buyer’s guide intended to educate and inform stakeholders of the HIE and interoperability capabilities that each of the EHR vendors and HIOs offer and their relative cost.
3. Collaborate and coordinate with Regional Extension Centers in California.
4. Convene meetings as described above.

# MODIFICATIONS

This AGREEMENT may be modified upon written agreement of the PARTIES. No oral statement by any person shall be interpreted as modifying or otherwise affecting the terms of this AGREEMENT. Cal eConnect reserves the right, for any reason, in its sole discretion, to terminate, change, suspend or discontinue any aspect of the PROJECT. Cal eConnect may restrict, suspend or terminate access to or use of the PROJECT**,** or remove any Content, at any time, for any reason or for no reason at all, without notice and without penalty.

# TERM AND TERMINATION

The term of this AGREEMENT is 1 Year from the date it is executed and shall renew automatically unless a PARTY notifies the other PARTY 60 days prior to the end of the current term Either PARTY may terminate this AGREEMENT at any time, with or without cause, and without incurring any liability or obligation to any other parties by giving the other PARTY at least 60 days prior written notice of termination.

# THE EXHIBITS

Exhibit A – EHR-HIE Interface

Exhibit B – Matrix of commitment to specific features, deliverable and costs

Exhibit C – Initial 2012 – 2013 Timeline

# MARKETING CONTENT

To the extent ENTITY provides Cal eConnect with any marketing content (e.g. text, graphics, logos, artwork, data) in connection with the use of the PROJECT (collectively, “**CONTENT**"), ENTITY hereby grants Cal eConnect and its affiliates a non-exclusive, worldwide, royalty-free license to use the CONTENT for purposes of performing under this PROJECT. ENTITY is responsible for obtaining all rights, permissions, licenses and consents required to furnish CONTENT to Cal eConnect for use as described herein.

# PROJECT AGGREGATED DATA (NOT PHI)

The ENTITY grants Cal eConnect a non-exclusive, perpetual, irrevocable, fully-paid-up, royalty free license to use data derived from the PROJECT (the “**DATA**”) for Cal eConnect’s business purposes. ENTITY further grants Cal eConnect the right to (i) use Aggregated Data in any aggregate or statistical products or reports, (ii) transfer and/or disclose the Aggregated Data (iii) disclose Aggregated Data in a summary report that does not show, display or indicate ENTITY specific or ENTITY identifying information, (iv) provide Aggregated Data to a third party, for analytical purposes, and/or (v) use the Aggregated Data (without identifiable information) to compare with other organizations within the same industry or group. “Aggregated Data” does not include (directly or by inference) any information identifying ENTITY or any identifiable individual and will in no event be considered confidential information of ENTITY.

# DISCLAIMER

THE CAL ECONNECT PROJECT SERVICES ARE PROVIDED "AS-IS", "WHERE-IS" AND "AS-AVAILABLE," WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND. CAL ECONNECT HEREBY DISCLAIMS ON BEHALF OF ITSELF, ITS EMPLOYEES, DIRECTORS, AFFILIATES AND OTHER AGENTS (COLLECTIVELY, “CAL ECONNECT PARTIES”) ANY AND ALL WARRANTIES OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OR TITLE. NEITHER CAL ECONNECT NOR ANY OF THE CAL ECONNECT PARTIES REPRESENT OR WARRANT THAT THE CAL ECONNECT PROJECT SERVICES WILL BE UNINTERRUPTED OR ERROR-FREE, THAT DEFECTS, IF ANY, WILL BE CORRECTED, OR THAT THE CAL ECONNECT PROJECT SERVICES ARE FREE OF VIRUSES OR OTHER HARMFUL COMPONENTS; NOR DOES CAL ECONNECT OR ANY OF THE CAL ECONNECT PARTIES MAKE ANY REPRESENTATIONS OR WARRANTIES ABOUT THE ACCURACY, RELIABILITY, CURRENCY, QUALITY, PERFORMANCE OR SUITABILITY OF THE CAL ECONNECT PROJECT SERVICES. IN THE EVENT OF ANY PROBLEM WITH THE CAL ECONNECT PROJECT SERVICES, ENTITY’S SOLE AND EXCLUSIVE REMEDY UNDER THIS AGREEMENT IS LIMITED TO CEASING USE OF THE CAL ECONNECT PROJECT SERVICES.

# INDEMNIFICATION

ENTITY agrees to indemnify, defend and hold harmless Cal eConnect and each of the Cal eConnect PARTIES from and against any third party claim, suit, demand or action for damages arising from: (i) the use of the CONTENT; and (iv) any breach of this AGREEMENT by ENTITY.

# LIMITATION OF LIABILITY

IN NO EVENT SHALL CAL ECONNECT OR ANY CAL ECONNECT PARTIES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, EXEMPLARY, PUNITIVE, DIRECT, INDIRECT OR SPECIAL DAMAGES OF ANY NATURE ARISING FROM BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE OR ANY OTHER LEGAL THEORY, WHETHER IN TORT OR CONTRACT, EVEN IF SUCH PARTY HAS BEEN APPRISED OF THE LIKELIHOOD OF SUCH DAMAGES OCCURRING, INCLUDING WITHOUT LIMITATION, DAMAGES FROM INTERRUPTION OF BUSINESS, LOSS OF INCOME OR OPPORTUNITIES, LOSS OF USE OF THE CAL ECONNECT PROJECT SERVICES, LOSS OF DATA, COST OF RECREATING DATA OR COST OF CAPITAL. THIS SECTION STATES ENTITY’S SOLE REMEDY FOR HARM UNDER THIS AGREEMENT WHATSOEVER, IN CONTRACT OR TORT. NOTHING IN THIS SECTION SHALL LIMIT EITHER PARTY’S RIGHT TO SEEK INJUNCTIVE OR OTHER EQUITABLE RELIEF.

# RELATIONSHIP OF PARTIES

In making and performing this AGREEMENT, the PARTIES are and shall act at all times as independent contractors, and nothing contained herein shall be construed or implied to create an agency, association, partnership or joint venture between the parties. At no time shall either PARTY make commitments or incur any charges or expenses for or in the name of the other PARTY.

# GOVERNING LAW

This AGREEMENT shall be governed by and enforced under the laws of the State of California.

# EXECUTION

IN WITNESS WHEREOF, and intending to be legally bound, The PARTIES have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

|  |  |
| --- | --- |
| For Entity | For Cal eConnect |
| By:  Name:  Title: | By:   Christine Martin  Interim Chief Executive Officer |
| DATE: | DATE: |

Exhibit A

**EHR – HIE Interface Requirements and Specifications – The Orderable Kit**

**General Requirements**

EHR vendor to provide an interface for the EHR application instance operated for the physician or group offered as an orderable kit that is priced and can be quoted and sold that includes:

* Interface executables and documentation
* Delivered at or before the time of EHR software load if ordered with EHR implementation, or
* Delivered within 30 days after receipt of order if ordered separately
* Interface messaging functionality that supports the message type requirements below
* Triggers embedded in the EHR application that support the workflow functionality requirements below
* An exception queue capability that the provider can manage
* Level 2 interface support to HIO or interface contractor

**Implementation and Support**

Implementation will be provided by the HIO or interface contractor, and will include:

* Establishing secure connectivity between HIO and EHR interface
* Testing and mapping of individual interfaces
* Ongoing level 1 interface support

**Base Level Interface Specification**

**Information inbound to the EHR:**

* Structured Lab Results as HL7 2.3.1 or 2.5.1 messages using EHR vendor-specified and transport protocols
* Radiology Reports as HL7 Observation Result ORU messages using EHR vendor-specified transport protocols
* Other Reports as HL7 Observation Result ORU messages using EHR vendor-specified transport protocols
* Care Summary as HITSP C32 CCD documents using EHR vendor-specified transport protocols

**Information outbound to HIO:**

* Patient Demographics as HL7 Registration and demographics (ADT) messages using EHR vendor-specified transport protocols
* Immunization Administration as HL7 messages using EHR vendor-specified transport protocols
* Care Summary as HITSP C32 CCD documents to a local file system or EHR using vendor-specified transport protocols to an external document repository
* Chart Notes (i.e. progress notes, history and physical, consult letters, referrals) as HL7 Observation Result ORU messages using EHR vendor-specified transport protocols
* Orders (non-medication) as HL7 ORM order messages using EHR vendor-specified transport protocols

For Structured Lab Results, Immunization Administration, and Care Summary Exchange, the above requirements are consistent with the requirements for ONC-ATCB certification for CMS’ Stage 1 meaningful use incentive program.

**Transport**

The EHR will utilize transport protocols appropriate to the type and nature of data being transmitted and will be secured as required by HIPAA. The EHR vendor and HIO will mutually agree on the transport protocols and encryption processes at the time of implementation.

**Data Flow Diagram**

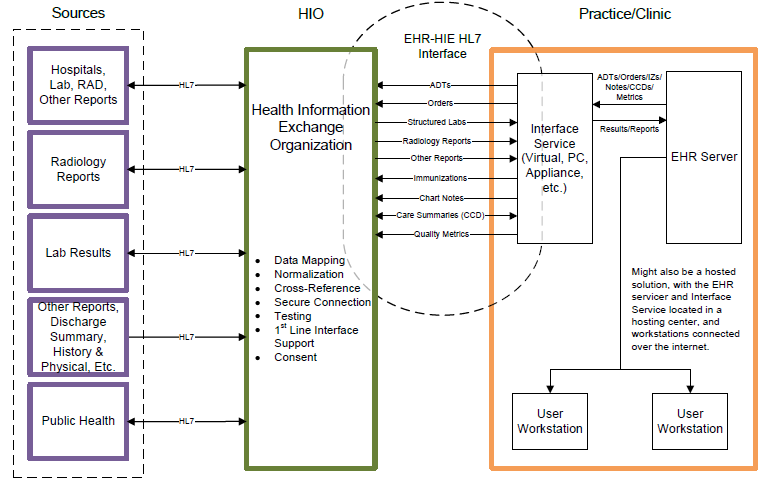


Exhibit C

**California Interface and Interoperability Timeline**



1. Information on the EHR | HIE Interoperability Workgroup is found at [www.interopwg.org](http://www.interopwg.org) [↑](#footnote-ref-1)