Request for Proposal (RFP) For

EXCHANGE SERVICES AND DATA STRATEGY SOLUTION ISSUED BY TECHNOLOGY BY DESIGN, INC.

APPLICATION INFORMATION	
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SUBMISSION DEADLINE	**June 4, 2024**

All correspondence and proposals should be submitted via email directly to the email address listed above and include 'Exchange Services Data Strategy RFP' in the subject line.

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I. STATEMENT OF PURPOSE

Technology By Design, Inc. (TechBD) invites qualified and innovative technology partners to submit comprehensive proposals for the development, implementation, and integration of Exchange Services and Data Model solutions as part of a centralized Health Information Exchange (HIE) platform designed to serve the State of New York's shared infrastructure. We seek solutions that demonstrate an innovative approach to healthcare data exchange, exhibit adaptability to future technological advancements, and maintain the confidentiality of patient data across thousands of sources.

In this RFP, we seek solutions that will not only satisfy the immediate requirements of Qualified Entities (QEs) within New York but also prepare New York for the future landscape of health information interoperability needs. The roadmap for implementation will involve working with multiple Health Information Exchange entities, known as Qualified Entities (QEs), to interoperate within the new environment. Currently, four (4) organizations and associated solutions are planned for incremental integration over a multi-year horizon. As such, recommended strategies for interoperability and integration into the centralized Data Model and Exchange Services solution components will be a key evaluating factor in selecting the partner for this effort.

Proposed solutions must include the following technical capability areas:

A. Core Exchange Services

We expect a robust framework capable of supporting secure, efficient, and broad connectivity among providers and approved third parties. This should support a comprehensive portfolio of health data transaction types including, but not limited to, Admissions, Discharge, and Transfer (ADT) notifications, lab results, continuity of care documents (CCDs), radiology reports, and transcribed documents, while seamlessly incorporating claims, Health Related Social Needs (HRSN), and other emergent data types in line with developing healthcare standards. At its heart, Exchange Services will enable all inbound and outbound data exchange for the Shared Infrastructure.

B. Data Stewardship

A cornerstone of the proposed platform is a comprehensive data stewardship capability ensuring effective data management practices, including aggregation, curation, segmentation, and normalization. The successful proposal will demonstrate sufficient capabilities for maintaining integrity, traceability, and consistent application of stewardship across all data flows within the system.

C. Data Model

Essential to our vision is a flexible and extensible data model that retains architectural autonomy from the core exchange services platform. The proposed model should be capable of integration with existing and future technologies and offer a versatile foundation that facilitates expansions to accommodate novel datasets such as HRSN, claims, and other relevant healthcare information.

D. Operational Reporting

To maintain the ability to have actionable insights about our operations, the solution must support robust reporting capabilities. Proposals should detail mechanisms for producing, managing, and analyzing metrics, governance, and compliance indicators to drive decision-making, issue identification, and process improvement.

E.   Analytics Services

The architectural design of the Data Model and Exchange Services should support TechBD and QE technical teams' ability to access the necessary data to support population health initiatives, public health reporting, clinical decision-making support, and quality performance evaluation. Architectural plans should enable the ability to incorporate independent data platforms or products as needed.

Innovation is at the center of TechBD's vision for the consolidated HIE platform. As such, we encourage respondents to challenge the traditional confines of health information technology and bring forward solutions that use creativity, a forward-thinking mentality, and adaptability to capture the opportunities in front of the New York healthcare landscape. The chosen proposal will exhibit the ability to deliver a high quality, consistent, service, but also the capacity to adapt and scale operations to best serve New York State's dynamic population and healthcare needs.

II.   INTRODUCTION – ABOUT TechBD

TechBD is a 501(c)(3) nonprofit corporation organized and operated exclusively for the benefit of, to perform the functions of, or carry out the purposes of organizations that participate in the network that comprises New York's statewide health information exchanges. This includes, but is not limited to, New York eHealth Collaborative (NYeC) and any Qualified Entities (QEs), collectively referred to as the supported organizations. TechBD provides technology infrastructure and related services on behalf of, and to assist the supported organizations in their participation in New York's statewide health information exchange network (SHIN-NY) and to assist the supported organizations in pursuing their respective missions to advance health information exchange in New York State.

III.   MINIMUM ELIGIBILITY CRITERIA

Eligibility to participate in this RFP is contingent upon vendors meeting the following minimum eligibility criteria. All proposals will be reviewed to ensure they meet the minimum eligibility criteria. Proposals not meeting the criteria shall not be advanced for full evaluation or considered for award.
  o Vendor must utilize staff based in the Continental United States to perform all work.
  o Must have a minimum of 3 years' experience providing same or similar entity resolution solutions in a highly regulated industry.
  o Must be in good standing with the NYS Department of Health (NYS DOH) and the New York State Workers Compensation Board.

IV. MANDATORY REQUIREMENTS FOR AWARD

To be considered for award, vendors must meet the following mandatory requirements:
  o Documented ability to complete the work defined in Section V.
  o Completion of the New York State Vendor Responsibility Questionnaire.
     [Enroll in the VendRep System | Office of the New York State Comptroller (ny.gov)](#)Enroll in the VendRep System | Office of the New York State Comptroller (ny.gov)
  o Ability to provide proof of NYS Workers Compensation and Disability insurance as required by the NYS Workers Compensation Board (or attest to being exempt from this requirement).
  o Participation in Vendor Security Risk Assessment process and compliance with all applicable security provisions in Master Services Agreement.

o The selected vendor will be required to adhere to certain New York State grant contract, confidentiality, and other requirements.
o The selected vendor will provide sufficient documentation to show financial stability over the agreement term.

V.   SCOPE OF WORK

The sections below also outline key strategic, functional, performance, integration, and implementation considerations for the Exchange Services solution within TechBD's Shared Infrastructure. Through technical proposals detailing the intended implementation of their solutions, respondents are asked to address these needs, goals and capabilities.

As an extension of the core requirements and desired capabilities outlined below, TechBD will be required to fulfill all functions and requirements outlined by the "Qualified Entity (QE) Minimum Core Services Technical Requirements" document, provided as a reference here.
([Link to Qualified Entity (QE) Minimum Core Services Technical Requirements](#))

A.   Exchange Services Solution Scope of Functionality and Requirements

Expanding on the functional areas outlined in the Statement of Purpose, the section below provides additional details within the key areas of functional need and requirements from proposed solutions.

i. Consent Management

Vendors should detail their approach and capabilities for managing patient consent values, which play an integral role in maintaining compliance to patient data access policies, as well as honor patients' health privacy rights. Emphasis should be placed on abilities to manage multiple regional consent management policy rules, and to transition over time to new consent policies as they are put into effect. In transition, a model supporting layered consent (multiple source) records with an established hierarchy will be necessary.

ii. Notifications, Alerts, and Results Delivery

Proposals must include the provision of real-time alert and notification systems for healthcare events, including but not limited to new test results, patient admissions, and discharges. Alerts should include configurability to allow for tailored alert timeframes controlled by participant organization (real time vs. daily batch, etc.). Additionally, solutions must have the capability for secure and timely delivery of medical test results and reports to authorized healthcare providers and patients.

a) Configurable Message Delivery Methods

To best meet the diverse communication needs across participating entities, solutions should include capabilities to create and manage various types of message formats. Examples of these message types include, but are not limited to, the following:
- Daily Digests
- Direct Alerts Via Secure Direct Message
- Portal Alerts
- Cross-QE Alerts
- Real-time Alerts

Each message type should be highly configurable, allowing for specificity in content, trigger conditions, and recipients. This flexibility is an important consideration for maintaining the quality of currently provided services, and ensures that the appropriate information is communicated efficiently and effectively across all stakeholders.

iii. Rostering / Cohorting

a) Patient Cohorting

The solution must have the capability to segment patients into cohorts based on diverse criteria submitted by healthcare providers. These criteria may include but are not limited to health conditions, demographic information, treatment histories, and any other relevant patient data. It should leverage these cohorts to manage subscriptions to various types of alerts, ensuring that participants receive timely, relevant, information.

b) Member Roster Management

A fundamental part of managing notifications/alerts based on established patient cohorts and member rosters is the generation and maintenance of a provider/practice/organizational (hierarchical) master. The solution should provide methods for creating and updating this master database from inbound messages and data submissions from healthcare providers. Prospective vendors must acknowledge the complexity involved in maintaining this master data, outlining their approaches to operational management in ensuring its accuracy, relevancy, and timeliness.

iv. Record Aggregation and Query Response (Patient Record Lookup)

Vendor solutions must have the ability for health entities to query and retrieve aggregated patient records in consumable formats via utilization of an EHR integration and Clinical Query Portal. Vendors should speak to the performance of their system to establish and return these longitudinal records for patients within the system.

v. Clinical Query Portal

An online platform should be available for providers to access consented patients' health information, facilitating decision-making and system efficiencies.

a) User Experience

The Clinical Query Portal should offer a combination of visual intuitiveness, functional robustness, and flexible data interaction mechanisms.

- o Data Interactions and Advanced Querying: The solution must enable users to conduct detailed queries using a variety of data points and filters to extract specific patient information, clinical results, and other health data relevant to patient care. Querying functions should support multi-variable searches that can handle complex criteria.
- o Portal Design and Usability: A key desired functionality of the portal is the ability to visualize queried data within a grid or "sectioned" view. Allowing for easy comparison and analysis of patient information. The inclusion of a timeline view for patient encounters, with the capability to explore nested details within those encounters is also desired. The system should support dynamic interaction with common user screens and data visualizations, allowing for user-specific customization to allow for a tailored view of information.

b) Technology and Code Base

The ideal solution will be built on modern, widely-supported technologies that facilitate future enhancements and integration with other health IT systems. Vendors should specify the code base and technology stack used in the development of the portal. This serves as an indicator of the system's flexibility, scalability, and maintainability.

vi. Electronic Health Record (EHR) Integrations

Detailed description of the level of EHR integration provided, including:
- Single Sign-On (SSO) Integration.
- Integration with Provider Portal.

- Message/data routing capabilities with EHR systems for data retrieval by query.
  - *Due to the various EHRs implemented across the New York landscape, vendors should outline the breadth of EHR applications with which they've established integrations.*

vii. Image Exchange

Integrate with existing Image Exchange services provided by eHealth Technologies or similar vendors. The emphasis should be on seamless integration without disrupting current workflows or requiring significant changes to existing infrastructure. Major workflows include the following:

- Integrate with a diagnostic quality image viewer accessible to healthcare providers through the proposed solution. The viewer should support a wide range of image formats used in medical imaging.
  - Or support the storage or caching of DICOM, EKG, and other file types as needed to support retrieval of images
- Support Image-enabled Results Delivery by integrating results records to the associated medical images through **secure and efficient retrieval** methods.
- The solution must facilitate the transfer of tagged image data (TTP) to the provider's Picture Archiving and Communication System (PACS) directly, marking specific images or datasets within the HIE platform and sending them directly to a designated PACS system for further review or storage. Additionally, it should support integration from the PACS system back to the proposed solution, ensuring that image data and related results are kept up-to-date and accessible.

viii. Secure Direct Messaging

Must either provide natively, or through partnership with another Health Information Service Provider (HISP).

ix. Extensibility and Integration Capabilities

An important consideration in this evaluation will be proposed solutions' abilities within plugin compatibility, system extensibility, and integration with additional services.

- Plugin Compatibility: Vendors should provide detailed information related to their system's architecture regarding plugin compatibility, including the types of supported plugins, and the process for integrating new plugins. (i.e.- API integrations, web hooks, and other methods for interfacing)
- System Extensibility: Vendors should explain approaches and technologies used to ensure their systems are extensible. This includes how future features, functions, or services can be added to the system without significant overhauls or disruptions to existing functionality. (Example: Adding a display layer for FHIR in the Clinical Query Portal to accommodate 1115 requirements, and associated workflows, data translations, and associated changes)

B.   Data Stewardship

Vendors should detail their approaches, technologies, and methodologies to effectively aggregate, curate, and segment patient data within health information exchange solutions. The intent is to ensure that the vendor's solution provides a comprehensive and accurate representation of patient data derived from various sources, in varying formats, and across multiple data standards and time of receipt.

i. Strategies for Patient Data Aggregation

a) *Description of Approach*

Vendors are required to detail their systematic approach to the aggregation of patient data from diverse health information systems, EHRs, and other data sources.

b) Technology Utilization

Specify the technologies, platforms, or systems employed for efficient data collection, including any proprietary or open-standard frameworks used. At a minimum, solutions must have the ability to process HL7 v2, v3, and FHIR message types and generate outbound message in FHIR bundles, CCDs, and all related document/message types including messages that deviate from standardized formats. For more details on the specific data processing and message ingestion/generation requirements see **Attachment C.**

c) Tagging and Metadata Application

Explain how the solution employs tagging, metadata, or other classifying strategies for the efficient segmentation and retrieval of patient data. Include examples of tagging schemas, if applicable. At a minimum, solutions must include the ability to utilize tagging functionality in concert with consent management functions to ensure sensitive data records (Part 2, behavioral health, etc.) are appropriately handled and restricted from sharing outside of appropriate use cases.

d) Segmentation Capabilities

Detail the system's capabilities for segmenting patient data based on various criteria (e.g., condition, demographic, geographical) and how these segments can be utilized by healthcare providers or for analytics.

ii. Data Standardization and Synchronization

a) Standardization Protocols

Describe the protocols or methodologies in place for standardizing data across various sources and formats. Respondents must include information on the support for key industry standards, including the use and breadth of code sets, medical terminology references, and other standards used to ensure standardization and optimal data quality within the data exchange. Additionally, vendors should detail how code sets and terminology references are kept up-to-date with industry practices.

b) Synchronization Mechanisms

Explain the mechanisms that ensure real-time or near-real-time synchronization of patient data across platforms and sources.

iii. Data Mapping and Normalization

a) Mapping Techniques

Outline the techniques and tools used for data mapping and normalization, highlighting how the system harmonizes values from disparate sources to create a coherent data model.

b) Maintaining Data Integrity

Discuss how the proposed solution maintains the integrity of original ("raw") data while applying normalization rules.

iv. Traceability

a) Change Traceability

Provide details on the system's capability to trace any changes applied to patient data, including edits, updates, or transformations. Include how these changes are logged, accessed, and audited.

b) Data Stewardship Practices

Describe the stewardship practices applied to both inbound and outbound data to meet various use cases, regulatory requirements, and data governance standards. Include how these practices ensure data quality and privacy.

C.   Data Model

i. Data Model Overview

Core to the intended strategy for the solution is the data model. Describe your data model, emphasizing data flow, storage, transport methods, and architectural components. Include diagrams where applicable.

- How does your system handle the incoming messages of various types V2, V3, FHIR, with variable timing, and aggregation out?
- Explain the monitoring and quality assurance systems in place for each step of the data model to ensure performance and data quality.
- Discuss the standards basis of the data model, and the degree it leverages established frameworks. (FHIR, etc.)
  - Regardless of standards used, please outline the model's capabilities to output data in FHIR formats, and detail how your solution keeps up with evolving standards.
- Detail the extensibility and flexibility of the data model, including the capability to expand for diverse datasets like HRSN, claims, and assessments.
- Indicate the degree of the system's ability to create additional custom, customer specific, indexes within the data model to serve the unique needs of your customers. Additionally, indicate what flexibility to include additional indexes exist post-implementation.
- Describe the level of architectural autonomy possible for integration with Consortium data assets (databases, data lakes, etc.). I.e.- Provide details on the ability to create integrations between your solution and external data sources.
  - What support do you offer for mechanisms that transport data outside your system(s)?

ii. Data Visibility and Access

Outline the level of visibility to the data model, including TechBD's ability to:

- View data definitions and visibility into data standards used for analytics and function triggering. This access is desired to:
  - Ensure quality assurance based on lessons learned and unique needs.
  - Synchronize rules and data standards with internal data analytics efforts.
- Directly access data assets (data lakes, databases, data warehouses) to observe the data flow through the system. (View vs. Edit Access, etc.).

iii. Reporting and Analytics Services

Vendors should outline their solution's ability to utilize modern data management, analytics, and reporting functions, including data mining and visualization. In addition to these core reporting and analytics functions, vendors should provide responses that exhibit their capabilities in the areas below.

a) Health Data Reporting

The exchange services platform must enable health data analytics and reporting to meet the needs of community health professionals and medical provider participants across NY State. Respondents should include information in proposals related to their product's standard capabilities, and approaches for creating additional assets related to health data reporting in the following categories:

- **Population Health Analytics:** To monitor and improve community health outcomes.
- **Public Health Reporting:** For effective disease prevention and control measures, including providing surveillance portals and features to support emergency response and preparedness.
- **Clinical Reporting:** To enhance patient care through detailed health data analysis.
- **Quality Reporting:** For healthcare improvement by monitoring and analyzing care quality.
- **Identifying Gaps in Care:** To ensure comprehensive coverage and facilitate targeted healthcare interventions.

Value Set Management: In addition to standard reporting capabilities (visualization, etc.) incorporated within typical analytics solutions, TechBD and related stakeholders have specific needs around Value Set Management. This capability allows the current systems and teams to appropriately respond to both emergent and ongoing data request, and is feature is described in more detail below:

- **Self-Created Analytics Rule Sets:** Allows users and administrators to create their own "value sets" or rule sets for analytics purposes. This should include the creation, manipulation, and analysis of cross-sections of patients based on defined criteria (e.g.- Inclusion and exclusion criteria using factors like diagnosis, medication history, lab results, and combinations of these variables)
- **Patient and Value Set Lookup:** Ability to dynamically search or incorporate pre-defined cross-sections into reports and analysis.
- **Advanced Value Set Customization:** Manage custom populations based on specific criteria reflecting unique challenges and population attributes, and use aliases or naming conventions for labeling specific custom populations.
- **Governance:** Management of definitions used in populations using standard documentation criteria and supporting frameworks.

Vendor responses should outline their solution's capability to facilitate the use of these capabilities, including typical roles and responsibilities and levels of access/use.

b) Operational Reporting

The selected solution will be required to continuously report on operational metrics, including datapoints like:

- Volume of data ingress/egress
- Number of messages sent (by type)
- Number of individuals represented in the system
- Number of facilities and interface connections established
- Number of interactions with patient records and application portals
- Number of assessments captured

c) Enabling Additional Analytics

Proposals should demonstrate the utilization of modern tools and practices for data management and analytics, including methods to create temporary, persistent, and exportable data structures. Respondents should describe their solution's capabilities in these areas, and also describe the ability to accommodate and integrate with independent data platforms or products, facilitating collaborative or federated analytics and decision-making processes.

In addition to integrating with external data platforms, respondents should outline the capabilities for their solutions to accommodate Extract, Transform, Load (ETL) processes, or alternatively to provision access layers that enable the creation of customized data exports. Included in this description should be the technical method for facilitating this capability, whether through an access layer, APIs, or other method(s). This functionality is critical in allowing the participating QEs to efficiently utilize large datasets and directly interact with the data in a flexible manner.

D.   Integrations

i. Within the Shared Infrastructure Architecture

a) Interface Engine

Solutions will be required to integrate with TechBD's interface engine, which is planned to be procured through a separate process and is not included as part of this RFP. However, selected Exchange Services providers will be expected to ensure seamless integration with this Interface Engine. Respondents are required to demonstrate their solution's capability to integrate effectively with third-party interface engines, detailing their approach to integration, any necessary prerequisites, and examples of similar successful integrations in the past. Specific details of the Interface Engine solution will be shared with the selected provider at the appropriate stage in the project.

b) Master Person Index (MPI)

Responding parties to this RFP should be aware that the Master Person Index (MPI) is intended to be procured separately and is not within the scope of this RFP. Thus, it is imperative and required for vendors proposing Exchange Services to demonstrate capabilities for integration with external MPI solutions. Proposals must include strategies for achieving interoperability with the MPI, including assurances that merged/unmerged records will be kept up to date with the most recent information. Vendors should include information related to their experiences integrating with specific MPI vendors/technologies.

Additionally, respondents should outline any technical requirements, anticipated challenges, and proven methodologies drawn from previous integration successes.

ii. Interfaces with the NYeC

Vendor solutions will be required to exchange data with the NYeC. The interfaces below represent core integrations with NYeC data to be developed and maintained by the selected vendor. These interfaces support functionality integral to interoperability and data exchange across the state.

Many, if not all, of the system interface connections may be technically managed by the Shared Infrastructure's Interface Engine, a component procured separately from this RFP. Although, the solution implemented from this procurement will be required to have the technical processes and the associated data structures necessary to effectively facilitate this exchange. The interfaces in question will be required to accommodate both automated (rules based) and manual triggers.

a) Statewide CCDA Retrieval
- Function: Leverages connection to NYeC's sMPI for QEs to distribute CCDAs to QEs for returning all statewide results for a patient.

b) Cross-QE Alert Notifications
- Function: Leverages connection to NYeC's sMPI for QEs (and the proposed solution) to route messages to other QEs via point-to-point communication.

c) FHIR Data Exchange
- Function: Contribute/receive HRSN and other data and redistribute files to approved entities.

d) Statewide Consent
- Function: Retrieve and utilize statewide consent status as appropriate in relation to other consent values on file.

e) Statewide Master Person Index (sMPI)
- Function: Store sMPI indexes and leverage for message routing, and reference during query response.

f) Data Lake
- Function: Submit patient data for statewide reporting and collaboration.

In addition to the interfaces explicitly listed above, responses should detail the support for APIs or other standard interfaces that facilitate seamless integration with additional services, external data sources, and other healthcare IT systems. Interfaces listed above are not intended to be comprehensive, as additional interfaces with the New York City Public Health Agency (PHA), the Office of Mental Health (OMH), and other like entities will be required.

Furthermore, responses should include information detailing the process for configuring and managing these integrations, including any tools or dashboards provided for integration management and monitoring.

E.   Implementation and Operating Strategy

i. Model and Strategy for Integration

Integrating multiple QEs is a central aspect of the Shared Infrastructure effort. Vendors should exhibit capabilities and communicate strategies to facilitate seamless data sharing and enhancing patient care across different care settings and geographies. Integration strategies need to address how varying data standards and formats across different QEs/HIE systems will be harmonized, ensuring high data quality, and reducing the risk of errors in patient care.

Integration activities are expected to take a significant amount of effort to ensure interoperability and consistency with current levels of service for participants and healthcare stakeholders. One example of a major effort to consider in the implementation strategy is the level of customization and variation in the currently utilized formats for message/communication routing. Managing these integration points represents the need to establish many variations of messages, including formats, data structures/standards, and other variable attributes. A significant amount of customization will be necessary to accommodate these formats, and respondents should outline their capabilities and strategies for accommodating necessary variations and needs for connected providers.

ii. Architectural Performance and Scalability

Scalability of the architecture is a critical element in the success of TechBD's infrastructure. The chosen solution must not only meet the current demands but also anticipate future growth in data volume, user load, and transaction throughput while maintaining high performance and system availability. Efficient scalability ensures the system's responsiveness and stability, even under varying loads, and supports TechBD's strategic goals by enabling agile response to evolving healthcare interoperability needs.

a) Efficiency and Cost Control

The solution must demonstrate a commitment to efficiency, ensuring that scaling efforts align with controlled operational costs. Proposals should support:

- **Dynamic Resource Allocation**: Detail methods for dynamically allocating resources according to demand, including auto-scaling capabilities that adjust computational resources in real-time.
- **Performance Optimization and Cost-Efficient Scaling**: Describe approaches to optimize application and database performance to handle increased loads without linear increases in cost.

Four (4) regions and Exchange Services solutions are anticipated for integration in the current roadmap, but proposed solutions should be capable of scaling to support volumes representing all of NY State.

b) Technical Scalability Strategy

The solution must be capable of scaling to meet the projected needs of New York State's Health Exchange system. This includes the volume/rate of all current exchange functions along with an ability to meet demands from future functions required of the exchange service system. An example of required future functionality that doesn't yet have an easily measurable or estimable volume is data related to the 1115 waiver. Considering this need for scalability and recognizing that some scalability is unknowable at this moment, vendors should include in their response both how their solution grapples with the scalability problem and which technologies are utilized to achieve that strategy for each component.

iii. Timeline

The selected technology partner will work alongside TechBD to implement the proposed solution in line with its existing implementation roadmap. The roadmap will be adjusted as needed throughout the effort to align with new information, dependencies, and outcomes of work in progress. As it stands today, below is a summary of the implementation roadmap, including the planned Exchange Services solution.

Component	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	H2 2025	H1 2026	H2 2026	H1 2027	H2 2027
Cloud Service Provider											
Interface Engine											
Master Person Index											
Exchange Services											

Implementation: Planning & Analysis | Procurement | Implementation | Ready for QE Use   QE Solution Adoption:
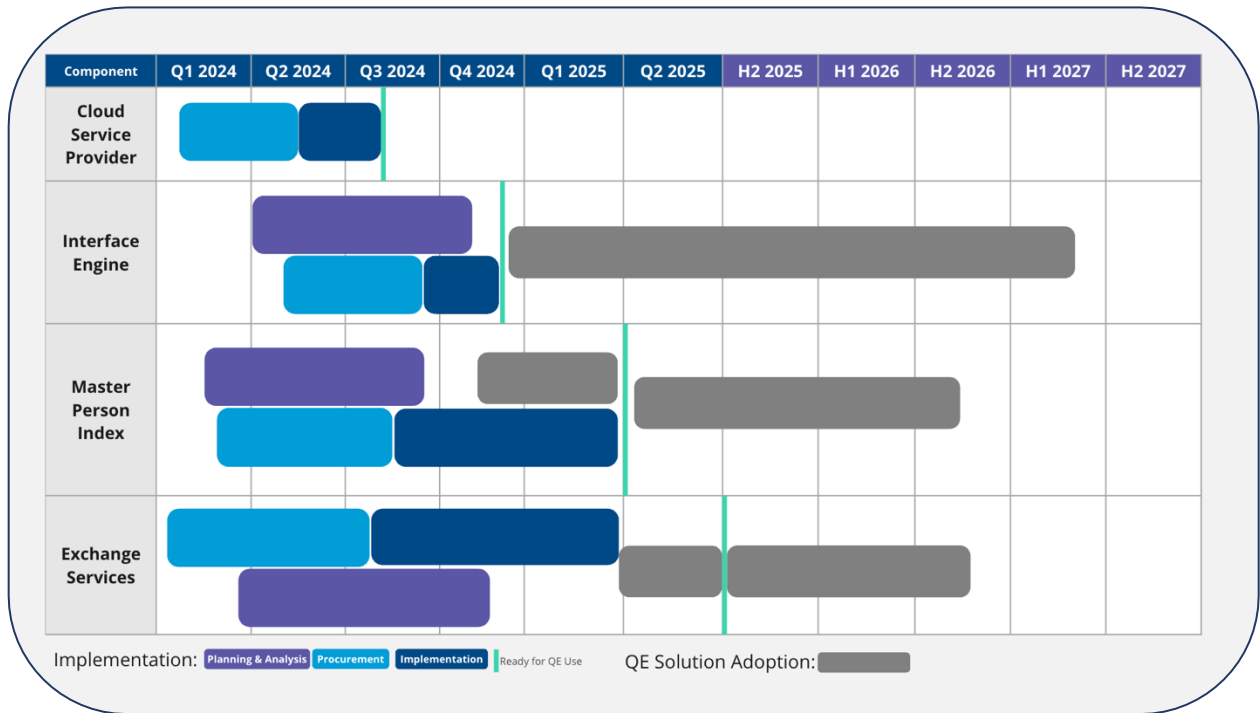
In addition to the timing of initial build, integration, and deployment of the solution, QE adoption is expected to inform the implementation strategy and utilization load of the selected partner. Below is an estimated timeframe of QE adoption and transition to full utilization of the implemented Exchange Services solution. As a part of the implementation approach, a pilot is expected to ensure quality and accuracy in the developed solution before expanding operations to additional participants and QEs.

Component	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	H2 2025	H1 2026	H2 2026	H1 2027	H2 2027
Exchange Services						Pilot					
QE Adoption Timing						QE #1	QEs #1 and #2			QEs #3 and #4	
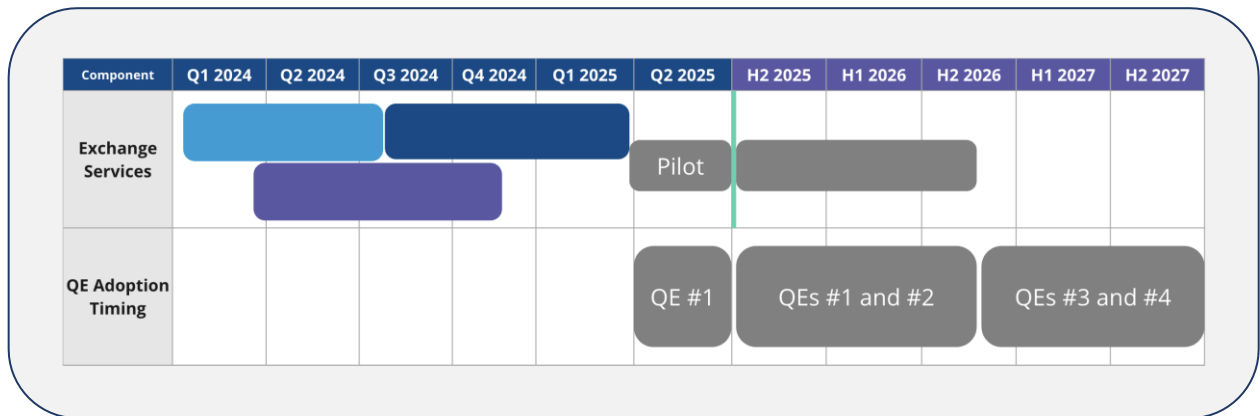
Respondents are asked to provide a proposed project schedule and implementation plan that aligns with the provided timelines in the roadmap. It is expected that implementation plans are comprised of, as a minimum, the following areas:
- Timeline for activities represented in a Gantt format
- Non-standard implementation activities required for integrating multiple solutions and data from associated entities, including activities for upfront design and process alignment.
- Indication of key milestones and all proposed deliverables

Included within the implementation plan, vendors should provide guidance on the level of effort (FTE and role(s)) required by TechBD to support the implementation.

F.   Metrics

Capabilities and strategies to support performance at scale are key considerations for selecting the solution and partner for this effort. The metrics below are provided for the purposes of estimating pricing, understanding volume for proposed scalability strategies, and implementation planning. The values input as "N/A" in the tables below represent data that is not available at the time of release of this RFP.

i. User Community

The table below represents census, configuration, and usage metrics related to Exchange Services.

QE Community Metrics (Annual)	In Scope HIEs				IN SCOPE TOTAL	Out of Scope HIEs		STATE TOTAL
	QE #1	QE #2	QE #3	QE #4		QE #5	QE #6	
Hospital Provider Organizations	26	23	60	7	116	40	81	237
Non-Acute Provider Organizations	78	80	224	30	412	74	258	744
# of Clinical Practices	983	1,133	2,649	840	5,605	977	7,402	13,984
# of Physician/Clinician Practices	4,739	3,944	17,356	2,428	28,467	4,585	36,677	69,729
# of Diagnostic Treatment Centers	106	114	332	173	725	141	521	1,387
# of Behavioral Health/SUD Entities	79	91	246	104	520	99	274	893
# of Community Based Organizations	22	35	104	35	196	43	99	338
# of Statewide Unique Patients (Master Patient IDs)	4,819,096	4,540,151	13,391,630	9,151,974	31,902,851	12,164,984	44,839,699	88,907,534
# of Unique Patients (Master Patient IDs)	4,639,771	4,648,944	14,013,855	10,752,264	34,054,834	12,185,710	49,610,727	95,851,271
# of Alert Subscribers	479	215	2,570	785	4,049	515	7,882	12,446
# of Sub-tenants leveraging Secure Direct Messaging	0	156	664	15	835	N/A	N/A	N/A
# of Direct Mailboxes Provisioned	1,709	508	4,402	3,500	10,119	N/A	N/A	N/A
# of Image Exchange Endpoints	11	12	48	0	71	N/A	N/A	N/A

QE Community Metrics (Annual)	In Scope HIEs				IN SCOPE TOTAL	Out of Scope HIEs		STATE TOTAL
	QE #1	QE #2	QE #3	QE #4		QE #5	QE #6	
# of Sources with CCD Query and Retrieve Implementations	2	3	525	5	535	N/A	N/A	N/A
# of Sites for CCD Push	5	1	7	10	23	N/A	N/A	N/A
# of Active Clinical Query Portal Users	12,438	N/A	13,000	N/A	N/A	N/A	N/A	N/A
# of Total Users	16,371	28,342	21,310	5,443	71,466	13,359	39,152	123,977
# of Concurrent Users	3,517	N/A	6,000	N/A	N/A	N/A	N/A	N/A
# of Patient Lookups/Queries	9,825,475	30,382,004	31,060,187	17,344,560	88,612,226	142,586,346	11,468,924	242,667,496
Organizations Enrolled in Results Delivery	699	713	592	792	2,796	255	0	3,051
Total	19,309,651	39,606,469	58,516,761	37,262,965	154,695,846	166,957,128	106,011,696	427,653,087

ii. Inbound Data

Metrics below represent incoming data for system processing, aggregation, normalization, and appropriate routing.

Inbound Metrics (Annual)	In Scope HIEs				IN SCOPE TOTAL	Out of Scope HIEs		STATE TOTAL
	QE #1	QE #2	QE #3	QE #4		QE #5	QE #6	
ADT Messages	48,973,238	50,340,000	179,538,228	97,777,635	376,629,101	140,547,630	249,131,966	766,308,697
Lab Messages	21,452,679	21,080,000	45,458,699	21,842,713	109,834,091	46,360,840	1,258,683,763	1,432,712,959
Radiology Messages	2,661,879	2,300,000	6,157,118	954,024	12,073,021	8,479,315	9,115,063	29,667,399
Continuity of Care Documents	11,215,327	22,020,000	42,167,479	30,840,095	106,242,901	35,354,630	213,793,842	381,599,943
Text reports	5,368,094	4,500,000	26,322,513	9,159,522	45,350,129	26,313,580	112,087,223	194,260,696
Total	89,671,217	100,240,000	299,644,037	160,573,989	650,129,243	257,055,995	1,842,811,857	2,749,997,095

iii. Outbound Data

Figures below represent messages of varying types that are distributed to participating entities.

Outbound Metrics (Annual)	In Scope HIEs				IN SCOPE TOTAL	Out of Scope HIEs		STATE TOTAL
	QE #1	QE #2	QE #3	QE #4		QE #5	QE #6	

Results Delivered	15,822,531	30,459,607	5,240,723	294,071,843	345,594,704	6,475,340	0	352,070,044
Alert Notifications	7,611,484	6,471,613	113,535,440	3,665,253	131,283,790	10,123,910	213,354,952	354,762,652
CCD Documents Queried	3,364,288	595,913	19,697,896	55,816	23,713,913	3,385,283	9,083,667	36,182,863
CCD Documents Pushed	5,091,986	8,551,906	1,994,971	0	15,638,863	1,953,046	210,112,619	227,704,528
# of Images Viewed	34,000	N/A	168,000	N/A	202,000	N/A	N/A	202,000
Secure Direct Messages	3,499,992	714,494	8,662,703	2,281,598	15,158,787	214,001	2,037,518	17,410,306
Total	35,424,281	46,793,533	149,299,733	**300,074,510**	531,592,057	**22,151,580**	**434,588,756**	**988,332,393**

G.   User Management, and Traceability/Auditability

i. User Management

The chosen solution must offer robust capabilities for managing user accounts, roles, and permissions, and enabling granular control over access to sensitive health information. It should support single sign-on and two factor authentication across multiple integrated applications, to enhance security and improve the overall user experience. The platform must also facilitate efficient onboarding and adjustments to user roles in response to evolving organizational needs. The solution should allow for customizable administrative controls, enabling distributed (and configurable) administrative controls for user and access management.

ii. Traceability and Auditability

The proposed solution must ensure robust security measures and offer comprehensive audit trails to maintain the integrity and confidentiality of the data. Respondents should detail their approach in the following areas:

a) Compliance Standards

The solution must adhere to relevant industry compliance standards including HIPAA, HITRUST, and other regulations applicable to our operations and the geographical jurisdiction of New York State.

b) Audit Abilities

The solution must feature an audit trail or logging capability that records all access and transactions. The system should enable administrators to easily review access activity.

c) Break the Glass Security Standards

Describe the implementation of "Break the Glass" protocols for emergency access to data. This protocol should ensure that, under exceptional circumstances, users can access restricted information rapidly while automatically documenting the incident for subsequent review and justification.

Include any additional security measures and audit capabilities central to your solution that ensure the safeguarding of data against unauthorized access, breaches, and ensure traceability of all data interactions.

H.   Hosting Model(s)

Understanding that hosting can significantly impact the flexibility, scalability, and security of the proposed solution, we seek insights into the pros and cons of different hosting models. Specifically, we are interested in:
-   Vendor-hosted vs. TechBD-hosted solutions.
-   The advantages and challenges related to each hosting option.

I.   Data Migration

i. Strategy

Proposals should contain an initial outline representing the anticipated strategy for data migration from current QE systems, including the high-level strategies and timing related to the adoption and utilization of the solution. It is understood that exact details will need to be finalized during the contracting and implementation planning phases, but an understanding of vendor frameworks, capabilities, and strategies is desired for the evaluation.

ii. Enabling Technologies

Provide additional information on the technologies employed to ensure integrated data maintains integrity, accuracy, and compliance with relevant standards. Explain how your solution will detect, correct, or eliminate corrupt or inaccurate records during migration, assessing data quality and validating successful data movement.

J.   Maintenance and Operations Strategy

Strategies for go-forward management of the intended solution will be taken into consideration during the evaluation process, ensuring that potential partners not only provide a technically sound infrastructure, but also a sustainable model for its maintenance and operations. Vendors are requested to address the following key areas in their proposals:

i. Maintenance and Operations Model

Outline the proposed maintenance and operations model for the deployed solution. Describe available options, including but not limited to, managed services, in-house maintenance by client personnel, or hybrid models. Clearly articulate the benefits and challenges associated with each option, providing insight into how each model can ensure the longevity and efficiency of the system. Examples of proactive and reactive maintenance activities should be included to illustrate the operational approach.

ii. Application and Architecture Performance Monitoring

To ensure systems are performing in alignment with standards, vendors should provide information on strategies and toolsets used to perform system monitoring. System monitoring should monitor stability, scaling and performance, and ultimately the health of the system and associated interfaces. These measures will be instrumental in detecting any potential issues that could lead to a downtime of services, and also optimize the solution's performance.

Vendors must outline their systems and practices for monitoring the performance of the exchange services, including adherence to service level agreements (SLAs).

iii. Roles and Responsibilities

Specify the typical roles and responsibilities associated with the maintenance and operations of the proposed solution. This should include descriptions of team compositions, key positions, and the function each role serves in the maintenance and operational lifecycle of the system.

iv. Flexibility for Client Ownership

Elaborate on the flexibility within your proposed maintenance and operations model that allows clients like the TechBD to take more or less ownership over time. Discuss how your solution can be scaled or adapted to varying levels of client involvement. Include information on training, knowledge transfer processes, and tools for support provided to clients to facilitate varying degrees of ownership.

v. Enhancement and Product Roadmap

Share how ongoing/planned enhancements are shared with customers. Include any communication standards about frequency of updates provided, and format (product roadmap, etc.). Additionally, share how TechBD specific enhancement requests will be prioritized and completed post-implementation.

VI.   CONTENTS OF PROPOSAL

A. Technical Requirements – Attachment C (20 Points)

Complete the Technical Requirements Excel spreadsheet in its entirety and submit with your proposal.

B. Technical Approach and Work Plan – Attachment B (60 Points Total)

For all sections below, refer to Attachment B for more information.

i. Applicant Overview and Qualifications (10 points)

This section should include background about the responding company, including a cover letter, firm overview, and information about your team, structure, and qualifications.

ii. Technical Approach (40 points)

Detail the capabilities of your company and the proposed solution, including all areas outlined above, and specifically referenced in the response template.

iii. Management Approach (10 Points)

Provide a detailed plan of how the project team will be managed, describing project controls in place to manage staff and activities, risk management, and issue escalation. As this project and operations will involve multiple stakeholders, including other vendors, describe your approach to client/vendor interaction and communication.

C. Cost Proposal Worksheet – Attachment D (20 Points)

Complete the cost proposal worksheet.

VII. RFP QUESTIONS & CONTACT

Vendors may only contact TechBD using the email address on the cover page for all matters concerning this RFP. Vendors may not contact any TechBD staff, TechBD board members, NYeC staff, NYeC board members, the New York State Department of Health staff, or any other stakeholders regarding this project in the period between the issuance of this RFP and the notice of award, as stated in the timetable below. Any oral communication will be considered unofficial and non-binding regarding this RFP and subsequent award.

If you have questions about the RFP, please submit those questions to the designated email address noted on the cover page of the RFP by the date indicated in the Timeline and TechBD will distribute all questions received and answers to those questions by the date indicated in the Timeline.

VIII. APPLICATION PROCESS & TIMELINE

Proposals will be evaluated by a selection committee comprised of staff from TechBD, and the participating QEs. Proposals that do not address all the criteria below may not be evaluated. Proposal submissions are due by 5:00pm EST on the date indicated in the timeline below and should be submitted to the designated email address noted on the cover page. **Please submit your application utilizing the provided Proposal Response Template (Attachment B). Please use font size 12 do not exceed 50 pages (excluding Technical Requirements Spreadsheet and Cost Proposal)**. All valid applications must include all sections identified in the evaluation criteria.

TechBD reserves the right to amend or cancel this RFP any time before a signed contract and is not responsible for costs incurred in preparing a response to this RFP.

TIMELINE:

Item	Due Date
RFP Release	April 30, 2024
Deadline to submit questions	May 14, 2024
Q&A Document posted	May 21, 2024
Proposals Due	June 4, 2024, by 5:00pm (Eastern)
One-On-One Meetings	Week of July 8, 2024 (exact dates TBD)

IX.   EVALUATION CRITERIA

TechBD will score the Technical Requirements Attachment of the response first. Vendors receiving a minimum score of 70% will advance for full evaluation of the remainder of their proposal. Vendors scoring less than 70% will not advance further. If less than 4 vendors meet this minimum threshold, the top 4 scoring vendors in this category will be evaluated.

All eligible proposals will be evaluated upon the following criteria as it relates to Section VI Contents of Proposal.

#	Area	Scoring Weight
1	Technical Requirements	20
2	Applicant Overview and Qualifications	10
3	Technical Approach	40
4	Management Approach	10
5	Cost Proposal	20
Total		100

X.   SHORT-LIST

All eligible proposals meeting the mandatory minimum requirements and passing score on the Technical Requirements Attachment will be evaluated using the above-indicated criteria. The top 3 highest scoring proposals will advance to the One-on-One Meetings. TechBD retains the right to adjust the number of proposals advancing based on scoring outcomes.

XI.   ONE-ON-ONE MEETINGS

TechBD will hold one-on-one meetings with short-listed vendors to discuss the vendors' proposals and hold open dialogue with the goal of:
- Providing and receiving required clarifications related to the scope of work or other areas indicated in the RFP.
- Discussing potential customizations/ adjustments to the vendor's proposed approach that best meet TechBD's needs.
- Solution demonstrations.

An agenda for items to be discussed during the meetings will be shared with short-listed vendors prior to the meetings. Each vendor meeting will be up to two hours. During the One-on-One meeting, TechBD will not discuss with any vendor any proposal other than its own.

XII. CONTRACT AWARD

TechBD anticipates making one award to the vendor that best meets TechBD's needs after considering all evaluation criteria. The expected project implementation length is up to 2 years. Specific contract terms related to duration are not guaranteed as a part of this RFP and will be addressed in contracting discussions with the selected vendor.

The selected vendor will enter into a contract) with TechBD.   In the event TechBD is unable to come to agreement on contract terms with the selected vendor, TechBD reserves the right to move on to the next vendor to begin the contracting process. TechBD reserves the right to make no award from this RFP.

XIII. RFP ATTACHMENTS

- ATTACHMENT A: Proposal Submission Checklist
- ATTACHMENT B: Exchange Services Response Template (separate word file)
- ATTACHMENT C: Requirements Response (separate excel file)
- ATTACHMENT D: Cost Proposal Worksheet (separate excel file)