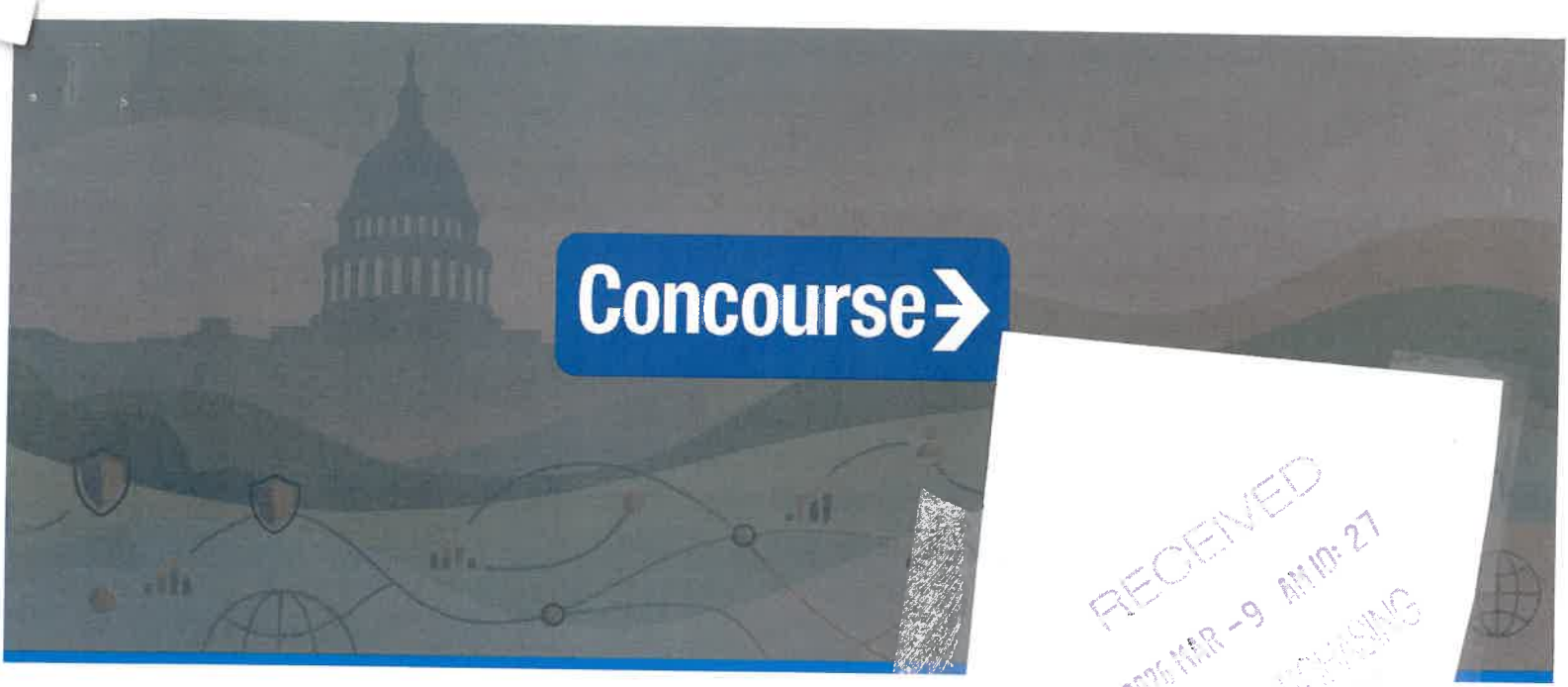

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Technical Proposal Immunization Information System (IIS)

State of West Virginia Department of Health, Bureau of Public Health Epidemiology Services

CRFP 0506 MIS2600000001 (Version 3) • Concourse Ref: 251416

March 10, 2026

Cloud-Based IIS Platform — Technical Approach, Implementation Methodology & Requirements Response

Our Mission at Concourse

> **To empower governments to serve their citizens better through modern, secure technology.**

We believe public sector agencies deserve the same quality of software that powers the best private sector organizations. Concourse exists to bridge that gap—delivering technology that improves government service delivery for all citizens.

Executive Summary

Concourse is pleased to submit this technical proposal in response to CRFP 0506 MIS2600000001 for a comprehensive Immunization Information System (IIS) to serve the West Virginia Bureau of Public Health (BPH), Epidemiology Services. We understand that West Virginia requires a modern, cloud-hosted IIS platform that meets the full scope of the CDC IIS Functional Standards v5.0 and the 674 baseline requirements defined in the IIS Baseline Requirements Traceability Matrix (RTM), supporting the state's immunization program operations, Vaccines for Children (VFC) program management, and public health emergency response capabilities.

Concourse proposes a purpose-built, cloud-native IIS platform designed to address all nine core IIS functional areas — System Administration, Organization and Facility Management, User Management, Interoperability, Data Quality, Evaluate and Forecast, Patient and Immunization Record Management, Vaccine Inventory Management, and Data Access — along with the full complement of non-functional requirements spanning performance, usability, reliability, security, maintainability, and portability. Our platform is designed to reliably integrate with EHR systems, the CDC Vaccine Tracking System (VTrckS), the Immunization Gateway, West Virginia Vital Records, and other data exchange partners via standards-compliant HL7 messaging.

Our implementation approach includes a structured 40-week phased methodology encompassing discovery and requirements validation, system configuration, migration of West Virginia's existing 2.9 million patient records and 31.9 million vaccination records, interface development and testing, comprehensive training for BPH staff and IIS partners, and user acceptance testing through go-live stabilization. Concourse brings proven experience delivering enterprise-scale, multi-stakeholder government technology platforms — including statewide systems serving 600+ agencies — and a commitment to working collaboratively with West Virginia's immunization program to deliver a system that improves vaccination coverage, strengthens data quality, and supports the state's public health mission.

Pricing will be provided in a separate cost proposal as required by the RFP.

Key Highlights

- **674 Requirements Addressed** Comprehensive response to all functional and non-functional requirements in the IIS Baseline Requirements Traceability Matrix (RTM), covering all 12 functional categories

- **CDC Standards Compliance** Platform designed to meet CDC IIS Functional Standards v5.0, CDSi clinical decision support specifications, and ACIP immunization schedule guidelines
- **Full Data Migration** Proven methodology for migrating 2.9M patient records, 31.9M vaccination records, and all non-patient data with comprehensive quality assurance
- **Enterprise Interoperability** HL7 messaging, VTrckS integration, Vital Records interface, EHR onboarding, and Immunization Gateway connectivity
- **40-Week Implementation** Structured six-phase implementation with dedicated training, UAT, and post-go-live hypercare support

Understanding of Requirements

Concourse has thoroughly reviewed the complete solicitation including the original CRFP MIS2600000001, Addendum 1, Addendum 2, and the revised Attachment B — IIS Baseline Requirements Traceability Matrix (RTM) released July 2025. We understand that the West Virginia Bureau of Public Health, Epidemiology Services, requires a replacement Immunization Information System that will serve as the authoritative statewide registry for all immunization doses administered to individuals within West Virginia's jurisdiction.

Scope and Mission-Critical Nature

West Virginia's IIS is a mission-critical public health infrastructure that supports the state's immunization program across multiple dimensions: recording and consolidating immunization records for the state's population, managing the Vaccines for Children (VFC) program and publicly-purchased vaccine inventory, providing clinical decision support to healthcare providers, generating coverage reports to identify undervaccinated populations, and supporting rapid response during vaccine-preventable disease outbreaks and public health emergencies. Any replacement system must maintain continuity of these critical operations while modernizing the technology platform.

Functional Requirements Summary

The RTM contains 674 total requirements organized across the following functional areas and non-functional attributes:

Functional Area	Requirement Count	Key Capabilities
Administer System	61	Hierarchy configuration, system configuration, user roles/permissions, system alerts
Manage Organizations & Facilities	83	Organization/facility search, enrollment, VFC/vaccine program enrollment, outreach
Manage Users	35	User search, add/edit/inactivate, authentication & authorization, password management

Support Interoperability	65	Onboarding, EHR/VTrckS/Vital Records interfaces, HL7 data exchange
Ensure Data Quality	32	Patient matching & deduplication, vaccination event matching & deduplication
Evaluate & Forecast	64	ACIP clinical decision support, reminder/recall, coverage reports
Manage Patient & Immunization Records	83	Patient search, demographics, consent, immunization events, mass vaccination
Manage Vaccine Inventory	87	Inventory search, ordering, review/approval, dose decrementing, reconciliation, wastage
Provide Data Access	65	Standard reports, ad hoc queries, print/export, consumer access portal
Non-Functional	99	Performance, usability, reliability, security, maintainability, portability

Data Migration Complexity

We understand that West Virginia's current IIS contains approximately 2.9 million patient records and 31.9 million vaccination records accumulated over the life of the existing system. In addition, non-patient data including user accounts, provider site records, organization enrollment records, and VFC program data must be migrated to the new platform. The migration must preserve data integrity, maintain all historical vaccination records, and undergo thorough quality assurance validation before the new system goes live.

Interoperability Requirements

The IIS must support bidirectional data exchange with multiple external systems using standards-compliant protocols. Key integration points include:

- Electronic Health Record (EHR) systems via HL7 messaging (VXU, QBP, RSP, ACK message types)

- CDC Vaccine Tracking System (VTrckS) via ExIS specifications for vaccine ordering, inventory, returns, and wastage reporting
- West Virginia Vital Records system for birth, death, adoption, and name change event processing
- Immunization Gateway for interstate data exchange
- Patient scheduling applications
- CDC-approved systems for routine, seasonal, and emergency vaccination data reporting

Key Stakeholder Groups

We recognize that the IIS serves diverse stakeholder groups with distinct access needs and workflows, including: jurisdictional administrators (BPH epidemiology and IT staff), organizational administrators (local health departments, hospital systems), facility-level users (clinics, pharmacies, provider offices), VFC/vaccine program coordinators, authorized consumers seeking their personal immunization records, and EHR vendor technical staff managing data exchange connections. The system's role-based access control, multi-tiered administration, and consumer portal must accommodate all of these user populations.

Proposed Solution

Concourse proposes a modern, cloud-native Immunization Information System built on a scalable, containerized architecture designed to meet the full scope of West Virginia's 674 RTM requirements and align with the CDC IIS Functional Standards v5.0. Our solution addresses all nine core IIS functions and six non-functional attribute categories through an integrated platform approach.

Platform Architecture Overview

Cloud-Native Design

Containerized deployment using Docker and Kubernetes for reliable availability, horizontal scaling, and streamlined updates. Hosted on U.S.-based cloud infrastructure meeting all data residency requirements.

Responsive Web Application

Section 508-compliant web interface accessible from desktop, laptop, tablet, and smartphone. Responsive design adapts to device form factor while maintaining full functionality.

HL7 Messaging Engine

Standards-compliant HL7 processing engine supporting VXU, QBP, RSP, and ACK message types per CDC implementation guides. Designed to process up to 200 VXU and 8,000 QBP messages per hour.

CDSi Forecasting Engine

Clinical Decision Support engine aligned with CDC CDSi logic specifications, supporting ACIP Child and Adolescent, Catch-up, and Adult immunization schedules with contraindication and immunity awareness.

Patient Matching & Deduplication

Configurable probabilistic and deterministic matching algorithms with adjustable thresholds, automated consolidation, manual review workflows, and pre-merge record retention.

Consumer Access Portal

Secure, authenticated portal enabling authorized consumers to view immunization records, print official histories, access forecasts, and retrieve verifiable digital vaccine credentials.

Functional Solution Components

System Administration

The platform provides comprehensive administrative capabilities including configurable organizational hierarchy to model geographic jurisdictional levels and the relationships among organizations, facilities, providers, and users. Jurisdictional administrators can manage code sets

(NDC, CVX, MVX codes), configure data validation rules for incoming HL7 messages, define enrollment form templates and approval logic, manage patient priority group indicators, and maintain business rules governing data quality monitoring. The system supports address standardization per USPS conventions with electronic address verification and geocoding.

Organization & Facility Management

The solution supports the full lifecycle of organization and facility enrollment in the IIS, from initial electronic application through jurisdictional review and approval. Organizations can submit enrollment information electronically with required field validation and automated notifications for incomplete or rejected submissions. The VFC/Vaccine Program enrollment workflow captures all required information including clinician credentials, facility vaccine storage capabilities, coordinator designations, electronic signatures, and training certifications. The platform automatically manages ordering privileges based on enrollment status and expiration dates.

User Management & Authentication

Role-based access control enables jurisdictional administrators to define and manage user roles with granular permissions governing access to data, functions, and reports. The system supports username/password authentication, configurable password policies (expiration intervals, complexity requirements, temporary passwords), and electronic credential notifications. The platform is designed to support single sign-on integration and multi-factor authentication based on jurisdictional policy requirements.

Interoperability & Data Exchange

The interoperability framework includes a structured onboarding workflow for connecting EHR vendors and provider organizations, with test environment provisioning, transport layer validation, data formatting verification, and test message summary reporting. The HL7 data exchange engine supports processing, responding to, and creating HL7 messages with comprehensive message logging, error tracking, and troubleshooting tools. The VTrckS interface supports vaccine ordering, inventory reporting, facility data exchange, and return/wastage reporting via ExIS specifications. The Vital Records interface processes birth, death, adoption, and name change events with automatic patient record updates and newborn duplicate detection.

Data Quality & Deduplication

The patient matching and deduplication engine uses configurable matching algorithms with adjustable probability thresholds to identify potential duplicate patient records — both incoming and existing. Automated consolidation resolves clear matches, while ambiguous cases are flagged for manual review with side-by-side comparison displays. The system retains pre-merged records for reference and supports separation of incorrectly merged records. Vaccination event deduplication operates independently using event-level matching rules to prevent duplicate immunization entries.

Clinical Decision Support & Forecasting

The CDSi-aligned forecasting engine evaluates patient immunization histories against ACIP Child and Adolescent, Recommended Catch-up, and Adult Immunization Schedules. The system generates vaccine forecasts considering contraindications, precautions, evidence of immunity, and immune globulin administration. Vaccines due and overdue are highlighted, and series completion is indicated. Jurisdictional administrators can update CDS rules and incorporate new vaccines per ACIP guidance. The platform includes test case creation and comparison tools for user acceptance testing of forecasting logic.

Reminder/Recall & Coverage Reporting

The reminder/recall module generates patient-specific notifications based on configurable parameters including vaccine type, age cohort, consent designation, and organization. The coverage reporting engine generates reports per CDC Immunization Quality Improvement for Providers (IQIP) guidance, with breakdowns by geographic area, patient cohort, vaccine type, age range, ethnicity, and race. Reports display coverage trends over time, missed opportunities, and vaccine exemption rates.

Patient & Immunization Record Management

The patient record module supports comprehensive demographic data capture aligned with CDC-endorsed core data elements, multiple patient identifiers, cohort assignment, and patient status management at both the organization/facility and geographic jurisdictional levels. Patient consent management supports opt-in/opt-out per jurisdictional policy. The vaccination event module captures all CDC-endorsed core data elements including vaccine eligibility, lot information (defaulting to oldest lot), adverse reactions with VAERS reporting flags, and substandard/compromised flags. The mass vaccination module supports rapid data capture with offline capability for emergency situations.

Vaccine Inventory Management

The vaccine inventory management module provides end-to-end support for publicly-purchased vaccine lifecycle management. Inventory is searchable by user-defined parameters, funding source, vaccine type, lot number, and NDC code. The ordering workflow includes rule-based quantity recommendations, jurisdictional review and approval, order tracking, and rejection/resubmission workflows. Dose decrementing occurs automatically in near real-time via both HL7 messaging and UI data entry. Inventory reconciliation tools support physical count comparison, wastage documentation, transfer management, and expiration tracking. The system interfaces with VTrckS for centralized vaccine ordering and inventory reporting.

Data Access & Reporting

The platform provides a comprehensive reporting suite including pre-configured standard reports (history/forecast, data quality, VFC accountability, school compliance, mass vaccination, vaccine management), ad hoc query builder with scheduling capability, and data export in user-defined formats. Reports can be generated across geographic hierarchy levels and saved as templates for reuse. The consumer access portal enables authorized individuals to view and print their immunization records, access forecasts, and retrieve verifiable digital vaccine credentials without assistance from IIS staff.

Technical Approach

Architecture & Infrastructure

The proposed IIS platform is built on a modern, containerized architecture using Docker and Kubernetes orchestration, enabling reliable deployment, horizontal scaling, and efficient resource utilization. The platform is hosted on U.S.-based cloud infrastructure with all data residing within the United States in compliance with federal and state data residency requirements.

Infrastructure Design Principles

The platform architecture is designed around the following principles: high availability through redundant infrastructure and failover capabilities; horizontal scalability to accommodate peak usage and growing data volumes; defense-in-depth security with encryption at rest and in transit; containerized deployment for consistent, repeatable deployments and efficient updates; and comprehensive monitoring for proactive issue identification and resolution.

Performance & Capacity

The platform is designed to meet or exceed the performance requirements specified in the RTM:

Performance Metric	RTM Requirement	Platform Design Target
Application Launch	< 10 seconds	Designed to meet this threshold
UI Navigation Response	< 1 second	Designed to meet this threshold
Direct Data Entry Processing	< 4 seconds	Designed to meet this threshold
Standard Report Generation	< 30 seconds	Designed to meet this threshold
HL7 Message Response	< 5 seconds (95th percentile)	Designed to meet this threshold
Concurrent UI Users	Up to 1,000	Designed to support without degradation
HL7 VXU Throughput	200 messages/hour	Designed to support without degradation

HL7 QBP Throughput	8,000 messages/hour	Designed to support without degradation
Record Storage	Unlimited	Scalable cloud storage with no record limits

Security Architecture

The IIS handles protected health information (PHI) and personally identifiable information (PII) requiring comprehensive security controls. Our security approach includes:

- **Encryption at Rest** All PII/PHI encrypted using industry-standard algorithms in the database and storage layers
- **Encryption in Transit** TLS encryption for all data transmissions including HL7 messaging, web application traffic, and API calls
- **Authentication & Authorization** Role-based access control with configurable user roles, permissions, and session management per OWASP best practices
- **Audit Logging** Comprehensive audit trails tracking user access, data modifications, authentication attempts, and administrative actions with jurisdictional admin search and filter capabilities
- **Session Management** Configurable session timeouts, password masking, and session expiration notifications per jurisdictional policy
- **Firewall & Network Security** Maintained per AIRA Security Guidance Considerations for Immunization Information Systems with network and hosting environment protection
- **Anti-Virus & Patching** Current critical patch levels maintained in the hosting environment with regular security updates
- **Intrusion Detection** Electronic notification to system administrators of unauthorized activity with comprehensive tracking of failed and successful access attempts

HL7 Interoperability Engine

The HL7 messaging engine is a core component of the IIS platform, supporting bidirectional data exchange with EHR systems, the Immunization Gateway, and other health information systems. The engine is designed to:

- Process VXU (Vaccination Update) messages containing patient demographic and vaccination event data
- Respond to QBP (Query By Parameter) messages with RSP (Response Segment Pattern) messages containing patient immunization records
- Generate ACK (Acknowledgment) messages with error and warning details for sender review

- Support data exchange per the CDC HL7 implementation guide and accept the last prior version of HL7 messages
- Support non-HL7 data exchange formats for bulk import/export operations
- Provide comprehensive message logging, error tracking, acknowledgment management, and troubleshooting tools
- Monitor data exchange health with configurable alerts for connection issues and error patterns

VTrckS Integration

The platform integrates with the CDC Vaccine Tracking System (VTrckS) via the ExIS (External Information System) specifications to support:

- Electronic vaccine ordering with rule-based quantity recommendations and jurisdictional approval workflows
- Vaccine inventory reporting including batch export of inventory, ordering information, and facility data
- Vaccine return and wastage data submission
- Shipping information receipt and order status tracking
- Automatic ordering capability activation during public health emergencies

Vital Records Interface

The platform interfaces with the West Virginia Vital Records system to receive and process life event data including birth events (with newborn duplicate detection), death events (with date of death updates), adoption events, and name change events. Matched Vital Record data is used to update patient demographic information in the IIS, maintaining the accuracy and currency of patient records.

Data Migration Methodology

Our data migration approach follows a structured methodology designed to ensure complete, accurate transfer of West Virginia's immunization data:

- Data Assessment & Mapping: Comprehensive analysis of the source system's data structures, identification of all data elements to be migrated, and creation of detailed field-level mapping specifications
- Extraction: Systematic extraction of 2.9M patient records, 31.9M vaccination records, and non-patient data (user accounts, provider sites, organization records, VFC enrollment data) from the current IIS

- Transformation & Cleansing: Data format normalization, code set translation, address standardization, and identification of data quality issues for remediation
- Loading & Validation: Incremental loading into the new platform with automated validation checks at each stage to verify record counts, data integrity, and referential consistency
- Quality Assurance: Side-by-side comparison testing of migrated records against source data, statistical sampling validation, and stakeholder sign-off prior to go-live
- Reconciliation Reporting: Detailed migration reconciliation reports documenting record counts, data quality findings, transformation rules applied, and any records requiring manual review

Accessibility & Portability

The platform meets United States Access Board Section 508 Standards for accessibility, ensuring the system can be used by people with the widest range of characteristics and capabilities. The responsive web design renders properly on desktop, laptop, tablet, and smartphone devices and supports current and prior versions of major web browsers per jurisdictional policy. The containerized architecture (Docker/Kubernetes) supports efficient installation, updates, and portability across cloud environments.

Implementation Timeline & Milestones

Concourse proposes a 40-week (approximately 10-month) phased implementation approach designed to ensure thorough requirements validation, careful data migration, comprehensive interface testing, and adequate training before go-live. This timeline accounts for the complexity of migrating 34.8 million total records, building and testing multiple external interfaces, and training diverse stakeholder groups.

Phase	Weeks	Duration	Key Activities
Phase 1: Discovery & Planning	1–4	4 weeks	PMO establishment, requirements validation, data migration assessment, integration architecture, detailed project schedule
Phase 2: System Configuration	5–12	8 weeks	Platform configured for WV policies, user roles, workflows, CDSi rules, reporting, consumer portal, Oral Health Module
Phase 3: Data Migration & Validation	13–20	8 weeks	Data extraction, cleansing, migration of 2.9M patient and 31.9M vaccination records, QA validation, reconciliation
Phase 4: Interface Development & Testing	21–28	8 weeks	HL7 interfaces, VTrckS, Vital Records, EHR onboarding, Immunization Gateway, integration testing
Phase 5: Training & Knowledge Transfer	29–34	6 weeks	Admin training, end-user training, VFC staff training, IIS partner training, train-the-trainer, documentation
Phase 6: UAT, Go-Live & Stabilization	35–40	6 weeks	User acceptance testing, defect resolution, Go/No-Go decision, production deployment, hypercare support

Phase 1: Discovery, Requirements Validation & Project Planning (Weeks 1–4)

The project begins with establishment of the Project Management Office (PMO) and project governance structure. Concourse will conduct requirements validation workshops with WV BPH stakeholders to review all 674 RTM requirements, confirm jurisdictional policy parameters (consent

policies, data retention rules, session timeout values, password complexity requirements, etc.), and document any West Virginia-specific requirements beyond the CDC baseline. This phase also includes a detailed assessment of the current IIS data structures to develop the migration mapping plan, an inventory of all existing interfaces to plan the integration architecture, and creation of the detailed project schedule with milestones and acceptance criteria.

Phase 1 Deliverables

- **Project Management Plan** PMO structure, governance, communication plan, risk management framework
- **Requirements Validation Report** Confirmed RTM responses, jurisdictional policy parameters documented
- **Data Migration Plan** Source data assessment, field-level mapping, transformation rules, QA approach
- **Integration Architecture** Interface inventory, connection specifications, testing strategy
- **Detailed Project Schedule** Phase-level milestones with acceptance criteria and dependencies

Phase 2: System Configuration & Customization (Weeks 5–12)

During this phase, the IIS platform is configured to reflect West Virginia's specific jurisdictional policies, organizational structure, and operational workflows. Configuration activities include establishing the geographic and organizational hierarchy, defining user roles and permissions, configuring enrollment forms and approval workflows, setting up CDSi forecasting rules per current ACIP guidelines, configuring standard and ad hoc reporting templates, establishing data quality business rules and monitoring thresholds, and configuring the consumer access portal. Optional features including the Oral Health Module and Read Replica environment are also configured during this phase.

Phase 3: Data Migration & Validation (Weeks 13–20)

This critical phase encompasses the complete migration of West Virginia's immunization data. The migration follows an iterative approach with multiple test migrations before the final production migration. Each iteration validates record counts, data integrity, transformation accuracy, and system performance under production data volumes. Particular attention is given to patient deduplication quality post-migration, vaccination event linkage integrity, and preservation of historical audit trails. A comprehensive reconciliation report is produced and reviewed with BPH stakeholders before proceeding.

Phase 4: Interface Development & Testing (Weeks 21–28)

All mandatory interfaces are built, tested, and validated during this phase. The HL7 messaging engine is configured and tested with representative EHR vendor connections. The VTrckS integration is activated and tested end-to-end for vaccine ordering, inventory reporting, and wastage/return submission. The Vital Records interface is established for birth, death, adoption, and name change event processing. The EHR onboarding framework is deployed with test environment provisioning, transport layer validation, and test message processing capabilities. Integration testing verifies data flow accuracy and error handling across all connected systems.

Phase 5: Training & Knowledge Transfer (Weeks 29–34)

The comprehensive training program is organized by stakeholder group to ensure relevant, role-specific instruction:

- Jurisdictional Administrator Training: System configuration, user management, data quality monitoring, CDSi rule management, reporting administration
- Organizational Administrator Training: Facility enrollment, user role assignment, organization-level reporting, patient record management
- End-User Training: Patient search and record management, vaccination event entry, inventory management, standard report generation
- VFC/Vaccine Program Staff Training: Vaccine ordering, inventory reconciliation, wastage reporting, VFC enrollment management, VTrckS interface operations
- IIS Partner/EHR Vendor Training: Onboarding process, HL7 message testing, error resolution, data exchange monitoring
- Train-the-Trainer: Curriculum delivery skills and materials for BPH staff to conduct ongoing training for new users and IIS partners

All training materials, user guides, and knowledge base documentation are delivered as part of this phase.

Phase 6: User Acceptance Testing, Go-Live & Stabilization (Weeks 35–40)

The UAT environment is provisioned with fully migrated production data, enabling WV BPH staff to validate the system against real-world scenarios and workflows. Concourse provides dedicated support during UAT for test execution guidance, defect documentation, and resolution. Following successful UAT completion and a formal Go/No-Go decision checkpoint with BPH leadership, the system is deployed to production. A dedicated hypercare team provides intensive post-go-live support to monitor system performance, resolve any issues, and ensure a smooth transition to standard maintenance and support operations.

Team Structure & Qualifications

Concourse will assemble a dedicated implementation team with expertise spanning public health information systems, HL7 interoperability, data migration, cloud infrastructure, and government technology delivery. The team structure is organized to provide consistent, accountable leadership throughout the project lifecycle.

Project Team Organization

Project Management Office

Dedicated project manager providing single-point-of-contact accountability, project governance, schedule management, risk mitigation, and stakeholder communication throughout the implementation.

Solution Architecture

Technical architects responsible for platform configuration, integration architecture, data model design, and ensuring all 674 RTM requirements are addressed in the system design.

Data Migration Team

Specialists in healthcare data migration focused on extraction, transformation, validation, and quality assurance for the 2.9M patient and 31.9M vaccination record migration.

Integration Engineers

HL7 interoperability specialists responsible for building, testing, and activating all interfaces including EHR connections, VTrckS, Vital Records, and the Immunization Gateway.

Training & Change Management

Training specialists developing and delivering role-specific curricula for jurisdictional admins, organizational admins, end users, VFC staff, and IIS partners.

Quality Assurance

Dedicated QA team supporting UAT planning, test case development, defect tracking, and go-live readiness assessment.

Ongoing Support Organization

Following go-live, Concourse maintains a standing support organization providing:

- **Help Desk Support** Responsive support for system issues, user questions, and troubleshooting
- **Maintenance & Patching** Regular security patches, bug fixes, and platform updates
- **Infrastructure Monitoring** Continuous monitoring of cloud infrastructure, application performance, and data exchange health
- **Disaster Recovery** Maintained backup and recovery capabilities per jurisdictional recovery plan with failover support

- **Version Upgrades** New feature releases, CDC standard updates, and ACIP schedule changes incorporated into the platform
- **CDSi Updates** Ongoing updates to clinical decision support rules as ACIP recommendations evolve

Requirements Traceability Matrix (RTM) Response Approach

Concourse has reviewed all 674 requirements in the revised Attachment B — IIS Baseline Requirements Traceability Matrix and will provide detailed responses in the Vendor Response and Vendor Comments columns as specified in the RTM format. Our response approach is summarized below.

Response Methodology

For each requirement in the RTM, Concourse provides one of the following responses in the Vendor Response column:

- **Yes** The requirement is supported by the platform as delivered, without customization
- **Yes with Customization** The requirement is supported with configuration or customization; Vendor Comments column includes description of the approach and timeline for development and release
- **No** The requirement is not supported by the platform; accompanied by explanation in Vendor Comments column where applicable

Requirement Coverage Summary by Functional Area

The Concourse IIS platform is designed to address the full scope of the RTM across all functional areas. The platform's architecture supports all Essential (E) priority requirements across the core IIS functions — Administer System, Manage Organizations & Facilities, Manage Users, Support Interoperability, Ensure Data Quality, Evaluate & Forecast, Manage Patient & Immunization Records, Manage Vaccine Inventory, and Provide Data Access — as well as the non-functional requirements for Performance, Usability, Reliability, Security, Maintainability, and Portability.

Alignment with CDC IIS Functional Standards v5.0

The proposed platform is designed to support all nine goals of the CDC IIS Functional Standards v5.0:

Goal	Description	Platform Alignment
A	Establish and maintain a secure, confidential IIS	Encryption, access controls, audit logging, disaster recovery, and service-level infrastructure

B	Continuously improve IIS data quality	Patient matching, deduplication, address validation, data quality monitoring and business rules
C	Promote electronic data exchange	HL7 engine, EHR onboarding, VTrckS, Vital Records, Immunization Gateway interfaces
D	Ensure delivery reflects current ACIP recommendations	CDSi-aligned forecasting engine with configurable rules and schedule support
E	Ensure appropriate user access to data	Role-based access control, authentication, consumer portal, policy agreement management
F	Support generation and use of IIS data	Standard reports, ad hoc queries, coverage reports, data export, public dashboards
G	Support federal and jurisdictional vaccine program requirements	VFC enrollment, vaccine ordering, inventory management, VTrckS integration, dose tracking
H	Support response efforts for emergencies	Mass vaccination, emergency ordering activation, priority group tracking, expedited onboarding
I	Participate in emerging technologies and standards	Containerized architecture, modern API design, responsive design, digital vaccine credentials

The completed RTM with detailed Vendor Responses for all 674 requirements is provided as a companion document to this technical proposal.

Quality Assurance & Risk Management

Quality Assurance Framework

Concourse employs a structured quality assurance framework throughout the implementation lifecycle to ensure the delivered IIS meets West Virginia's requirements and stakeholder expectations.

- **Requirements Traceability** All 674 RTM requirements are tracked from validation through configuration, testing, and acceptance to ensure complete coverage
- **Configuration Reviews** Stakeholder review checkpoints at each major configuration milestone to verify alignment with jurisdictional policies
- **Data Migration QA** Multi-iteration test migrations with statistical sampling, record count validation, and side-by-side comparison before final migration
- **Integration Testing** End-to-end testing of all interfaces with production-representative data and error scenario coverage
- **User Acceptance Testing** Structured UAT with test scripts mapped to RTM requirements, dedicated vendor support, and formal defect tracking and resolution
- **Go/No-Go Decision Framework** Defined acceptance criteria and stakeholder sign-off process before production go-live

Risk Management Approach

Key implementation risks and our mitigation strategies include:

Risk Area	Risk Description	Mitigation Strategy
Data Migration	Complexity of migrating 34.8M records with potential data quality issues	Multiple test migrations, comprehensive validation framework, statistical sampling, reconciliation reporting, stakeholder review
Interface Connectivity	Dependency on external system readiness (EHRs, VTrckS, Vital Records)	Early interface inventory, parallel development tracks, phased activation, fallback to existing connections during transition

Stakeholder Adoption	Diverse user base with varying technical proficiency	Role-specific training curriculum, train-the-trainer program, comprehensive documentation, hypercare support period
Schedule	40-week timeline requires disciplined execution	Weekly status reporting, milestone checkpoints, risk escalation protocol, contingency buffer in UAT phase
Requirements Scope	674 requirements spanning 12 functional areas	Requirements validation workshops in Phase 1, structured change control process, prioritized delivery approach

Addendum Acknowledgment

Concourse acknowledges receipt of all addenda issued for solicitation CRFP MIS2600000001 and has incorporated the modifications into this technical proposal:

- **Addendum No. 1** Addition of pricing pages (Attachment A — Cost Sheet) that were inadvertently not included in the original solicitation. Acknowledged and incorporated into our separately sealed cost proposal.
- **Addendum No. 2** Provision of revised Attachment B (IIS Baseline Requirements Traceability Matrix). Acknowledged and the revised RTM has been used as the basis for our technical requirements response.

A signed Addendum Acknowledgement Form is included with this submission.

Concourse's Approach

Bespoke quality, off-the-shelf speed.

Concourse combines deep public sector expertise with modern software development practices to deliver solutions that meet government requirements without the typical delays and complexity of legacy contractors.

Security-First Development

Security is at the heart of everything we build. From architecture decisions to deployment pipelines, we design with compliance and data protection as foundational requirements, not afterthoughts.

User-Centered Design

Our discovery process focuses on understanding the needs of end users—the government staff and citizens who will interact with the system daily. We ensure solutions are intuitive and practical, not just technically compliant.

Agile Delivery with CI/CD

We work in agile sprints with continuous integration and continuous delivery, enabling rapid iteration and frequent feedback cycles. This means you see your user-specific version in a fully-operational context early and often, not just at the end.

API-First & Modular Components

We build reusable, independent components that allow for flexible customization, faster integration with your existing systems, and future-proof solutions tailored to your needs.

Cloud-Native Infrastructure

We leverage AWS for scalable, secure infrastructure with modern frameworks (including Next.js and React) and streamlined deployments. We can also deploy on Google Cloud Platform or Microsoft Azure based on your requirements.

No Legacy Technical Debt

We're not weighed down by legacy systems, ensuring speed and agility in every project.

How We Work With You

- We undertake a collaborative discovery process to ensure we're configuring our system to meet your exact needs.
- You'll have a dedicated project team working closely with you throughout delivery, and a dedicated account manager post-delivery to ensure ongoing improvements and questions are quickly addressed.
- We integrate directly with your team's communication channels (such as Microsoft Teams) to facilitate faster feedback and more transparent collaboration.
- Change requests and scope adjustments are welcomed—we discuss openly to ensure we're always aligned with your evolving needs.

Your Project Team

Our dedicated team brings decades of combined experience in technology, public work, and program management. Each member is committed to ensuring your success with the Concourse platform.

Thomas Smyth

Yale University, B.A. • 14+ Years in Software • 300+ Municipal & K-12 Clients

Thomas brings more than 14 years of experience building and scaling technology-driven organizations, with a background that blends strategy, technical development, and public-sector-focused business growth. He has worked with over 300 municipalities and K-12 school districts, gaining deep insight into the unique challenges and requirements of public sector technology. After years working across startups and enterprise software environments, he founded Concourse to bridge the gap between high-quality commercial technologies and the needs of government buyers. Today, he leads the company's mission to help agencies procure smarter, faster, and more affordably through a streamlined, value-driven approach.

Rapolas Binkys

Brown University, B.S. • 11+ Years as Founder & Consultant • AI & Workflow Automation Expert

Rapolas brings 11+ years in tech as a founder, consultant, and investor. He leads the full product lifecycle at Concourse: from defining requirements to overseeing engineering and development. His deep expertise in automating workflows, AI, and deployments ensures project success. Rapolas has led teams across a broad range of customers and scopes, bringing a pragmatic, results-oriented approach to building secure, scalable systems that drive efficiency for the public sector.

Ajay Menon

Duke University, B.S. • 6+ Years in Product Strategy • Tech Deployments & Configuration

Ajay brings 6+ years of experience advising tech enterprises on product strategy, with hands-on experience in technology deployments and configurations. He leads successful client implementations at Concourse, working closely with agencies to scope their technology needs and develop innovative, secure solutions. Ajay also heads the education vertical, ensuring that schools and universities receive tailored, high-value technology solutions.

Mike Mumma

Georgetown University, B.A. • 10+ Years in Tech & Consulting • Government Technology & Public Policy

Mike brings 10+ years of experience in tech and consulting, including significant work in the public sector. With a background in government technology and public policy, he helps public sector agencies source the best-fit technology solutions while navigating the complexities of procurement. He brings a consultative approach to each engagement, built on years of experience working with both fast-growing startups and structured vendor ecosystems. At Concourse, he oversees customer success and delivery operations, serving as the primary relationship leader for strategic accounts.

Kelsey Shaner

8+ Years in Operations • Contracting & Compliance • Full Procurement Lifecycle

Kelsey brings 8+ years of operational experience focused on technology, with a strong mix of technical know-how and business development skills. She spent time in the FinTech space before moving into GovTech, where she's found real fulfillment helping public agencies navigate procurement and implement impactful technology solutions. At Concourse, she streamlines contracting and compliance processes for SaaS projects, aligning configuration, documentation, and reporting with agency requirements and SLAs. Kelsey manages the full procurement process from initial opportunity through contract award.

Government Technology Delivery Experience

Concourse has successfully delivered technology solutions to government agencies nationwide. Below are relevant examples of our work:

State of Oklahoma

Oklahoma City, Oklahoma • Statewide Solicitation and Contract Management Platform

Delivered a statewide solicitation and contract management platform for the State of Oklahoma, powering 600+ state agencies and municipalities to manage statewide contracts, solicitations, and usage reporting across 3,000+ suppliers. The platform features centralized oversight of mandatory statewide contracts and agency-specific agreements, streamlined bid processes serving multiple agencies, and a unified vendor portal with integrated financial and fee tracking. Implementation completed in under 60 days, demonstrating Concourse's ability to deliver complex, multi-stakeholder government platforms at scale.

City of Owosso, Michigan

Owosso, Michigan • Community Engagement Portal with 311-Style Features

Built a community engagement portal enabling City Hall staff and city agencies to communicate more effectively with citizens. Features include surveys and feedback tools, a map-based 311-style system for citizens to log concerns with geographic location context, and streamlined workflows for city staff to track, triage, and respond to submissions. Demonstrates Concourse's capability in building citizen-facing portals with map-based reporting — directly analogous to IIS consumer access and geographic coverage reporting.

West Virginia Department of Health & Human Resources

Charleston, West Virginia • Udemy Business — Workforce Learning Platform

Provided Udemy Business cloud-based learning platform to the West Virginia DHHR — the same parent agency as the Bureau of Public Health issuing this IIS solicitation. Deployed 101 licenses for the Office of Management Information Services, supporting workforce upskilling and professional development through on-demand, self-paced learning across technical, business, and soft-skill domains. Demonstrates an existing, successful delivery relationship with the buying organization.

West Virginia Office of Technology

Charleston, West Virginia • Virtru Email Encryption & Secure File Transfer

Provided Virtru for Email with Data Protection Gateway and Virtru Secure Share to the WV Office of Technology, deploying enterprise-scale email encryption and secure file transfer for 2,750 users. The solution provides centralized policy enforcement, granular access controls, and audit logging to protect sensitive information — directly relevant to the HIPAA/PII security and non-repudiation requirements of the IIS. Demonstrates enterprise-scale security deployments within West Virginia state government.

Maryland Health Benefit Exchange

Baltimore, Maryland • PingIdentity (ForgeRock) Identity & Access Management

Provided PingIdentity (ForgeRock) access management, directory, and identity gateway modules for the MDThink healthcare exchange platform. The suite provides centralized authentication and authorization with adaptive risk evaluation, federation, and push-based authentication scaled for 25,000 internal access modules and 1.5 million external identities. Directly analogous to IIS multi-tier user management spanning jurisdictional administrators, organizational administrators, provider users, and consumer access.

Company Information

Company Name	Concourse Tech Inc.
Contact Person	Kelsey Shaner, Contracting & Compliance Lead
Phone	(646) 305-9964
Email	sales@concoursetech.com
Address	169 Madison Ave, Suite 15520, New York, NY 10016
DUNS Number	119359641
CAGE Code	09E17

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Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Centralized Request for Proposals
Info Technology

Proc Folder:	1874842	**Reason for Modification:**
Doc Description:	REQUEST FOR PROPOSAL - IMMUNIZATION INFORMATION SYSTEM (IIS)	ADDENDUM 2 TO PROVIDE REVISED ATTACHMENT B
Proc Type:	Central Master Agreement	

Date Issued	Solicitation Closes	Solicitation No	Version
2026-02-10	2026-03-10 13:30	CRFP 0506 MIS2600000001	3

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Customer Code:

Vendor Name : Concourse Tech Inc

Address :

Street : 169 Madison Ave., Suite 15520

City : New York

State : NY **Country :** USA **Zip :** 10016

Principal Contact : Kelsey Shaner

Vendor Contact Phone: 646-305-9964 **Extension:**

FOR INFORMATION CONTACT THE BUYER
Crystal G Hustead
(304) 558-2402
crystal.g.hustead@wv.gov

Vendor Signature X Kelsey Shaner **FEIN#** 92-0732705 **DATE** March 4, 2026

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION

THE STATE OF WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, DEPARTMENT OF HEALTH, BUREAU OF PUBLIC HEALTH- EPIDEMIOLOGY SERVICES, IS SOLICITING PROPOSALS TO ESTABLISH AN OPEN-END CONTRACT FOR AN IMMUNIZATION INFORMATION SYSTEM (IIS) PER THE ATTACHED DOCUMENTS.

ONLINE RESPONSES ARE PROHIBITED FOR THIS SOLICITATION

QUESTIONS REGARDING THE SOLICITATION MUST BE SUBMITTED IN WRITING TO CRYSTAL.G.HUSTEAD@WV.GOV PRIOR TO THE QUESTION PERIOD DEADLINE CONTAINED IN THE INSTRUCTIONS TO VENDORS SUBMITTING BIDS

INVOICE TO	SHIP TO
HEALTH AND HUMAN RESOURCES BUREAU FOR PUBLIC HEALTH CENTRAL FINANCE 350 CAPITOL ST, RM 206 CHARLESTON WV 25301-3717 US	HEALTH AND HUMAN RESOURCES BUREAU FOR PUBLIC HEALTH CENTRAL FINANCE 350 CAPITOL ST, RM 206 CHARLESTON WV 25301-3717 US

Line	Comm Ln Desc	Qty	Unit of Measure	Unit Price	Total Price
1	Software				

Comm Code	Manufacturer	Specification	Model #
43230000			

Extended Description:
See attached Cost Sheet - Attachment A.

Vendor should clearly identify and segregate the cost proposal from the technical proposal in a separately sealed envelope.

**** Online responses have been prohibited for this solicitation. Follow all bidding instructions.

SCHEDULE OF EVENTS

Line	Event	Event Date
1	VENDOR QUESTION DEADLINE	2026-02-17

	Document Phase	Document Description	Page 3
MIS2600000001	Final	REQUEST FOR PROPOSAL - IMMUNIZATION INFORMATION SYSTEM (IIS)	

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

	Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130	State of West Virginia Centralized Request for Proposals Info Technology

Proc Folder:	1874842		**Reason for Modification:**
Doc Description:	REQUEST FOR PROPOSAL - IMMUNIZATION INFORMATION SYSTEM (IIS)		ADDENDUM 2 TO PROVIDE REVISED ATTACHMENT B
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Address :

Street : 169 Madison Ave., Suite 15520

City : New York

State : NY **Country :** USA **Zip :** 10016

Principal Contact : Kelsey Shaner

Vendor Contact Phone: 646-305-9964 **Extension:**

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INVOICE TO	SHIP TO
HEALTH AND HUMAN RESOURCES BUREAU FOR PUBLIC HEALTH CENTRAL FINANCE 350 CAPITOL ST, RM 206 CHARLESTON WV 25301-3717 US	HEALTH AND HUMAN RESOURCES BUREAU FOR PUBLIC HEALTH CENTRAL FINANCE 350 CAPITOL ST, RM 206 CHARLESTON WV 25301-3717 US

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1	Software				

Comm Code	Manufacturer	Specification	Model #
43230000			

Extended Description:
See attached Cost Sheet - Attachment A.

Vendor should clearly identify and segregate the cost proposal from the technical proposal in a separately sealed envelope.

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SCHEDULE OF EVENTS

Line	Event	Event Date
1	VENDOR QUESTION DEADLINE	2026-02-17

SOLICITATION NUMBER: CRFP MIS2600000001
Addendum Number: 2

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

[ ] Modify bid opening date and time

[ ] Modify specifications of product or service being sought

[ ] Attachment of vendor questions and responses

[ ] Attachment of pre-bid sign-in sheet

[✓] Correction of error

[ ] Other

Description of Modification to Solicitation:

1. To provide a revised Attachment B

No other changes

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.

2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

Immunization Information System (IIS) Baseline Requirements Traceability Matrix (RTM)

Update Released July 2025

This requirements traceability matrix (RTM) contains draft baseline functional and non-functional requirements for an immunization information system (IIS). The requirements clarify minimum expectations for what IIS technology must do and how it must operate to support IIS Functional Standards and programmatic and immunization stakeholder needs. The functional requirements describe intended behaviors of an IIS to support business processes and tasks, by function and capability. The non-functional requirements convey technical requirements related to how a system must operate, by attribute and sub-characteristic. An embedded IIS Functional Model presents a visual depiction of the core functions, capabilities and attributes of IIS and serves as a companion to the requirements.

This RTM is intended to be used by immunization programs as a starting point for the procurement of an IIS platform, module or enhancement. The RTM should be used throughout the system development life cycle (SDLC) to ensure requirements are met in a final product or system. Immunization programs and IIS may also use the IIS Functional Model and the requirements within this RTM to help assess and identify gaps in current IIS functions, capabilities and technical quality and provide a roadmap for future development within or across jurisdictions.

Contents

Guidance: Using the RTM	Step-by-step guidance and helpful hints/notes for using the RTM as part of a procurement process.
Functional Model	Draft IIS Functional Model (FM), a visual depiction of IIS functions and capabilities and attributes.
FM Descriptions	Descriptions of the IIS Functional Model functions and capabilities and attributes; also provides an indication of total requirements by function/category.
RTM Format	Description of how the RTM is structured for presentation of the requirements.
Requirements by Function/Grouping:	
Admin System	Requirements related to the function: Administer System
Manage Orgs	Requirements related to the function: Manage Organizations and Facilities
Manage Users	Requirements related to the function: Manage Users
Interop	Requirements related to the function: Support Interoperability
Data Quality	Requirements related to the function: Ensure Data Quality
Eval Forecast	Requirements related to the function: Evaluate & Forecast
Manage Pt Iz Record	Requirements related to the function: Manage Patient & Immunization Records
Manage Vaccine Inventory	Requirements related to the function: Manage Vaccine Inventory
Data Access	Requirements related to the function: Provide Data Access
Non-functional	Technical requirements across key attributes
Glossary	List of terms used in requirements and their definitions
Crosswalk to FS	Compare the Functional Model to the IIS Functional Standards (FS)

This RTM was developed by the Public Health Informatics Institute, in partnership with AIRA and CDC and with financial support from CDC under Cooperative Agreement number 6 NH23IP922664-01. Questions, comments and suggestions are welcomed at iis@phii.org.

PUBLIC HEALTH INFORMATICS INSTITUTE

Guidance for leveraging the RTM workbook in a procurement

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Suggested steps and helpful hints for immunization programs and IIS when using the IIS Functional Model and requirements within this RTM as part of a procurement and system development life cycle.

1. Identify the scope of the procurement
-- Are you looking to procure an IIS platform or a specific module or enhancement?
-- Identify which functions and capabilities within the IIS Functional Model may relate to your project scope.
-- What technologies/systems do you have access to within your jurisdiction that will fulfill certain functions/capabilities/requirements?
-- What technologies/systems will need to be integrated with the procured solution?
-- Use the RTM to identify the requirements in scope.

2. Identify stakeholders/representatives to be included in the requirements review and validation process (and will be included in user acceptance testing)
-- Include people that do the work, i.e., staff from across the IIS and immunization program who will be using the system/module/enhancement being procured.
-- Include representatives from IT, as appropriate, e.g., a jurisdictional IT security officer.
-- Consider validating requirements with end users to ensure completeness and accuracy and to inform prioritization.
-- Engage with the procurement office early in the process to fully understand jurisdictional requirements, policies, templates, approval processes, and timelines.

3. Gather existing business process documentation for reference
-- Gather standard operating procedures, documented workflows, business process analysis documents, help desk and tickets.
-- These materials will assist in the review and validation of the requirements within the RTM.

4. Kickoff the requirements review and validation process
-- Identify reviewers for the functions and requirements within scope, considering individuals' subject matter expertise.
-- Schedule and conduct a meeting with all stakeholders/representatives to discuss the requirement review and validation plan.
-- Introduce the Functional Model functions, capabilities and/or attributes in scope.
-- Orient the group to the RTM format and contents, including the glossary of terms.
-- Review the project schedule and individual responsibilities.

5. Review and validate requirements
-- Review the requirements by tab with the appropriate program staff and/or impacted stakeholders (consider daily facilitated review sessions). Review the requirements based on current issues, concerns, challenges to ensure/mitigate current issues, concerns, etc. (using documentation gathered in step 3).
-- Discuss and define jurisdiction-specific needs and requirements. In particular, consider requirements that include 'as per jurisdictional policy,' those indicating 'user-defined parameters,' and non-functional requirements where jurisdiction-specific values should be entered.
-- Validate the requirements in terms of their:
  * Completeness and accuracy: add jurisdiction-specific requirements in a separate tab (included in the RTM workbook) or as additional rows in the appropriate existing tab.
  * Clarity: offer clarifications as comments in the "Comments" column. CDC strongly recommends not altering the wording of the requirements in the RTM.
  * Priority: CDC strongly recommends that values listed in the "Priority: E, O (essential, optional)" column remain as is unless jurisdictional law/policy says otherwise.

6. Approve the final set of requirements
-- Gain approval of the final requirements from program and jurisdictional IT leadership, as appropriate.
-- Use the "Req. #" column on each tab to assign a unique identifier, which will facilitate traceability throughout the development lifecycle.

7. Include the requirements in the solicitation to inform vendor selection.
-- Conduct a final re-validation of the requirements: what has changed? Are the requirements still accurate and relevant? Have any priorities changed?
-- Work with your procurement office to ensure your requirements are incorporated into your solicitation. Attach or otherwise incorporate the RTM or requirements listing based on jurisdictional policy.
-- Provide instructions for solicitation respondents to comment on each requirement, using the "Vendor Response" and "Vendor Comments" columns.
-- Review responses and conduct due diligence to determine a solution/vendor that best meets your needs.

8. Work with the selected vendor on configuration and specifications, as needed.
-- Ensure that your essential requirements are met.
-- Review vendor system documentation to determine potential gaps for future consideration.

9. Test the delivered solution to ensure requirements are met.
-- Refer to the vendor documentation to control the quality and completeness of the procured solution in meeting the requirements within the RTM.
-- Add columns to the RTM for further traceability of the requirements through the SDLC. For example, 'Script #' and 'Tester' columns can be included to ensure each requirement has a corresponding test and tester during user acceptance testing.
-- Identify individuals who will be involved in user acceptance testing; ensure these staff are prepared for the testing process and know how to document testing results.

10. Update business processes & documentation, as needed
-- Update standard operating procedures to reflect and refine staff interaction with the new technology.

-- Be sure to train internal staff as well as external end-users.

Helpful Hints and Notes

-- The RTM can be used in conjunction with requirements definition tools, such as task flow diagrams. (For more information on PHII's Collaborative Requirements Development
-- On each tab, high-level requirements are shaded in blue; rows beneath each high level requirement provide further detail.
jurisdiction name.
-- Tabs can be added to the RTM to encompass business processes or business rules within the workbook.
-- Columns can be added to the RTM for further traceability of the requirements through the design, build, test and release activities. For example, a 'Script #' column can be
-- To be most effective in tracking a solution that meets program requirements, the RTM must be maintained throughout the system development life cycle.
differentiate those required for Day 1 and those that could be delivered in future releases.
-- Consider using an additional priority designation of 'R' for 'Required by Law' to indicate requirements that stem from jurisdictional laws/administrative rules. Provide a

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Immunization Information System (IIS) Functional Model

The IIS Functional Model presents a framework and terminology for conveying and communicating the core functions, capabilities and attributes of IIS. These systems, whether as a single integrated IIS or as a set of interoperable modules, support public health immunization programs in achieving the **CDC IIS Functional Standards*** and in providing trusted data and information to improve clinical immunization practice, increase vaccination and reduce vaccine-preventable disease.

The model also serves as a companion and index to the **IIS Baseline Requirements Traceability Matrix (RTM)**, which provides detailed requirements across IIS functions, capabilities and attributes. The RTM and other requirements tools can be found at **phii.org/iis-requirements**.

IIS Core Functions and Capabilities

These functions and capabilities represent core functionality of IIS. Refer to the **IIS Baseline RTM** for descriptions and functional requirements associated with each.

Administer System

- Hierarchy configuration
- System configuration
- User roles & permissions
- System alerts

Manage Organizations & Facilities

- Organization/facility search
- Add, edit, inactivate organization/facility
- VFC/vaccine program enrollment
- Organization/facility outreach

Manage Users

- User search
- Add, edit, inactivate user
- Authentication & authorization
- Password management

Support Interoperability

- Onboarding
- Interfaces
- Data exchange

Ensure Data Quality

- Patient matching & deduplication
- Vaccination event matching & deduplication

Evaluate & Forecast

- Clinical decision support
- Reminder/recall
- Coverage reports

Manage Patient & Immunization Records

- Patient search
- Add, edit patient demographics
- Patient status
- Patient consent
- Add, edit patient immunization
- Print/export record
- Mass vaccination

Manage Vaccine Inventory

- Vaccine inventory search
- Add, edit vaccine inventory
- Vaccine ordering
- Review/approve order
- Vaccine decrementing
- Vaccine inventory reconciliation
- Vaccine transfer
- Vaccine wastage
- Vaccine expiration

Provide Data Access

- Standard reports
- Print/export reports
- Ad hoc queries & reports
- Consumer access

IIS Attributes

These attributes represent the technical characteristics of an IIS necessary to support immunization programs and stakeholders. Refer to the **IIS Baseline RTM** for descriptions and non-functional requirements associated with each.

Performance Efficiency	Usability	Reliability	Security	Maintainability	Portability
• Time behavior • Resource utilization • Capacity	• Operability • User error protection • Accessibility	• Availability • Fault tolerance • Recoverability	• Confidentiality • Non-repudiation • Accountability • Authenticity	• Analyzability	• Adaptability • Installability

* https://www.cdc.gov/vaccines/programs/iis/func-stds.html

This resource was developed by the Public Health Informatics Institute in 2020, in collaboration with AIRA and CDC, with financial support from CDC under Cooperative Agreement number 6- NU38OT000316. Questions, comments and suggestions are welcomed at phii.org/iiscontact.

IIS Functional Model descriptions

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Tab Name	# of Reqs	Function	Function Description	Capability	Capability Description
Admin System	61	Administer System	Management of global system settings and alerts, including set up of user roles and permissions.	Hierarchy Configuration	-- ability to create hierarchy that informs the association between geographical levels within the jurisdiction and among organizations, facilities, providers
				System Configuration	-- ability to define system-wide settings, such as management of code tables
				User Roles and Permissions	-- ability to define and manage user roles and use role permissions to perform a function, activity or task
				System Alerts	-- ability to broadcast communication to IIS users viewable upon logging into the system
Manage Orgs	83	Manage Organizations and Facilities	Management of organizations and facility accounts.	Organization/Facility Search	-- ability to look up and retrieve an organization or facility account
				Add, Edit, Inactivate	-- ability to add, edit or inactivate an organization or facility; ability for an organization to initiate enrollment and re-enrollment in the IIS
				VFC/Vaccine Program	-- ability to enroll and re-enroll a provider organization in VFC and/or other vaccine program(s)
				Organization/Facility	-- ability to communicate with organization/facility representatives
Manage Users	35	Manage Users	Management of user accounts.	User Search	-- ability to define parameters to look up and retrieve a user account
				Add, Edit, Inactivate User	-- ability to add, edit or inactivate a user account
				Authentication and	-- ability to validate a user's identity, entity and system permissions
				Password Management	-- ability to administer, change and reset user passwords
Interop	65	Support Interoperability	Manage interfaces to exchange data between the IIS and other systems.	Onboarding	-- ability to establish/re-establish/modify an interface with another information system for the electronic exchange of demographic and/or immunization
				Interfaces	-- ability to facilitate electronic data exchange with other information systems, including EHRs, VTrckS, jurisdictional vital records, and the IZ Gateway
				Data Exchange	-- ability to exchange data electronically and monitor and troubleshoot data exchange
Data Quality	32	Ensure Data Quality	Deduplication and consolidation of records.	Patient Matching and	-- ability to identify and manage duplicate and potential duplicate patient records
				Vaccination Event Matching	-- ability to identify and manage duplicate and potential duplicate vaccination entries
Eval Forecast	64	Evaluate and Forecast	Determine the validity of past immunizations administered as a basis for determining	Clinical Decision Support	-- ability to evaluate and forecast immunizations for a patient per ACIP guidelines and in alignment with CDSI specifications
				Reminder/Recall	-- ability to identify and notify patients who are due for upcoming immunizations (reminder) and/or are past due (recall)
				Coverage Reports	-- ability to create reports to support immunization coverage assessment at the provider and geographic levels including reports for the CDC's VFC
Manage Pt Iz Record	83	Manage Patient and Immunization Records	Manage patient demographics and patient immunization record.	Patient Search	-- ability to look up and retrieve a patient record
				Add, Edit Patient	-- ability to add, edit or inactivate a patient record
				Patient Status	-- ability to manage the assignment of a specific patient to a provider organization or jurisdiction
				Patient Consent	-- ability to manage patient agreement to participate in the IIS in accordance with jurisdictional policy
				Add, Edit Patient	-- ability to add, edit an immunization record
				Print/Export Report	-- ability to print or export either a patient or immunization record
				Mass Vaccination	-- ability to capture a large volume of demographic and immunization data in emergency situations
Manage Vaccine Inv	87	Manage Vaccine Inventory	Order publicly-purchased vaccine and manage vaccine inventory.	Vaccine Inventory Search	-- ability to look up and retrieve vaccine doses in inventory
				Add, Edit Vaccine Inventory	-- ability to manage vaccine inventory, including ordering, storing and handling, and reconciliation of vaccine doses
				Vaccine Ordering	-- ability to order publicly funded vaccines as authorized
				Review/Approve Order	-- ability to review, edit, and authorize an organization's vaccine order for approval, submission and fulfillment
				Vaccine Dose Decrementing	-- ability to automatically decrement vaccine doses from inventory when matched vaccine doses are reported as administered
				Vaccine Inventory	-- ability to maintain an accurate count of vaccine doses available based on doses administered, wasted, transferred, and expired
				Vaccine Transfer	-- ability to transfer vaccine from one VFC provider organization to another in certain situations
				Vaccine Wastage	-- ability to manage nonviable vaccine reporting
				Vaccine Expiration	-- ability for notification and management of vaccine inventory expired and due to expire
Data Access	65	Provide Data Access	Provision of access to data and information.	Standard Reports	-- ability to generate pre-configured reports available and accessible in the IIS
				Ad Hoc Queries and Reports	-- ability to create, save and schedule data queries and customized reports on demand
				Print/Export Report	-- ability to generate data to print or use in other systems
				Consumer Access	-- ability for authorized consumers to directly access IIS data for which they are authorized

Tab Name	# of Reqs	Attribute	Description	Sub-Characteristic	Description
Non-functional	99	Performance	Performance efficiency relative to the amount of resources used under stated conditions.	Time behavior	-- degree to which the response and processing times and throughput rates of a product or system, when performing its functions, meet requirements
				Resource utilization	-- degree to which the amounts and types of resources used by a product or system, when performing its functions, meet requirements
				Capacity	-- degree to which the maximum limits of a product or system parameter meet requirements
		Usability	Degree to which a product or system can be used by specified users to achieve specified goals	Operability	-- degree to which a product or system has attributes that make it easy to operate and control
				User error protection	-- degree to which a system protects users against making errors
				Accessibility	-- degree to which a product or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a
		Reliability	Degree to which a system, product or component performs specified functions under specified	Availability	-- degree to which a system, product or component is operational and accessible when required for use
				Fault tolerance	-- degree to which a system, product or component operates as intended despite the presence of hardware or software faults
				Recoverability	-- degree to which, in the event of an interruption or a failure, a product or system can recover the data directly affected and re-establish the desired
		Security	Degree to which a product or system protects information and data so that persons or other products or systems have the	Confidentiality	-- degree to which a product or system ensures that data are accessible only to those authorized to have access
				Non-repudiation	-- degree to which actions or events can be proven to have taken place so that the events or actions cannot be repudiated later
				Accountability	-- degree to which the actions of an entity can be traced uniquely to the entity
				Authenticity	-- degree to which the identity of a subject or resource can be proved to be the one claimed

IIS Functional Model descriptions

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Tab Name	# of Reqs	Function	Function Description	Capability	Capability Description
		Maintainability	Degree of effectiveness and	Analyzability	-- degree of effectiveness and efficiency with which it is possible to assess the impact on a product or system of an intended change to one or more of its
		Portability	Degree of effectiveness and	Adaptability	-- degree to which a product or system can effectively and efficiently be adapted for different or evolving hardware, software or other operational or
			efficiency with which a system,	Installability	-- degree of effectiveness and efficiency with which a product or system can be successfully installed and/or uninstalled in a specified environment
	674				

RTM Format

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Status	Req. #*	Capability/Attribute	***Requirement: The IIS must/should have...	Comments	Reviewer notes	Priority: E, O (essential, optional)**	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Updated from the previous version of the RTM or newly added.	[Req. ID]	[Capability/attribute name, e.g., "System Configuration"]	[high-level requirement]	--Suggested recommendations for the requirement. --Indication of relationship to a priority cross-functional need such as mass vaccination or school reports.	[Reviewer notes related to: -- Organization of the requirement (in terms of its associated capability and/or function) -- Wording of the requirement -- Misc thoughts]	[Draft priority designation, e.g. "E"]		
Updated from the previous version of the RTM or newly added.	[Req. ID]	[Capability/attribute name, e.g., 'System Configuration']	[detailed requirement]	--Suggested recommendations for the requirement. --Indication of relationship to a priority cross-functional need such as mass vaccination or school reports.	[Reviewer notes related to: -- Organization of the requirement (in terms of its associated capability and/or function) -- Wording of the requirement -- Misc thoughts]	[Draft priority designation, e.g. "E"]		

*Numbering/identification of individual requirements will occur at the very end of the review and revision process, once requirements are final.

**Priority designations:
E: Essential: Baseline, critical requirement reflective of core functionality/attribute for a viable IIS as defined by CDC.
O: Optional: Not essential for all IIS as defined by CDC.

*** Rows highlighted in blue indicate a high-level requirement

Function: Administer System

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Capability	Requirement: The IIS must/should	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Hierarchy Configuration	ability to establish the IIS hierarchy to associate and manage relationships between entities	E		
Hierarchy Configuration	ability to associate user(s) to a facility	E		
Hierarchy Configuration	ability to associate clinician(s) to a facility	E		
Hierarchy Configuration	ability to associate facility/facilities to an organization	E		
Hierarchy Configuration	ability to establish geographic jurisdictional hierarchy	E		
Hierarchy Configuration	ability to aggregate data across user-defined hierarchies	E		
System Configuration	ability to maintain inventory availability in IIS visible to authorized users	E		
System Configuration	ability for jurisdictional admin to maintain separate VFC supplied inventory in the IIS	E		
System Configuration	ability for jurisdictional admin to maintain separate jurisdiction supplied inventory	E		
System Configuration	ability for jurisdictional admin to maintain separate private stock inventory	E		
System Configuration	ability for jurisdictional admin to manage code sets	E		
System Configuration	ability for jurisdictional admin to update NDC codes	E		
System Configuration	ability for jurisdictional admin to update CVX codes	E		
System Configuration	ability for jurisdictional admin to update MVX codes	E		
System Configuration	ability to configure default values to minimize data input	E		
System Configuration	ability to display an error message in the user interface when minimum information required is not complete	E		
System Configuration	ability to standardize addresses per US Postal conventions and codes	E		
System Configuration	ability to verify validity of addresses (as valid USPS addresses) in the IIS through electronic means (e.g., SmartyStreets)	E		
System Configuration	ability to geocode addresses	E		
System Configuration	ability to validate accurate assignment of address to an individual through electronic means (e.g., LexisNexis)	O		
System Configuration	ability for jurisdictional admin to modify facility types according to immunization program descriptions and CDC VFC Program descriptions	E		
System Configuration	ability for jurisdictional admin to configure rules governing data validation of incoming HL7 messages	E		
System Configuration	ability to configure an authorization agreement as per jurisdictional policy	O		
System Configuration	ability to configure a user agreement as per jurisdictional policy	O		
System Configuration	ability to display age in year/month/day format in all age display fields (e.g., 2 years, 4 months, 3 days)	E		
System Configuration	ability to provide optional calendar to select a date in a web client	O		
System Configuration	ability to add patient priority group indicators	E		
System Configuration	ability to modify patient priority group indicators	E		
System Configuration	ability for jurisdictional admin to manage business rules related to data quality	E		
System Configuration	ability for jurisdictional admin to specify business rules for monitoring data quality	E		
System Configuration	ability for jurisdictional admin to modify business rules for monitoring data quality	E		
System Configuration	ability to configure the organization enrollment form	E		
System Configuration	support rules-based logic to suggest approval or rejection of enrollment form based on review of completed fields	E		
System Configuration	ability to manage rules-based logic for approval or rejection of enrollment form	E		
System Configuration	ability for jurisdictional admin to create enrollment forms based on program requirements	E		
System Configuration	ability for jurisdictional admin to modify an enrollment form	E		
System Configuration	ability to auto-populate existing user information in the IIS with the information on the enrollment form when creating a new facility in the IIS	O		
System Configuration	ability to auto-populate the organization information in the IIS with information on the enrollment form when creating a new organization in the IIS	O		
System Configuration	ability for jurisdictional admin to configure vaccine forecasting business rules	E		
System Configuration	ability to apply effective dates to vaccine rules	O		
System Configuration	ability to incorporate new vaccines per ACIP into the forecasting algorithm	E		
System Configuration	ability to support a record search algorithm to return "best matches"	E		
System Configuration	ability for jurisdictional admin to configure the number of search results to be displayed per jurisdictional policy	E		
System Configuration	ability for jurisdictional admin to modify required parameters for patient searches	E		
System Configuration	ability to restrict certain data from being included in reports such as sensitive demographic information e.g., address, phone number, mother's maiden name, Medicaid ID)	E		
System Configuration	ability to open multiple screens simultaneously within the application	O		
User Roles and Permissio	ability for jurisdictional admin to manage user roles and permissions by task per jurisdictional policy	E		
User Roles and Permissi	ability for jurisdictional admin to add user roles with distinct permissions	E		
User Roles and Permissi	ability for jurisdictional admin to modify user roles with distinct permissions	E		
User Roles and Permissi	ability for jurisdictional admin to inactivate user roles	E		
User Roles and Permissi	ability for jurisdictional admin to modify permissions to IIS processes and data for specific user roles	E		
User Roles and Permissi	ability for jurisdictional admin to restrict system functionality by user role	E		
User Roles and Permissi	ability for jurisdictional admin to restrict authorized user access to data based on user role	E		
User Roles and Permissi	ability for jurisdictional admin to enable access to standard reports based on user role	E		
User Roles and Permissi	ability to automatically update all users assigned to a role based on changes made to the "master" role attributes	E		
System Alerts	ability for jurisdictional admin to manage system alerts	E		
System Alerts	ability to view global messages upon logging into the application	E		
System Alerts	ability for jurisdictional admin to add system alerts for specific IIS users to view when logging into application	O		
System Alerts	ability for jurisdictional admin to add global messages	E		
System Alerts	ability for jurisdictional admin to edit global messages	E		
System Alerts	ability for jurisdictional admin to inactivate global messages	E		

Function: Manage Organizations and Facilities

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Capability	Requirement: The IIS must/should have...	Priority: R, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: indicate the anticipated cost and timeline for development and release.
Organization/Facility	ability to search organization/facility information stored in the IIS	R		
Organization/Facility	ability for jurisdictional admin to search organizations/facilities by user-defined parameters	R		
Organization/Facility	ability to clear and re-enter search criteria when searching for an organization/facility	R		
Add, Edit, Inactivate	ability for applicant from unauthorized (non-participating/enrolled) organization to enroll electronically for participation in the IIS	R		
Add, Edit, Inactivate	ability for applicant from unauthorized organization to add IIS enrollment information online	R		
Add, Edit, Inactivate	ability for applicant from unauthorized org to submit IIS enrollment information online	R		
Add, Edit, Inactivate	ability for applicant from unauthorized org to save partially complete IIS enrollment information	O		
Add, Edit, Inactivate	ability for applicant from unauthorized org to return to a partially complete IIS enrollment information	O		
Add, Edit, Inactivate	ability to prevent submission of incomplete IIS enrollment information when required field(s) are missing	R		
Add, Edit, Inactivate	ability to electronically notify the applicant of incomplete IIS enrollment information specifying the missing required fields	R		
Add, Edit, Inactivate	ability to electronically notify applicant that IIS enrollment information has been submitted	R		
Add, Edit, Inactivate	ability for applicant from unauthorized org to edit rejected IIS enrollment information	R		
Add, Edit, Inactivate	ability for applicant from unauthorized org to resubmit a rejected IIS enrollment	R		
Add, Edit, Inactivate	ability to capture electronic signature for enrollment, for an authorization agreement	O		
Add, Edit, Inactivate	ability for jurisdictional admin to manage organization/facility IIS enrollment	R		
Add, Edit, Inactivate	ability for jurisdictional admin to manage organization/facility IIS enrollment status	R		
Add, Edit, Inactivate	ability for jurisdictional admin to inactivate an organization	R		
Add, Edit, Inactivate	ability for jurisdictional admin to reactivate an organization	R		
Add, Edit, Inactivate	ability to store IIS enrollment status for an organization/facility	R		
Add, Edit, Inactivate	ability for jurisdictional admin to inactivate a facility	R		
Add, Edit, Inactivate	ability for jurisdictional admin to reactivate a facility	R		
Add, Edit, Inactivate	ability for jurisdictional admin to electronically approve IIS enrollment	R		
Add, Edit, Inactivate	ability to include reason for rejecting IIS enrollment of an organization	R		
Add, Edit, Inactivate	ability to electronically notify the organization that the submitted enrollment was rejected along with the reason	R		
Add, Edit, Inactivate	ability for jurisdictional admin to manage organization and facility records within the IIS	R		
Add, Edit, Inactivate	ability for jurisdictional admin to add an organization	R		
Add, Edit, Inactivate	ability for jurisdictional admin to modify an organization record	R		
Add, Edit, Inactivate	ability for jurisdictional admin to add a facility	R		
Add, Edit, Inactivate	ability for jurisdictional admin to modify a facility record	R		
Add, Edit, Inactivate	ability to automatically generate unique facility IIS ID	R		
Add, Edit, Inactivate	ability for jurisdictional admin to associate a facility to an organization	R		
Add, Edit, Inactivate	ability for jurisdictional admin to edit association between a facility an organization	R		
Add, Edit, Inactivate	ability to store multiple unique facility site IDs associated with a particular facility (to facilitate matching of facilities between the IIS and other data systems)	R		
Add, Edit, Inactivate	ability to capture a facility's mailing address	R		
Add, Edit, Inactivate	ability to capture a facility's shipping address	R		
Add, Edit, Inactivate	ability to enter contact information for the facility contact	R		
Add, Edit, Inactivate	ability to enter contact information for an optional contact	R		
Add, Edit, Inactivate	ability to indicate if an organization/facility is a site where immunizations are administered	R		
Add, Edit, Inactivate	ability to indicate if an organization/facility is a site where vaccines are stored for redistribution	O		
Add, Edit, Inactivate	ability to save documents (i.e., enrollment/onboarding documents, storage and handling, borrowing, temperature logs, wastage, etc.) to specific organization/facility file folder per policy	R		
Add, Edit, Inactivate	ability for jurisdictional admin to retrieve electronic files from provider file folder	R		
Add, Edit, Inactivate	ability for jurisdictional admin to record notes related to a organization/facility	R		
Add, Edit, Inactivate	ability to flag an organization as participating in VFC and/or other user-defined vaccine program(s)	R		
Add, Edit, Inactivate	ability to retrieve organization/facility information from scanned forms and automatically fill required data fields with retrieved information	O		
VFC/Vaccine Program	ability for an organization to submit vaccine program enrollment information electronically	R		
VFC/Vaccine Program	ability to capture electronic signature for vaccine program enrollment	R		
VFC/Vaccine Program	ability to access the vaccine program agreement in a separate window from the vaccine program enrollment	R		
VFC/Vaccine Program	ability to provide link to the blank formatted vaccine program enrollment form	R		
VFC/Vaccine Program	ability for the jurisdictional vaccine program admin to assign a VFC pin number to a newly enrolled VFC site	R		
VFC/Vaccine Program	ability to select the type of certified monitoring device being used to record temperatures	R		
VFC/Vaccine Program	ability for the jurisdictional vaccine program admin to document that a facility has a certificate of calibration for the temperature monitoring device	O		
VFC/Vaccine Program	ability for the jurisdictional vaccine program admin to approve a vaccine program enrollment	R		
VFC/Vaccine Program	ability for the jurisdictional vaccine program admin to enter an expiration date for a vaccine program enrollment	R		
VFC/Vaccine Program	ability for the jurisdictional vaccine program admin to document that the vaccine program facility has a routine and emergency vaccine management plan	R		
VFC/Vaccine Program	ability for the jurisdictional vaccine program admin to document that a facility participating in VFC has a VFC Coordinator annual training certificate	R		
VFC/Vaccine Program	ability for the jurisdictional vaccine program admin to document that a facility participating in VFC has a Backup Coordinator annual training certificate	R		
VFC/Vaccine Program	ability for the jurisdictional vaccine program admin to add comments during the vaccine program enrollment approval process	O		
VFC/Vaccine Program	ability to require the vaccine program facility to indicate the number of vaccine storage units being monitored	O		
VFC/Vaccine Program	ability to require the vaccine program facility to indicate the types of vaccine storage units being monitored	O		
VFC/Vaccine Program	ability to require the vaccine program facility to indicate whether they store Varicella and MMRV vaccine	R		
VFC/Vaccine Program	ability to enter contact information for the facility Primary Vaccine Coordinator	R		
VFC/Vaccine Program	ability to enter contact information for the facility Backup Vaccine Coordinator	R		
VFC/Vaccine Program	ability to enter contact information for the facility vaccine program Agreement Signatory	R		
VFC/Vaccine Program	ability to capture the day of the week that a vaccine program facility may receive vaccine shipments	R		
VFC/Vaccine Program	ability to capture the time that a vaccine program facility may receive vaccine shipments	R		
VFC/Vaccine Program	ability to automatically turn off vaccine ordering capabilities for a facility that does not have an up-to-date vaccine program enrollment	R		
VFC/Vaccine Program	ability to capture required information for VFC clinician: last name, first name, title, medical license number, NPI number, still active with facility, are they a signatory, specialty (FP, Peds) during the enrollment process	R		
VFC/Vaccine Program	ability to attach VFC documentation (in multiple formats) such as: VFC training certification, certificate of calibration, medical license, floor design diagram and other documents	R		
VFC/Vaccine Program	ability for IIS staff to retrieve electronic files from organization/facility file folder	O		
VFC/Vaccine Program	ability to automatically validate clinician license number against Professional Licensing Agency record database	O		

Function: Manage Organizations and Facilities

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: indicate the anticipated cost and timeline for development and release.
VFC/Vaccine Program	ability to submit vaccine program re-enrollment data electronically	E		
VFC/Vaccine Program	ability to electronically notify a facility VFC/vaccine program coordinator of an upcoming need for VFC/vaccine program re-enrollment	O		
VFC/Vaccine Program	ability for the jurisdictional vaccine program admin to modify the date for online renewal electronic notifications for each vaccine program facility	E		
VFC/Vaccine Program	ability to suspend ordering capabilities for a facility pending approval of vaccine program enrollment	E		
VFC/Vaccine Program	ability to re-activate ordering capabilities for a facility when a vaccine program enrollment is approved	E		
Organization/Facility	ability to send electronic communications to organization/facility contacts	E		
Organization/Facility	ability to send a final electronic notification reminder, re: renewal, to all VFC facilities that have not completed the renewal by their expiration date	E		
Organization/Facility	ability to send electronic communications directly from the IIS	O		
Organization/Facility	ability to send electronic communications directly from the IIS to multiple recipients	O		
Organization/Facility	ability to notify more than one user at a participating vaccine program facility of any vaccine program notification	O		
Organization/Facility	ability for the jurisdictional vaccine program admin to customize vaccine program enrollment alerts to participating vaccine program facilities when needed	O		
Organization/Facility	ability for the jurisdictional vaccine program admin to modify the date for online renewal electronic notifications for each participating vaccine program facility	O		
Organization/Facility	ability to electronically notify the jurisdictional vaccine program admin of vaccine program follow-up activities for a new vaccine program facility enrolled for 6 months	O		

Function: Manage Users

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
User Search	ability for jurisdictional admin to search for user accounts by user-defined criteria	E		
User Search	ability for jurisdictional admin to view all user accounts	E		
User Search	ability for organization admin to search all user accounts associated with their organization	E		
User Search	ability for organization admin to view all user accounts associated with their organization	E		
User Search	ability to sort users by user defined-criteria	O		
Add, Edit, Inactivate User	ability for admin to manage user accounts	E		
Add, Edit, Inactivate User	ability to track the progress of a new user registration	O		
Add, Edit, Inactivate User	ability for admin to add new users	E		
Add, Edit, Inactivate User	ability for admin to modify user accounts	E		
Add, Edit, Inactivate User	ability for admin to inactivate user accounts	E		
Add, Edit, Inactivate User	ability for jurisdictional admin to inactivate multiple accounts in one transaction	O		
Add, Edit, Inactivate User	ability for organization admin to inactivate user accounts associated with their organization	E		
Add, Edit, Inactivate User	ability to store reason for inactivation of user account	E		
Add, Edit, Inactivate User	ability for jurisdictional admin to reactivate an inactivated account	E		
Add, Edit, Inactivate User	ability to electronically notify a user that their account is locked (inaccessible) as per jurisdictional security policy	O		
Add, Edit, Inactivate User	ability to electronically notify a user that their account is inactive	O		
Add, Edit, Inactivate User	capture clinician activity status (out of state, loss of certification, change of practice status, other)	O		
Add, Edit, Inactivate User	ability for jurisdictional admin to assign a role to authorized users	E		
Add, Edit, Inactivate User	ability for organization admin to assign a role to authorized users within their organization	E		
Authentication & Authorization	ability to authenticate user	E		
Authentication & Authorization	ability to access the system through an authorized username and password	E		
Authentication & Authorization	ability to support access via single-sign in for jurisdictional users	O		
Authentication & Authorization	ability to switch between multiple organizations	O		
Authentication & Authorization	ability to view jurisdictional policy agreements	E		
Authentication & Authorization	support multi-factor authentication per jurisdictional policy	O		
Password Management	ability to generate electronic notification to authorized user of account credentials	E		
Password Management	ability to electronically notify authorized users of their username	E		
Password Management	ability to electronically notify authorized users of their temporary password in a separate notification	E		
Password Management	ability to generate electronic notification at periodic intervals to authorized users of their pending account password expiration	E		
Password Management	ability for jurisdictional admin to configure the periodic intervals for generation of notifications to authorized users of their pending account password expiration	O		
Password Management	ability to support temporary password which will be required to change during initial log in	E		
Password Management	ability to support temporary password which will expire in X number of days determined by policy	E		
Password Management	ability for users to change their own passwords per program/jurisdiction security policy	E		
Password Management	ability for users to reset their password per program/jurisdiction security policy	E		
Password Management	ability to prompt users to change their password at time intervals per program/jurisdiction security policy	E		

Function: Support Interoperability

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Onboarding	ability to onboard organizations/facilities to facilitate electronic data exchange	E		
Onboarding	ability to track an organization's/facility's progress through the onboarding process	O		
Onboarding	ability to capture EHR system specification details	E		
Onboarding	ability to create a unique username to assign to the organizations/facilities during the test phase	E		
Onboarding	ability to create a unique password to assign to the organizations/facilities during the test phase	E		
Onboarding	ability to electronically alert the vendor/organization when the certificate for transport is going to expire in X time period	E		
Onboarding	ability to store digital certificate information	E		
Onboarding	ability to validate that the transport layer between the test site and IIS is functional	E		
Onboarding	ability to validate system connectivity prior to the submission of test data	E		
Onboarding	ability to identify data formatting errors during testing	E		
Onboarding	ability to provide test message submission summary report to the EHR vendor	E		
Onboarding	ability for EHR vendor to view details regarding the processing of test data in terms of errors and warnings in the messages	E		
Onboarding	ability for IIS authorized staff to review and approve onboarding forms	E		
Onboarding	ability for IIS staff to review and reject onboarding forms	E		
Onboarding	ability for applicant to edit a rejected onboarding application	E		
Onboarding	ability for applicant to save a rejected onboarding application	E		
Onboarding	ability for applicant to resubmit a rejected onboarding application	E		
Onboarding	ability to compare onboarding application information to current records to determine most current data	E		
Interfaces	ability to interface with other systems to facilitate electronic data sharing/exchange per jurisdictional policy	E		
Interfaces	ability to interface with electronic health record systems	E		
Interfaces	ability to interface with the Immunization Gateway	E		
Interfaces	ability to interface with an application that facilitates patient scheduling	E		
Interfaces	ability to exchange data with CDC Vaccine Tracking System (VTrckS) based on most current CDC ExIS Specifications	E		
Interfaces	ability to order vaccine via electronic interface with VTrckS	E		
Interfaces	ability to receive vaccine inventory/shipping information	E		
Interfaces	ability to batch export vaccine inventory for submission to VTrckS	E		
Interfaces	ability to batch export vaccine ordering information for submission to VTrckS	E		
Interfaces	ability to batch export facility information	E		
Interfaces	ability to export vaccine return and wastage data to VTrckS	E		
Interfaces	ability to use the VTrckS-API for file exchange between the IIS and VTrckS based on CDC requirements and API file specifications	O		
Interfaces	ability to receive data through an interface with jurisdictional vital records system	E		
Interfaces	ability to update IIS data from Vital Records for birth events	E		
Interfaces	ability to update IIS data from Vital Records for death events	E		
Interfaces	ability to update IIS data from Vital Records for adoption events	E		
Interfaces	ability to update IIS data from Vital Records for name change events	E		
Interfaces	ability to detect if a newborn record is a potential duplicate in the IIS	E		
Interfaces	ability to use new Vital Record data for matched records to update patient demographic data	E		
Interfaces	ability to update the IIS with date of death from Vital Records data	E		
Interfaces	ability to prevent updates to IIS records	O		
Data Exchange	ability to support real-time data exchange per the CDC HL7 implementation guide	E		
Data Exchange	ability to process an HL7 message	E		
Data Exchange	ability to respond to an HL7 message	E		
Data Exchange	ability to create an HL7 message	E		
Data Exchange	ability to capture IIS Core Data Elements	E		
Data Exchange	ability to store IIS Core Data Elements	E		
Data Exchange	ability to accept last prior version of HL7 messages	E		
Data Exchange	ability to manually correct a submitted record and resubmit for processing	O		
Data Exchange	ability to support data exchange in non-HL7 format	E		
Data Exchange	ability to import bulk patient demographic information into IIS	E		
Data Exchange	ability to import bulk immunization information into IIS	E		
Data Exchange	ability to export routine, seasonal, and emergency vaccination files (aggregate and de-identified)	E		

Function: Support Interoperability

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Data Exchange	ability to export routine, seasonal, and emergency vaccination files (aggregate and de-identified) automatically via CDC approved	O		
Data Exchange	ability to monitor and troubleshoot data exchange	E		
Data Exchange	ability to view VXU messages submitted by an organization	E		
Data Exchange	ability to view HL7 messages for an organization within a defined date range per jurisdictional policy	E		
Data Exchange	ability to view HL7 ACK messages generated for an organization	E		
Data Exchange	ability to view incoming HL7 QBP messages submitted by an organization	E		
Data Exchange	ability to view RSP messages generated for an organization	E		
Data Exchange	ability to log acknowledgement messages indicating warnings and errors	E		
Data Exchange	ability to retrieve error messages within a specified date range by organization	E		
Data Exchange	ability to retrieve acknowledgment messages within a specified date range by organization	E		
Data Exchange	ability to filter error messages	E		
Data Exchange	ability to filter acknowledgement messages	E		
Data Exchange	ability to sort error messages	E		
Data Exchange	ability to sort acknowledgement messages	E		

Function: Ensure Data Quality

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Patient Matching &	ability to prevent duplicate patient records in the IIS database	E		
Patient Matching &	ability to automatically identify incoming patient records as potential duplicates	E		
Patient Matching &	ability to automatically identify existing patient records as potential duplicates	E		
Patient Matching &	ability to automatically consolidate two or more duplicate records	E		
Patient Matching &	ability to generate electronic notification of potential duplicates for manual review	E		
Patient Matching &	ability to automatically match an incoming patient record with existing records to avoid a duplicate record being created	E		
Patient Matching &	ability to set thresholds for patient matching	E		
Patient Matching &	ability to view all potential duplicate patient records for an individual patient simultaneously	E		
Patient Matching &	ability for jurisdictional admin to edit thresholds to increase the probability of a match	E		
Patient Matching &	ability for jurisdictional admin to edit thresholds to reduce the probability of a match	E		
Patient Matching &	ability to flag potential duplicate patient records for manual review that cannot be resolved automatically	E		
Patient Matching &	ability to view all potential duplicate patient records simultaneously	E		
Patient Matching &	ability for admin to manually merge patient records	E		
Patient Matching &	ability for organizational/facility user to manually merge patient records from their own organization/facility	E		
Patient Matching &	ability to manually flag two or more patient records as potential duplicates	E		
Patient Matching &	ability to prevent manual review of records previously indicated as "not a duplicate"	E		
Patient Matching &	ability to flag a patient as "not a duplicate" during manual review	E		
Patient Matching &	ability to maintain "not a duplicate" flag for resolved patient records	E		
Patient Matching &	ability to select data elements from the patient records to maintain within the consolidated record	E		
Patient Matching &	ability to retain "pre-merged" records for reference	E		
Patient Matching &	ability to separate patient records that were incorrectly merged	E		
Vaccination Event	ability to prevent potential duplicate vaccination events at the immunization level	E		
Vaccination Event	ability to automatically identify incoming vaccination event as potential duplicates	E		
Vaccination Event	ability to automatically select the most accurate vaccination event based on deduplication rules	E		
Vaccination Event	ability to automatically identify existing vaccination events as potential duplicates	E		
Vaccination Event	ability to manually flag potential duplicate vaccination events for manual review	E		
Vaccination Event	ability to display potential duplicate vaccine records for an individual patient	E		
Vaccination Event	ability to manually merge a duplicate vaccination event	E		
Vaccination Event	ability to manually delete a duplicate vaccination event	E		
Vaccination Event	ability to automatically consolidate two or more duplicate vaccination events	E		
Vaccination Event	ability to retain "pre-merged" or "pre-consolidated" vaccination events for reference	E		
Vaccination Event	ability to separate vaccination events that were incorrectly merged or consolidated	E		

Function: Evaluate and Forecast

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Clinical Decision Support	ability to provide immunization clinical decision support according to ACIP recommendations	E		
Clinical Decision Support	ability to support a vaccine clinical decision support algorithm aligned with the CDC CDSi logic specifications	E		
Clinical Decision Support	ability for jurisdictional admin to update the CDS rules	E		
Clinical Decision Support	ability to evaluate a patient's' immunization history according to the ACIP Child and Adolescent	E		
Clinical Decision Support	ability to evaluate a patient's' immunization history according to the ACIP Recommended Catch-up	E		
Clinical Decision Support	ability to evaluate a patient's' immunization history according to the ACIP Adult Immunization Schedule	E		
Clinical Decision Support	ability to generate a vaccine forecast according to the ACIP Child and Adolescent Immunization Schedule and	E		
Clinical Decision Support	ability to generate a vaccine forecast according to the ACIP Recommended Catch-up Immunization Schedule	E		
Clinical Decision Support	ability to generate a vaccine forecast according to the ACIP Adult Immunization Schedule and a patient's	E		
Clinical Decision Support	ability to display and highlight vaccines that are due	E		
Clinical Decision Support	ability to display and highlight vaccines that are overdue	E		
Clinical Decision Support	ability to display an indication when a vaccine series is complete	E		
Clinical Decision Support	ability to display vaccine-specific contraindications according to CDC lists of vaccine contraindications	O		
Clinical Decision Support	ability to take into account contraindications and precautions in the vaccine forecast	E		
Clinical Decision Support	ability to take into account evidence of immunity in the vaccine forecast	E		
Clinical Decision Support	ability to generate a forecast of specific vaccines required for individuals who travel outside the US	O		
Clinical Decision Support	ability to maintain historical records of effective dates of previous forecast schedules	O		
Clinical Decision Support	ability to review an immunization schedule that was appropriate at the time of administration	O		
Clinical Decision Support	ability to apply an immunization schedule that was appropriate at the time of administration	O		
Clinical Decision Support	ability to account for immune globulins in vaccine forecasting	E		
Clinical Decision Support	ability to create test cases for reuse during user acceptance testing	E		
Clinical Decision Support	ability to save test cases for reuse during user acceptance testing	E		
Clinical Decision Support	ability to compare the expected results of the forecasting test case to the actual results observed by the	E		
Reminder/Recall	ability to generate patient-specific reminder/recall notifications	E		
Reminder/Recall	ability to select one or more vaccines for generating reminder/recall notifications	E		
Reminder/Recall	ability to view the date the reminder/recall notice was sent to a patient	O		
Reminder/Recall	ability to generate lists of patients in need of a reminder or recall notification by organization	E		
Reminder/Recall	ability to generate reminder/recall notifications per consent designation	E		
Reminder/Recall	ability to generate patient-specific reminder/recall notices by user-defined parameters	E		
Reminder/Recall	ability to generate reminder/recall in user-defined format	E		
Reminder/Recall	ability to select the age of the cohort when generating reminder/recall notifications	E		
Reminder/Recall	ability to print patient-specific reminder/recall notices by user-defined parameters	E		
Reminder/Recall	ability to generate patient specific reminder/recalls in a user-defined format	E		
Reminder/Recall	ability for an end user to generate patient specific reminder/recalls in accordance with HIPAA and	E		
Reminder/Recall	ability for an end user to print patient specific reminder/recalls in accordance with HIPAA and jurisdictional	E		
Reminder/Recall	ability to generate vaccine recall notices by facility based on vaccine name, vaccination date range, and lot	O		
Reminder/Recall	ability to generate vaccine recall notices by administering provider based on vaccine name, vaccination date	O		
Reminder/Recall	ability to set the limit/number of times a patient will receive a reminder/recall	O		
Reminder/Recall	ability to modify the limit/number of times a patient will receive a reminder/recall	O		
Reminder/Recall	ability to exclude a patient who has met the limit/number of times to receive a reminder/recall	O		
Reminder/Recall	ability to generate a list of phone numbers for patients needing reminder/recall	O		
Reminder/Recall	ability to manually review a patient list for a reminder/recall notification	E		
Reminder/Recall	ability to flag patients to exclude before sending a reminder/recall notification	O		
Reminder/Recall	ability to establish a time interval between reminder recall notices (e.g., 90 days or 60 days)	O		
Reminder/Recall	ability to generate a reminder/recall notifications for patients with an active status for their organization	E		
Reminder/Recall	ability to generate reports that include reminder/recall history for specific date range	O		

Function: Evaluate and Forecast

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Reminder/Recall	ability to make all reminder/recall data accessible to authorized users for a predetermined period of time	O		
Reminder/Recall	ability to aggregate multiple notices going to the same address into one notification	O		
Coverage Reports	ability to generate report(s) displaying information on immunization coverage rate(s) among select	E		
Coverage Reports	ability to generate report(s) for organizations and facilities per CDC Immunization Quality Improvement for	E		
Coverage Reports	ability to generate report(s) on immunization coverage for a user-defined geographic area	E		
Coverage Reports	ability to generate report(s) on immunization coverage for a patient cohort	E		
Coverage Reports	ability to view and modify list of patients to be included in immunization coverage report	O		
Coverage Reports	ability to generate report(s) displaying immunization coverage trends over time, over a selected timeframe	E		
Coverage Reports	ability to generate report(s) that display the number of missed opportunities for vaccination	E		
Coverage Reports	ability to generate report(s) displaying the number of patients late up-to-date for immunization who are up-	E		
Coverage Reports	ability to generate report(s) that display the number of invalid vaccine doses	E		
Coverage Reports	ability to generate report(s) displaying vaccine exemption rates	E		
Coverage Reports	ability to generate report(s) displaying immunization coverage by user-defined parameters	E		
Coverage Reports	ability to generate report(s) displaying immunization coverage by vaccine type	E		
Coverage Reports	ability to generate report(s) displaying immunization coverage by age range	E		
Coverage Reports	ability to generate report(s) displaying immunization coverage by ethnicity	E		
Coverage Reports	ability to generate report(s) displaying immunization coverage by race	E		
Coverage Reports	ability to generate report(s) displaying immunization coverage by patient sex	O		

Function: Manage Patient and Immunization Records

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: indicate the anticipated cost and timeline for development and release.
Patient Search	ability to search for patient records	E		
Patient Search	ability to search patient record based on one or multiple user-defined parameters	E		
Patient Search	ability to re-search for a patient record by modifying existing search parameters	E		
Patient Search	ability to display the list of returned possible patient matches per jurisdictional policy	E		
Patient Search	ability to select a patient record from the list of possible patient matches	E		
Add, Edit Patient	ability to add demographic information to a patient record	E		
Add, Edit Patient	ability to create a new patient record	E		
Add, Edit Patient	ability to edit demographic information in a patient record	E		
Add, Edit Patient	ability to insert permanent comments in a patient's record that can be viewed based on	E		
Add, Edit Patient	ability to display the user who created the permanent comment in a patient's record	E		
Add, Edit Patient	ability to prevent a patient record from being saved unless required fields are completed, per	E		
Add, Edit Patient	ability to automatically notify a user when attempting to submit an incomplete patient record	E		
Add, Edit Patient	ability to store CDC-endorsed core data elements for all patient records	E		
Add, Edit Patient	ability to store multiple of reported names for each patient to include: first name, middle name, last	E		
Add, Edit Patient	ability to store multiple patient addresses	O		
Add, Edit Patient	ability to support multiple patient address type designations (e.g. primary address, vacation address)	O		
Add, Edit Patient	ability to identify effective dates for use of a patient address	O		
Add, Edit Patient	ability to store all historic addresses for a patient	O		
Add, Edit Patient	ability to store country information related to where the patient was born	O		
demographics	SmartyStreets)	O		
Add, edit patient	SmartyStreets)	O		
Add, Edit Patient	ability to automatically create a unique patient ID number	E		
Add, Edit Patient	ability to automatically associate patient ID number to the patient's record	E		
Add, Edit Patient	ability to track patients of all ages per jurisdictional law or policy	E		
Add, Edit Patient	ability to store mother's HBsAg status for a patient	O		
Add, Edit Patient	ability to store a patient's occupation	E		
Add, Edit Patient	ability to designate patient as belonging to a priority group for vaccination	O		
Add, Edit Patient	ability to store multiple patient identifiers	E		
Add, Edit Patient	ability to assign patient records to a cohort	E		
Add, Edit Patient	ability to assign patient records to multiple cohorts	E		
Add, Edit Patient	ability to view patient records by cohort	E		
Add, Edit Patient	ability to remove patient records from a cohort	E		
Patient Status	ability to manage patient status at the organization/facility level	E		
Patient Status	ability to store active patient status at the organization/facility level	E		
Patient Status	ability to store inactive patient status at the organization/facility level	E		
Patient Status	ability to edit active patient status at the organization/facility level	E		
Patient Status	ability to edit inactive patient status at the organization/facility level	E		
Patient Status	ability to store reason for inactive status of patients at the organizational/facility level	E		
Patient Status	ability to edit multiple patients status in one action	O		
Patient Status	ability to manage patient status at the geographic jurisdictional level	E		
Patient Status	ability to store active patient status at the geographic jurisdiction level	E		
Patient Status	ability to store inactive patient status at the geographic jurisdictional level	E		
Patient Status	ability to edit active patient status at the geographic jurisdictional level	E		
Patient Status	ability to edit inactive patient status at the geographic jurisdictional level	E		
Patient Status	ability to store reason for inactive status of patients at the geographic jurisdictional level	O		

Function: Manage Patient and Immunization Records

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Patient Status	ability to restrict access to patient records that have been placed in an inactive status	O		
Patient Status	ability to restrict edits to patient records that have been placed in an inactive status	O		
Patient Consent	ability to manage patient consent per jurisdictional policy	E		
Patient Consent	ability to update patient consent on a patient's record	E		
Patient Consent	ability to opt out a patient from participating in the IIS	E		
Patient Consent	ability to opt in a patient for participation in the IIS	E		
Patient Consent	ability to enable access to a patient record per consent designation	E		
Patient Consent	ability to enable updates to a patient record per consent designation	E		
Add, Edit Patient	ability to add vaccination event information to a patient record	E		
Add, Edit Patient	ability to edit vaccine information in a patient record	E		
Add, Edit Patient	ability to mark vaccine information in a patient record for deletion	O		
Add, Edit Patient	ability to add reason for deletion of vaccine information in a patient record	O		
Add, Edit Patient	ability to capture vaccine eligibility by vaccine dose for publicly purchased vaccine	E		
Add, Edit Patient	ability to store vaccine eligibility by vaccine dose for publicly purchased vaccine	E		
Add, Edit Patient	ability to report multiple doses administered to the same patient on the same administration date	E		
Add, Edit Patient	ability to store all CDC-endorsed core data elements related to vaccine events	E		
Add, Edit Patient	ability to enter vaccination substandard or otherwise compromised flag	E		
Add, Edit Patient	ability to view submitted vaccination event information on a patient's record	E		
Add, Edit Patient	ability to store adverse reactions in accordance with Vaccine Recommendations and Guidelines of	E		
Add, Edit Patient	ability to flag an adverse reaction as having been reported to VAERS	E		
Add, Edit Patient	ability to store patient vaccination event funding eligibility information	E		
Add, Edit Patient	ability to print form for signature of vaccine refusal by patient for each individual vaccine antigen	O		
Add, Edit Patient	ability to ensure that the default lot number is from the oldest lot when entering an administered	E		
Add, Edit Patient	ability to record administration of vaccination regardless if vaccine has since expired in inventory	E		
Add, Edit Patient	ability to track vaccinations that require adjuvant	E		
Print/Export Record	ability to securely print a patient immunization record	E		
Print/Export Record	ability to include evaluated history in the printable version of the patient record	E		
Print/Export Record	ability to include the forecast in the printable version of the patient record	E		
Print/Export Record	ability to include immunity in the printable version of the patient record	E		
Print/Export Record	ability to securely export a patient immunization record	E		
Print/Export Record	ability to export a patient record in user-defined format	O		
Mass Vaccination	ability to support mass vaccination operations	E		
Mass Vaccination	ability to rapidly capture patient demographic information offline during mass vaccination clinic for	E		
Mass Vaccination	ability to rapidly capture vaccine information offline during mass vaccination clinic for later	E		
Mass Vaccination	ability to support rapid capture of patient demographic information during mass vaccination clinic	E		
Mass Vaccination	ability to support rapid capture of vaccine information during mass vaccination clinic	E		
Mass Vaccination	ability to administer vaccines during public health emergency without impacting the patient's status	O		
Mass Vaccination	ability for jurisdictional admin to flag/indicate org/facility participation in mass vaccination event	O		

Function: Manage Vaccine Inventory

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release
Vaccine Inventory	ability to search inventory by user-defined parameters	E		
Vaccine Inventory	ability to search the inventory by funding source	E		
Vaccine Inventory	ability to search inventory by vaccine type	E		
Vaccine Inventory	ability to search inventory by vaccine lot number	E		
Vaccine Inventory	ability to search inventory by vaccine NDC code	E		
Add, Edit Vaccine	ability to manage vaccine inventory	E		
Add, Edit Vaccine Inventory	ability to support visualization of current vaccine inventory	E		
Add, Edit Vaccine	ability to edit inventory funding source at the lot level	E		
Add, Edit Vaccine	ability to edit inventory funding source at the vaccine level	E		
Add, Edit Vaccine	ability to add vaccine information to inventory	E		
Add, Edit Vaccine	ability to support barcode scanning system to electronically upload vaccine inventory to the IIS	O		
Add, Edit Vaccine	ability to view current inventory list by facility	E		
Add, Edit Vaccine	ability to view current inventory list by organization	E		
Add, Edit Vaccine	ability for jurisdictional admin to edit organization/facility inventory	E		
Add, Edit Vaccine	ability to manage vaccine borrowed from lots belonging to one funding source to lots belonging to another funding source	O		
Add, Edit Vaccine	ability to reclassify funding source of borrowed vaccine from private to public or vice versa for replacement cases	O		
Add, Edit Vaccine	ability to view storage capability	E		
Add, Edit Vaccine	ability to document vaccine storage and handling events such as temperature excursions	E		
Add, Edit Vaccine	ability to store storage capability	E		
Vaccine Ordering	ability for rule based logic to recommend vaccine order quantity	E		
Vaccine Ordering	ability to alert user when "reorder recommendation" inventory level is reached	O		
Vaccine Ordering	ability to pre-populate order with recommended quantities based on inventory, doses reported as administered to IIS	E		
Vaccine Ordering	ability to edit pre-populated order quantity	E		
Vaccine Ordering	ability to order vaccines	E		
Vaccine Ordering	ability for jurisdictional admin to activate vaccines available for ordering	E		
Vaccine Ordering	ability for jurisdictional admin to inactivate vaccines available for ordering	E		
Vaccine Ordering	ability to order publicly-purchased vaccines	E		
Vaccine Ordering	ability to view all orders by user-defined parameters	O		
Vaccine Ordering	ability to update delivery hours to receive shipments	E		
Vaccine Ordering	ability to enter a reason for vaccine orders outside the recommended order quantity	E		
Vaccine Ordering	ability to search and view past vaccine orders by facility within a specified timeframe	E		
Vaccine Ordering	ability to verify contact information during each order without leaving ordering workflow	E		
Vaccine Ordering	ability to update contact information during each order without leaving ordering workflow	E		
Vaccine Ordering	ability to save an unsubmitted order	E		
Vaccine Ordering	ability to update organization/facility contact information before submitting a vaccine order	E		
Vaccine Ordering	ability to cancel unsubmitted or unprocessed vaccine orders	E		
Vaccine Ordering	ability to edit unsubmitted or unprocessed vaccine orders	E		
Vaccine Ordering	ability to save an unsubmitted order after rejection	E		
Vaccine Ordering	ability to verify order information before order submitted	E		
Vaccine Ordering	ability for jurisdictional admin to reject a vaccine order	E		
Vaccine Ordering	ability for jurisdictional admin to select a reason code when rejecting an order	E		
Vaccine Ordering	ability to edit an order after rejection	E		
Vaccine Ordering	ability to resubmit an order after rejection	E		
Vaccine Ordering	ability to electronically notify the facility of a rejected order	E		
Vaccine Ordering	ability to track the shipping status of orders	E		
Vaccine Ordering	ability to verify packing slip information after order is shipped	O		
Vaccine Ordering	ability to receive electronic notification when order quantity received does not match vaccine order	O		
Vaccine Ordering	ability to receive electronic notification when vaccine order received is damaged	O		
Vaccine Ordering	ability to request shipping label(s) for nonviable vaccine subject to return	O		
Vaccine Ordering	ability to search for past vaccine returns within a specified timeframe	E		
Vaccine Ordering	ability to view past vaccine returns within a specified time frame	E		
Vaccine Ordering	ability to pre-book vaccine orders	E		
Vaccine Ordering	ability for jurisdictional admin to allocate vaccine inventory per user defined parameters	E		
Vaccine Ordering	ability to activate vaccine ordering functionality for all designated organizations/facilities during a public health emergency	E		
Vaccine Ordering	ability for jurisdictional admin to create order sets	E		

Function: Manage Vaccine Inventory

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization; indicate the anticipated cost and timeline for development and release.
Review/Approve Order	ability for jurisdictional admin to review order	E		
Review/Approve Order	ability to support a rules-based decision logic to approve or reject order if above or below recommended order quantity	O		
Review/Approve Order	ability for jurisdictional admin to approve order	E		
Review/Approve Order	ability for jurisdictional admin to adjust order	E		
Review/Approve Order	ability for jurisdictional admin to electronically accept VFC vaccine into inventory	E		
Review/Approve Order	ability to accept each vaccine product in the IIS after shipment is received	E		
Vaccine Dose	ability to automatically decrement vaccine doses from inventory when matched vaccine doses are reported as administered	E		
Vaccine Dose	ability to automatically match vaccine doses reported as administered to vaccine doses in inventory to facilitate dose decrementing	E		
Vaccine Dose	ability to automatically decrement vaccine inventory in real-time via HL7 messaging	E		
Vaccine Dose	ability to automatically decrement vaccine inventory in real-time via UI data entry	E		
Vaccine Inventory	ability to reconcile vaccine doses currently in physical storage with vaccine doses reflected in system inventory	E		
Vaccine Inventory	ability to document reductions in vaccine inventory due to outgoing vaccine transfers	E		
Vaccine Inventory	ability to electronically document reductions in vaccine inventory due to outgoing vaccine wastage	E		
Vaccine Inventory	ability to enter current number of vaccine doses on-hand in physical storage	E		
Vaccine Inventory	ability to track and manage doses for vaccines: on hand, administered, wasted, expired, ordered, recalled, returned, transferred	E		
Vaccine Inventory	ability to enable removal of recalled lots from active inventory	E		
Vaccine Inventory	ability to print a reconciliation worksheet	O		
Vaccine Transfers	ability for jurisdictional admin to approve vaccine transfers	O		
Vaccine Transfers	ability for jurisdictional admin to initiate VFC vaccine transfers	O		
Vaccine Transfers	ability to accept VFC vaccine transfers	O		
Vaccine Transfers	ability for jurisdictional admin to reject vaccine transfers	O		
Vaccine Transfers	ability to search and view past vaccine transfers within a specified timeframe	O		
Vaccine Transfers	ability for jurisdictional admin to allow for direct vaccine transfer between facilities without jurisdictional pre-approval, but with jurisdictional visibility/oversight.	O		
Vaccine Wastage	ability to manage vaccine wastage	E		
Vaccine Wastage	ability to determine the total cost of wasted vaccine by user-defined parameters	E		
Vaccine Wastage	ability for jurisdictional admin to modify inventory quantity to reflect wastage	E		
Vaccine Wastage	ability for jurisdictional admin to assign reason for inventory wastage	E		
Vaccine Wastage	ability to determine the total doses of vaccine wasted by user-defined parameters	E		
Vaccine Expiration	ability to manage vaccine expiration	E		
Vaccine Expiration	ability to alert users to vaccine nearing expiration	O		
Vaccine Expiration	ability to provide alerts for inventory already expired	O		
Vaccine Expiration	ability for jurisdictional admin to modify inventory quantity removed from available inventory	E		

Function: Provide Data Access

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Standard Reports	ability to generate a report that includes history and forecast	E		
Standard Reports	ability to generate a data quality report displaying information on the quality of submitted data	E		
Standard Reports	ability to generate a report that provides information on patient and vaccine matching and deduplication	E		
Standard Reports	ability to generate a report that provides information on data quality of data at rest	E		
Standard Reports	ability to generate data quality reports for HL7 submissions	E		
Standard Reports	ability to generate VFC reports	E		
Standard Reports	ability to generate a practice-level patient data report for VFC enrolled sites	E		
Standard Reports	ability to generate a doses administered report to support accountability for publicly-purchased vaccine	E		
Standard Reports	ability to generate a doses administered report for VFC enrolled sites	E		
Standard Reports	ability to generate VFC provider practice profiles	E		
Standard Reports	ability to generate a report showing the total number of select vaccines administered each month by facility	E		
Standard Reports	ability to generate a report displaying a change in vaccine administration patterns over a selected timeframe	E		
Standard Reports	ability to generate duplicate/merge record reports	E		
Standard Reports	ability to generate reports about IIS users	E		
Standard Reports	ability to generate vaccine management reports	E		
Standard Reports	ability to generate a report listing/identifying patients who received a recalled vaccine	E		
Standard Reports	ability to generate a report of patients declining or refusing vaccinations	O		
Standard Reports	ability to generate a report to calculate a facility's average vaccine usage	O		
Standard Reports	ability to generate VFC accountability reports for managing VFC inventories and orders	E		
Standard Reports	ability to generate vaccine inventory reports	E		
Standard Reports	hand	E		
Standard Reports	transactions	E		
Standard Reports	ability to generate report(s) that display information about vaccine order history	O		
Standard Reports	ability to generate report(s) that display information about vaccine wastage and returns	E		
Standard Reports	specific timeframe	E		
Standard Reports	ability to generate a report providing information about influenza pre-book orders	E		
Standard Reports	ability to query vaccine ordering patterns over a selected timeframe to indicate trends	O		
Standard Reports	ability to generate reports that provide information about organizations and facilities	O		
Standard Reports	ability for jurisdictional admin to generate report that lists immunizing facilities	O		
Standard Reports	ability for jurisdictional admin to generate a report that provides information on	O		
Standard Reports	ability for jurisdictional admin to access utilization of report/usage statistics	O		
Standard Reports	ability to generate reports that provide information about students and their immunization	E		
Standard Reports	ability to generate report of student exemptions by type (medical, religious)	E		
Standard Reports	ability to generate a record of students' immunizations for school purposes	E		
Standard Reports	ability to generate exclusion letters stating which vaccine(s) a student needs to come into	E		
Standard Reports	ability to generate reports for individuals vaccinated during a mass vaccination event	E		
Standard Reports	ability to generate doses administered reports for priority groups during a public health	E		

Function: Provide Data Access

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Standard Reports	ability to generate a report that provides information about the status of the system in	E		
Ad Hoc Queries &	ability to generate queries and reports based on user-defined parameters	E		
Ad Hoc Queries &	ability to schedule an ad hoc query to run on a predetermined interval (i.e., daily, weekly,	E		
Ad Hoc Queries &	ability to generate reports with a user-defined report format	E		
Ad Hoc Queries &	ability to generate reports across geographic hierarchy levels	E		
Ad Hoc Queries &	ability to generate data to inform the public via website dashboards or similar means	E		
Ad Hoc Queries &	ability to store saved report templates	E		
Ad Hoc Queries &	ability to modify saved report templates	E		
Ad Hoc Queries &	ability to inactivate (archive) saved report templates	E		
Ad Hoc Queries &	ability to modify a query	E		
Ad Hoc Queries &	ability to delete a query	E		
Ad Hoc Queries &	ability to save an ad hoc query	E		
Ad Hoc Queries &	ability to create a map using geocodes for statistical reporting	O		
Print/Export Reports	ability to export IIS data for use in other systems	E		
Print/Export Reports	ability to export data in user-defined formats	E		
Print/Export Reports	ability to export aggregate level de-identified data	E		
Print/Export Reports	ability to export record level de-identified data	E		
Print/Export Reports	ability to print reports	E		
Consumer Access	ability for authorized consumers to access personal IIS data per jurisdictional policy	E		
Consumer Access	ability for authorized consumer to print forecast	O		
Consumer Access	ability for authorized consumer to print patient immunization record	E		
Consumer Access	ability for authorized consumer to print an official immunization history	E		
Consumer Access	ability for authorized consumer to retrieve a verifiable digital vaccine credential without	E		
Consumer Access	ability for authorized consumer to view immunization forecast	E		
Consumer Access	ability for authorized consumer to view patient information	E		
Consumer Access	ability for authorized consumer to view patient immunization record	E		
Consumer Access	ability for patient/patient representative to opt in for reminder/recall notifications	O		
Consumer Access	ability for patient/patient representative to opt out of reminder/recall notifications	O		

Non-functional

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Attribute	Sub Characteristic	Requirement: The IIS must/should...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Performance	Time Behavior	support a responsive user interface	E		
Performance	Time Behavior	support application launch, i.e. time between user initiation and application start, in less than 10 seconds	E		
Performance	Time Behavior	support response to a user navigation action (e.g., mouse movement, keypresses, navigation) in less than 1	E		
Performance	Time Behavior	support response to process submitted information via direct data entry in less than 4 seconds	E		
Performance	Time Behavior	support generation of a standard, pre-configured report in less than 30 seconds	E		
Performance	Time Behavior	support responsive data exchange system interfaces	E		
Performance	Time Behavior	support electronic response to a submitted HL7 message in 5 seconds or less, 95% of the time	E		
Performance	Capacity	support up to 1000 concurrent users of the user interface without performance degradation	E		
Performance	Capacity	support multiple users viewing the same data at the same time	E		
Performance	Capacity	support users using the same function at the same time without degrading IIS performance	E		
Performance	Resource	support resource-intensive tasks without degrading IIS performance	E		
Performance	Resource	support user queries via the user interface without degrading IIS performance	E		
Performance	Resource	support generation of ad hoc reports without degrading IIS performance	E		
Performance	Resource	support data extracts without degrading IIS performance	E		
Performance	Capacity	support efficient processing of HL7 messages without performance degradation, as per jurisdictional capacity	E		
Performance	Capacity	support processing of up to 200 of HL7 VXU messages per hour without performance degradation	E		
Performance	Capacity	support processing of up to 8000 of HL7 QBP messages per hour without performance degradation	E		
Performance	Capacity	support permanent storage of records as per jurisdictional policy	E		
Performance	Capacity	support storage of unlimited number of organization records	E		
Performance	Capacity	support storage of unlimited number of user records	E		
Performance	Capacity	support storage of unlimited number of patient records	E		
Performance	Capacity	support storage of unlimited number of patient immunization records	E		
Usability	Accessibility	meet the United States Access Board Section 508 Standards	E		
Usability	Operability	support best practices for web application session management (e.g., cookies, cache) as recommended by the	E		
Usability	Operability	ability to execute Boolean searches	E		
Usability	Operability	ability to execute a wildcard searches	E		
Usability	User error	minimize data entry errors	E		
Usability	User error	assist in entering data correctly via pick-lists, drop-down boxes, or other easy-to-use options such as predictive	E		
Usability	User error	indicate required fields for data entry	E		
Usability	User error	ability to provide alert when required fields are left blank	E		
Usability	User error	support cross-field checks to ensure accuracy of information where dependencies exist (e.g., warning that a child	E		
Usability	User error	support spell check functionality with medical terminology for all free text fields	O		
Usability	User error	error messages (error must be fixed prior to continuing)	E		
Usability	User interface	support alerts related to user interface response time	O		
Usability	User interface	support user feedback with a simple indicator for response times between 2-4 seconds	O		
Usability	User interface	support user feedback with expected response time and percent-done indicator for response times greater than	O		
Usability	User interface	support users in stopping an operation expected to take longer than 10 seconds	O		
Usability	User interface	support users in performing other tasks while waiting for the system to complete tasks expected to take longer	O		
Reliability	Availability	support availability of the system as per jurisdictional needs	E		
Reliability	Availability	support access to the web application 99.9% of the time	E		
Reliability	Availability	support processing of and response to HL7 messages 99.9% of the time	E		
Reliability	Recoverability	ability to backup the IIS data as per jurisdictional policy	E		
Reliability	Recoverability	support redundancy of the IIS as per jurisdictional recovery plan	E		
Reliability	Recoverability	support real-time failover	E		
Reliability	Recoverability	support the recovery of backed up data as needed	E		
Reliability	Recoverability	support the restoration of IIS data after an outage or loss	E		
Reliability	Fault tolerance	support the efficient roll back of software changes as needed	E		

Non-functional

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Attribute	Sub Characteristic	Requirement: The IIS must/should...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Security	Non-repudiation	support audit logs for security purposes	E		
Security	Integrity	ability to electronically notify the system administrator of unauthorized activity	E		
Security	Authenticity	ability to track all attempted accesses that fail identification, authentication and authorization requirements	E		
Security	Authenticity	ability to track all accesses that successfully comply with identification, authentication and authorization	E		
Security	Non-repudiation	ability to maintain audit logs for specified time per jurisdictional policy	E		
Security	Non-repudiation	ability for jurisdictional admin to search audit log by function performed	E		
Security	Non-repudiation	ability for jurisdictional admin to search audit log by date and time period	E		
Security	Non-repudiation	ability for jurisdictional admin to search audit log by date range	E		
Security	Non-repudiation	ability for jurisdictional admin to search audit log by user defined parameters	E		
Security	Non-repudiation	ability for jurisdictional admin to search audit log by patient identifiers	E		
Security	Non-repudiation	ability for jurisdictional admin to filter audit log search by user defined parameters	O		
Security	Non-repudiation	ability for jurisdictional admin to sort audit log search results	O		
Security	Integrity	store audit data related to user access/viewing of patient records in the system	E		
Security	Integrity	store date of user access to a patient record	E		
Security	Integrity	store time of user access to a patient record	E		
Security	Integrity	store user ID of user access to a patient record	E		
Security	Non-repudiation	store audit data related to data changes in the system	E		
Security	Non-repudiation	store 'date received' for data modified in the system	E		
Security	Non-repudiation	store 'time received' for data modified in the system	E		
Security	Non-repudiation	store 'date updated' for data modified in the system	E		
Security	Non-repudiation	store 'time updated' for data modified in the system	E		
Security	Non-repudiation	store user associated with data modified in the system	E		
Security	Integrity	automatically enforce session timeout for a user when idle period is reached	E		
Security	Integrity	ability for automatic session timeout to be customized per jurisdictional policy	O		
Security	Integrity	ability to notify the user the session will expire	O		
Security	Confidentiality	support masking of passwords as they are typed or entered into the user interface	E		
Security	Integrity	ability for system administrator to terminate user connections	E		
Security	Confidentiality	Safeguard electronic personally identifiable information by implementing the appropriate technical best	E		
Security	Confidentiality	ability to encrypt personally identifiable information at rest	E		
Security	Confidentiality	ability to decrypt personally identifiable information at rest	E		
Security	Confidentiality	ability to encrypt personally identifiable information during transmission	E		
Security	Confidentiality	ability to decrypt personally identifiable information during transmission	E		
Security	Integrity	ability to maintain firewalls per AIRA's Security Guidance Considerations for Immunization Information Systems	E		
Security	Integrity	ability to maintain firewalls for protection of the hosting network	E		
Security	Integrity	ability to maintain firewalls for protection of the hosting environment	E		
Security	Integrity	ability to electronically notify the system admin of unauthorized activity	E		
Security	Integrity	ability to support anti-virus protection at current critical patch levels in the hosting environment	E		
Maintainabili	Analyzability	support event logging	E		
Maintainabilit	Analyzability	ability for system admin to enable event logging on all servers	O		
Maintainabilit	Analyzability	ability for system admin to enable event logging on all devices	O		
Maintainabilit	Analyzability	ability for system admin to disable event logging on all devices	O		
Maintainabilit	Analyzability	ability for system admin to limit access to event logs, including System, Application, Web and Database logs	O		
Portability	Adaptability	support use of web browsers per jurisdictional policy	E		
Portability	Adaptability	support use of current version of web browsers	E		
Portability	Adaptability	support use of last prior version of web browsers	E		
Portability	Adaptability	support a responsive design that renders properly on multiple devices	E		
Portability	Adaptability	support web client use on a desktop	E		

Non-functional

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Attribute	Sub Characteristic	Requirement: The IIS must/should...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: Indicate the anticipated cost and timeline for development and release.
Portability	Adaptability	support web client use on a laptop	E		
Portability	Adaptability	support web client use on a tablet	E		
Portability	Adaptability	support web client use on a smartphone	E		
Portability	Installability	be containerized (e.g., Docker or Kubernetes) to support easy installation and system updates	E		
Portability	Installability	be containerized for cloud based environments	O		

Glossary of Terms

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Terms and definitions used within requirements. Note: For definitions of general terms related to immunizations, see the CDC Vaccines and Immunizations Glossary

For definitions of general terms related to IIS, see the **AIRA MIROW Common Vocabulary** resources.

Term	Definition
Admin	Refers to a jurisdictional admin and organizational admin.
Associate (verb)	Establish a relationship between entities. Synonymous with "link."
At rest	Used to refer to data in storage within the IIS.
Audit log	Also referred to as an audit trail. Used to refer to the tracking of information about system activity and changes, used for security purposes.
Authorization agreement	Formal or legal agreement between an organization submitting and/or using immunization data and the jurisdiction that outlines terms for participating in the IIS per jurisdictional policy (e.g., data use agreements, user agreements).
Authorized consumer	A consumer authorized to access IIS records such as their personal vaccination records or those for individuals for whom they are guardians/care-takers.
Authorized user	Individual authorized to access the system based on their role and affiliation with an IIS-authorized organization.
Automatically	Ability for the system to take action without manual intervention.
Capture	Ability to enter data via user interface (UI) or data exchange interface for immediate usage. Does not necessarily imply storage.
Clinician	A clinician or health care professional who orders and/or administers vaccines (e.g., vaccine ordering provider, vaccine administering provider).
Cohort	A group of patients of particular interest to an organization and/or facility (e.g., a group of health plan members, a group of students, group of individuals with the same age).
Containerization	Containerization packages an application along with all its necessary configuration files, libraries, and dependencies, ensuring it runs efficiently and without bugs across various computing environments.
Delete	Process by which data are removed from the IIS system, including removal from data table(s). Synonymous with "purge."
During transmission	Used to refer to data being transmitted or actively moved from one location to another.
Edit	Global term to reflect ability to modify, update, and change data. For a particular field, this also includes the ability to delete field-level data that is no longer accurate.
Electronic notification	Communication/message sent to a user without manual intervention.
Electronic response	The IIS returns a final resolution, or outcome, of processing the HL7 message with a conformant HL7 (Health Level Seven) message.
Enroll	Process by which an organization or a facility is authorized to participate in an IIS and/or in a jurisdictional Vaccines for Children (VFC) program,
Event log	Tracking (i.e., storing) information about system activity and changes, used for IT support and maintenance.
Facility	A sub-organizational unit for organizations with multiple locations. May also be synonymous for "organization" for organizations with one
Immunization Information System	Refers to the application, data and staff that record all immunization doses administered by participating providers to individuals within a given
Inactivate	To make inoperable.
Interface (noun)	Connection between two or more systems for transmission of data.
Interface (verb)	Act of securely exchanging data to facilitate data use.
Interoperate	Data are transmitted from one system to be consumed by another.
Jurisdictional admin	Jurisdictional IIS staff authorized to enter and modify information in the IIS.
Jurisdictional vaccine program admir	Jurisdictional vaccine program staff authorized to enter and modify VFC- and vaccine program-related information in the IIS.

Glossary of Terms

Return to Cover Page

Terms and definitions used within requirements. Note: For definitions of general terms related to immunizations, see the CDC Vaccines and Immunizations Glossary

For definitions of general terms related to IIS, see the **AIRA MIROW Common Vocabulary** resources.

Term	Definition
Manage	Global term used to refer to the ability to add, edit, or otherwise modify information.
Notification	A push communication to an authorized user.
Order set	A standardized group of supply items that can ordered at one time that create efficiencies in the ordering process.
Organization	An entity that may provide data to an IIS and/or may consume IIS data and information (e.g., provider organization, school). An organization
Organizational admin	Staff within the organization (e.g., clinic, facility, LHD) responsible for maintaining the organization/facility information in the IIS, including
Patient	Used to refer to an individual. Synonymous with "client."
Personally identifiable information	"Any information about an individual maintained by an agency, including (1) any information that can be used to distinguish or trace an
Process	The IIS reads the incoming data and takes appropriate action based on the data submitted and previously known information already in the IIS.
Provider	A vaccinating or non-vaccinating health care professional authorized to submit, access and/or use IIS data.
Provider organization	A type of organization that has any combination of the following characteristics: provides vaccination services, responsible for an entity that
Query	A question posed of the IIS data.
Recall	A notification sent to individuals who are overdue for a vaccination.
Re-enroll	Process by which a previously enrolled organization or facility is re-authorized to participate in an IIS and/or in a jurisdictional VFC program, per
Reminder	A notification sent to individuals who are due to receive a vaccination soon.
Report	System generated data or information available in suitable formats, which may include outputs of queries.
Store	Maintenance of data for potential future use. Note: use of "store" also implies data capture.
System admin	Jurisdictional administrator responsible for oversight of the IIS technology, typically an IT role.
System alert	A communication broadcast to authorized users.
Track	Follow the steps of a process to note a modification.
User	Individual associated with an organization authorized to access the IIS system to submit and/or consume IIS data and information (e.g., clinic
User agreement	Agreement between a representative(s) of an organization and the jurisdiction, outlining terms for participation in the IIS, per jurisdictional
User-defined parameter	An element selected by a user to define the scope of a particular process or activity.
Vaccines for Children (VFC) provider	A type of provider organization, specifically, a provider organization that is enrolled in the VFC program.
Vaccine program	A program managed and administered by a jurisdiction to provide specified vaccine(s) to specified organizations or facilities (e.g., Vaccines for

Crosswalk to the IIS Functional Standards

IIS Functional Standards: https://www.cdc.gov/iis/functional-standards/resource.html

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Draft IIS Functional Standards, v5.0			IIS Functional Model Functions								IIS Functional Model Attributes					
Goal	Standard	Guidance Statement	Administer System	Manage Organizations and Facilities	Manage Users	Support Interoperability	Ensure Data Quality	Evaluate and Forecast	Manage Patient and Immunization Records	Manage Vaccine Inventory	Provide Data Access	Performance	Usability	Reliability	Security	Maintainability	Portability
A. Establish and maintain a secure, confidential Immunization Information System.	1.0 The IIS is physically and digitally secured in accordance with policies and industry standards for protected health information, security, and encryption.				x							x	x	x	x	x	x
		1.1 The IIS establishes, documents, and updates policies and procedures to manage the collective functions, capabilities, and attributes of an IIS.										x	x	x	x	x	x
		1.2 The IIS establishes and maintains the technical infrastructure to securely capture, store, and process patient demographic and vaccination data consistent with established policies and procedures.										x	x	x	x	x	x
		1.3 The IIS provides ongoing training to ensure awareness of and to promote adherence to policies and procedures.			x										x		
	2.0 The IIS is physically and digitally secured in accordance with industry standards for disaster avoidance, mitigation, and recovery.													x	x		
		2.1 The IIS establishes and maintains the infrastructure needed for disaster avoidance.												x	x		
		2.2 The IIS establishes and tests recovery plans to mitigate system downtime.												x	x		
	3.0 The IIS defines service expectations between the program and the entities providing information technology support to ensure system availability and uninterrupted data flow.											x	x	x	x	x	x
		3.1 The IIS implements service-level agreements between the program and the entities providing information technology and support.										x	x	x	x	x	x
		3.2 The IIS implements and maintains the infrastructure to fulfill service-level agreements.										x	x	x	x	x	x
B. Continuously improve IIS data quality.	4.0 The IIS validates patient demographic and vaccination data.		x			x	x	x	x		x		x				
		4.1 The IIS supports the identification, prevention, and resolution of duplicate and fragmented patient demographic and vaccination data in accordance with policies and procedures.					x										
		4.2 The IIS monitors data quality within the IIS in accordance with policies and procedures.	x			x	x	x	x		x						
		4.3 The IIS uses electronic tools to standardize and/or validate addresses in the IIS.	x						x								
		4.4 The IIS delivers feedback and training to IIS partners and providers to ensure complete, timely, and accurate patient demographic and vaccination records.											x				
		Jurisdictional data quality					x	x			x						

Crosswalk to the IIS Functional Standards

IIS Functional Standards: https://www.cdc.gov/iis/functional-standards/resource.html

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Draft IIS Functional Standards, v5.0			IIS Functional Model Functions									IIS Functional Model Attributes					
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C. Promote electronic data exchange between the IIS and its partners and providers.	5.0 Manage interfaces for exchange and integration of data electronically between the IIS and other information systems in accordance with federal and jurisdictional standards.					x	x				x	x	x	x			
		accordance with current				x											
		enrolls, and onboards IIS				x						x					
		evaluates data submitted via				x	x				x		x				
		resolves electronic data				x						x	x	x			
D. Ensure the delivery of immunization services reflects current ACIP recommendations.	6.0 The IIS supports pediatric, adolescent, and adult immunization forecasts consistent with Advisory Committee on Immunization Practices (ACIP) recommendations.							x									
		maintains Clinical Decision						x									
		maintains Clinical Decision						x									
E. Ensure appropriate user access to data.	7.0 The IIS ensures authorized users have access to patient demographic and vaccination data based on user roles and permissions.		x	x	x				x		x		x		x		
		confidentiality policies that													x		
		comprehensive account													x		
		attributes for the set up and	x	x	x												
		in accordance with policies and			x												
		IIS partners' and providers'	x	x	x						x				x		
		covers accessing patient							x				x				
		inactivates user and site	x	x	x												
	8.0 The IIS supports authorized public access to official immunization records.										x				x		x
		with direct access to									x				x		x
F. Support the generation and use of IIS data through various channels and formats.	9.0 The IIS supports the reporting needs of federal and jurisdictional immunization programs.										x						
		and ad hoc reports to meet									x						
	10.0 The IIS supports ad-hoc queries of patient demographic and vaccination data.										x				x		
		access for internal authorized									x				x		
		data for data visualization,									x						
	11.0 The IIS supports investigation and reporting of vaccine adverse events.								x								
		adverse event investigation.							x								
		appropriate resources to							x								
	12.0 The IIS supports the ability to generate coverage reports that users can access without assistance from IIS staff.							x	x		x						
		data to assess vaccination									x						
		status at provider site and							x								
		training on accessing,									x						
		compliance with immunization						x			x						
	13.0 The IIS supports reminder/recall activities.							x	x								
		reminder/recall activities						x	x								
G. Support federal and jurisdictional vaccine program requirements.	14.0 The IIS supports management and quality assurance functions for federal and jurisdictional vaccine programs.								x	x	x		x				
		program procedures in											x				
		tracking of eligibility at the dose							x								
		listing patients that received a									x						
		listing provider sites that								x	x						
	15.0 The IIS supports vaccine inventory management and reconciliation according to federal and jurisdictional vaccine program requirements.									x	x						
		inventory management,								x	x						
		vaccine orders and monitoring								x	x						
		vaccine returns and wastage.								x	x						
		decrements administered doses								x	x						
	16.0 The IIS supports data exchange with the national Vaccine Tracking System (VTrckS).					x											
		exchange with VTrckS in				x											
		to ExIS functionality following				x											
		automated data exchange with				x											

Crosswalk to the IIS Functional Standards

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IIS Functional Standards: https://www.cdc.gov/iis/functional-standards/resource.html

Draft IIS Functional Standards, v5.0			IIS Functional Model Functions									IIS Functional Model Attributes					
Goal	Standard	Guidance Statement	Administer System	Manage Organizations and Facilities	Manage Users	Support Interoperability	Ensure Data Quality	Evaluate and Forecast	Manage Patient and Immunization Records	Manage Vaccine Inventory	Provide Data Access	Performance	Usability	Reliability	Security	Maintainability	Portability
	17.0 The IIS supports partner and provider onboarding and vaccine management during vaccine-preventable disease response and/or public health emergencies.		x	x	x	x			x		x		x				x
H. Support response efforts for vaccine-preventable disease outbreaks and other public health emergencies.		coordinates, and executes											x				
		17.2 The IIS supports expedited communication and onboarding with partners to capture patient demographic and vaccination data in an emergency.	x	x	x												
		onboarded partners.		x													
		administration functionality to							x								x
		integration with tools for				x											
		health immunization reporting									x						
I. Participate in and prioritize emerging technologies and standards.	18.0 The IIS participates in modernization initiatives and emerging technologies.															x	
		modernization efforts.														x	
		efforts that align IIS initiatives														x	
		initiatives to develop standards														x	

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: MIS2600000001

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

[✓]	Addendum No. 1	[ ]	Addendum No. 6
[✓]	Addendum No. 2	[ ]	Addendum No. 7
[✓]	Addendum No. 3	[ ]	Addendum No. 8
[ ]	Addendum No. 4	[ ]	Addendum No. 9
[ ]	Addendum No. 5	[ ]	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Concourse Tech Inc
Company

Kelsey Shanor
Authorized Signature

March 4, 2026
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

	Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130	State of West Virginia Centralized Request for Proposals Info Technology

Proc Folder: 1874842 **Doc Description:** REQUEST FOR PROPOSAL - IMMUNIZATION INFORMATION SYSTEM (IIS) **Proc Type:** Central Master Agreement			**Reason for Modification:** ADDENDUM 3 TO EXTEND OPENING DATE
Date Issued	**Solicitation Closes**	**Solicitation No**	**Version**
2026-03-02	2026-03-24 13:30	CRFP 0506 MIS2600000001	4

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Customer Code:

Vendor Name : Concourse Tech Inc

Address :

Street : 169 Madison Ave., Suite 15520

City : New York

State : NY **Country :** USA **Zip :** 10016

Principal Contact : Kelsey Shaner

Vendor Contact Phone: 646-305-9964 **Extension:**

FOR INFORMATION CONTACT THE BUYER
Crystal G Hustead
(304) 558-2402
crystal.g.hustead@wv.gov

Vendor Signature X Kelsey Shaner **FEIN#** 92-0732705 **DATE** March 4, 2026

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION

THE STATE OF WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, DEPARTMENT OF HEALTH, BUREAU OF PUBLIC HEALTH- EPIDEMIOLOGY SERVICES, IS SOLICITING PROPOSALS TO ESTABLISH AN OPEN-END CONTRACT FOR AN IMMUNIZATION INFORMATION SYSTEM (IIS) PER THE ATTACHED DOCUMENTS.

ONLINE RESPONSES ARE PROHIBITED FOR THIS SOLICITATION

QUESTIONS REGARDING THE SOLICITATION MUST BE SUBMITTED IN WRITING TO CRYSTAL.G.HUSTEAD@WV.GOV PRIOR TO THE QUESTION PERIOD DEADLINE CONTAINED IN THE INSTRUCTIONS TO VENDORS SUBMITTING BIDS

INVOICE TO	SHIP TO
HEALTH AND HUMAN RESOURCES BUREAU FOR PUBLIC HEALTH CENTRAL FINANCE 350 CAPITOL ST, RM 206 CHARLESTON WV 25301-3717 US	HEALTH AND HUMAN RESOURCES BUREAU FOR PUBLIC HEALTH CENTRAL FINANCE 350 CAPITOL ST, RM 206 CHARLESTON WV 25301-3717 US

Line	Comm Ln Desc	Qty	Unit of Measure	Unit Price	Total Price
1	Software				

Comm Code	Manufacturer	Specification	Model #
43230000			

Extended Description:
See attached Cost Sheet - Attachment A.

Vendor should clearly identify and segregate the cost proposal from the technical proposal in a separately sealed envelope.

**** Online responses have been prohibited for this solicitation. Follow all bidding instructions.

SCHEDULE OF EVENTS

Line	Event	Event Date
1	VENDOR QUESTION DEADLINE	2026-02-17

SOLICITATION NUMBER: CRFP MIS2600000001
Addendum Number: 3

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

[✓] Modify bid opening date and time

[ ] Modify specifications of product or service being sought

[ ] Attachment of vendor questions and responses

[ ] Attachment of pre-bid sign-in sheet

[ ] Correction of error

[ ] Other

Description of Modification to Solicitation:

1. To extend proposal opening date to 03/24/2026 at 1:30 PM ET

Answers to vendor questions will be provided in a forthcoming addendum

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.

2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: MIS2600000001

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(Check the box next to each addendum received)

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I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Concourse Tech Inc
Company

Kelsey Shaner
Authorized Signature

March 4, 2026
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

FEDERAL FUNDS ADDENDUM

2 C.F.R. §§ 200.317 – 200.327

Purpose: This addendum is intended to modify the solicitation in an attempt to make the contract compliant with the requirements of 2 C.F.R. §§ 200.317 through 200.327 relating to the expenditure of certain federal funds. This solicitation will allow the State to obtain one or more contracts that satisfy standard state procurement, state federal funds procurement, and county/local federal funds procurement requirements.

Instructions: Vendors who are willing to extend their contract to procurements with federal funds and the requirements that go along with doing so, should sign the attached document identified as: "REQUIRED CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS (2 C.F.R. § 200.317)"

Should the awarded vendor be unwilling to extend the contract to federal funds procurement, the State reserves the right to award additional contracts to vendors that can and are willing to meet federal funds procurement requirements.

Changes to Specifications: Vendors should consider this solicitation as containing two separate solicitations, one for state level procurement and one for county/local procurement.

State Level: In the first solicitation, bid responses will be evaluated with applicable preferences identified in sections 15, 15A, and 16 of the "Instructions to Vendors Submitting Bids" to establish a contract for both standard state procurements and state federal funds procurements.

County Level: In the second solicitation, bid responses will be evaluated with applicable preferences identified in Sections 15, 15A, and 16 of the "Instructions to Vendors Submitting Bids" omitted to establish a contract for County/Local federal funds procurement.

Award: If the two evaluations result in the same vendor being identified as the winning bidder, the two solicitations will be combined into a single contract award. If the evaluations result in a different bidder being identified as the winning bidder, multiple contracts may be awarded. The State reserves the right to award to multiple different entities should it be required to satisfy standard state procurement, state federal funds procurement, and county/local federal funds procurement requirements.

State Government Use Caution: State agencies planning to utilize this contract for procurements subject to the above identified federal regulations should first consult with the federal agency providing the applicable funding to ensure the contract is complaint.

County/Local Government Use Caution: County and Local government entities planning to utilize this contract for procurements subject to the above identified federal regulation should first consult with the federal agency providing the applicable funding to ensure the contract is complaint. For purposes of County/Local government use, the solicitation resulting in this contract was conducted in accordance with the procurement laws, rules, and procedures governing the West Virginia Department of Administration, Purchasing Division, except that vendor preference has been omitted for County/Local use purposes and the contract terms contained in the document entitled "REQUIRED CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS (2 C.F.R. § 200.317)" have been added.

FEDERAL FUNDS ADDENDUM

REQUIRED CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS (2 C.F.R. § 200.317):

The State of West Virginia Department of Administration, Purchasing Division, and the Vendor awarded this Contract intend that this Contract be compliant with the requirements of the Procurement Standards contained in the Uniform Administrative Requirements, Cost Principles, and Audit Requirements found in 2 C.F.R. § 200.317, et seq. for procurements conducted by a Non-Federal Entity. Accordingly, the Parties agree that the following provisions are included in the Contract.

1. **MINORITY BUSINESSES, WOMEN'S BUSINESS ENTERPRISES, AND LABOR SURPLUS AREA FIRMS:** (2 C.F.R. § 200.321)

    a. The State confirms that it has taken all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. Those affirmative steps include:

        (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
        (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
        (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
        (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
        (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and
        (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) above.

    b. Vendor confirms that if it utilizes subcontractors, it will take the same affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

2. **DOMESTIC PREFERENCES:** (2 C.F.R. § 200.322)

    a. The State confirms that as appropriate and to the extent consistent with law, it has, to the greatest extent practicable under a Federal award, provided a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United

States (including but not limited to iron, aluminum, steel, cement, and other manufactured products).

b. Vendor confirms that will include the requirements of this Section 2. Domestic Preference in all subawards including all contracts and purchase orders for work or products under this award.

c. Definitions: For purposes of this section:

(1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
(2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

3. **BREACH OF CONTRACT REMEDIES AND PENALTIES:**
(2 C.F.R. § 200.327 and Appendix II)

(a) The provisions of West Virginia Code of State Rules § 148-1-5 provide for breach of contract remedies, and penalties. A copy of that rule is attached hereto as Exhibit A and expressly incorporated herein by reference.

4. **TERMINATION FOR CAUSE AND CONVENIENCE:**
(2 C.F.R. § 200.327 and Appendix II)

(a) The provisions of West Virginia Code of State Rules § 148-1-5 govern Contract termination. A copy of that rule is attached hereto as Exhibit A and expressly incorporated herein by reference.

5. **EQUAL EMPLOYMENT OPPORTUNITY:**
(2 C.F.R. § 200.327 and Appendix II)

Except as otherwise provided under 41 CFR Part 60, and if this contract meets the definition of "federally assisted construction contract" in 41 CFR Part 60–1.3, this contract includes the equal opportunity clause provided under 41 CFR 60–1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964–1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

6. **DAVIS-BACON WAGE RATES:**
(2 C.F.R. § 200.327 and Appendix II)

Vendor agrees that if this Contract includes construction, all construction work in excess of $2,000 will be completed and paid for in compliance with the Davis–Bacon Act (40 U.S.C. 3141–3144, and 3146–3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must:

(a) pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor.
(b) pay wages not less than once a week.

A copy of the current prevailing wage determination issued by the Department of Labor is attached hereto as Exhibit B. The decision to award a contract or subcontract is conditioned upon the acceptance of the wage determination. The State will report all suspected or reported violations to the Federal awarding agency.

7. **ANTI-KICKBACK ACT:**
(2 C.F.R. § 200.327 and Appendix II)

Vendor agrees that it will comply with the Copeland Anti-KickBack Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). Accordingly, Vendor, Subcontractors, and anyone performing under this contract are prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The State must report all suspected or reported violations to the Federal awarding agency.

8. **CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**
(2 C.F.R. § 200.327 and Appendix II)

Where applicable, and only for contracts awarded by the State in excess of $100,000 that involve the employment of mechanics or laborers, Vendor agrees to comply with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, Vendor is required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

9. **RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT.**
(2 C.F.R. § 200.327 and Appendix II)

If the Federal award meets the definition of "funding agreement" under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

10. **CLEAN AIR ACT**
(2 C.F.R. § 200.327 and Appendix II)

Vendor agrees that if this contract exceeds $150,000, Vendor is to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401–7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251–1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

11. **DEBARMENT AND SUSPENSION**
(2 C.F.R. § 200.327 and Appendix II)

The State will not award to any vendor that is listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

12. **BYRD ANTI–LOBBYING AMENDMENT**
(2 C.F.R. § 200.327 and Appendix II)

Vendors that apply or bid for an award exceeding $100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non–Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non–Federal award.

13. **PROCUREMENT OF RECOVERED MATERIALS**
(2 C.F.R. § 200.327 and Appendix II; 2 C.F.R. § 200.323)

Vendor agrees that it and the State must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the

Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

14. **PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.**
(2 C.F.R. § 200.327 and Appendix II; 2 CFR § 200.216)

Vendor and State agree that both are prohibited from obligating or expending funds under this Contract to:

(1) Procure or obtain;
(2) Extend or renew a contract to procure or obtain; or
(3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115–232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.
(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

In implementing the prohibition under Public Law 115–232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.

State of West Virginia

By: _____

Printed Name: _____

Title: _____

Date: _____

Vendor Name:

By: Concourse Tech Inc

Printed Name: Kelsey Shaner

Title: Operations Manager

Date: March 4, 2026

EXHIBIT A To:
REQUIRED CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS (2 C.F.R. § 200.317):

W. Va. CSR § 148-1-5

West Virginia Code of State Rules
Title 148. Department of Administration
Legislative Rule (Ser. 1)
Series 1. Purchasing

W. Va. Code St. R. § 148-1-5
§ 148-1-5. Remedies.
Currentness

5.1. The Director may require that the spending unit attempt to resolve any issues that it may have with the vendor prior to pursuing a remedy contained herein. The spending unit must document any resolution efforts and provide copies of those documents to the Purchasing Division.

5.2. Contract Cancellation.

5.2.1. Cancellation. The Director may cancel a purchase or contract immediately under any one of the following conditions including, but not limited to:

5.2.1.a. The vendor agrees to the cancellation;

5.2.1.b. The vendor has obtained the contract by fraud, collusion, conspiracy, or is in conflict with any statutory or constitutional provision of the State of West Virginia;

5.2.1.c. Failure to honor any contractual term or condition or to honor standard commercial practices;

5.2.1.d. The existence of an organizational conflict of interest is identified;

5.2.1.e. Funds are not appropriated or an appropriation is discontinued by the legislature for the acquisition;

5.2.1.f. Violation of any federal, state, or local law, regulation, or ordinance, and

5.2.1.g. The contract was awarded in error.

5.2.2. The Director may cancel a purchase or contract for any reason or no reason, upon providing the vendor with 30 days' notice of the cancellation.

5.2.3. Opportunity to Cure. In the event that a vendor fails to honor any contractual term or condition, or violates any provision of federal, state, or local law, regulation, or ordinance, the Director may request that the vendor remedy the contract breach or legal violation within a time frame the Director determines to be appropriate. If the vendor fails to remedy the contract breach or legal violation or the Director determines, at his or her sole discretion, that such a request is unlikely to yield a satisfactory result, then he or she may cancel immediately without providing the vendor an opportunity to perform a remedy.

5.2.4. Re-Award. The Director may award the cancelled contract to the next lowest responsible bidder (or next highest scoring bidder if best value procurement) without a subsequent solicitation if the following conditions are met:

5.2.4.a. The next lowest responsible bidder (or next highest scoring bidder if best value procurement) is able to perform at the price contained in its original bid submission, and

5.2.4.b. The contract is an open-end contract, a one-time purchase contract, or a contract for work which has not yet commenced.

Award to the next lowest responsible bidder (or next highest scoring bidder if best value procurement) will not be an option if the vendor's failure has in any way increased or significantly changed the scope of the original contract. The vendor failing to honor contractual and legal obligations is responsible for any increase in cost the state incurs as a result of the re-award.

5.3. Non-Responsible. If the Director believes that a vendor may be non-responsible, the Director may request that a vendor or spending unit provide evidence that the vendor either does or does not have the capability to fully perform the contract requirements, and the integrity and reliability necessary to assure good faith performance. If the Director determines that the vendor is non-responsible, the Director shall reject that vendor's bid and shall not award the contract to that vendor. A determination of non-responsibility must be evaluated on a case-by-case basis and can only be made after the vendor in question has submitted a bid. A determination of non-responsibility will only extend to the contract for which the vendor has submitted a bid and does not operate as a bar against submitting future bids.

5.4. Suspension.

5.4.1. The Director may suspend, for a period not to exceed 1 year, the right of a vendor to bid on procurements issued by the Purchasing Division or any state spending unit under its authority if:

5.4.1.a. The vendor has submitted a bid and then requested that its bid be withdrawn after bids have been publicly opened.

5.4.1.b. The vendor has exhibited poor performance in fulfilling his or her contractual obligations to the State. Poor performance includes, but is not limited to any of the following: violations of law, regulation, or ordinance; failure to deliver timely; failure to deliver quantities ordered; poor performance reports; or failure to deliver commodities, services, or printing at the quality level required by the contract.

5.4.1.c. The vendor has breached a contract issued by the Purchasing Division or any state spending unit under its authority and refuses to remedy that breach.

5.4.1.d. The vendor's actions have given rise to one or more of the grounds for debarment listed in W. Va. Code § 5A-3-33d.

5.4.2. Vendor suspension for the reasons listed in section 5.4 above shall occur as follows:

5.4.2.a. Upon a determination by the Director that a suspension is warranted, the Director will serve a notice of suspension to the vendor.

5.4.2.b. A notice of suspension must inform the vendor:

5.4.2.b.1. Of the grounds for the suspension;

5.4.2.b.2. Of the duration of the suspension;

5.4.2.b.3. Of the right to request a hearing contesting the suspension;

5.4.2.b.4. That a request for a hearing must be served on the Director no later than 5 working days of the vendor's receipt of the notice of suspension;

5.4.2.b.5. That the vendor's failure to request a hearing no later than 5 working days of the receipt of the notice of suspension will be deemed a waiver of the right to a hearing and result in the automatic enforcement of the suspension without further notice or an opportunity to respond; and

5.4.2.b.6. That a request for a hearing must include an explanation of why the vendor believes the Director's asserted grounds for suspension do not apply and why the vendor should not be suspended.

5.4.2.c. A vendor's failure to serve a request for hearing on the Director no later than 5 working days of the vendor's receipt of the notice of suspension will be deemed a waiver of the right to a hearing and may result in the automatic enforcement of the suspension without further notice or an opportunity to respond.

5.4.2.d. A vendor who files a timely request for hearing but nevertheless fails to provide an explanation of why the asserted grounds for suspension are inapplicable or should not result in a suspension, may result in a denial of the vendor's hearing request.

5.4.2.e. Within 5 working days of receiving the vendor's request for a hearing, the Director will serve on the vendor a notice of hearing that includes the date, time and place of the hearing.

5.4.2.f. The hearing will be recorded and an official record prepared. Within 10 working days of the conclusion of the hearing, the Director will issue and serve on the vendor, a written decision either confirming or reversing the suspension.

5.4.3. A vendor may appeal a decision of the Director to the Secretary of the Department of Administration. The appeal must be in writing and served on the Secretary no later than 5 working days of receipt of the Director's decision.

5.4.4. The Secretary, or his or her designee, will schedule an appeal hearing and serve on the vendor, a notice of hearing that includes the date, time and place of the hearing. The appeal hearing will be recorded and an official record prepared. Within 10 working days of the conclusion of the appeal hearing, the Secretary will issue and serve on the vendor a written decision either confirming or reversing the suspension.

5.4.5. Any notice or service related to suspension actions or proceedings must be provided by certified mail, return receipt requested.

5.5. Vendor Debarment. The Director may debar a vendor on the basis of one or more of the grounds for debarment contained in W. Va. Code § 5A-3-33d or if the vendor has been declared ineligible to participate in procurement related activities under federal laws and regulation.

5.5.1. Debarment proceedings shall be conducted in accordance with W. Va. Code § 5A-3-33e and these rules. A vendor that has received notice of the proposed debarment by certified mail, return receipt requested, must respond to the proposed debarment within 30 working days after receipt of notice or the debarment will be instituted without further notice. A vendor is deemed to have received notice, notwithstanding the vendor's failure to accept the certified mail, if the letter is addressed to the vendor at its last known address. After considering the matter and reaching a decision, the Director shall notify the vendor of his or her decision by certified mail, return receipt requested.

5.5.2. Any vendor, other than a vendor prohibited from participating in federal procurement, undergoing debarment proceedings is permitted to continue participating in the state's procurement process until a final debarment decision has been reached. Any contract that a debarred vendor obtains prior to a final debarment decision shall remain in effect for the current term, but may not be extended or renewed. Notwithstanding the foregoing, the Director may cancel a contract held by a debarred vendor if the Director determines, in his or her sole discretion, that doing so is in the best interest of the State. A vendor prohibited from participating in federal procurement will not be permitted to participate in the state's procurement process during debarment proceedings.

5.5.3. If the Director's final debarment decision is that debarment is warranted and notice of the final debarment decision is mailed, the Purchasing Division shall reject any bid submitted by the debarred vendor, including any bid submitted prior to the final debarment decision if that bid has not yet been accepted and a contract consummated.

5.5.4. Pursuant to W.Va. Code § 5A-3-33e(e), the length of the debarment period will be specified in the debarment decision and will be for a period of time that the Director finds necessary and proper to protect the public from an irresponsible vendor.

5.5.5. List of Debarred Vendors. The Director shall maintain and publicly post a list of debarred vendors on the Purchasing Division's website.

5.5.6. Related Party Debarment. The Director may pursue debarment of a related party at the

same time that debarment of the original vendor is proceeding or at any time thereafter that the Director determines a related party debarment is warranted. Any entity that fails to provide the Director with full, complete, and accurate information requested by the Director to determine related party status will be presumed to be a related party subject to debarment.

5.6. Damages.

5.6.1. A vendor who fails to perform as required under a contract shall be liable for actual damages and costs incurred by the state.

5.6.2. If any commodities delivered under a contract have been used or consumed by a spending unit and on testing the commodities are found not to comply with specifications, no payment may be approved by the Spending Unit for the merchandise until the amount of actual damages incurred has been determined.

5.6.3. The Spending Unit shall seek to collect damages by following the procedures established by the Office of the Attorney General for the collection of delinquent obligations.

Credits

History: Filed 4-1-19, eff. 4-1-19; Filed 4-16-21, eff. 5-1-21.

Current through register dated May 7, 2021. Some sections may be more current. See credits for details.
W. Va. C.S.R. § 148-1-5, WV ADC § 148-1-5

End of Document

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EXHIBIT B To:
REQUIRED CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACTS UNDER FEDERAL AWARDS (2 C.F.R. § 200.317):

Prevailing Wage Determination

[☑] – Not Applicable Because Contract Not for Construction

[ ] – Federal Prevailing Wage Determination on Next Page

Software as a Service Addendum

1. Definitions:

Acceptable alternative data center location means a country that is identified as providing equivalent or stronger data protection than the United States, in terms of both regulation and enforcement. DLA Piper's Privacy Heatmap shall be utilized for this analysis and may be found at https://www.dlapiperdataprotection.com/index.html?t=world-map&c=US&c2=IN.

Authorized Persons means the service provider's employees, contractors, subcontractors or other agents who have responsibility in protecting or have access to the public jurisdiction's personal data and non-public data to enable the service provider to perform the services required.

Data Breach means the unauthorized access and acquisition of unencrypted and unredacted personal data that compromises the security or confidentiality of a public jurisdiction's personal information and that causes the service provider or public jurisdiction to reasonably believe that the data breach has caused or will cause identity theft or other fraud.

Individually Identifiable Health Information means information that is a subset of health information, including demographic information collected from an individual, and (1) is created or received by a health care provider, health plan, employer or health care clearinghouse; and (2) relates to the past, present or future physical or mental health or condition of an individual; the provision of health care to an individual; or the past, present or future payment for the provision of health care to an individual; and (a) that identifies the individual; or (b) with respect to which there is a reasonable basis to believe the information can be used to identify the individual.

Non-Public Data means data, other than personal data, that is not subject to distribution to the public as public information. It is deemed to be sensitive and confidential by the public jurisdiction because it contains information that is exempt by statute, ordinance or administrative rule from access by the general public as public information.

Personal Data means data that includes information relating to a person that identifies the person by first name or first initial, and last name, and has any of the following personally identifiable information (PII): government-issued identification numbers (e.g., Social Security, driver's license, state identification card); financial account information, including account number, credit or debit card numbers; or protected health information (PHI).

Protected Health Information (PHI) means individually identifiable health information transmitted by electronic media, maintained in electronic media, or transmitted or maintained in any other form or medium. PHI excludes education records covered by the Family Educational Rights and Privacy Act (FERPA), as amended, 20 U.S.C. 1232g, records described at 20 U.S.C. 1232g(a)(4)(B)(iv) and employment records held by a covered entity in its role as employer.

Public Jurisdiction means any government or government agency that uses these terms and conditions. The term is a placeholder for the government or government agency.

Public Jurisdiction Data means all data created or in any way originating with the public jurisdiction, and all data that is the output of computer processing or other electronic manipulation of any data that was created by or in any way originated with the public jurisdiction, whether such data or output is stored on the public jurisdiction's hardware, the service provider's hardware or exists in any system owned, maintained or otherwise controlled by the public jurisdiction or by the service provider.

Public Jurisdiction Identified Contact means the person or persons designated in writing by the public jurisdiction to receive security incident or breach notification.

Restricted data means personal data and non-public data.

Security Incident means the actual unauthorized access to personal data or non-public data the service provider believes could reasonably result in the use, disclosure or theft of a public jurisdiction's unencrypted personal data or non-public data within the possession or control of the service provider. A security incident may or may not turn into a data breach.

Service Provider means the contractor and its employees, subcontractors, agents and affiliates who are providing the services agreed to under the contract.

Software-as-a-Service (SaaS) means the capability provided to the consumer to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through a thin-client interface such as a Web browser (e.g., Web-based email) or a program interface. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage or even individual application capabilities, with the possible exception of limited user-specific application configuration settings.

2. Data Ownership: The public jurisdiction will own all right, title and interest in its data that is related to the services provided by this contract. The service provider shall not access public jurisdiction user accounts or public jurisdiction data, except (1) in the course of data center operations, (2) in response to service or technical issues, (3) as required by the express terms of this contract or (4) at the public jurisdiction's written request.

3. Data Protection and Privacy: Protection of personal privacy and data shall be an integral part of the business activities of the service provider to ensure there is no inappropriate or unauthorized use of public jurisdiction information at any time. To this end, the service provider shall safeguard the confidentiality, integrity and availability of public jurisdiction information and comply with the following conditions:

a) The service provider shall implement and maintain appropriate administrative, technical and physical security measures to safeguard against unauthorized access, disclosure or theft of personal data and non-public data. In Appendix A,

the public jurisdiction shall indicate whether restricted information will be processed by the service provider. Such security measures shall be in accordance with recognized industry practice and not less stringent than the measures the service provider applies to its own personal data and non-public data of similar kind. The service provider shall ensure that all such measures, including the manner in which personal data and non-public data are collected, accessed, used, stored, processed, disposed of and disclosed, comply with applicable data protection and privacy laws, as well as the terms and conditions of this Addendum and shall survive termination of the underlying contract.

b) The service provider represents and warrants that its collection, access, use, storage, disposal and disclosure of personal data and non-public data do and will comply with all applicable federal and state privacy and data protection laws, as well as all other applicable regulations, policies and directives.

c) The service provider shall support third-party multi-factor authentication integration with the public jurisdiction third-party identity provider to safeguard personal data and non-public data.

d) If, in the course of its engagement by the public jurisdiction, the service provider has access to or will collect, access, use, store, process, dispose of or disclose credit, debit or other payment cardholder information, the service provider shall at all times remain in compliance with the Payment Card Industry Data Security Standard ("PCI DSS") requirements, including remaining aware at all times of changes to the PCI DSS and promptly implementing all procedures and practices as may be necessary to remain in compliance with the PCI DSS, in each case, at the service provider's sole cost and expense. All data obtained by the service provider in the performance of this contract shall become and remain the property of the public jurisdiction.

e) All personal data shall be encrypted at rest and in transit with controlled access. Unless otherwise stipulated, the service provider is responsible for encryption of the personal data.

f) Unless otherwise stipulated, the service provider shall encrypt all non-public data at rest and in transit, in accordance with recognized industry practice. The public jurisdiction shall identify data it deems as non-public data to the service provider.

g) At no time shall any data or process – that either belong to or are intended for the use of a public jurisdiction or its officers, agents or employees — be copied, disclosed or retained by the service provider or any party related to the service provider for subsequent use in any transaction that does not include the public jurisdiction.

h) The service provider shall not use or disclose any information collected in connection with the service issued from this proposal for any purpose other than fulfilling the service.

i) Data Location. For non-public data and personal data, the service provider shall provide its data center services to the public jurisdiction and its end users solely from data centers in the U.S. Storage of public jurisdiction data at rest shall be located solely in data centers in the U.S. The service provider shall not allow its personnel or contractors to *store* public jurisdiction data on portable devices, including personal computers, except for devices that are used and kept only at its

U.S. data centers. With agreement from the public jurisdiction, this term may be met by the service provider providing its services from an acceptable alternative data center location, which agreement shall be stated in Appendix A. The Service Provider may also request permission to utilize an acceptable alternative data center location during a procurement's question and answer period by submitting a question to that effect. The service provider shall permit its personnel and contractors to access public jurisdiction data remotely only as required to provide technical support.

4. Security Incident or Data Breach Notification: The service provider shall inform the public jurisdiction of any confirmed security incident or data breach.

a) Incident Response: The service provider may need to communicate with outside parties regarding a security incident, which may include contacting law enforcement, fielding media inquiries and seeking external expertise as defined by law or contained in the contract. Discussing security incidents with the public jurisdiction shall be handled on an urgent as-needed basis, as part of service provider communication and mitigation processes defined by law or contained in the contract.

b) Security Incident Reporting Requirements: The service provider shall report a confirmed Security Incident as soon as practicable, but no later than twenty-four (24) hours after the service provider becomes aware of it, to: (1) the department privacy officer, by email, with a read receipt, identified in Appendix A; and, (2) unless otherwise directed by the public jurisdiction in the underlying contract, the WVOT Online Computer Security and Privacy Incident Reporting System at https://apps.wv.gov/ot/ir/Default.aspx, and (3) the public jurisdiction point of contact for general contract oversight/administration. The following information shall be shared with the public jurisdiction: (1) incident phase (detection and analysis; containment, eradication and recovery; or post-incident activity), (2) projected business impact, and, (3) attack source information.

c) Breach Reporting Requirements: Upon the discovery of a data breach or unauthorized access to non-public data, the service provider shall immediately report to: (1) the department privacy officer, by email, with a read receipt, identified in Appendix A; and, (2) unless otherwise directed by the public jurisdiction in the underlying contract, the WVOT Online Computer Security and Privacy Incident Reporting System at https://apps.wv.gov/ot/ir/Default.aspx, and the public jurisdiction point of contact for general contract oversight/administration.

5. Breach Responsibilities: This section only applies when a data breach occurs with respect to personal data within the possession or control of the service provider.

a) Immediately after being awarded a contract, the service provider shall provide the public jurisdiction with the name and contact information for an employee of service provider who shall serve as the public jurisdiction's primary security contact and shall be available to assist the public jurisdiction twenty-four (24) hours per day, seven (7) days per week as a contact in resolving obligations associated with a data breach. The service provider may provide this information in Appendix A.

b) Immediately following the service provider's notification to the public jurisdiction of a data breach, the parties shall coordinate cooperate with each other to investigate the data breach. The service provider agrees to fully cooperate with the public jurisdiction in the public jurisdiction's handling of the matter, including, without limitation, at the public jurisdiction's request, making available all relevant records, logs, files, data reporting and other materials required to comply with applicable law and regulation.

c) Within 72 hours of the discovery, the service provider shall notify the parties listed in 4(c) above, to the extent known: (1) date of discovery; (2) list of data elements and the number of individual records; (3) description of the unauthorized persons known or reasonably believed to have improperly used or disclosed the personal data; (4) description of where the personal data is believed to have been improperly transmitted, sent, or utilized; and, (5) description of the probable causes of the improper use or disclosure.

d) The service provider shall (1) cooperate with the public jurisdiction as reasonably requested by the public jurisdiction to investigate and resolve the data breach, (2) promptly implement necessary remedial measures, if necessary, and prevent any further data breach at the service provider's expense in accordance with applicable privacy rights, laws and regulations and (3) document responsive actions taken related to the data breach, including any post-incident review of events and actions taken to make changes in business practices in providing the services, if necessary.

e) If a data breach is a direct result of the service provider's breach of its contract obligation to encrypt personal data or otherwise prevent its release, the service provider shall bear the costs associated with (1) the investigation and resolution of the data breach; (2) notifications to individuals, regulators or others required by state or federal law; (3) a credit monitoring service (4) a website or a toll-free number and call center for affected individuals required by state law — all not to exceed the average per record per person cost calculated for data breaches in the United States in the most recent Cost of Data Breach Study: Global Analysis published by the Ponemon Institute at the time of the data breach (or other similar publication if the named publication has not issued an updated average per record per cost in the last 5 years at the time of the data breach); and (5) complete all corrective actions as reasonably determined by service provider based on root cause. The service provider agrees that it shall not inform any third party of any data breach without first obtaining the public jurisdiction's prior written consent, other than to inform a complainant that the matter has been forwarded to the public jurisdiction's legal counsel and/or engage a third party with appropriate expertise and confidentiality protections for any reason connected to the data breach. Except with respect to where the service provider has an independent legal obligation to report a data breach, the service provider agrees that the public jurisdiction shall have the sole right to determine: (1) whether notice of the data breach is to be provided to any individuals, regulators, law enforcement agencies, consumer reporting agencies or others, as required by law or regulation, or otherwise in the public jurisdiction's discretion; and (2) the contents of such notice, whether any

type of remediation may be offered to affected persons, and the nature and extent of any such remediation. The service provider retains the right to report activity to law enforcement.

6. Notification of Legal Requests: The service provider shall contact the public jurisdiction upon receipt of any electronic discovery, litigation holds, discovery searches and expert testimonies related to the public jurisdiction's data under this contract, or which in any way might reasonably require access to the data of the public jurisdiction. The service provider shall not respond to subpoenas, service of process and other legal requests related to the public jurisdiction without first notifying the public jurisdiction, unless prohibited by law from providing such notice.

7. Termination and Suspension of Service:

a) In the event of a termination of the contract, the service provider shall implement an orderly return of public jurisdiction data within the time period and format specified in the contract (or in the absence of a specified time and format, a mutually agreeable time and format) and after the data has been successfully returned, securely and permanently dispose of public jurisdiction data.

b) During any period of service suspension, the service provider shall not take any action to intentionally erase any public jurisdiction data.

c) In the event the contract does not specify a time or format for return of the public jurisdiction's data and an agreement has not been reached, in the event of termination of any services or agreement in entirety, the service provider shall not take any action to intentionally erase any public jurisdiction data for a period of:

- 10 days after the effective date of termination, if the termination is in accordance with the contract period
- 30 days after the effective date of termination, if the termination is for convenience
- 60 days after the effective date of termination, if the termination is for cause

After such period, the service provider shall have no obligation to maintain or provide any public jurisdiction data and shall thereafter, unless legally prohibited, delete all public jurisdiction data in its systems or otherwise in its possession or under its control.

d) The public jurisdiction shall be entitled to any post-termination assistance generally made available with respect to the services, unless a unique data retrieval arrangement has been established as part of the Contract.

e) The service provider shall securely dispose of all requested data in all of its forms, such as disk, CD/ DVD, backup tape and paper, when requested by the public jurisdiction. Data shall be permanently deleted and shall not be recoverable, according to National Institute of Standards and Technology (NIST)-approved methods. Certificates of destruction shall be provided to the public jurisdiction.

8. Background Checks: The service provider shall conduct criminal background checks in compliance with W.Va. Code §15-2D-3 and not utilize any staff to fulfill the obligations

of the contract, including subcontractors, who have been convicted of any crime of dishonesty, including but not limited to criminal fraud, or otherwise convicted of any felony or misdemeanor offense for which incarceration for up to 1 year is an authorized penalty. The service provider shall promote and maintain an awareness of the importance of securing the public jurisdiction's information among the service provider's employees and agents.

9. Oversight of Authorized Persons: During the term of each authorized person's employment or engagement by service provider, service provider shall at all times cause such persons to abide strictly by service provider's obligations under this Agreement and service provider's standard policies and procedures. The service provider further agrees that it shall maintain a disciplinary process to address any unauthorized access, use or disclosure of personal data by any of service provider's officers, partners, principals, employees, agents or contractors.

10. Access to Security Logs and Reports: The service provider shall provide reports to the public jurisdiction in CSV format agreed to by both the service provider and the public jurisdiction. Reports shall include user access (successful and failed attempts), user access IP address, user access history and security logs for all public jurisdiction files and accounts related to this contract.

11. Data Protection Self-Assessment: The service provider shall perform a Cloud Security Alliance STAR Self-Assessment by completing and submitting the "Consensus Assessments Initiative Questionnaire" to the Public Jurisdiction Identified Contact. The service provider shall submit its self-assessment to the public jurisdiction prior to contract award and, upon request, annually thereafter, on the anniversary of the date of contract execution. Any deficiencies identified in the assessment will entitle the public jurisdiction to disqualify the bid or terminate the contract for cause.

12. Data Center Audit: The service provider shall perform an audit of its data center(s) at least annually at its expense and provide a redacted version of the audit report upon request. The service provider may remove its proprietary information from the redacted version. A Service Organization Control (SOC) 2 audit report or approved equivalent sets the minimum level of a third-party audit. Any deficiencies identified in the report or approved equivalent will entitle the public jurisdiction to disqualify the bid or terminate the contract for cause.

13. Change Control and Advance Notice: The service provider shall give 30 days, advance notice (to the public jurisdiction of any upgrades (e.g., major upgrades, minor upgrades, system changes) that may impact service availability and performance. A major upgrade is a replacement of hardware, software or firmware with a newer or better version in order to bring the system up to date or to improve its characteristics.

14. Security:

a) At a minimum, the service provider's safeguards for the protection of data shall include: (1) securing business facilities, data centers, paper files, servers, back-up

systems and computing equipment, including, but not limited to, all mobile devices and other equipment with information storage capability; (2) implementing network, device application, database and platform security; 3) securing information transmission, storage and disposal; (4) implementing authentication and access controls within media, applications, operating systems and equipment; (5) implementing appropriate personnel security and integrity procedures and practices, including, but not limited to, conducting background checks consistent with applicable law; and (6) providing appropriate privacy and information security training to service provider's employees.

b) The service provider shall execute well-defined recurring action steps that identify and monitor vulnerabilities and provide remediation or corrective measures. Where the service provider's technology or the public jurisdiction's required dependence on a third-party application to interface with the technology creates a critical or high risk, the service provider shall remediate the vulnerability as soon as possible. The service provider must ensure that applications used to interface with the service provider's technology remain operationally compatible with software updates.

c) Upon the public jurisdiction's written request, the service provider shall provide a high-level network diagram with respect to connectivity to the public jurisdiction's network that illustrates the service provider's information technology network infrastructure.

15. Non-disclosure and Separation of Duties: The service provider shall enforce separation of job duties, require commercially reasonable non-disclosure agreements, and limit staff knowledge of public jurisdiction data to that which is absolutely necessary to perform job duties.

16. Import and Export of Data: The public jurisdiction shall have the ability to securely import, export or dispose of data in standard format in piecemeal or in entirety at its discretion without interference from the service provider. This includes the ability for the public jurisdiction to import or export data to/from other service providers identified in the contract (or in the absence of an identified format, a mutually agreeable format).

17. Responsibilities: The service provider shall be responsible for the acquisition and operation of all hardware, software and network support related to the cloud services being provided. The technical and professional activities required for establishing, managing and maintaining the environments are the responsibilities of the service provider.

18. Subcontractor Compliance: The service provider shall ensure that any of its subcontractors to whom it provides any of the personal data or non-public data it receives hereunder, or to whom it provides any personal data or non-public data which the service provider creates or receives on behalf of the public jurisdiction, agree to the restrictions, terms and conditions which apply to the service provider hereunder.

19. Right to Remove Individuals: The public jurisdiction shall have the right at any time to require that the service provider remove from interaction with public jurisdiction any

service provider representative who the public jurisdiction believes is detrimental to its working relationship with the service provider. The public jurisdiction shall provide the service provider with notice of its determination, and the reasons it requests the removal. If the public jurisdiction signifies that a potential security violation exists with respect to the request, the service provider shall immediately remove such individual. The service provider shall not assign the person to any aspect of the contract without the public jurisdiction's consent.

20. Business Continuity and Disaster Recovery: The service provider shall provide a business continuity and disaster recovery plan executive summary upon request. Lack of a plan will entitle the public jurisdiction to terminate this contract for cause.

21. Compliance with Accessibility Standards: The service provider shall comply with and adhere to Accessibility Standards of Section 508 Amendment to the Rehabilitation Act of 1973.

22. Web Services: The service provider shall use web services exclusively to interface with the public jurisdiction's data in near real time when possible.

23. Encryption of Data at Rest: The service provider shall ensure hard drive encryption consistent with validated cryptography standards as referenced in FIPS 140-2, Security Requirements for Cryptographic Modules for all personal data.

24. Subscription Terms: Service provider grants to a public jurisdiction a license to:

a. Access and use the service for its business purposes;
b. For SaaS, use underlying software as embodied or used in the service; and
c. View, copy, upload, download (where applicable), and use service provider's documentation.

25. Equitable Relief: Service provider acknowledges that any breach of its covenants or obligations set forth in Addendum may cause the public jurisdiction irreparable harm for which monetary damages would not be adequate compensation and agrees that, in the event of such breach or threatened breach, the public jurisdiction is entitled to seek equitable relief, including a restraining order, injunctive relief, specific performance and any other relief that may be available from any court, in addition to any other remedy to which the public jurisdiction may be entitled at law or in equity. Such remedies shall not be deemed to be exclusive but shall be in addition to all other remedies available at law or in equity, subject to any express exclusions or limitations in this Addendum to the contrary.

AGREED:

Name of Agency:_____

Signature:_____

Title:_____

Date:_____

Name of Vendor: **Concourse Tech Inc**

Signature: Kelsey Shaner

Title: **Operations Manager**

Date: **March 4, 2026**

Appendix A

(To be completed by the Agency's Procurement Officer prior to the execution of the Addendum, and shall be made a part of the Addendum. Required information not identified prior to execution of the Addendum may only be added by amending Appendix A and the Addendum, via Change Order.)

Name of Service Provider/Vendor: **Concourse Tech Inc**

Name of Agency: WV Department of Health Office of Epidemeology

Agency/public jurisdiction's required information:

1. Will restricted information be processed by the service provider?
   Yes ■
   No ☐
2. If yes to #1, does the restricted information include personal data?
   Yes ■
   No ☐
3. If yes to #1, does the restricted information include non-public data?
   Yes ■
   No ☐
4. If yes to #1, may the service provider store public jurisdiction data in a data center in an acceptable alternative data center location, which is a country that is not the U.S.?
   Yes ☐
   No ■
5. Provide name and email address for the Department privacy officer:

   Name: Chris Snyder

   Email address: chris.s.snyder@wv.gov

Vendor/Service Provider's required information:

6. Provide name and contact information for vendor's employee who shall serve as the public jurisdiction's primary security contact:

   Name: **Kelsey Shaner**

   Email address: **sales@concoursetech.com**

   Phone Number: **646-305-9964**

Immunization Information System (IIS) Baseline Requirements Traceability Matrix (RTM)

Update Released July 2025

This requirements traceability matrix (RTM) contains draft baseline functional and non-functional requirements for an immunization information system (IIS). The requirements clarify minimum expectations for what IIS technology must do and how it must operate to support IIS Functional Standards and programmatic and immunization stakeholder needs. The functional requirements describe intended behaviors of an IIS to support business processes and tasks, by function and capability. The non-functional requirements convey technical requirements related to how a system must operate, by attribute and sub-characteristic. An embedded IIS Functional Model presents a visual depiction of the core functions, capabilities and attributes of IIS and serves as a companion to the requirements.

This RTM is intended to be used by immunization programs as a starting point for the procurement of an IIS platform, module or enhancement. The RTM should be used throughout the system development life cycle (SDLC) to ensure requirements are met in a final product or system. Immunization programs and IIS may also use the IIS Functional Model and the requirements within this RTM to help assess and identify gaps in current IIS functions, capabilities and technical quality and provide a roadmap for future development within or across jurisdictions.

Contents

Guidance: Using the RTM	Step-by-step guidance and helpful hints/notes for using the RTM as part of a procurement process.
Functional Model	Draft IIS Functional Model (FM), a visual depiction of IIS functions and capabilities and attributes.
FM Descriptions	Descriptions of the IIS Functional Model functions and capabilities and attributes; also provides an indication of total requirements by function/category.
RTM Format	Description of how the RTM is structured for presentation of the requirements.
Requirements by Function/Grouping:	
Admin System	Requirements related to the function: Administer System
Manage Orgs	Requirements related to the function: Manage Organizations and Facilities
Manage Users	Requirements related to the function: Manage Users
Interop	Requirements related to the function: Support Interoperability
Data Quality	Requirements related to the function: Ensure Data Quality
Eval Forecast	Requirements related to the function: Evaluate & Forecast
Manage Pt Iz Record	Requirements related to the function: Manage Patient & Immunization Records
Manage Vaccine Inventory	Requirements related to the function: Manage Vaccine Inventory
Data Access	Requirements related to the function: Provide Data Access
Non-functional	Technical requirements across key attributes
Glossary	List of terms used in requirements and their definitions
Crosswalk to FS	Compare the Functional Model to the IIS Functional Standards (FS)

This RTM was developed by the Public Health Informatics Institute, in partnership with AIRA and CDC and with financial support from CDC under Cooperative Agreement number 6 NH23IP922664-01. Questions, comments and suggestions are welcomed at ifs@phii.org.

PHII PUBLIC HEALTH INFORMATICS INSTITUTE

IIS

Guidance for leveraging the RTM workbook in a procurement

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Suggested steps and helpful hints for immunization programs and IIS when using the IIS Functional Model and requirements within this RTM as part of a procurement and system development life cycle.

1. Identify the scope of the procurement
- Are you looking to procure an IIS platform or a specific module or enhancement?
- Identify which functions and capabilities within the IIS Functional Model may relate to your project scope.
- What technologies/systems do you have access to within your jurisdiction that will fulfill certain functions/capabilities/requirements?
- What technologies/systems will need to be integrated with the procured solution?
- Use the RTM to identify the requirements in scope.

2. Identify stakeholders/representatives to be included in the requirements review and validation process (and will be included in user acceptance testing)
- Include people that do the work, i.e., staff from across the IIS and immunization program who will be using the system/module/enhancement being procured.
- Include representatives from IT, as appropriate, e.g., a jurisdictional IT security officer.
- Consider validating requirements with end users to ensure completeness and accuracy and to inform prioritization.
- Engage with the procurement office early in the process to fully understand jurisdictional requirements, policies, templates, approval processes, and timelines.

3. Gather existing business process documentation for reference
- Gather standard operating procedures, documented workflows, business process analysis documents, help desk and tickets.
- These materials will assist in the review and validation of the requirements within the RTM.

4. Kickoff the requirements review and validation process
- Identify reviewers for the functions and requirements within scope, considering individuals' subject matter expertise.
- Schedule and conduct a meeting with all stakeholders/representatives to discuss the requirement review and validation plan.
- Introduce the Functional Model functions, capabilities and/or attributes in scope.
- Orient the group to the RTM format and contents, including the glossary of terms.
- Review the project schedule and individual responsibilities.

5. Review and validate requirements
- Review the requirements by tab with the appropriate program staff and/or impacted stakeholders (consider daily facilitated review sessions). Review the requirements based on current issues, concerns, challenges to ensure/mitigate current issues, concerns, etc. (using documentation gathered in step 3).
- Discuss and define jurisdiction-specific needs and requirements. In particular, consider requirements that include 'as per jurisdictional policy,' those indicating 'user-defined parameters,' and non-functional requirements where jurisdiction-specific values should be entered.
- Validate the requirements in terms of their:
  * Completeness and accuracy: add jurisdiction-specific requirements in a separate tab (included in the RTM workbook) or as additional rows in the appropriate existing tab.
  * Clarity: offer clarifications as comments in the "Comments" column. CDC strongly recommends not altering the wording of the requirements in the RTM.
  * Priority: CDC strongly recommends that values listed in the "Priority: E, O (essential, optional)" column remain as is unless jurisdictional law/policy says otherwise.

6. Approve the final set of requirements
- Gain approval of the final requirements from program and jurisdictional IT leadership, as appropriate.
- Use the "Req. #" column on each tab to assign a unique identifier, which will facilitate traceability throughout the development lifecycle.

7. Include the requirements in the solicitation to inform vendor selection.
- Conduct a final re-validation of the requirements: what has changed? Are the requirements still accurate and relevant? Have any priorities changed?
- Work with your procurement office to ensure your requirements are incorporated into your solicitation. Attach or otherwise incorporate the RTM or requirements listing based on jurisdictional policy.
- Provide instructions for solicitation respondents to comment on each requirement, using the "Vendor Response" and "Vendor Comments" columns.
- Review responses and conduct due diligence to determine a solution/vendor that best meets your needs.

8. Work with the selected vendor on configuration and specifications, as needed.
- Ensure that your essential requirements are met.
- Review vendor system documentation to determine potential gaps for future consideration.

9. Test the delivered solution to ensure requirements are met.
- Refer to the vendor documentation to control the quality and completeness of the procured solution in meeting the requirements within the RTM.
- Add columns to the RTM for further traceability of the requirements through the SDLC. For example, 'Script #' and "Tester' columns can be included to ensure each requirement has a corresponding test and tester during user acceptance testing.
- Identify individuals who will be involved in user acceptance testing; ensure these staff are prepared for the testing process and know how to document testing results.

10. Update business processes & documentation, as needed
- Update standard operating procedures to reflect and refine staff interaction with the new technology.

11. Use the requirements, testing process, and business process documentation to develop training

Helpful Hints and Notes

- The RTM can be used in conjunction with requirements definition tools, such as task flow diagrams. (For more information on PHII's Collaborative Requirements Development
- On each tab, high-level requirements are shaded in blue; rows beneath each high level requirement provide further detail.
- Each requirement should have a unique ID number. Do not change the ID number for requirements provided in this sheet. When adding new requirements, label with
- Tabs can be added to the RTM to encompass business processes or business rules within the workbook.
- Columns can be added to the RTM for further traceability of the requirements through the design, build, test and release activities. For example, a 'Script #' column can be
- To be most effective in tracking a solution that meets program requirements, the RTM must be maintained throughout the system development life cycle.
- Requirements must be prioritized to ensure that the most critical ones are initially addressed with available funding. Subsequent prioritization of needs may be warranted to
- Consider using an additional priority designation of 'R' for 'Required by Law' to indicate requirements that stem from jurisdictional laws/administrative rules. Provide a

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Immunization Information System (IIS) Functional Model

The IIS Functional Model presents a framework and terminology for conveying and communicating the core functions, capabilities and attributes of IIS. These systems, whether as a single integrated IIS or as a set of interoperable modules, support public health immunization programs in achieving the **CDC IIS Functional Standards*** and in providing trusted data and information to improve clinical immunization practice, increase vaccination and reduce vaccine-preventable disease.

The model also serves as a companion and index to the **IIS Baseline Requirements Traceability Matrix (RTM)**, which provides detailed requirements across IIS functions, capabilities and attributes. The RTM and other requirements tools can be found at **phii.org/iis-requirements**.

IIS Core Functions and Capabilities

These functions and capabilities represent core functionality of IIS. Refer to the **IIS Baseline RTM** for descriptions and functional requirements associated with each.

Administer System

- Hierarchy configuration
- System configuration
- User roles & permissions
- System alerts

Manage Organizations & Facilities

- Organization/facility search
- Add, edit, inactivate organization/facility
- VFC/vaccine program enrollment
- Organization/facility outreach

Manage Users

- User search
- Add, edit, inactivate user
- Authentication & authorization
- Password management

Support Interoperability

- Onboarding
- Interfaces
- Data exchange

Ensure Data Quality

- Patient matching & deduplication
- Vaccination event matching & deduplication

Evaluate & Forecast

- Clinical decision support
- Reminder/recall
- Coverage reports

Manage Patient & Immunization Records

- Patient search
- Add, edit patient demographics
- Patient status
- Patient consent
- Add, edit patient immunization
- Print/export record
- Mass vaccination

Manage Vaccine Inventory

- Vaccine inventory search
- Add, edit vaccine inventory
- Vaccine ordering
- Review/approve order
- Vaccine decrementing
- Vaccine inventory reconciliation
- Vaccine transfer
- Vaccine wastage
- Vaccine expiration

Provide Data Access

- Standard reports
- Print/export reports
- Ad hoc queries & reports
- Consumer access

IIS Attributes

These attributes represent the technical characteristics of an IIS necessary to support immunization programs and stakeholders. Refer to the **IIS Baseline RTM** for descriptions and non-functional requirements associated with each.

Performance Efficiency

- Time behavior
- Resource utilization
- Capacity

Usability

- Operability
- User error protection
- Accessibility

Reliability

- Availability
- Fault tolerance
- Recoverability

Security

- Confidentiality
- Non-repudiation
- Accountability
- Authenticity

Maintainability

- Analyzability

Portability

- Adaptability
- Installability

* https://www.cdc.gov/vaccines/programs/iis/func-stds.html

This resource was developed by the Public Health Informatics Institute in 2020, in collaboration with AIRA and CDC, with financial support from CDC under Cooperative Agreement number 6- NU38OT000316. Questions, comments and suggestions are welcomed at phii.org/iiscontact.

IIS Functional Model descriptions

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FC ID Number	Functional Profile	Functional Profile Name	Functional Profile Description	Capability	Capability Description
Auditing Tracking	63	Administer System	Management of global system settings and alerts, including set up of user roles and permissions.	Alert/Notification Configuration	- ability to create templates that determine the communication preferences between program participants
				System Configuration	- ability to define system-wide settings, such as management of code tables
				User Roles and Permissions	- ability to define and manage user roles and use role permissions to perform a function, activity or task
				System Alerts	- ability to broadcast communication to IIS users viewable upon logging into the system
Manage Orgs	85	Manage Organizations and Facilities	Management of organizations and facility accounts.	Organization/Facility	- ability to look up and retrieve an organization or facility account
				Add, Edit, Inactivate Org/Facility	- ability to add, edit or inactivate an organization or facility, ability for an organization to initiate enrollment and re-enrollment in the IIS
				VFC/Vaccine Programs	- ability to enroll and re-enroll a provider organization in VFC and/or other vaccine program(s)
				Organization/Facility Interfaces	- ability to communicate with organization/facility representatives
Manage Users	35	Manage Users	Management of user accounts.	User Search	- ability to define parameters to look up and retrieve a user account
				Add, Edit, Inactivate User	- ability to add, edit or inactivate a user account
				Authentication and Password Management	- ability to validate a user's identity, entity and system permissions - ability to administer, change and reset user passwords
Interop	65	Support Interoperability	Manage interfaces to exchange data between the IIS and other systems.	Onboarding	- ability to establish/re-establish/modify an interface with another information system for the electronic exchange of demographic and/or
				Interfaces	- ability to facilitate electronic data exchange with other information systems, including EHRs, VTrckS, jurisdictional vital records, and the IZ Gateway
				Data Exchange	- ability to exchange data electronically and monitor and troubleshoot data exchange
Data Quality	32	Ensure Data Quality	Deduplication and consolidation of records	Patient Matching and Deduplication	- ability to identify and manage duplicate and potential duplicate patient records
				Vaccination Event Matching	- ability to identify and manage duplicate and potential duplicate vaccination entries
Eval Forecast	64	Evaluate and Forecast	Determine the validity of past immunizations administered as a basis for determining immunizations due.	Clinical Decision Support	- ability to evaluate and forecast immunizations for a patient per ACIP guidelines and in alignment with CDSI specifications
				Reminder/Recall	- ability to identify and notify patients who are due for upcoming immunizations (reminder) and/or are past due (recall)
				Coverage Reports	- ability to create reports to support immunization coverage assessment at the provider and geographic levels including reports for the CDC's VFC
Manage Pt Ir Record	83	Manage Patient and Immunization Records	Manage patient demographics and patient immunization record	Patient Search	- ability to look up and retrieve a patient record
				Add, Edit Patient	- ability to add, edit or inactivate a patient record
				Patient Status	- ability to manage the assignment of a specific patient to a provider organization or jurisdiction
				Patient Consent	- ability to manage patient agreement to participate in the IIS in accordance with jurisdictional policy
				Add, Edit Patient	- ability to add, edit an immunization record
				Print/Export Report	- ability to print or export either a patient or immunization record
				Mass Vaccination	- ability to capture a large volume of demographic and immunization data in emergency situations
Manage Vaccine Inv	87	Manage Vaccine Inventory	Order publicly-purchased vaccine and manage vaccine inventory.	Vaccine Inventory Search	- ability to look up and retrieve vaccine doses in inventory
				Add, Edit Vaccine Inventory	- ability to manage vaccine inventory, including ordering, storage and handling, and reconciliation of vaccine doses
				Vaccine Ordering	- ability to order publicly funded vaccines as authorized
				Review/Approve Order	- ability to review, edit, and authorize an organization's vaccine order for approval, submission and fulfillment
				Vaccine Dose Decrementing	- ability to automatically decrement vaccine doses from inventory when matched vaccine doses are reported as administered
				Vaccine Inventory	- ability to maintain an accurate count of vaccine doses available based on dose administered, wasted, transferred, and expired
				Vaccine Transfer	- ability to transfer vaccine from one VFC provider organization to another in certain situations
				Vaccine Wastage	- ability to manage nonviable vaccine reporting
				Vaccine Expiration	- ability for notification and management of vaccine inventory expired and due to expire
Data Access	65	Provide Data Access	Provision of access to data and information.	Standard Reports	- ability to generate pre-configured reports available and accessible in the IIS
				Ad Hoc Queries and Reports	- ability to create, save and schedule data queries and customized reports on demand
				Print/Export Report	- ability to generate data to print or use in other systems
				Consumer Access	- ability for authorized consumers to directly access IIS data for which they are authorized
FC Name	# of QAs	QA Name	Description	QAs Characteristic	Description
Non-functional	99	Performance	Performance efficiency relative to the amount of resources used under stated conditions.	Time behavior	- degree to which the response and processing times and throughput rates of a product or system, when performing its functions, meet requirements
				Resource utilization	- degree to which the amounts and types of resources used by a product or system, when performing its functions, meet requirements
				Capacity	- degree to which the maximum limits of a product or system parameter meet requirements
		Usability	Degree to which a product or system can be used by specified users to achieve specified goals with effectiveness, efficiency and	Operability	- degree to which a product or system has attributes that make it easy to operate and control
				User error protection	- degree to which a system protects users against making errors
				Accessibility	- degree to which a product or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a
		Reliability	Degree to which a system, product or component performs specified functions under specified conditions for	Availability	- degree to which a system, product or component is operational and accessible when required for use
				Fault tolerance	- degree to which a system, product or component operates as intended despite the presence of hardware or software faults
				Recoverability	- degree to which, in the event of an interruption or a failure, a product or system can recover the data directly affected and re-establish the desired
		Security	Degree to which a product or system protects information and data so that persons or other products or systems have the degree of data access	Confidentiality	- degree to which a product or system ensures that data are accessible only to those authorized to have access
				Non-repudiation	- degree to which actions or events can be proven to have taken place so that the events or actions cannot be repudiated later
				Accountability	- degree to which the actions of an entity can be traced uniquely to the entity
				Authenticity	- degree to which the identity of a subject or resource can be proved to be the one claimed
		Maintainability	Degree of effectiveness and	Analyzability	- degree of effectiveness and efficiency with which it is possible to assess the impact on a product or system of an intended change to one or more of
		Portability	Degree of effectiveness and efficiency with which a system	Adaptability	- degree to which a product or system can effectively and efficiently be adapted for different or evolving hardware, software or other operational or
				Installability	- degree of effectiveness and efficiency with which a product or system can be successfully installed and/or uninstalled in a specified environment
IIS					

RTM Format

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Status	Req. #*	Capability/Attribute	***Requirement: The IIS must/should have...	Comments	Reviewer notes	Priority: E, O (essential, optional)**	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s) If Yes with customization: indicate the anticipated cost and timeline for development and release
(Update from the previous version of the RTM or newly added.	(Req. ID)	(Capability/attribute name, e.g., 'System Configuration')	(detailed requirement)	-Suggested recommendations for the requirement. -Indication of relationship to a priority cross-functional need such as mass vaccination or school reports.	(Reviewer notes related to: -- Organization of the requirement (in terms of its associated capability and/or function) -- Wording of the requirement -- Misc thoughts)	(Trait priority designation, e.g. "E")		
Update from the previous version of the RTM or newly added.	Req. ###	Capability/attribute name, e.g., 'System Configuration')	(detailed requirement)	-Suggested recommendations for the requirement. -Indication of relationship to a priority cross-functional need such as mass vaccination or school reports.	(Reviewer notes related to: -- Organization of the requirement (in terms of its associated capability and/or function) -- Wording of the requirement -- Misc thoughts]	(Trait priority designation, e.g. "E")		

*Numbering/identification of individual requirements will occur at the very end of the review and revision process, once requirements are final.

**Priority designations:
E: Essential: Baseline, critical requirement reflective of core functionality/attribute for a viable IIS as defined by CDC.
O: Optional: Not essential for all IIS as defined by CDC.

*** Rows highlighted in blue indicate a high-level requirement

Capability	Requirement: The IIS must/should...	Priority: E, O (essential, optional)	Vendor response: Yes, via configuration; Yes, via customization; No (if optional); Future release	Vendor comments (if not self-explanatory, indicate any additional cost and timeline for development and release)
Hierarchy	ability to establish and maintain hierarchical relationships between organizations, facilities, providers, and users within the IIS.	E	Yes	[illegible]
Hierarchy	ability to associate user(s) to a facility	E	Yes	[illegible]ctional hierarchy, enabling role-based data access and function availability scoped to their assigned facility.
Hierarchy	ability to associate clinician(s) to a facility	E	Yes	[illegible]services and ordering privileges to specific sites, supporting accurate attribution of administered vaccinations.
Hierarchy	ability to associate facility/facilities to an organization	E	Yes	[illegible]arable parent-child structures, reflecting the actual organizational relationships between sites and their managing entities.
Hierarchy	ability to establish geographic jurisdictional hierarchy	E	Yes	[illegible] reporting aligned with public health administrative boundaries.
Hierarchy	ability to aggregate data across user-defined hierarchies	E	Yes	[illegible]s authorized users to generate reports and analyses spanning any configured organizational or geographic grouping.
System Configuration	ability to maintain inventory exclusively from an authorized order	E	Yes	[illegible]trative settings managed by authorized jurisdictional administrators.
System Configuration	ability for jurisdictional admin to maintain separate VFC supplied inventory in the IIS	E	Yes	[illegible]ntly within the system, enabling distinct tracking, ordering, and accountability for federally-funded vaccine stock.
System Configuration	ability for jurisdictional admin to maintain separate jurisdiction supplied inventory	E	Yes	[illegible]m VFC and private stock, supporting separate accountability and reporting for state-funded vaccine supplies.
System Configuration	ability for jurisdictional admin to maintain separate private stock inventory	E	Yes	[illegible]ding category, enabling facilities to track privately-purchased vaccines separately from publicly-funded supplies.
System Configuration	ability for jurisdictional admin to manage code sets	E	Yes	[illegible]gh administrative interfaces without vendor intervention.
System Configuration	ability for jurisdictional admin to update NDC codes	E	Yes	[illegible]strators to update National Drug Code values as new vaccine products and presentations become available.
System Configuration	ability for jurisdictional admin to update CVX codes	E	Yes	[illegible]ecting CDC codes, ensuring the system reflects current vaccine product classifications for accurate data exchange.
System Configuration	ability for jurisdictional admin to update MVX codes	E	Yes	[illegible]ntly define clarify ration, keeping manufacturer identifiers current for vaccine product identification and reporting.
System Configuration	ability to configure default values at jurisdiction level	E	Yes	[illegible]ge per user context, facility, and organizational settings.
System Configuration	ability to display an error message in the user interface when minimum information required is not complete	E	Yes	[illegible] are incomplete, guiding users to provide minimum necessary information before form submission.
System Configuration	ability to standardize addresses per US Postal conventions and codes	E	Yes	Address standardization normalizes entered addresses to
System Configuration	ability to verify validity of addresses (as used in IIS addresses) in the IIS through electronic means (e.g., SmartyStreets)	E	Yes	[illegible]es against USPS databases, confirming deliverability and correcting common formatting errors at the point of entry.
System Configuration	ability to geocode addresses	E	Yes	Address geocoding converts validated addresses to
System Configuration	ability to validate accurate assignment of address to an individual through electronic means (e.g., LexisNexis)	O	Yes	[illegible] address accuracy for individual patients, supporting data quality through third-party verification services.
System Configuration	ability for jurisdictional admin to modify facility types according to immunization program descriptions and CDC VFC Program descriptions	E	Yes	[illegible]acilities' administrators to align with immunization program descriptions and CDC VFC Provider categories.
System Configuration	ability for jurisdictional admin to configure rules governing data validation of incoming HL7 messages	E	Yes	HL7 message validation rules are configurable, enabling
System Configuration	ability to configure an authorization agreement as per jurisdictional policy	O	Yes	[illegible]risdictional data use policies, requiring organizational acknowledgment before IIS participation is activated.
System Configuration	ability to configure a user agreement as per jurisdictional policy	O	Yes	[illegible]eptance of data use and privacy terms before granting system access, per jurisdictional compliance requirements.
System Configuration	ability to display age in year/month/day format in all age display fields (e.g., 1 years, 4 months, 9 days)	E	Yes	[illegible]irement fields, promoting precise age representation for clinical decision support and eligibility determinations.
System Configuration	ability to provide optional calendar to select a date in a web client	O	Yes	[illegible]nput fields, reducing data entry errors and providing a consistent date selection experience across the application.
System Configuration	ability to add patient priority group indicators	E	Yes	[illegible]o support emergency vaccination campaigns, VFC eligibility tracking, and targeted population identification.
System Configuration	ability to modify patient priority group indicators	E	Yes	[illegible]by authorized administrators, accommodating evolving eligibility criteria and public health prioritization changes.
System Configuration	ability to configure data quality business rules related to code values	E	Yes	[illegible] data quality standards applied across all data sources.
System Configuration	ability for jurisdictional admin to specify business rules for monitoring data quality	E	Yes	[illegible]a quality monitoring rules defining thresholds, alert triggers, and automated quality check parameters.
System Configuration	ability for jurisdictional admin to modify business rules for monitoring data quality	E	Yes	[illegible]modified to adjust monitoring thresholds and parameters as jurisdictional data quality standards evolve.
System Configuration	ability to configure the organization enrollment form	E	Yes	[illegible]elds, validation logic, and submission workflows.
System Configuration	support rules based logic to suggest approval or rejection of enrollment form based on review of completed fields	E	Yes	[illegible]t fields and recommends approval or rejection, streamlining jurisdictional review of organization applications.
System Configuration	ability to manage rules based logic for approval or rejection of enrollment form	E	Yes	[illegible]jurisdictional administrators, enabling customization of automated evaluation criteria for enrollment submissions.
System Configuration	ability for jurisdictional admin to create enrollment forms based on program requirements	E	Yes	[illegible]tailored to specific program requirements, defining the fields, validations, and workflow routing for each form type.
System Configuration	ability for jurisdictional admin to modify an enrollment form	E	Yes	[illegible]fields, validation rules, and routing logic as program requirements change, without requiring vendor code changes.
System Configuration	ability to auto-populate existing user information in the IIS with the information on the enrollment form when creating a new facility in the IIS	O	Yes	[illegible]ormation into enrollment forms during new account creation, reducing duplicate data entry and improving accuracy.
System Configuration	ability to auto-populate the organization information in the IIS with information on the enrollment form when creating a new organization in the IIS	O	Yes	[illegible]ulated into enrollment forms when creating new organizational records, streamlining the enrollment workflow.
System Configuration	ability for jurisdictional admin to configure vaccine forecasting business rules	E	Yes	[illegible]
System Configuration	ability to apply effective dates to vaccine rules	O	Yes	[illegible]uring forecasting logic activates and deactivates schedule changes on the appropriate dates per ACIP guidance.
System Configuration	ability to incorporate new vaccines per ACIP into the forecasting algorithm	E	Yes	New vaccines are incorporated into the forecasting
System Configuration	ability to support a record search algorithm to return "best matches"	E	Yes	[illegible]to support efficient and accurate patient identification.
System Configuration	ability for jurisdictional admin to configure the number of search results to be displayed per jurisdictional policy	E	Yes	[illegible]ser jurisdictional policy, allowing administrators to balance thoroughness with usability based on operational needs.
System Configuration	ability for jurisdictional admin to modify required parameters for patient searches	E	Yes	[illegible]ed by jurisdictional administrators, defining which fields must be entered before a search can be executed.
System Configuration	ability to search across multiple patient records using combinations of demographic information (e.g., address, phone number, mother's maiden name)	E	Yes	[illegible]ies, protecting patient privacy in generated reports.
System Configuration	ability to open multiple screens simultaneously within the application	O	Yes	[illegible]across different modules without losing their working context.
User Roles and Permissions	ability for jurisdictional admin to maintain user roles and permissions by role per jurisdictional policy	E	Yes	[illegible]ctions, data views, and actions each role may perform.
User Roles and Permissions	ability for jurisdictional admin to add user roles with distinct permissions	E	Yes	[illegible]n be created to accommodate evolving organizational structures and operational workflows within the IIS.
User Roles and Permissions	ability for jurisdictional admin to modify user roles with distinct permissions	E	Yes	[illegible]o adjust permission assignments, reflecting changes in job responsibilities or jurisdictional access policies.
User Roles and Permissions	ability for jurisdictional admin to inactivate user roles	E	Yes	[illegible] preventing new role assignments while preserving audit history for accounts previously assigned to that role.
User Roles and Permissions	ability for jurisdictional admin to modify permissions in IIS processes and data for specific user roles	E	Yes	[illegible]ions are configurable at the role level, enabling granular control over what each user type can view and modify.
User Roles and Permissions	ability for jurisdictional admin to restrict system functionality by user role	E	Yes	[illegible], ensuring each user's interface presents only the modules, actions, and navigation options authorized for their role.
User Roles and Permissions	ability for jurisdictional admin to restrict authorized user access to data based on user role	E	Yes	[illegible]signments, preventing unauthorized viewing of patient records, reports, or administrative data outside the user's scope.
User Roles and Permissions	ability for jurisdictional admin to enable access to standard reports based on user role	E	Yes	[illegible]permissions, with administrators enabling or disabling specific reports for each user role based on operational need.
User Roles and Permissions	ability to automatically update all users assigned to a role based on changes made to the "master" role attributes	E	Yes	[illegible]ate to all users assigned to that role, ensuring consistent permission enforcement without individual account updates.
System Alerts	ability for jurisdictional admin to manage system alerts	E	Yes	[illegible] through a [illegible], scheduling, and targeting of operational notices.
System Alerts	ability to view global messages upon logging into the application	E	Yes	[illegible]ication login, ensuring timely communication of [illegible] notices, policy changes, and operational updates.
System Alerts	ability for jurisdictional admin to add system alerts for specific IIS users to view when logging into application	O	Yes	[illegible]S users or user groups, enabling personalized notifications for role-specific communications and action items.
System Alerts	ability for jurisdictional admin to add global messages	E	Yes	[illegible]d messages for broadcast to the IIS user community, with configurable display timing and content formatting.
System Alerts	ability for jurisdictional admin to edit global messages	E	Yes	[illegible]odate content, adjust display parameters, or modify targeting criteria as communication needs change.
System Alerts	ability for jurisdictional admin to inactivate global messages	E	Yes	[illegible]relevant, removing them from the login display while retaining the message record for administrative reference.

Function: Manage Organisations and Facilities

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Capability	Requirement: The IIS must/should have	Priority (1-3) (mandatory, optional)	Current Capability Yes / No / Partial	Comments / Workaround / Gap (e.g. if partial, describe what is missing or how it is addressed)
Organisation Facility	ability for jurisdictional admin to search organizations/facilities by user defined parameters	1	Yes	Jurisdictional admins can search for organizations and facilities using parameters defined in its organization management module.
Organisation Facility	ability to view and reset search criteria when searching for an organization/facility	1	Yes	Users including name, identifier, status, type, site enrollment, and geographic location for targeted record retrieval.
Organisation Facility	ability to view [redacted]	1	Yes	Navigating away, enabling users to quickly refine their query when initial results do not return the desired record.
Add, Edit, Inactivate	ability for jurisdictional admin to add/edit/inactivate/reactivate/view/search organizations/facilities	1	Yes	[redacted] administrative burdens and accelerating the enrollment pipeline.
Add, Edit, Inactivate	ability for applicant from unauthorized org to submit IIS enrollment information online	1	Yes	Internet information on the web form fields entered by [redacted] completeness before submission to jurisdictional reviewers.
Add, Edit, Inactivate	ability for applicant from unauthorized org to submit IIS enrollment information online	1	Yes	are routed electronically to jurisdictional administrators for review, with status tracking throughout the approval process.
Add, Edit, Inactivate	ability for applicant from unauthorized org to save partial, incomplete IIS enrollment information online and return later	0	Yes	Saved and resumed later, accommodating applicants who need to gather information across multiple sessions.
Add, Edit, Inactivate	ability for applicant from unauthorized org to return to a partially complete IIS enrollment information	0	Yes	The ability to return to a partially complete IIS enrollment application within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to prevent submission of incomplete IIS enrollment information when required fields are missing	1	Yes	Prevention of submission of incomplete IIS enrollment information when required field(s) are missing within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to electronically notify the applicant of incomplete IIS enrollment information specifying the missing required fields	1	Yes	The ability for jurisdictional administrators to notify the applicant of incomplete IIS enrollment information specifying the missing within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to electronically notify applicant that IIS enrollment information has been submitted	1	Yes	Automatically notify applicant that IIS enrollment information has been submitted within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for applicant from unauthorized org to submit IIS enrollment information	1	Yes	[redacted] the ability for applicants to submit IIS enrollment information within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for application from unauthorized org to withdraw IIS enrollment request	1	Yes	[redacted] supports the ability to withdraw a request for enrollment within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to capture electronic signature for enrollment, for an institutional agreement	0	Yes	[redacted] to sign enrollment agreements digitally within the application workflow, eliminating paper-based signature requirements.
Add, Edit, Inactivate	ability to capture electronic signature for enrollment, for the user agreement	1	Yes	[redacted] the ability to manage organization/facility IIS enrollment within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to manage organization/facility IIS enrollment status	1	Yes	[redacted] the ability to manage organization/facility IIS enrollment status within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to inactivate an organization	1	Yes	Authorized administrators with configurable revocation rights on associated user accounts and data access permissions.
Add, Edit, Inactivate	ability for jurisdictional admin to reactivate an organization	1	Yes	[redacted] supports the ability to reactivate an organization within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to store IIS enrollment status for an organization/facility	1	Yes	[redacted] the ability to store IIS enrollment status for an organization/facility within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to inactivate a facility	1	Yes	Configurable cascading effects on associated user accounts and data access permissions. Specifically, the system supports the ability to inactivate a facility.
Add, Edit, Inactivate	ability for jurisdictional admin to reactivate a facility	1	Yes	[redacted] supports the ability to reactivate a facility within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to electronically approve IIS enrollment	1	Yes	[redacted] supports the ability to electronically approve IIS enrollment within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to include reason for rejecting IIS enrollment of an organization	1	Yes	[redacted] the ability to include reasons for rejecting IIS enrollment of an organization within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to electronically notify the organization that the submitted enrollment was rejected along with the reason	1	Yes	[redacted] to electronically notify the organization that the submitted enrollment was rejected along with the rea within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to [redacted]	1	[redacted]	[redacted] the ability to manage organization/facility IIS enrollment status within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to add an organization	1	Yes	[redacted] the ability to add an organization within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to modify an organization record	1	Yes	[redacted] supports the ability to modify an organization record within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to add a facility	1	Yes	Forms, with required fields capturing site-specific information needed for vaccine program operations and data exchange.
Add, Edit, Inactivate	ability for jurisdictional admin to modify a facility record	1	Yes	[redacted] supports the ability to modify a facility record within the enrollment and account lifecycle.
Add, Edit, Inactivate	Ability to automatically generate unique facility ID/ID	1	Yes	[redacted] the ability to automatically generate unique facility ID within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to associate a facility to an organization	1	Yes	[redacted] the ability to associate a facility to an organization within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to de-associate/de-activate a facility to an organization	1	Yes	Administrative and operational contacts, with changes validated and recorded in the system audit trail.
Add, Edit, Inactivate	ability to store multiple unique facility IDs associated with a particular facility to facilitate matching of facilities between the IIS and other data systems	1	Yes	[redacted] unique facility IDs associated with a particular facility to facilitate matching within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to capture a facility's mailing address	1	Yes	Specific information needed for vaccine program operations and data exchange. Specifically, the system supports the ability to capture a facility's mailing address.
Add, Edit, Inactivate	ability to capture a facility's shipping address	1	Yes	Specific information needed for vaccine program operations and data exchange. Specifically, the system supports the ability to capture a facility's shipping address.
Add, Edit, Inactivate	ability to enter contact information for the facility contact	1	Yes	The ability to enter contact information for the facility contact within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to enter contact information for an optional contact	1	Yes	The ability to enter contact information for an optional contact within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to indicate if an organization/facility is a site where immunizations are administered	1	Yes	Indicate if an organization/facility is a site where immunizations are administered within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to indicate if an organization/facility is a site where vaccines are stored for redistribution	0	Yes	Identify an organization/facility is a site where vaccines are stored for redistribution within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to save documents (i.e., enrollment/onboarding documents, storage and handling, borrowing, temperature logs, wastage, etc.) to specific organization/facility for folder per facility	0	Yes	Records (i.e., enrollment/onboarding documents, storage and handling, borrowing, temperature within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to remove electronic files from provider file folder	0	Yes	[redacted] the ability to remove electronic files from provider file folder within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability for jurisdictional admin to record notes related to a organization/facility	0	Yes	[redacted] the ability to record notes related to a organization/facility within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to flag an organization as participating in VFC and/or other defined vaccine program(s)	1	Yes	Flag a organization as participating in VFC and/or other user-defined vaccine program(s) within the enrollment and account lifecycle.
Add, Edit, Inactivate	ability to retrieve organization/facility information from external forms and automatically fill required data fields with retrieved information	0	Yes	Organization/facility information from scanned forms and automatically fill required data f within the enrollment and account lifecycle.
Organization Program	ability to [redacted]	1	[redacted]	[redacted] jurisdictional review and approval at each enrollment stage.
Org Vaccine Program	ability to capture electronic signature for vaccine program enrollment	1	Yes	[redacted] jurisdictional review and approval at each enrollment stage. Specifically, the system supports the ability to capture electronic signature for vaccine program enrollment.
Org Vaccine Program	ability to access the vaccine program agreement in a separate window from the vaccine program enrollment	1	Yes	[redacted] review and approval at each enrollment stage. Specifically, the system supports the ability to access the vaccine program agreement in a separate window from the vaccine progr.
Org Vaccine Program	ability to provide link to the blank formatted vaccine program enrollment form	1	Yes	[redacted] review and approval at each enrollment stage. Specifically, the system supports the ability to provide link to the blank formatted vaccine program enrollment form.
Org Vaccine Program	ability for the jurisdictional vaccine program admin to assign a VFC pin number to a newly enrolled VFC site	1	Yes	[redacted] jurisdictional review and approval at each enrollment stage. Specifically, the system supports the ability to assign a VFC pin number to a newly enrolled VFC site.
Org Vaccine Program	ability to select the type of certified monitoring device being used to record temperatures	1	Yes	[redacted] type of certified monitoring device being used to record temperatures within the vaccine program management framework.
Org Vaccine Program	ability for the jurisdictional vaccine program admin to document that a facility has a certificate of calibration for the temperature monitoring device	0	Yes	[redacted] facility has a certificate of calibration for the temperature monitoring device within the vaccine program management framework.
Org Vaccine Program	ability for the jurisdictional vaccine program admin to approve a vaccine program enrollment	1	Yes	[redacted] admin, with jurisdictional review and approval at each enrollment stage. Specifically, the system supports the ability to approve a vaccine program enrollment.
Org Vaccine Program	ability for the jurisdictional vaccine program admin to enter an expiration date for a vaccine program enrollment	1	Yes	[redacted] the jurisdictional review and approval at each enrollment stage. Specifically, the system supports the ability to enter an expiration date for a vaccine program enrollment.
Org Vaccine Program	ability for the jurisdictional vaccine program admin to document that the vaccine program facility has a routine and emergency vaccine management plan	1	Yes	[redacted] vaccine program facility has a routine and emergency vaccine management plan within the vaccine program management framework.
Org Vaccine Program	ability for the jurisdictional vaccine program admin to document that a facility participating in VFC has a VFC Coordinator annual training certificate	1	Yes	[redacted] participating in VFC have a VFC Coordinator annual training certificate on file for each enrolled site, supporting communication and accountability.
Org Vaccine Program	ability for the jurisdictional vaccine program admin to document that a facility participating in VFC has a Backup Coordinator annual training certificate	1	Yes	[redacted] site, supporting communication and accountability. Specifically, the system supports the ability to document that a facility participating in VFC have a Backup Coordinator annual tr.
Org Vaccine Program	ability for the jurisdictional vaccine program admin to add comments during the vaccine program enrollment approval process	0	Yes	[redacted] admin review and approval at each enrollment stage. Specifically, the system supports the ability to add comments during the vaccine program enrollment approval process.
Org Vaccine Program	ability to require the vaccine program facility to indicate the number of vaccine storage units being monitored	0	Yes	[redacted] program facilities to indicate the number of vaccine storage units being monitored within the vaccine program management framework.
Org Vaccine Program	ability to require the vaccine program facility to indicate the types of vaccine storage units being monitored	0	Yes	[redacted] program facilities to indicate the types of vaccine storage units being monitored within the vaccine program management framework.
Org Vaccine Program	ability to require the vaccine program facility to indicate whether they store Varicella and MMRV vaccine	0	Yes	[redacted] programs facility to indicate whether they store Varicella and MMRV vaccine within the vaccine program management framework.
Org Vaccine Program	ability to enter contact information for the facility Primary Vaccine Coordinator	1	Yes	[redacted] enrolled site, supporting communication and accountability. Specifically, the system supports the ability to enter contact information for the facility Primary Vaccine Coordinator.
Org Vaccine Program	ability to enter contact information for the facility Backup Vaccine Coordinator	1	Yes	[redacted] enrolled site, supporting communication and accountability. Specifically, the system supports the ability to enter contact information for the facility Backup Vaccine Coordinator.
Org Vaccine Program	ability to enter contact information for the facility vaccine program agreement signatory	1	Yes	[redacted] information for the facility vaccine program agreement signatory within the vaccine program management framework.
Org Vaccine Program	ability to capture the day of the week that a vaccine program facility may receive vaccine shipments	1	Yes	[redacted] of the week that a vaccine program facility may receive vaccine shipments within the vaccine program management framework.
Org Vaccine Program	ability to capture the time that a vaccine program facility may receive vaccine shipments	1	Yes	[redacted] time that a vaccine program facility may receive vaccine shipments within the vaccine program management framework.
Org Vaccine Program	ability to automatically turn off vaccine ordering capabilities for a facility that does not have an up-to-date vaccine program enrollment	1	Yes	[redacted] additional review and approval at each enrollment stage. Specifically, the system supports the ability to automatically turn off vaccine ordering capabilities for a facility that does no.
Org Vaccine Program	ability to capture required information for VFC clinician: last name, first name, title, medical license number, NPI number, DEA active with facility we have a relationship, specialty, DEA Public during the enrollment process	1	Yes	[redacted] additional review and approval at each enrollment stage. Specifically, the system supports the ability to capture required information for VFC clinician: last name, first name, title, me.
Org Vaccine Program	ability to attach VFC documentation in multiple formats such as: VFC training certification, certificate of calibration, medical license, flow design diagram and other documents	1	Yes	[redacted] unless, and required certificates are captured and maintained within the VFC enrollment record for compliance verification.
Org Vaccine Program	ability for CDC to validate electronic files from organization/facility IIS EHR	0	Yes	[redacted] software electronic files from organizations/facility IIS to help within the vaccine program management framework.
Org Vaccine Program	ability to automatically validate Clinician license number against Professional Licensing Agency record database	0	Yes	[redacted] within the VFC enrollment record for compliance verification. Specifically, the system supports the ability to automatically validate clinician license number against Professional Licensing A.
Org Vaccine Program	ability to enroll vaccine program recipients in the jurisdiction's IIS	1	[redacted]	[redacted] jurisdictional review and approval at each enrollment stage. Specifically, the system supports the ability to submit vaccine program re-enrollment data electronically.
Org Vaccine Program	ability to electronically notify a facility of the vaccine program completion of an upcoming need for VFC vaccine program re-enrollment	0	Yes	[redacted] review and approval at each enrollment stage. Specifically, the system supports the ability to electronically notify a facility VFC/vaccine program coordinator of an upcoming.
Org Vaccine Program	ability for the jurisdictional vaccine program admin to modify the date for annual electronic notification for each vaccine program facility	1	Yes	[redacted] for on-line renewal electronic notifications for each vaccine program facility within the vaccine program management framework.
Org Vaccine Program	ability to suspend ordering capabilities for a facility pending approval of vaccine program enrollment	1	Yes	[redacted] additional review and approval at each enrollment stage. Specifically, the system supports the ability to suspend ordering capabilities for a facility pending approval of vaccine program.
Org Vaccine Program	ability to re-activate ordering capabilities for a facility when a vaccine program enrollment is approved	1	Yes	[redacted] additional review and approval at each enrollment stage. Specifically, the system supports the ability to re-activate ordering capabilities for a facility when a vaccine program enrollme.
Organization Facility	ability to [redacted]	1	[redacted]	[redacted] the ability to send electronic communications directly from the IIS to facility contacts for enrollment expansion.
Organization Facility	ability to send a final electronic notification reminder to all VFC facilities that have not completed the renewal by their expiration date	0	Yes	Send a final electronic notification reminder to all VFC facilities that have not comp for enrollment expansion.
Organization Facility	ability to send electronic communications directly from the IIS	0	Yes	[redacted] the ability to send electronic communications directly from the IIS for enrollment expansion.
Organization Facility	ability to send electronic communications directly from the IIS to multiple recipients	0	Yes	[redacted] ability to send electronic communications directly from the IIS to multiple recipients for enrollment expansion.
Organization Facility	ability to notify more than one user of a participating vaccine program facility of any vaccine program notification	0	Yes	[redacted] more than one user of a participating vaccine program facility of any vaccine program notific for enrollment expansion.
Organization Facility	ability for the jurisdictional vaccine program admin to customize vaccine program enrollment alerts by participating vaccine program facilities when needed	0	Yes	[redacted] vaccine program enrollment alerts by participating vaccine program facilities when needed for enrollment expansion.
Organization Facility	ability for the jurisdictional vaccine program admin to modify the date for online renewal electronic notifications for each participating vaccine program facility	0	Yes	[redacted] modify the date for online renewal electronic notifications for each participating vaccine program for enrollment expansion.
Organization Facility	ability to electronically notify the jurisdictional vaccine program admin of vaccine program follow-up activities for a new vaccine program facility enrolled for 6 months	0	Yes	[redacted] electronically notify the jurisdictional vaccine program admin of vaccine program follow-up activit for enrollment expansion.

Function: Manage Users

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Capability	Requirement. The IS must/should have	Priority (1, 0) (mandat. optional)	Vendor resp with explan	Vendor comments (If the vendor response indicates that the delivered out of the box requirement does not meet the requirement, please provide a detailed explanation and proposed alternative for achieving the requirement.)
[illegible]	[illegible]	[illegible]	Yes	[illegible] and live activity data for comprehensive user management.
User Search	ability for jurisdictional admin to view all user accounts	E	Yes	ors to oversee all PC users across the jurisdiction, supporting centralized user management and compliance monitoring.
User Search	ability for organization admin to search all user accounts associated with their organization	E	Yes	n their organization's scope, providing delegated management capability without requiring jurisdictional level access.
User Search	ability for organization admin to view all user accounts associated with their organization	E	Yes	ed with their organization, supporting local management of staff accounts, role assignments, and access status.
User Search	ability to sort users by user defined criteria	D	Yes	uding name, role, organization, status, and last login date, enabling efficient user account management and review.
Add, Edit, Inactivate User	ability for admin to manage user accounts	E	Yes	full control over profile information and role assignments.
Add, Edit, Inactivate User	ability to track the progress of a new user registration	D	Yes	ser request through browser extension, providing visibility into pending approvals and incomplete setup steps.
Add, Edit, Inactivate User	ability for admin to add new users	E	Yes	module supports the ability to add new users with appropriate administrative controls.
Add, Edit, Inactivate User	ability for admin to modify user accounts	E	Yes	ule supports the ability to modify user accounts with appropriate administrative controls.
Add, Edit, Inactivate User	ability for admin to inactivate user accounts	E	Yes	s access while preserving their account record and associated audit history for compliance and reference purposes.
Add, Edit, Inactivate User	ability for authorized admin to inactivate multiple accounts in one transaction	D	Yes	ly suspended or still active) for compliance and reference purposes. Specifically, the system supports the ability to inactivate multiple accounts in one transaction.
Add, Edit, Inactivate User	ability for organization admin to inactivate user accounts associated with their organization	D	Yes	ciated audit history for compliance and reference purposes. Specifically, the system supports the ability to inactivate user accounts associated with their organization.
Add, Edit, Inactivate User	ability to enter reason for inactivation of user account	D	Yes	the associated audit history for compliance and reference purposes. Specifically, the system supports the ability to store reason for inactivation of user account.
Add, Edit, Inactivate User	ability for jurisdictional admin to reactivate an inactivated account	D	Yes	ained and auditable audit trail for compliance and reference purposes. Specifically, the system supports the ability to reactivate an inactivated account.
Add, Edit, Inactivate User	ability to electronically notify a user that their account is locked (reactivated) as per jurisdictional security policy	D	Yes	ally notify a user that their account is locked (reactivated) as per jurisdictional security policy with appropriate administrative controls.
Add, Edit, Inactivate User	ability to electronically notify a user that their account is inactive	D	Yes	ability to electronically notify a user that their account is inactive with appropriate administrative controls.
Add, Edit, Inactivate User	capture data on activity status (out of state, loss of certification, change of practice status, other)	D	Yes	ation activity status (out of state, loss of certification, change of practice status, o with appropriate administrative controls.
Add, Edit, Inactivate User	ability for jurisdictional admin to assign a role to authorized users	E	Yes	supports the ability to assign a role to authorized users with appropriate administrative controls.
Add, Edit, Inactivate User	ability for organization admin to assign a role to authorized users within their organization	E	Yes	ility to assign a role to authorized users within their organization with appropriate administrative controls.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Authentication & Authorization	ability to access the system through an authorized username and password	E	Yes	ility to access the system through an authorized username and password per jurisdictional security standards.
Authentication & Authorization	ability to support access via single sign in for jurisdictional users	D	Yes	ts the ability to access via single sign in for jurisdictional users per jurisdictional security standards.
Authentication & Authorization	ability to switch between multiple organizations	E	Yes	ports the ability to switch between multiple organizations per jurisdictional security standards.
Authentication & Authorization	ability to view jurisdictional policy agreements	E	Yes	supports the ability to view jurisdictional policy agreements per jurisdictional security standards.
Authentication & Authorization	support multi factor authentication per jurisdictional policy	D	Yes	risdictional security requirements adding verification layers beyond username and password for sensitive operations.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Password Management	ability to generate electronic notification to authorized users of their username	E	Yes	s ability to electronically notify authorized users of their username per jurisdictional security standards.
Password Management	ability to electronically notify authorized users of their temporary password in a separate notification	E	Yes	s ability to electronically notify authorized users of their temporary password in a separate notification
Password Management	ability to generate electronic notification at periodic intervals to authorized users of their pending account password expiration	D	Yes	ication, with configurable timeframes and advance notification prompting users to update before access is restricted.
Password Management	ability for jurisdictional admin to configure the periodic intervals for generation of notifications to authorized users of their pending account password expiration	D	Yes	e prompting users for updates before access is restricted. Specifically, the system supports the ability to configure the periodic intervals for generation of notifications to authorized u
Password Management	ability to support temporary password which will require change during initial log in	E	Yes	on first use to establish user-selected credentials. Specifically, the system supports the ability to temporary password which will be required to change during initial log in.
Password Management	ability to support temporary password which will expire in # number of days determined by policy	E	Yes	for use to establish user-selected credentials. Specifically, the system supports the ability to temporary password which will expire in X number of days determined by policy.
Password Management	ability for users to change their own password per program/jurisdiction security policy	E	Yes	y to change their own password per program/jurisdiction security policy per jurisdictional security standards.
Password Management	ability for users to reset their password per program/jurisdiction security policy	E	Yes	ility to reset their password per program/jurisdiction security policy per jurisdictional security standards.
Password Management	ability to prompt users to change their password at time intervals per program/jurisdiction security policy	E	Yes	rompt to change their password at time intervals per program/jurisdiction security policy per jurisdictional security standards.

Function: Support Interoperability

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Capability	Requirement: The IIS must/should have...	Priority: 1, 2, 3 (essential, optional)	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Onboarding	ability to track an organization's progress through the onboarding process	O	Yes	[illegible] and production activation for electronic data exchange.
Onboarding	ability to update onboarding status	1	Yes	patient's status through test provisioning, transport validation, message testing, and production certification stages.
Onboarding	ability to assign unique usernames to assist to the organization's facilities during the test phase	1	Yes	[illegible] security, transport, authentication, and transport configuration for each connected system.
Onboarding	Ability to create a unique username to assist to the organization's facilities during the test phase	1	Yes	tion during the onboarding test phase, isolating test activity from production data and enabling controlled validation.
Onboarding	ability to create a unique password to assist to the organization's facilities during the test phase	1	Yes	[illegible] during onboarding, supporting all [illegible] across to the test environment for message validation exercises.
Onboarding	ability to electronically alert the vendor/organization when the certificate for transport is going to expire in a time period	1	Yes	layer certificates approval, expiration, enabling proactive renewal to maintain uninterrupted data exchange connectivity.
Onboarding	ability to store digital certificate information	1	Yes	[illegible] ly stored within the platform, maintaining a centralized record of certificates used across data exchange connections.
Onboarding	ability to validate that the transport layer between the test site and IIS is functional	1	Yes	[illegible] ity between the organization's system and the IIS, verifying encryption, certificate, and protocol configuration.
Onboarding	ability to validate system connectivity prior to the submission of test data	1	Yes	to validate systems connectivity prior to the submission of test data for data exchange partner management.
Onboarding	ability to identify data formatting errors during testing	1	Yes	the ability to identify data formatting errors during testing for data exchange partner management.
Onboarding	ability to provide test message submission summary report to the EHR vendor	1	Yes	provide test message submission summary report to the EHR vendor for data exchange partner management.
Onboarding	ability for EHR vendor to view details regarding the processing of test data in terms of errors and warnings in the messages	1	Yes	[illegible] garding the processing of test data in terms of errors and warnings in the messages for data exchange partner management.
Onboarding	ability for IIS authorized staff to review and approve onboarding forms	1	Yes	ts the ability to review and approve onboarding forms for data exchange partner management.
Onboarding	ability for IIS staff to review and reject onboarding forms	1	Yes	ports the ability to review and reject onboarding forms for data exchange partner management.
Onboarding	ability for applicant/IIS to edit a rejected onboarding application	1	Yes	rts the ability to edit a rejected onboarding application for data exchange partner management.
Onboarding	ability for applicant to save a rejected onboarding application	1	Yes	ts the ability to save a rejected onboarding application for data exchange partner management.
Onboarding	ability for applicant to resubmit a rejected onboarding application	1	Yes	The ability to resubmit a rejected onboarding application for data exchange partner management.
Onboarding	ability to compare onboarding application information to current records to determine most current data	1	Yes	[illegible] boarding application information to current records to determine most current data for data exchange partner management.
Interfaces	ability to interface with other systems to facilitate electronic data sharing (exchange per jurisdictional policy	1	Yes	[illegible] ge per jurisdictional policy for standards-compliant data exchange.
Interfaces	ability to interface with electronic health record systems	1	Yes	The ability to interface with electronic health record systems for standards-compliant data exchange.
Interfaces	ability to interface with the Immunization Gateway	1	Yes	ports the ability to interface with the Immunization Gateway for standards-compliant data exchange.
Interfaces	ability to interface with an application that facilitates patient scheduling	1	Yes	The interoperability framework supports the ability to interface with an application that facilitates patient scheduling for standards-compliant data exchange.
Interfaces	ability to submit data electronically through a SOAP/REST based web service in accordance with IIS specifications	1	Yes	[illegible] ICSR Web Reporting System, the IIS is based on the current CDC ExIS Specification for standards-compliant data exchange.
Interfaces	ability to order vaccine via electronic interface with VTrckS	1	Yes	The ability to order vaccine via electronic interface with VTrckS for standards-compliant data exchange.
Interfaces	ability to receive vaccine inventory/shipping information	1	Yes	The ability to receive vaccine inventory/shipping information for standards-compliant data exchange.
Interfaces	ability to batch export vaccine inventory for submission to VTrckS	1	Yes	ability to batch export vaccine inventory for submission to VTrckS for standards-compliant data exchange.
Interfaces	ability to batch export vaccine ordering information for submission to VTrckS	1	Yes	to batch export vaccine ordering information for submission to VTrckS for standards-compliant data exchange.
Interfaces	ability to batch export facility information	1	Yes	ports the ability to batch export facility information for standards-compliant data exchange.
Interfaces	ability to export vaccine return and wastage data to VTrckS	1	Yes	The ability to export vaccine return and wastage data to VTrckS for standards-compliant data exchange.
Interfaces	ability to use the VTrckS API to exchange provider and facility data in accordance with CDC requirements	1	Yes	[illegible] ility to exchange provider and facility data in accordance with CDC requirements and API 5 for standards-compliant data exchange.
Interfaces	ability to receive data through an interface with an additional state records system	1	Yes	to receive data through an interface with an additional state records system for standards-compliant data exchange.
Interfaces	ability to update IIS data from Vital Records for birth events	1	Yes	The ability to update IIS data from Vital Records for birth events for standards-compliant data exchange.
Interfaces	ability to update IIS data from Vital Records for death events	1	Yes	ility to update IIS data from Vital Records for death events for standards-compliant data exchange.
Interfaces	ability to update IIS data from Vital Records for adoption events	1	Yes	ability to update IIS data from Vital Records for adoption events for standards-compliant data exchange.
Interfaces	ability to update IIS data from Vital Records for name change events	1	Yes	ability to update IIS data from Vital Records for name change events for standards-compliant data exchange.
Interfaces	ability to detect if a newborn record is a potential duplicate in the IIS	1	Yes	ability to detect if a newborn record is a potential duplicate in the IIS for standards-compliant data exchange.
Interfaces	ability to use new vital record data for matched records to update patient demographic data	1	Yes	new vital record data for matched records to update patient demographic data for standards-compliant data exchange.
Interfaces	ability to update the IIS with date of death from vital records data	1	Yes	ability to update the IIS with date of death from vital records data for standards-compliant data exchange.
Interfaces	ability to prevent updates to IIS records	O	Yes	supports the ability to prevent updates to IIS records for standards-compliant data exchange.
Data Exchange	ability to support real-time data exchange (per CDC HL7 Implementation Guide)	1	Yes	[illegible] ted data exchange per the latest HL7 [illegible] on guide for standards-compliant data exchange.
Data Exchange	ability to process an HL7 message	1	Yes	The supports the ability to process an HL7 message for standards-compliant data exchange.
Data Exchange	ability to respond to an HL7 message	1	Yes	interoperability engine supports the ability to respond to an HL7 message
Data Exchange	ability to create an HL7 message	1	Yes	ges and data sharing formatted per CDC implementation guide specifications for standards-compliant data exchange.
Data Exchange	ability to capture IIS Core Data Elements	1	Yes	supports the ability to capture IIS Core Data Elements for standards-compliant data exchange.
Data Exchange	ability to store IIS Core Data Elements	1	Yes	supports the ability to store IIS Core Data Elements for standards-compliant data exchange.
Data Exchange	ability to accept last prior version of HL7 messages	1	Yes	The messaging engine accepts the current CDC HL7 implementation guide version and the last prior version,
Data Exchange	ability to manually correct a submitted record and resubmit for processing	O	Yes	[illegible] ity to manually correct a submitted record and resubmit for processing for standards-compliant data exchange.
Data Exchange	ability to support batch exchange in specific format	1	Yes	[illegible] ditions, acknowledging submission that require the agreed data transfer outside the standard HL7 messaging framework.
Data Exchange	ability to import bulk patient demographic information into IIS	1	Yes	use file-based data transfer outside the standard HL7 messaging framework. Specifically, the system supports the ability to import bulk patient demographic information into IIS.
Data Exchange	ability to import bulk immunization information into IIS	1	Yes	equire file-based data transfer outside the standard HL7 messaging framework. Specifically, the system supports the ability to import bulk immunization information into IIS.
Data Exchange	ability to export routine, seasonal, and emergency vaccination files (aggregate and de-identified)	1	Yes	routine, seasonal, and emergency vaccination files (aggregate and de-identified) for standards-compliant data exchange.
Data Exchange	ability to export routine, seasonal, and emergency vaccination files (aggregate and de-identified) automatically via CDC approved	O	Yes	e, seasonal, and emergency vaccination files (aggregate and de-identified) automatically via CDC approved [illegible] for standards-compliant data exchange.
Data Exchange	ability to validate and troubleshoot data exchange	1	Yes	[illegible] ge message content, [illegible] ssing steps, and identify specific data elements causing errors or warnings.
Data Exchange	ability to view VXU messages submitted by an organization	1	Yes	The ability to view VXU messages submitted by an organization for standards-compliant data exchange.
Data Exchange	ability to view HL7 messages for an organization within a defined date range per jurisdictional policy	1	Yes	HL7 messages for an organization within a defined date range per jurisdictional policy for standards-compliant data exchange.
Data Exchange	ability to view HL7 ACK messages generated for an organization	1	Yes	[illegible] HL7 submission, providing error codes, warnings, and processing status details for sender review and correction.
Data Exchange	ability to view incoming HL7 QBP messages submitted by an organization	1	Yes	QBP messages containing matched patient immunization records, supporting provider-initiated record lookups via HL7.
Data Exchange	ability to view RSP messages generated for an organization	1	Yes	The ability to view RSP messages generated for an organization for standards-compliant data exchange.
Data Exchange	ability to log acknowledgment messages indicating warnings and errors	1	Yes	[illegible] ssing status details for sender review and correction. Specifically, the system supports the ability to log acknowledgement messages indicating warnings and errors.
Data Exchange	ability to retrieve error messages within a specified date range by organization	1	Yes	to retrieve error messages within a specified date range by organization for standards-compliant data exchange.
Data Exchange	ability to retrieve acknowledgment messages within a specified date range by organization	1	Yes	ssing status details for sender review and correction. Specifically, the system supports the ability to retrieve acknowledgement messages within a specified date range by organization.
Data Exchange	ability to filter error messages	1	Yes	ine supports the ability to filter error messages for standards-compliant data exchange.
Data Exchange	ability to filter acknowledgement messages	1	Yes	rors, warnings, and processing status details for sender review and correction. Specifically, the system supports the ability to filter acknowledgement messages.
Data Exchange	ability to sort error messages	1	Yes	ine supports the ability to sort error messages for standards-compliant data exchange.
Data Exchange	ability to sort acknowledgement messages	1	Yes	rors, warnings, and processing status details for sender review and correction. Specifically, the system supports the ability to sort acknowledgement messages.

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comments: If Yes or Yes with customization, indicate the anticipated time and resources to implement and testing
Patient Matching &	ability to prevent duplicate patient records in the IIS database	E	Yes	...ent duplicate patient entries in the IIS database.
Patient Matching &	ability to automatically identify incoming patient records as potential duplicates	E	Yes	...ecords are automatically screened against the existing database to identify potential duplicates before record creation.
Patient Matching &	ability to automatically identify existing patient records as potential duplicates	E	Yes	...ential duplicates that may have accumulated over time, queuing them for automated resolution or manual review.
Patient Matching &	ability to automatically consolidate two or more duplicate records	E	Yes	...merging demographic information and combining complete vaccination histories into a single authoritative patient record.
Patient Matching &	ability to generate electronic notification of potential duplicates for manual review	E	Yes	...confidence thresholds generate review notifications, presenting records for manual evaluation by authorized staff.
Patient Matching &	ability to automatically match an incoming patient record with existing records to avoid a duplicate record being created	E	Yes	...case using configurable algorithms, automatically linking to established records when confidence thresholds are met.
Patient Matching &	ability to set thresholds for patient matching	E	Yes	...justification, enabling optimization of sensitivity to balance duplicate detection effectiveness with false positive rates.
Patient Matching &	ability to view all potential duplicate patient records for an individual patient simultaneously	E	Yes	...plicate patient records for an individual patient simultaneously through configurable matching and deduplication workflows.
Patient Matching &	ability for jurisdictional admin to edit thresholds to increase the probability of a match	E	Yes	...thresholds to increase the probability of a match through configurable matching and deduplication workflows.
Patient Matching &	ability for jurisdictional admin to edit thresholds to reduce the probability of a match	E	Yes	...e thresholds to reduce the probability of a match through configurable matching and deduplication workflows.
Patient Matching &	ability to flag potential duplicate patient records for review that cannot be resolved automatically	E	Yes	...patient records for manual review that cannot be resolved automatically through configurable matching and deduplication workflows.
Patient Matching &	ability to view all potential duplicate patient records simultaneously	E	Yes	...all potential duplicate patient records simultaneously through configurable matching and deduplication workflows.
Patient Matching &	ability for admin to manually merge patient records	E	Yes	...ility to manually merge patient records through configurable matching and deduplication workflows.
Patient Matching &	ability for organizational/facility user to manually merge patient records from their own organizational facility	E	Yes	...facility user to manually merge patient records from their own organized through configurable matching and deduplication workflows.
Patient Matching &	ability to manually flag two or more patient records as potential duplicates	E	Yes	...flag two or more patient records as potential duplicates through configurable matching and deduplication workflows.
Patient Matching &	ability to prevent manual review of records previously indicated as "not a duplicate"	E	Yes	...vent duplicate patient entries in the IIS database. Specifically, the system supports the ability to prevent manual review of records previously indicated as "not a duplicate".
Patient Matching &	ability to flag a patient as "not a duplicate" during manual review	E	Yes	...a patient as "not a duplicate" during manual review through configurable matching and deduplication workflows.
Patient Matching &	ability to maintain "not a duplicate" flag for resolved patient records	E	Yes	...ain "not a duplicate" flag for resolved patient records through configurable matching and deduplication workflows.
Patient Matching &	ability to select data elements from the patient records to maintain within the consolidated record	E	Yes	...from the patient records to maintain within the consolidated record through configurable matching and deduplication workflows.
Patient Matching &	ability to retain "pre-merged" records for reference	E	Yes	...tain, preserving the original state of consolidated records for audit purposes and potential reversal if needed.
Patient Matching &	ability to separate patient records that were incorrectly merged	E	Yes	...store original patient identities, with vaccination histories redistributed to the appropriate individual records.
Vaccination Event	ability to prevent potential duplicate vaccination events at the immunization level	E	Yes	...event duplicate patient entries in the IIS database. Specifically, the system supports the ability to prevent potential duplicate vaccination events at the immunization level.
Vaccination Event	ability to automatically identify incoming vaccination event as potential duplicates	E	Yes	...se to identify potential duplicates before record creation. Specifically, the system supports the ability to automatically identify incoming vaccination event as potential duplicates.
Vaccination Event	ability to automatically select the most accurate vaccination event based on configurable rules	E	Yes	...using event-level matching criteria to identify and resolve duplicate immunization entries within a single patient record.
Vaccination Event	ability to automatically identify existing vaccination event as potential duplicates	E	Yes	...ching, then for automated resolution or manual review. Specifically, the system supports the ability to automatically identify existing vaccination events as potential duplicates.
Vaccination Event	ability to manually flag potential duplicate vaccination events for manual review	E	Yes	...e potential duplicate vaccination events for manual review through configurable matching and deduplication workflows.
Vaccination Event	ability to display potential duplicate vaccine records for an individual patient	E	Yes	...potential duplicate vaccine records for an individual patient through configurable matching and deduplication workflows.
Vaccination Event	ability to manually merge a duplicate vaccination event	E	Yes	...manually merge a duplicate vaccination event through configurable matching and deduplication workflows.
Vaccination Event	ability to manually delete a duplicate vaccination event	E	Yes	...manually delete a duplicate vaccination event through configurable matching and deduplication workflows.
Vaccination Event	ability to automatically consolidate two or more duplicate vaccination events	E	Yes	...e vaccination histories into a single authoritative patient record. Specifically, the system supports the ability to automatically consolidate two or more duplicate vaccination events.
Vaccination Event	ability to retain "pre-merged" or "pre-consolidated" vaccination events for reference	E	Yes	...audit purposes and potential reversal if needed. Specifically, the system supports the ability to retain "pre-merged" or "pre-consolidated" vaccination events for reference.
Vaccination Event	ability to separate vaccination events that were incorrectly merged or consolidated	E	Yes	...incorrectly merged records can be separated to restore original patient identities, with vaccination histories redistributed to the appropriate individual records. Specifically, the system supports the ability to separate vaccination events that were incorrectly merged or consolidated.

Function: Evaluate and Forecast

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor Comment(s) If Yes with customization, indicate the configuration and timeline for development and release
Clinical Decision Support	ability to support a vaccine clinical decision support algorithm aligned with the CDC CDSI logic	E	Yes	The forecasting engine implements CDC CDSI logic
Clinical Decision Support	ability for jurisdictional admin to update the CDSI rules	E	Yes	CDSI rules are updatable by jurisdictional administrators to
Clinical Decision Support	ability to evaluate a patient's immunization history according to the ACIP Child and Adolescent	E	Yes	Patient immunization histories are evaluated against the
Clinical Decision Support	ability to evaluate a patient's immunization history according to the ACIP Recommended Catch-up	E	Yes	Patient immunization histories are evaluated against the
Clinical Decision Support	ability to evaluate a patient's immunization history according to the ACIP Adult immunization schedule	E	Yes	Adult immunization histories are evaluated against the
Clinical Decision Support	ability to generate a vaccine forecast according to the ACIP Child and Adolescent immunization schedule	E	Yes	Vaccine forecasts generated per the ACIP Child and
Clinical Decision Support	ability to generate a vaccine forecast according to the ACIP Recommended Catch-up immunization	E	Yes	Vaccine forecasts generated per the ACIP Child and
Clinical Decision Support	ability to generate a vaccine forecast according to the ACIP Adult immunization schedule and a patient's	E	Yes	Adult vaccine forecasts are generated per ACIP Adult
Clinical Decision Support	ability to display and highlight vaccines that are due	E	Yes	The CDSI forecasting engine supports the ability to display
Clinical Decision Support	ability to display and highlight vaccines that are overdue	E	Yes	Vaccines due and overdue are visually differentiated in the
Clinical Decision Support	ability to display an indication when a vaccine series is complete	E	Yes	Series completion status is calculated for each vaccine
Clinical Decision Support	ability to display vaccine-specific contraindications according to CDC lists of vaccine contraindications	O	Yes	Contraindication awareness suppresses vaccine
Clinical Decision Support	ability to take into account contraindications and precautions in the vaccine forecast	E	Yes	Contraindication awareness suppresses vaccine
Clinical Decision Support	ability to take into account evidence of immunity in the vaccine forecast	E	Yes	Evidence of immunity from documented disease history or
Clinical Decision Support	ability to generate a forecast of specific vaccines required for individuals who travel outside the US	O	Yes	The CDSI forecasting engine supports the ability to generate
Clinical Decision Support	ability to maintain historical records of effective dates of previous forecast schedules	O	Yes	The CDSI forecasting engine supports the ability to maintain
Clinical Decision Support	ability to review an immunization schedule that was appropriate at the time of administration	O	Yes	The CDSI forecasting engine supports the ability to review
Clinical Decision Support	ability to apply an immunization schedule that was appropriate at the time of administration	O	Yes	The CDSI forecasting engine supports the ability to apply an
Clinical Decision Support	ability to account for immune globulins in vaccine forecasting	E	Yes	or live vaccine forecasting, applying appropriate minimal intervals for live vaccines per ACIP timing guidance.
Clinical Decision Support	ability to create test cases for reuse during user acceptance testing	E	Yes	Test case creation and comparison tools enable
Clinical Decision Support	ability to save test cases for reuse during user acceptance testing	E	Yes	Test case creation and comparison tools enable
Clinical Decision Support	ability to compare the expected results of the forecasting test case to the actual results observed by the	E	Yes	uring system outputs against expected clinical scenarios. Specifically, the system supports the ability to compare the expected results of the forecasting test case to the actual results
Reminder/Recall	ability to generate patient specific reminder/recall notifications	E	Yes	s the ability to generate patient specific reminder/recall notifications for proactive patient outreach.
Reminder/Recall	ability to select one or more vaccines for generating reminder/recall notifications	E	Yes	ility to select one or more vaccines for generating reminder/recall notifications for proactive patient outreach.
Reminder/Recall	ability to view the date the reminder/recall notice was sent to a patient	O	Yes	e ability to view the date the reminder/recall notice was sent to a patient for proactive patient outreach.
Reminder/Recall	ability to generate lists of patients in need of a reminder or recall notification by organization	E	Yes	ation enables individual provider sites to manage patient outreach for their assigned patient populations.
Reminder/Recall	ability to generate reminder/recall notifications per consent designation	E	Yes	participation, ensuring notifications are only generated for patients who have opted in per jurisdictional policy.
Reminder/Recall	ability to generate patient specific reminder/recall notices by user-defined parameters	E	Yes	s to generate patient specific reminder/recall notices by user-defined parameters for proactive patient outreach.
Reminder/Recall	ability to generate reminder/recall in user-defined format	E	Yes	orts the ability to generate reminder/recall in user-defined format for proactive patient outreach.
Reminder/Recall	ability to select the age of the cohort when generating reminder/recall notifications	E	Yes	ty to select the age of the cohort when generating reminder/recall notifications for proactive patient outreach.
Reminder/Recall	ability to print patient-specific reminder/recall notices by user-defined parameters	E	Yes	ity to print patient-specific reminder/recall notices by user-defined parameters for proactive patient outreach.
Reminder/Recall	ability to generate patient specific reminder/recalls in a user defined format	E	Yes	ability to generate patient specific reminder/recalls in a user-defined format for proactive patient outreach.
Reminder/Recall	ability for an end user to generate patient specific reminder/recalls in accordance with HIPAA and	E	Yes	e patient specific reminder/recalls in accordance with HIPAA and jurisdictional law or policy for proactive patient outreach.
Reminder/Recall	ability for an end user to print patient specific reminder/recalls in accordance with HIPAA and	E	Yes	patient specific reminder/recalls in accordance with HIPAA and jurisdictional law or policy for proactive patient outreach.
Reminder/Recall	ability to generate vaccine recall notices by facility based on vaccine name, vaccination date range, and lot	O	Yes	to vaccine recall notices by facility based on vaccine name, vaccination date range, and lot # for proactive patient outreach.
Reminder/Recall	ability to generate vaccine recall notices by administering provider based on vaccine name, vaccination	O	Yes	vaccine recall notices by administering provider based on vaccine name, vaccination date for proactive patient outreach.
Reminder/Recall	ability to set the limit/number of times a patient will receive a reminder/recall	O	Yes	ility to set the limit/number of times a patient will receive a reminder/recall for proactive patient outreach.
Reminder/Recall	ability to modify the limit/number of times a patient will receive a reminder/recall	O	Yes	ity to modify the limit/number of times a patient will receive a reminder/recall for proactive patient outreach.
Reminder/Recall	ability to exclude a patient who has met the limit/number of times to receive a reminder/recall	O	Yes	xclude a patient who has met the limit/number of times to receive a reminder/recall for proactive patient outreach.
Reminder/Recall	ability to generate a list or phone numbers for patients needing reminder/recall	O	Yes	ility to generate a list of phone numbers for patients needing reminder/recall for proactive patient outreach.
Reminder/Recall	ability to manually review a patient list for a reminder/recall notification	E	Yes	ability to manually review a patient list for a reminder/recall notification for proactive patient outreach.
Reminder/Recall	ability to flag patients to exclude before sending a reminder/recall notification	O	Yes	ility to flag patients to exclude before sending a reminder/recall notification for proactive patient outreach.
Reminder/Recall	ability to establish a time interval between reminder recall notices (e.g., 30 days or 60 days)	O	Yes	establish a time interval between reminder recall notices (e.g., 90 days or 60 days) for proactive patient outreach.
Reminder/Recall	ability to generate a reminder/recall notifications for patients with an active status for their organization	E	Yes	each for their assigned patient populations. Specifically, the system supports the ability to generate a reminder/recall notifications for patients with an active status for.
Reminder/Recall	ability to generate reports that include reminder/recall history for specific date range	O	Yes	y to generate reports that include reminder/recall history for specific date range for proactive patient outreach.
Reminder/Recall	ability to make all reminder/recall data accessible to authorized users for a predetermined period of time	O	Yes	all reminder/recall data accessible to authorized users for a predetermined period of time for proactive patient outreach.
Reminder/Recall	ability to aggregate multiple notices going to the same address into one notification	O	Yes	ty to aggregate multiple notices going to the same address into one notification for proactive patient outreach.
Coverage Reports	ability to generate report(s) displaying information on immunization coverage rates among select	E	Yes	) displaying immunization coverage rates among select populations for population-level immunization assessment.
Coverage Reports	ability to generate report(s) for organizations and facilities per CDC Immunization Quality Improvement for	E	Yes	g practice-level immunization rate assessments to support quality improvement activities at enrolled provider sites.
Coverage Reports	ability to generate report(s) on immunization coverage for a user-defined geographic area	E	Yes	rates by county, region, and other jurisdictional levels, supporting targeted identification of under-immunized areas.
Coverage Reports	ability to generate report(s) on immunization coverage for a patient cohort	E	Yes	immunization rates for defined population groups, supporting targeted assessment and intervention planning.
Coverage Reports	ability to view and modify list of patients to be included in immunization coverage report	O	Yes	nd modify list of patients to be included in immunization coverage report for population-level immunization assessment.
Coverage Reports	ability to generate report(s) displaying immunization coverage trends over time, over a selected timeframe	E	Yes	figurable time periods, enabling assessment of program effectiveness and identification of emerging coverage changes.
Coverage Reports	ability to generate report(s) that display the number of missed opportunities for vaccination	E	Yes	here eligible patients were not vaccinated, providing actionable data for provider education and workflow improvement.
Coverage Reports	ability to generate report(s) displaying the number of patients late up-to-date for immunization who are	E	Yes	) displaying the number of patients late up-to-date for immunization who are up-to- for population-level immunization assessment.
Coverage Reports	ability to generate report(s) that display the number of invalid vaccine doses	E	Yes	generate report(s) that display the number of invalid vaccine doses for population-level immunization assessment.
Coverage Reports	ability to generate report(s) displaying vaccine exemption rates	E	Yes	ns by type, geography, and population group, supporting policy analysis and public health program planning.
Coverage Reports	ability to generate report(s) displaying immunization coverage by user-defined parameters	E	Yes	e report(s) displaying immunization coverage by user-defined parameters for population-level immunization assessment.
Coverage Reports	ability to generate report(s) displaying immunization coverage by vaccine type	E	Yes	es completion rates for individual antigens, enabling identification of gaps in specific immunization programs.
Coverage Reports	ability to generate report(s) displaying immunization coverage by age range	E	Yes	ates across configurable age groups, supporting assessment of pediatric, adolescent, and adult vaccination programs.
Coverage Reports	ability to generate report(s) displaying immunization coverage by ethnicity	E	Yes	support health equity analysis, identifying disparities in immunization coverage across population groups.
Coverage Reports	ability to generate report(s) displaying immunization coverage by race	E	Yes	n immunization coverage across population groups. Specifically, the system supports the ability to generate report(s) displaying immunization coverage by race.
Coverage Reports	ability to generate report(s) displaying immunization coverage by patient sex	O	Yes	generate report(s) displaying immunization coverage by patient sex for population-level immunization assessment.

Function: Manage Patient and Immunization Records

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Capability	Requirement: The IIS must/should have...	Priority: E, O (essential, optional)	Vendor response: Yes, Yes with customization*, No *Comment required	Vendor comment(s): If Yes with customization, indicate the effort required and timeline for development and release
Patient Search	ability to search for patient records	E	Yes	populations, enabling authorized users to locate records efficiently using demographic and identifier-based criteria.
Patient Search	ability to search patient record based on one or multiple user-defined parameters	E	Yes	n using combinations of name, date of birth, identifiers, and demographic fields for precise record matching.
Patient Search	ability to re-search for a patient record by modifying existing search parameters	E	Yes	ated without leaving the search interface, enabling iterative refinement to locate the correct patient record.
Patient Search	ability to display the list of returned possible patient matches per jurisdictional policy	E	Yes	sufficient demographic detail visible for accurate selection, ranked by match confidence per jurisdictional policy.
Patient Search	ability to select a patient record from the list of possible patient matches	E	Yes	ion, ranked by match confidence per jurisdictional policy. Specifically, the system supports the ability to select a patient record from the list of possible patient matches.
Add, Edit Patient	ability to add demographic information for a patient record	E	Yes	enforced core data elements, supporting comprehensive identification information entry during record creation.
Add, Edit Patient	ability to create a new patient record	E	Yes	ated field validation and automatic duplicate checking before committing the record to the IIS database.
Add, Edit Patient	ability to edit demographic information in a patient record	E	Yes	ed users with changes recorded in the audit trail, maintaining data currency while preserving modification history.
Add, Edit Patient	ability to insert permanent comments in a patient's record that can be viewed based on role/	E	Yes	manent comments in a patient's record that can be viewed based on role/permission within the record management framework.
Add, Edit Patient	ability to display the user who created the permanent comment in a patient's record	E	Yes	display the user who created the permanent comment in a patient's record within the record management framework.
Add, Edit Patient	ability to prevent a patient record from being saved unless required fields are completed, per	E	Yes	atient record from being saved unless required fields are completed, per jurisdictional p within the record management framework.
Add, Edit Patient	ability to automatically notify a user when attempting to submit an incomplete patient record	E	Yes	matically notify a user when attempting to submit an incomplete patient record within the record management framework.
Add, Edit Patient	ability to store CDC-endorsed core data elements for all patient records	E	Yes	ity to store CDC-endorsed core data elements for all patient records within the record management framework.
Add, Edit Patient	ability to store multiple of reported names for each patient to include: first name, middle name,	E	Yes	e of reported names for each patient to include: first name, middle name, last name, al within the record management framework.
Add, Edit Patient	ability to store multiple parent addresses	O	Yes	upports the ability to store multiple patient addresses within the record management framework.
Add, Edit Patient	ability to support multiple patient address type designations (e.g. primary address, vacation	O	Yes	iple patient address type designations (e.g. primary address, vacation address) within the record management framework.
Add, Edit Patient	ability to identify effective dates for use of a patient address	O	Yes	e ability to identify effective dates for use of a patient address within the record management framework.
Add, Edit Patient	ability to store all historic addresses for a patient	O	Yes	orts the ability to store all historic addresses for a patient within the record management framework.
Add, Edit Patient	ability to store country information related to where the patient was born	O	Yes	ty to store country information related to where the patient was born within the record management framework.
Add, edit patient	ability to flag patient address as a verified United States Postal Service address (e.g., via	O	Yes	nt address as a verified United States Postal Service address (e.g., via SmartyStreets) within the record management framework.
Add, edit patient	ability to record date patient address last verified as a United States Postal Service address (e.g., via	O	Yes	patient address last verified as a United States Postal Service address (e.g., via Smart within the record management framework.
Add, Edit Patient	ability to automatically create a unique patient ID number	E	Yes	the ability to automatically create a unique patient ID number within the record management framework.
Add, Edit Patient	ability to automatically associate patient ID number to the patient's record	E	Yes	to automatically associate patient ID number to the patient's record within the record management framework.
Add, Edit Patient	ability to track patients of all ages per jurisdictional law or policy	E	Yes	ability to track patients of all ages per jurisdictional law or policy within the record management framework.
Add, Edit Patient	ability to store mother's MR# status for a patient	O	Yes	rts the ability to store mother's MR# status for a patient within the record management framework.
Add, Edit Patient	ability to store a patient's occupation	E	Yes	supports the ability to store a patient's occupation within the record management framework.
Add, Edit Patient	ability to designate patient as belonging to a priority group for vaccination	O	Yes	ty to designate patient as belonging to a priority group for vaccination within the record management framework.
Add, Edit Patient	ability to store multiple parent identifiers	E	Yes	numbers, state IDs, and configurable identifier types support cross-system patient matching and record linkage.
Add, Edit Patient	ability to assign patient records to a cohort	E	Yes	rable criteria such as age, geography, and program eligibility, supporting targeted reporting and outreach activities.
Add, Edit Patient	ability to assign patient records to multiple cohorts	E	Yes	rogram eligibility, supporting targeted reporting and outreach activities. Specifically, the system supports the ability to assign patient records to multiple cohorts.
Add, Edit Patient	ability to view patient records by cohort	E	Yes	and program eligibility, supporting targeted reporting and outreach activities. Specifically, the system supports the ability to view patient records by cohort.
Add, Edit Patient	ability to remove patient records from a cohort	E	Yes	program eligibility, supporting targeted reporting and outreach activities. Specifically, the system supports the ability to remove patient records from a cohort.
Patient Status	ability to manage patient status at the organization/facility level	E	Yes	ability to manage patient status at the organization/facility level via the platform's administrative configuration module.
Patient Status	ability to store active patient status at the organization/facility level	E	Yes	e ability to store active patient status at the organization/facility level using the platform's built-in tools and interfaces.
Patient Status	ability to store inactive patient status at the organization/facility level	E	Yes	ty to store inactive patient status at the organization/facility level through the system's integrated management framework.
Patient Status	ability to edit active patient status at the organization/facility level	E	Yes	it active patient status at the organization/facility level through configurable system settings managed by authorized administrators.
Patient Status	ability to edit inactive patient status at the organization/facility level	E	Yes	y to edit inactive patient status at the organization/facility level as a native platform capability accessible to authorized users.
Patient Status	ability to store reason for inactive status of patients at the organizational/facility level	E	Yes	ason for inactive status of patients at the organizational/facility level through the system's comprehensive data management capabilities.
Patient Status	ability to edit multiple patients status in one action	O	Yes	ty to edit multiple patients status in one action through configurable system settings managed by authorized administrators.
Patient Status	ability to manage patient status at the geographic jurisdictional level	E	Yes	ity to manage patient status at the geographic jurisdictional level through the system's integrated management framework.
Patient Status	ability to store active patient status at the geographic jurisdiction level	E	Yes	bility to store active patient status at the geographic jurisdiction level leveraging the platform's purpose-built capabilities.
Patient Status	ability to store inactive patient status at the geographic jurisdictional level	E	Yes	to store inactive patient status at the geographic jurisdictional level through the system's integrated management framework.
Patient Status	ability to edit active patient status at the geographic jurisdictional level	E	Yes	ability to edit active patient status at the geographic jurisdictional level using the platform's built-in tools and interfaces.
Patient Status	ability to edit inactive patient status at the geographic jurisdictional level	E	Yes	nactive patient status at the geographic jurisdictional level through configurable system settings managed by authorized administrators.
Patient Status	ability to store reason for inactive status of patients at the geographic jurisdictional level	O	Yes	to store reason for inactive status of patients at the geographic jurisdictional level through role-based administrative controls.
Patient Status	ability to restrict access to patient records that have been placed in an inactive status	O	Yes	ict access to parent records that have been placed in an inactive status through the platform's configurable administrative interfaces.
Patient Status	ability to restrict edits to patient records that have been placed in an inactive status	O	Yes	estrict edits to patient records that have been placed in an inactive status via the platform's administrative configuration module.
Patient Consent	ability to manage patient consent per jurisdictional privacy policy	E	Yes	rts the ability to manage patient consent per jurisdictional privacy policy per jurisdictional privacy policy.
Patient Consent	ability to update patient consent on a patient's record	E	Yes	orts the ability to update patient consent on a patient's record per jurisdictional privacy policy.
Patient Consent	ability to opt out a patient from participating in the IIS	E	Yes	orts the ability to opt out a patient from participating in the IIS per jurisdictional privacy policy.
Patient Consent	ability to opt in a patient for participation in the IIS	E	Yes	orts the ability to opt in a patient for participation in the IIS per jurisdictional privacy policy.
Patient Consent	ability to enable access to a patient record per consent designation	E	Yes	e ability to enable access to a patient record per consent designation per jurisdictional privacy policy.
Patient Consent	ability to enable updates to a patient record per consent designation	E	Yes	y ability to enable updates to a patient record per consent designation per jurisdictional privacy policy.
Add, Edit Patient	ability to add vaccine event information to a patient record	E	Yes	y ability to add vaccination event information to a patient record within the record management framework.
Add, Edit Patient	ability to edit vaccine information in a patient record	E	Yes	ts the ability to edit vaccine information in a patient record within the record management framework.
Add, Edit Patient	ability to mark vaccine information in a patient record for deletion	O	Yes	ility to mark vaccine information in a patient record for deletion within the record management framework.
Add, Edit Patient	ability to add reason for deletion of vaccine information in a patient record	O	Yes	y to add reason for deletion of vaccine information in a patient record within the record management framework.
Add, Edit Patient	ability to capture vaccine eligibility by vaccine dose for publicly purchased vaccine	E	Yes	capture vaccine eligibility by vaccine dose for publicly purchased vaccine within the record management framework.
Add, Edit Patient	ability to store vaccine eligibility by vaccine dose for publicly purchased vaccine	E	Yes	to store vaccine eligibility by vaccine dose for publicly purchased vaccine within the record management framework.
Add, Edit Patient	ability to report multiple doses administered to the same patient on the same administration date	E	Yes	ple doses administered to the same patient on the same administration date via the UI within the record management framework.
Add, Edit Patient	ability to store all CDC-endorsed core data elements related to vaccine events	E	Yes	to store all CDC-endorsed core data elements related to vaccine events within the record management framework.
Add, Edit Patient	ability to enter vaccination substandard or otherwise compromised flag	E	Yes	ility to enter vaccination substandard or otherwise compromised flag within the record management framework.
Add, Edit Patient	ability to view submitted vaccination event information on a patient's record	E	Yes	to view submitted vaccination event information on a patient's record within the record management framework.
Add, Edit Patient	ability to store adverse reactions in accordance with vaccine recommendations and guidelines of	E	Yes	e reactions in accordance with Vaccine Recommendations and Guidelines of the ACIP within the record management framework.
Add, Edit Patient	ability to flag an adverse reaction as having been reported to VAERS	E	Yes	bility to flag an adverse reaction as having been reported to VAERS within the record management framework.
Add, Edit Patient	ability to store patient vaccination event funding eligibility information	E	Yes	bility to store patient vaccination event funding eligibility information within the record management framework.
Add, Edit Patient	ability to print form for signature of vaccine refusal by patient for each individual vaccine antigen	O	Yes	orm for signature of vaccine refusal by patient for each individual vaccine antigen within the record management framework.
Add, Edit Patient	ability to ensure that the default lot number is from the oldest lot when entering an administered	E	Yes	e default lot number is from the oldest lot when entering an administered dose from in within the record management framework.
Add, Edit Patient	ability to record administration of vaccination regardless if vaccine has since expired in inventory	E	Yes	administration of vaccination regardless if vaccine has since expired in inventory within the record management framework.
Add, Edit Patient	ability to track vaccinations that require adjuvant	E	Yes	orts the ability to track vaccinations that require adjuvant within the record management framework.
Print/Export Record	ability to accurately print a patient immunization record	E	Yes	n ability to accurately print a patient immunization records as a native platform capability accessible to authorized users.
Print/Export Record	ability to include evaluated history in the printable version of the patient record	E	Yes	The patient and immunization record module supports the
Print/Export Record	ability to include the forecast in the printable version of the patient record	E	Yes	The patient and immunization record module supports the
Print/Export Record	ability to include immunity in the printable version of the patient record	E	Yes	The patient and immunization record module supports the
Print/Export Record	ability to accurately export a patient immunization record	E	Yes	ports the ability to accurately export a patient immunization record through role-based administrative controls.
Print/Export Record	ability to export a patient record in user-defined format	O	Yes	orts the ability to export a patient record in user-defined format using the platform's built-in tools and interfaces.
Mass Vaccination	ability to support mass vaccination operations	E	Yes	y ability to mass vaccination operations for emergency response and high-volume clinic operations.
Mass Vaccination	ability to rapidly capture patient demographic information offline during mass vaccination clinic for	E	Yes	vaccination events with streamlined entry screens, barcode scanning, and pre-populated fields for clinic-specific defaults.
Mass Vaccination	ability to rapidly capture vaccine information offline during mass vaccination clinic for later upload	E	Yes	anning, and pre-populated fields for clinic-specific defaults. Specifically, the system supports the ability to rapidly capture vaccine information offline during mass vaccination clinic for l
Mass Vaccination	ability to support rapid capture of patient demographic information during mass vaccination clinic	E	Yes	anning, and pre-populated fields for clinic-specific defaults. Specifically, the system supports the ability to rapid capture of patient demographic information during mass vaccination clinic.
Mass Vaccination	ability to support rapid capture of vaccine information during mass vaccination clinic	E	Yes	de scanning, and pre-populated fields for clinic-specific defaults. Specifically, the system supports the ability to rapid capture of vaccine information during mass vaccination clinic.
Mass Vaccination	ability to administer vaccines during public health emergency without impacting the patient's	O	Yes	g public health emergency without impacting the patient's status at the cl or for emergency response and high-volume clinic operations.
Mass Vaccination	ability for jurisdictional admin to flag/indicate org/facility participation in mass vaccination event	O	Yes	dicate org/facility participation in mass vaccination event for emergency response and high-volume clinic operations.

Function: Manage Vaccine Inventory

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Capability	Requirement: The IIS must/should have...	Priority: R, O (essential, optional)	Vendor response: Yes, Yes with customization/ configuration, or No if current release	Vendor comments: If Yes with customization, indicate the anticipated cost and timeline for development and release.
Vaccine Inventory	ability to search inventory by user-defined parameters	R	Yes	...ility of product, lot, funding source, facility, and status criteria.
Vaccine Inventory	ability to search the inventory by funding source	R	Yes	...classified, and privately-purchased stock, supporting accurate accountability across vaccine funding categories.
Vaccine Inventory	ability to search inventory by vaccine type	R	Yes	...ots and funding sources for the specified product, supporting clinical and program management decisions.
Vaccine Inventory	ability to search inventory by vaccine lot number	R	Yes	...IIS vaccine lots for recall response, expiration management, and dose-level administration tracking.
Vaccine Inventory	ability to search inventory by Vaccine NDC code	R	Yes	...tinguishing between different presentations, packaging configurations, and manufacturers of the same vaccine.
Add, Edit Vaccine	ability to manage vaccine inventory	R	Yes	...ty to record receipts, adjustments, transfers, and status changes for all publicly-purchased vaccine stock.
Add, Edit Vaccine Inventory	ability to support visualization of current vaccine inventory	R	Yes	...ption timelines, funding source breakdowns, and facility-level detail through dashboard-style summary views.
Add, Edit Vaccine	ability to edit inventory funding source at the lot level	R	Yes	...to edit inventory funding source at the lot level within the vaccine accountability framework.
Add, Edit Vaccine	ability to edit inventory funding source at the vaccine level	R	Yes	...edit inventory funding source at the vaccine level within the vaccine accountability framework.
Add, Edit Vaccine	ability to edit vaccine information in inventory	R	Yes	...ity to edit vaccine information in inventory within the vaccine accountability framework.
Add, Edit Vaccine	ability to support barcode scanning system to electronically upload vaccine inventory to the IIS	O	Yes	...ning system to electronically upload vaccine inventory to the IIS within the vaccine accountability framework.
Add, Edit Vaccine	ability to view current inventory list by facility	R	Yes	...ics and facility level detail through dashboard-style summary views. Specifically, the system supports the ability to view current inventory list by facility.
Add, Edit Vaccine	ability to view current inventory list by organization	R	Yes	...and facility level detail through dashboard-style summary views. Specifically, the system supports the ability to view current inventory list by organization.
Add, Edit Vaccine	ability for jurisdictional admin to edit organization/facility inventory	R	Yes	...ability to edit organization/facility inventory within the vaccine accountability framework.
Add, Edit Vaccine	ability to manage vaccine borrowed from lots belonging to one funding source to lots belonging to an unlike funding source	O	Yes	...from lots belonging to one funding source to lots belonging to another fund within the vaccine accountability framework.
Add, Edit Vaccine	ability to reclassify funding source of borrowed vaccine from private to public or vice versa for replacement doses	O	Yes	...of borrowed vaccine from private to public or vice versa for replacement d within the vaccine accountability framework.
Add, Edit Vaccine	ability to document vaccine storage and handling events	R	Yes	...the ability to view storage capacity within the vaccine accountability framework.
Add, Edit Vaccine	ability to document vaccine storage and handling events such as temperature excursions	R	Yes	...ine storage and handling events such as temperature excursions within the vaccine accountability framework.
Add, Edit Vaccine	ability to store storage capability	R	Yes	...the ability to store storage capability within the vaccine accountability framework.
Vaccine Ordering	ability for rules-based logic to recommend volume or min. quantity	R	Yes	...based logic to recommend volume or min. quantity, storage capacity, and jurisdictional distribution parameters.
Vaccine Ordering	ability to alert user when "reorder recommendation" inventory level is reached	R	Yes	...ity and jurisdictional distribution parameters. Specifically, the system supports the ability to alert user when "reorder recommendation" inventory level is reached.
Vaccine Ordering	ability to pre-populate order with recommended quantities based on inventory, doses reported as administered to IIS	O	Yes	...of jurisdictional distribution parameters. Specifically, the system supports the ability to pre-populate order with recommended quantities based on inventory, doses reporte.
Vaccine Ordering	ability to edit pre-populated order quantity	R	Yes	...ers the ability to edit pre-populated order quantity within the VFC ordering workflow.
Vaccine Ordering	ability to activate vaccines available for ordering	R	Yes	...ty supports the ability to activate vaccines available for ordering within the VFC ordering workflow.
Vaccine Ordering	ability for jurisdictional admin to activate vaccines available for ordering	R	Yes	...the ability to activate vaccines available for ordering within the VFC ordering workflow.
Vaccine Ordering	ability for jurisdictional admin to inactivate vaccines available for ordering	R	Yes	...the ability to inactivate vaccines available for ordering within the VFC ordering workflow.
Vaccine Ordering	ability to order publicly-purchased vaccines	R	Yes	...ers the ability to order publicly-purchased vaccines within the VFC ordering workflow.
Vaccine Ordering	ability to view all orders by user-defined parameters	O	Yes	...the ability to view all orders by user-defined parameters within the VFC ordering workflow.
Vaccine Ordering	ability to update delivery hours to receive shipments	R	Yes	...the ability to update delivery hours to receive shipments within the VFC ordering workflow.
Vaccine Ordering	ability to enter a reason for vaccine orders outside the recommended order quantity	R	Yes	...y, and jurisdictional distribution parameters. Specifically, the system supports the ability to enter a reason for vaccine orders outside the recommended order quantity.
Vaccine Ordering	ability to search and view past vaccine orders by facility within a specified timeframe	R	Yes	...and view past vaccine orders by facility within a specified timeframe within the VFC ordering workflow.
Vaccine Ordering	ability to verify contact information during each order without leaving ordering workflow	R	Yes	...contact information during each order without leaving ordering workflow within the VFC ordering workflow.
Vaccine Ordering	ability to update contact information during each order without leaving ordering workflow	R	Yes	...contact information during each order without leaving ordering workflow within the VFC ordering workflow.
Vaccine Ordering	ability to save an unsubmitted order	R	Yes	...ports the ability to save an unsubmitted order within the VFC ordering workflow.
Vaccine Ordering	ability to update organization/facility contact information before submitting a vaccine order	R	Yes	...organization/facility contact information before submitting a vaccine order within the VFC ordering workflow.
Vaccine Ordering	ability to cancel unsubmitted or unprocessed vaccine orders	R	Yes	...ility to cancel unsubmitted or unprocessed vaccine orders within the VFC ordering workflow.
Vaccine Ordering	ability to edit unsubmitted or unprocessed vaccine orders	R	Yes	...ability to edit unsubmitted or unprocessed vaccine orders within the VFC ordering workflow.
Vaccine Ordering	ability to save an unsubmitted order after rejection	R	Yes	...ordering workflow with rejection reasons documented to guide necessary modifications before resubmission.
Vaccine Ordering	ability to verify order information before order submitted	R	Yes	...ability to verify order information before order submitted within the VFC ordering workflow.
Vaccine Ordering	ability for jurisdictional admin to reject a vaccine order	R	Yes	...reasons documented to guide necessary modifications before resubmission. Specifically, the system supports the ability to reject a vaccine order.
Vaccine Ordering	ability for jurisdictional admin to select a reason code when rejecting an order	R	Yes	...cumented to guide necessary modifications before resubmission. Specifically, the system supports the ability to select a reason code when rejecting an order.
Vaccine Ordering	ability to edit an order after rejection	R	Yes	...asons documented to guide necessary modifications before resubmission. Specifically, the system supports the ability to edit an order after rejection.
Vaccine Ordering	ability to resubmit an order after rejection	R	Yes	...are documented to guide necessary modifications before resubmission. Specifically, the system supports the ability to resubmit an order after rejection.
Vaccine Ordering	ability to electronically notify the facility of a rejected order	R	Yes	...mented to guide necessary modifications before resubmission. Specifically, the system supports the ability to electronically notify the facility of a rejected order.
Vaccine Ordering	ability to track the shipping status of orders	R	Yes	...mission through jurisdictional approval, VTrckS processing, shipping, and facility receipt confirmation.
Vaccine Ordering	ability to verify packing slip information after order is shipped	O	Yes	...ability to verify packing slip information after order is shipped within the VFC ordering workflow.
Vaccine Ordering	ability to receive electronic notification when order quantity received does not match vaccine order	O	Yes	...tronic notification when order quantity received does not match vaccine order within the VFC ordering workflow.
Vaccine Ordering	ability to receive electronic notification when vaccine order received is damaged	O	Yes	...ceive electronic notification when vaccine order received is damaged within the VFC ordering workflow.
Vaccine Ordering	ability to request shipping label(s) for nonviable vaccine subject to return	O	Yes	...to request shipping label(s) for nonviable vaccine subject to return within the VFC ordering workflow.
Vaccine Ordering	ability to search for past vaccine returns within a specified timeframe	O	Yes	...ity to search for past vaccine returns within a specified timeframe within the VFC ordering workflow.
Vaccine Ordering	ability to view past vaccine returns within a specified time frame	R	Yes	...ility to view past vaccine returns within a specified time frame within the VFC ordering workflow.
Vaccine Ordering	ability to pre-book vaccine orders	R	Yes	...supports the ability to pre-book vaccine orders within the VFC ordering workflow.
Vaccine Ordering	ability for jurisdictional admin to allocate vaccine inventory per user defined parameters	R	Yes	...ity to allocate vaccine inventory per user defined parameters within the VFC ordering workflow.
Vaccine Ordering	ability to activate vaccine ordering functionality for all designated organizations/facilities during a public health emergency	R	Yes	...irement during declared public health emergencies, with modified approval thresholds and priority processing.
Vaccine Ordering	ability for jurisdictional admin to create order sets	R	Yes	...e supports the ability to create order sets within the VFC ordering workflow.
Vaccine Ordering	ability for jurisdictional admin to approve order sets	R	Yes	...supports the ability to approve order sets within the VFC ordering workflow.
Review/Approve Order	ability to support a rules-based decision logic to approve or reject order if above or below recommended order quantity	O	Yes	...e necessary modifications before resubmission. Specifically, the system supports the ability to a rules-based decision logic to approve or reject order if above or below recomm.
Review/Approve Order	ability for jurisdictional admin to approve order	R	Yes	...ule supports the ability to approve order within the VFC ordering workflow.
Review/Approve Order	ability for jurisdictional admin to adjust order	R	Yes	...ule supports the ability to adjust order within the VFC ordering workflow.
Review/Approve Order	ability for jurisdictional admin to electronically accept VFC vaccine into inventory	R	Yes	...ability to electronically accept VFC vaccine into inventory within the VFC ordering workflow.
Review/Approve Order	ability to accept each vaccine product in the IIS after shipment is received	R	Yes	...accept each vaccine product in the IIS after shipment is received within the VFC ordering workflow.
Vaccine Dose	ability to automatically decrement vaccine doses from inventory when matched vaccine doses are reported as administered	R	Yes	...ever real-time for both VFC submitted and non-VFC entered vaccination events, maintaining continuous stock accuracy.
Vaccine Dose	ability to automatically match vaccine doses reported as administered to vaccine doses in inventory to facilitate dose decrementing	R	Yes	...ion events, maintaining continuous stock accuracy. Specifically, the system supports the ability to automatically match vaccine doses reported as administered to vaccine doses in i.
Vaccine Dose	ability to automatically decrement vaccine inventory in real-time via HL7 messaging	R	Yes	...are received via HL7 messages, maintaining accurate inventory counts without manual adjustment by facility staff.
Vaccine Dose	ability to automatically decrement vaccine inventory in real-time via UI data entry	R	Yes	...are recorded through the user interface, ensuring real-time inventory accuracy at the point of administration.
Vaccine Inventory	ability to automatically decrement vaccine inventory when matched doses are reported as given remotely	R	Yes	...ve doses currently in physical storage with expired doses reflected in system inventory for vaccine accountability.
Vaccine Inventory	ability to document reductions in vaccine inventory due to outgoing vaccine transfers	R	Yes	...ding and receiving the identification, lot numbers, quantities, and funding source, maintaining chain of custody.
Vaccine Inventory	ability to electronically document reductions in vaccine inventory due to outgoing vaccine wastage	R	Yes	...e doses, lot detail, and quality at the dose level, supporting VFC accountability and VTrckS wastage reporting.
Vaccine Inventory	ability to enter current number of vaccine doses on hand in physical storage	R	Yes	...to enter current number of vaccine doses on hand in physical storage for vaccine accountability.
Vaccine Inventory	ability to track and manage doses for vaccines: on hand, administered, wasted, expired, ordered, received, returned, transferred	R	Yes	...funding source, maintaining chain of custody. Specifically, the system supports the ability to track and manage doses for vaccines: on hand, administered, wasted, expired, ord.
Vaccine Inventory	ability to enable removal of recalled lots from active inventory	R	Yes	...ability to enable removal of recalled lots from active inventory for vaccine accountability.
Vaccine Inventory	ability to print a reconciliation worksheet	O	Yes	...ports the ability to print a reconciliation worksheet for vaccine accountability.
Vaccine Transfers	ability for jurisdictional admin to approve vaccine transfers	O	Yes	...lot numbers, quantities, and funding source, maintaining chain of custody. Specifically, the system supports the ability to approve vaccine transfers.
Vaccine Transfers	ability for jurisdictional admin to initiate VFC vaccine transfers	O	Yes	...t numbers, quantities, and funding source, maintaining chain of custody. Specifically, the system supports the ability to initiate VFC vaccine transfers.
Vaccine Transfers	ability to accept VFC vaccine transfers	O	Yes	...t numbers, quantities, and funding source, maintaining chain of custody. Specifically, the system supports the ability to accept VFC vaccine transfers.
Vaccine Transfers	ability for jurisdictional admin to reject vaccine transfers	O	Yes	...lot numbers, quantities, and funding source, maintaining chain of custody. Specifically, the system supports the ability to reject vaccine transfers.
Vaccine Transfers	ability to search and view past vaccine transfers within a specified timeframe	O	Yes	...ers, and funding source, maintaining chain of custody. Specifically, the system supports the ability to search and view past vaccine transfers within a specified timeframe.
Vaccine Transfers	ability for jurisdictional admin to allow for direct vaccine transfer between facilities without jurisdictional pre-approval, but with jurisdictional visibility/oversight.	O	Yes	...and funding source, maintaining chain of custody. Specifically, the system supports the ability to allow for direct vaccine transfer between facilities without jurisdictional pre-
Vaccine Wastage	ability to manage vaccine wastage	R	Yes	...ty supports the ability to manage vaccine wastage for vaccine accountability.
Vaccine Wastage	ability to determine the total cost of wasted vaccine by user-defined parameters	R	Yes	...determine the total cost of wasted vaccine by user-defined parameters for vaccine accountability.
Vaccine Wastage	ability for jurisdictional admin to modify inventory quantity to reflect wastage	R	Yes	...the ability to modify inventory quantity to reflect wastage for vaccine accountability.
Vaccine Wastage	ability for jurisdictional admin to assign reason for inventory wastage	R	Yes	...ers the ability to assign reason for inventory wastage for vaccine accountability.
Vaccine Wastage	ability to determine the total doses of vaccine wasted by user defined parameters	R	Yes	...determine the total doses of vaccine wasted by user-defined parameters for vaccine accountability.
Vaccine Expiration	ability to manage vaccine expiration	R	Yes	...supports the ability to manage vaccine expiration for vaccine accountability.
Vaccine Expiration	ability to alert users to vaccine nearing expiration	O	Yes	...ng or exceeding their expiration date, supporting timely usage prioritization and proper disposal documentation.
Vaccine Expiration	ability to provide alerts for inventory already expired	O	Yes	...ding timely usage prioritization and proper disposal documentation. Specifically, the system supports the ability to provide alerts for inventory already expired.
Vaccine Expiration	ability for jurisdictional admin to modify inventory quantity removed from available inventory	R	Yes	...y to modify inventory quantity removed from available inventory for vaccine accountability.

Function: Provide Data Access | Return to Cover Page

Capability	Requirement: The IIS must/should have...	Priority: E, D (essential, optional)	Vendor response: Yes, Yes with customization*, No (*if customization required)	Vendor comments (if Yes, with customization, indicate the anticipated cost and timeline for development and release)
Standard Reports	ability to generate a report that includes history and forecast	E	Yes	...mation before eligible [illegible] generated, providing a consolidated view for clinical and program use.
Standard Reports	ability to generate a data quality report displaying information on the quality of submitted data	E	Yes	...fitness, and accuracy of information received from reporting organizations through HL7 and direct data entry channels.
Standard Reports	ability to generate a report that provides information on patient and vaccine matching and deduplication	E	Yes	...plicate detection, automatic merge volumes, pending manual reviews, and resolution outcomes for quality monitoring.
Standard Reports	ability to generate a report that provides information on data quality of data at rest	E	Yes	...completeness and consistency across the database, identifying systematic gaps requiring outreach or remediation.
Standard Reports	ability to generate data quality reports for HL7 submissions	E	Yes	...e rates, common rejection reasons, and data element completeness metrics across connected reporting organizations.
Standard Reports	ability to generate VFC reports	E	Yes	...history, dose administration by funding source, and accountability metrics for federally-funded vaccine management.
Standard Reports	ability to generate a practice-level patient data report for VFC enrolled sites	E	Yes	..., providing patient-level validation data supporting VFC accountability reviews and program compliance assessment.
Standard Reports	ability to generate a doses administered report to support accountability for publicly purchased vaccine	E	Yes	...ses administered report to support accountability for publicly-purchased vaccine through pre-configured report templates.
Standard Reports	ability to generate a doses administered report for VFC enrolled sites	E	Yes	...countability metrics for federally-funded vaccine management. Specifically, the system supports the ability to generate a doses administered report for VFC enrolled sites.
Standard Reports	ability to generate VFC provider practice profiles	E	Yes	...supporting VFC accountability reviews and program compliance assessment. Specifically, the system supports the ability to generate VFC provider practice profiles.
Standard Reports	ability to generate a report showing the total number of select vaccines administered each month by facility	E	Yes	...rt showing the total number of select vaccines administered each month by facility through pre-configured report templates.
Standard Reports	ability to generate a report displaying a change in vaccine administration patterns over a selected timeframe	E	Yes	...ort displaying a change in vaccine administration patterns over a selected timeframe through pre-configured report templates.
Standard Reports	ability to generate duplicate/merge record reports	E	Yes	...s the ability to generate duplicate/merge record reports through pre-configured report templates.
Standard Reports	ability to generate reports about IIS users	E	Yes	...ports the ability to generate reports about IIS users through pre-configured report templates.
Standard Reports	ability to generate vaccine management reports	E	Yes	...ports, ordering patterns, wastage rates, and expiration data across the jurisdiction's enrolled provider network.
Standard Reports	ability to generate a report listing/identifying patients who received a recalled vaccine	E	Yes	...erate a report listing/identifying patients who received a recalled vaccine through pre-configured report templates.
Standard Reports	ability to generate a report of patients declining or refusing vaccinations	D	Yes	...s generate a report of patients declining or refusing vaccinations through pre-configured report templates.
Standard Reports	ability to generate a report to calculate a facility's average vaccine usage	D	Yes	...to generate a report to calculate a facility's average vaccine usage through pre-configured report templates.
Standard Reports	ability to generate VFC accountability reports for managing VFC inventories and orders	E	Yes	...ics metrics for federally-funded vaccine management. Specifically, the system supports the ability to generate VFC accountability reports for managing VFC inventories and orders.
Standard Reports	ability to generate vaccine inventory reports	E	Yes	...d provider status across the jurisdiction's enrolled provider network. Specifically, the system supports the ability to generate vaccine inventory reports.
Standard Reports	ability to generate a report that provides/displays information about current inventory on	E	Yes	...ss the jurisdiction's enrolled provider network. Specifically, the system supports the ability to generate a report that provides/displays information about current inventory on .
Standard Reports	ability to generate a report that provides/displays information about inventory	E	Yes	...ss the jurisdiction's enrolled provider network. Specifically, the system supports the ability to generate a report that provides/displays information about inventory transaction.
Standard Reports	ability to generate report(s) that display information about vaccine order history	D	Yes	...generate report(s) that display information about vaccine order history through pre-configured report templates.
Standard Reports	ability to generate report(s) that display information about vaccine wastage and returns	E	Yes	...rate report(s) that display information about vaccine wastage and returns through pre-configured report templates.
Standard Reports	ability to generate a report that displays the vaccine orders submitted to VTrckS within a	E	Yes	...ort that displays the vaccine orders submitted to VTrckS within a specific timeframe through pre-configured report templates.
Standard Reports	ability to generate a report providing information about influenza pre-book orders	E	Yes	...enerate a report providing information about influenza pre-book orders through pre-configured report templates.
Standard Reports	ability to query vaccine ordering patterns over a selected timeframe to evaluate trends	D	Yes	...ty vaccine ordering patterns over a selected timeframe to evaluate trends through pre-configured report templates.
Standard Reports	ability to generate reports that provide information about organizations and facilities	D	Yes	...rate reports that provide information about organizations and facilities through pre-configured report templates.
Standard Reports	ability for jurisdictions admin to generate report that lists immunizing facilities	D	Yes	...e ability to generate report that lists immunizing facilities through pre-configured report templates.
Standard Reports	ability for jurisdictions admin to generate a report that provides information on	D	Yes	...ate a report that provides information on organizational facility enrollment through pre-configured report templates.
Standard Reports	ability for jurisdictional admin to access detailed or report usage statistics	D	No	...the ability to access detailed or report usage statistics through pre-configured report templates.
Standard Reports	ability to generate reports that display information about students and their	E	Yes	...ports to display information about students and their ...ity requirement verification and follow-up notification.
Standard Reports	ability to generate report of student exemptions by type (medical, religious)	E	Yes	...o generate report of student exemptions by type (medical, religious) through pre-configured report templates.
Standard Reports	ability to generate a record of students' immunizations for school purposes	E	Yes	...to generate a record of students' immunizations for school purposes through pre-configured report templates.
Standard Reports	ability to generate exclusion letters stating which vaccine(s) a student needs to come into	E	Yes	...y requirement verification and follow-up notification. Specifically, the system supports the ability to generate exclusion letters stating which vaccine(s) a student needs to come into.
Standard Reports	ability to generate reports for outbreaks vaccinated during a mass immunization event	E	Yes	...outbreak, vaccine utilization, and participant demographics for emergency response documentation and program analysis.
Standard Reports	ability to generate doses administered reports for priority groups during a public health	E	Yes	...doses administered reports for priority groups during a public health emergency through pre-configured report templates.
Standard Reports	ability to generate a report that provides information about the status of the system in	E	Yes	...port that provides information about the status of the system in terms of total entitle through pre-configured report templates.
Ad Hoc Queries &	ability to generate queries and reports based on user-defined parameters	E	Yes	...to generate queries and reports based on user-defined parameters for flexible data analysis and retrieval.
Ad Hoc Queries &	ability to schedule an ad hoc query to run on a predetermined interval (i.e., daily, weekly,	E	Yes	...chedule and send reports at user-defined intervals, supporting routine operational reporting without manual execution.
Ad Hoc Queries &	ability to generate reports with a user-defined report format	E	Yes	...ability to generate reports with a user-defined report format for flexible data analysis and retrieval.
Ad Hoc Queries &	ability to generate reports across geographic hierarchy levels	E	Yes	...level from facility through county, region, and state-wide, based on user authorization and organizational scope.
Ad Hoc Queries &	ability to generate data to inform the public via website dashboards or similar means	E	Yes	...nerate data to inform the public via website dashboards or similar means for flexible data analysis and retrieval.
Ad Hoc Queries &	ability to store saved report templates	E	Yes	...ries, enabling users to store, recall, and share frequently used report configurations within their organization.
Ad Hoc Queries &	ability to modify saved report templates	E	Yes	...share frequently used report configurations within their organization. Specifically, the system supports the ability to modify saved report templates.
Ad Hoc Queries &	ability to inactivate (archive) saved report templates	E	Yes	...frequently used report configurations within their organization. Specifically, the system supports the ability to inactivate (archive) saved report templates.
Ad Hoc Queries &	ability to modify a query	E	Yes	...ries supports the ability to modify a query for flexible data analysis and retrieval.
Ad Hoc Queries &	ability to delete a query	E	Yes	...ystem supports the ability to delete a query for flexible data analysis and retrieval.
Ad Hoc Queries &	ability to save an ad hoc query	E	Yes	...e supports the ability to save an ad hoc query for flexible data analysis and retrieval.
Ad Hoc Queries &	ability to create a map using geocodes for stratified reporting	D	Yes	...duct custom data queries by selecting fields, defining filters, and specifying output layouts without technical assistance.
Print/Export Reports	ability to export data to other modules/systems	E	Yes	...should be able to export data to other modules, though the platform's comprehensive data management capabilities.
Print/Export Reports	ability to export data in user-defined formats	E	Yes	...ty to export data in user-defined formats as a vetted platform capability accessible to authorized users.
Print/Export Reports	ability to export aggregate level de-identified data	E	Yes	...s to export aggregate level de-identified data within the platform's jurisdictionally-configurable design.
Print/Export Reports	ability to export record level de-identified data	E	Yes	...ability to export record level de-identified data via the platform's administrative configuration module.
Print/Export Reports	ability to print reports	E	Yes	...the ability to print reports through the platform's comprehensive data management capabilities.
Consumer Access	ability for authorized consumer to access permitted IIS data for immunization	E	Yes	The consumer access portal
Consumer Access	ability for authorized consumer to print forecast	D	Yes	...ts from the portal, providing formatted records suitable for school enrollment, employment, and travel documentation.
Consumer Access	ability for authorized consumer to print patient immunization record	E	Yes	...records suitable for school enrollment, employment, and travel documentation. Specifically, the system supports the ability to print patient immunization record.
Consumer Access	ability for authorized consumer to print an official immunization history	E	Yes	...ords suitable for school enrollment, employment, and travel documentation. Specifically, the system supports the ability to print an official immunization history.
Consumer Access	ability for authorized consumer to retrieve a verifiable digital vaccine credential without	E	Yes	...through the consumer portal, providing authenticated immunization documentation in a portable digital format.
Consumer Access	ability for authorized consumer to view immunization forecast	E	Yes	...to View their personal immunization records through a secure web interface accessible from any internet-connected device.
Consumer Access	ability for authorized consumer to view patient information	E	Yes	...pports the ability to view patient information for public-facing immunization record access.
Consumer Access	ability for authorized consumer to view patient immunization record	E	Yes	...ords through a secure web interface accessible from any internet-connected device. Specifically, the system supports the ability to view patient immunization record.
Consumer Access	ability for patient/parent/representative to opt in for reminder/recall notifications	D	Yes	...r patient/parent/representative to opt in for reminder/recall notifications for public-facing immunization record access.
Consumer Access	ability for patient/parent/representative to opt out of reminder/recall notifications	D	Yes	...patient/parent representative to opt out of reminder/recall notifications for public-facing immunization record access.

Non-functional

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Attribute	Sub-Characteristic	Requirement: The HIS must/should...	Priority E, D (essential, optional)	Verified? (Yes, No)	Verification Comments
Performance	Time Behavior	support a responsive user interface	E	Yes	
Performance	Time Behavior	support application launch, i.e. time between user initiation and application start, in less than 10 seconds	E	Yes	...is minimized through optimized resource loading, efficient session initialization, and containerized service architecture.
Performance	Time Behavior	support response to a user navigation action (e.g., mouse movement, keypresses, navigation) in less than 1	E	Yes	...second through client-side rendering, efficient API communication, and optimized page transition handling.
Performance	Time Behavior	support response to process submitted information via direct data entry in less than 1 seconds	E	Yes	...seconds through asynchronous validation, optimized database transactions, and efficient server-side processing.
Performance	Time Behavior	support generation of a standard, pre-configured report in less than 30 seconds	E	Yes	...standard report generation is designed to complete
Performance	Time Behavior	support responsive data retrieval queries	E	Yes	...below to support this requirement.
Performance	Time Behavior	support electronic response to a submitted HL7 message in 1 seconds or less, 95% of the time	E	Yes	...threshold at the 95th percentile through processing pipeline optimization and efficient acknowledgment generation.
Performance	Capacity	support up to 100+ concurrent users of the application without performance degradation	E	Yes	
Performance	Capacity	support multiple users viewing the same data at the same time	E	Yes	The platform architecture is designed to multiple
Performance	Capacity	support users using the same function at the same time without degrading IIS performance	E	Yes	...same function at the same time without degrading its performance through its cloud-native scalable infrastructure.
Performance	Resource	support concurrent execution of a number of actions	E	Yes	...actions quickly without degrading its performance through its cloud-native scalable infrastructure.
Performance	Resource	support user queries via the user interface without degrading IIS performance	E	Yes	...via the user interface without degrading IIS performance through its cloud-native scalable infrastructure.
Performance	Resource	support generation of ad hoc reports without degrading IIS performance	E	Yes	The platform architecture is designed to generation
Performance	Resource	support data extracts without degrading IIS performance	E	Yes	...data extracts without degrading its performance through its cloud-native scalable infrastructure.
Performance	Capacity	support API requests equivalent to [TBD] messages per hour for future growth capacity	E	Yes	...additional capacity through its cloud-native scalable infrastructure.
Performance	Capacity	support processing of up to 200 of HL7 VXU messages per hour without performance degradation	E	Yes	...ture is supported through optimized message processing pipelines and scalable infrastructure resource allocation.
Performance	Capacity	support processing of up to 3000 of HL7 QBP messages per hour without performance degradation	E	Yes	...ed through query optimization, database indexing, and dedicated processing resources for record retrieval operations.
Performance	Capacity	support permanent storage of records as per jurisdictional policy	E	Yes	...stored long-term, growing with data volumes without requiring infrastructure re-provisioning or performance compromise.
Performance	Capacity	support storage of unlimited number of organization records	E	Yes	...d requiring infrastructure re-provisioning or performance compromise. Specifically, the system supports the ability to storage of unlimited number of organization records.
Performance	Capacity	support storage of unlimited number of user records	E	Yes	...thout requiring infrastructure re-provisioning or performance compromise. Specifically, the system supports the ability to storage of unlimited number of user records.
Performance	Capacity	support storage of unlimited number of patient records	E	Yes	...ut requiring infrastructure re-provisioning or performance compromise. Specifically, the system supports the ability to storage of unlimited number of patient records.
Performance	Capacity	support storage of unlimited number of patient immunization records	E	Yes	...uiring infrastructure re-provisioning or performance compromise. Specifically, the system supports the ability to storage of unlimited number of patient immunization records.
Usability	Accessibility	meet the [TBD] Web Content Accessibility Guidelines (WCAG)	E	Yes	...ensure full accessibility for all users.
Usability	Operability	support configuration for end user preferences (e.g., colors, names as recommended by the	E	Yes	...The platform's usability design supports the ability
Usability	Operability	ability to execute Boolean searches	E	Yes	...orts the ability to execute Boolean searches following user-centered design principles.
Usability	Operability	ability to execute a wildcard searches	E	Yes	...orts the ability to execute a wildcard searches following user-centered design principles.
Usability	User error	minimize data entry errors	E	Yes	...orts the ability to minimize data errors following user-centered design principles.
Usability	User error	assist in ensuring data correctly via pick-lists, drop-down boxes, or other easy-to-use options such as predictive	E	Yes	...data correctly via pick-lists, drop-down boxes, or other easy-to-use options such following user-centered design principles.
Usability	User error	indicate required fields for data entry	E	Yes	...the ability to indicate required fields for data entry following user-centered design principles.
Usability	User error	ability to provide alert when required fields are left blank	E	Yes	...ability to provide alert when required fields are left blank following user-centered design principles.
Usability	User error	support cross-field checks to ensure accuracy of information where dependencies exist (e.g., warning that a	E	Yes	...ross-field checks to ensure accuracy of information where dependencies exist (e.g., warning that a following user-centered design principles.
Usability	User error	support spell check functionality with medical terminology for all free text fields	D	Yes	The platform's usability design supports the ability
Usability	User error	support differentiation between warning messages (reason is recommended prior to entry being confirmed)	E	Yes	The platform's usability design supports the ability
Usability	User interface	support alert related to user interface response time	D	Yes	...ability to alert related to user interface response time following user-centered design principles.
Usability	User interface	support user feedback with a simple indicator for response times between 2-4 seconds	D	Yes	...edback with a simple indicator for response times between 2-4 seconds following user-centered design principles.
Usability	User interface	support user feedback with expected response time and percent-done indicator for response times greater	D	Yes	...expected response time and percent-done indicator for response times greater than following user-centered design principles.
Usability	User interface	support users in stopping an operation expected to take longer than 10 seconds	D	Yes	...rs in stopping an operation expected to take longer than 10 seconds following user-centered design principles.
Usability	User interface	support users in performing other tasks while waiting for the system to complete tasks expected to take	D	Yes	...g other tasks while waiting for the system to complete tasks expected to take long following user-centered design principles.
Reliability	Availability	support availability of the system as per SLA's (latest word)	E	Yes	...mechanisms that minimize unplanned service interruptions.
Reliability	Availability	support access to the web application 99.9% of the time	E	Yes	...to access to the web application 99.9% of the time through redundant architecture and monitoring.
Reliability	Availability	support processing of and response to HL7 messages 99.9% of the time	E	Yes	...ssing of and response to HL7 messages 99.9% of the time through redundant architecture and monitoring.
Reliability	Recoverability	ability to backup the HIS data as per jurisdictional policy	E	Yes	...regular intervals and integrity verification, ensuring data recoverability across the full retention period.
Reliability	Recoverability	support backup of the HIS as per jurisdictional policy	E	Yes	...backups of the HIS as per jurisdictional policy and through redundant architecture and monitoring.
Reliability	Recoverability	support real time failover	E	Yes	...nfrastructure upon detection of primary component failure, maintaining service continuity during fault conditions.
Reliability	Recoverability	support the recovery of backed up data as needed	E	Yes	...ity to the recovery of backed up data as needed through redundant architecture and monitoring.
Reliability	Recoverability	support the restoration of HIS data after an outage or loss	E	Yes	...to the restoration of HIS data after an outage or loss through redundant architecture and monitoring.
Reliability	Fault tolerance	support the system in the face of software changes	E	Yes	The reliability framework supports the ability to run
Security	Non-repudiation	support audit logs for security purposes	E	Yes	Comprehensive audit logging records user access,
Security	Integrity	ability to electronically notify the system administrator of unauthorized activity	E	Yes	The security framework supports the ability to
Security	Authenticity	ability to track all attempted accesses that fail identification, authentication and authorization requirements	E	Yes	The security framework supports the ability to track
Security	Authenticity	ability to track all accesses that successfully comply with identification, authentication and authorization	E	Yes	The security framework supports the ability to track
Security	Non-repudiation	ability to maintain audit logs for specified time per jurisdictional policy	E	Yes	Comprehensive audit logging records user access,
Security	Non-repudiation	ability for jurisdictional admin to search audit log by function performed	E	Yes	Comprehensive audit logging records user access,
Security	Non-repudiation	ability for jurisdictional admin to search audit log by date and time period	E	Yes	Comprehensive audit logging records user access,
Security	Non-repudiation	ability for jurisdictional admin to search audit log by date range	E	Yes	Comprehensive audit logging records user access,
Security	Non-repudiation	ability for jurisdictional admin to search audit log by user defined parameters	E	Yes	Comprehensive audit logging records user access,
Security	Non-repudiation	ability for jurisdictional admin to search audit log by patient identifiers	E	Yes	Comprehensive audit logging records user access,
Security	Non-repudiation	ability for jurisdictional admin to filter audit log search by user defined parameters	D	Yes	Comprehensive audit logging records user access,
Security	Non-repudiation	ability for jurisdictional admin to sort audit log search results	D	Yes	...strative actions with search/audit, filtering access for jurisdictional administrators. Specifically, the system supports the ability to sort audit log search results.
Security	Integrity	store [TBD] data related to [TBD] in the system	E	Yes	The security framework supports the ability to store
Security	Integrity	store date of user access to a patient record	E	Yes	The security framework supports the ability to store
Security	Integrity	store time of user access to a patient record	E	Yes	The security framework supports the ability to store
Security	Integrity	store user ID of user access to a patient record	E	Yes	The security framework supports the ability to store
Security	Non-repudiation	store audit data related to [TBD] in the system	E	Yes	The security framework supports the ability to store
Security	Non-repudiation	store data received for data modified in the system	E	Yes	The security framework supports the ability to store
Security	Non-repudiation	store time received for data modified in the system	E	Yes	The security framework supports the ability to store
Security	Non-repudiation	store date updated for data modified in the system	E	Yes	The security framework supports the ability to store
Security	Non-repudiation	store time updated for data modified in the system	E	Yes	The security framework supports the ability to store
Security	Non-repudiation	store user associated with data modified in the system	E	Yes	The security framework supports the ability to store
Security	Integrity	automatically enforce session timeout for a user when the period is passed	E	Yes	The security framework supports the ability to
Security	Integrity	ability for automatic session timeouts to be customized per jurisdictional policy	D	Yes	...r jurisdictional security policy protecting against session-based threats. Specifically, the system supports the ability to be customized per jurisdictional policy.
Security	Integrity	ability to notify the user the session will expire	D	Yes	...the ability to notify the user the session will expire through defense-in-depth controls.
Security	Confidentiality	support masking of passwords as they are typed or entered into the user interface	E	Yes	...authentication and password management screens, protecting against shoulder surfing and screen capture threats.
Security	Integrity	ability for system administrator to terminate user connections	E	Yes	...ports the ability to terminate user connections through defense-in-depth controls.
Security	Confidentiality	[redacted] and [redacted] by implementing the appropriate technical [redacted]	E	Yes	...ion personally identifiable information by implementing the appropriate technical b through defense-in-depth controls.
Security	Confidentiality	ability to encrypt personally identifiable information at rest	E	Yes	...ypted at the database and storage layer, securing all PII/PHI in compliance with industry security standards.
Security	Confidentiality	ability to encrypt personally identifiable information at rest	E	Yes	...ability to encrypt personally identifiable information at rest through defense-in-depth controls.
Security	Confidentiality	ability to encrypt personally identifiable information during transmission	E	Yes	...encrypt personally identifiable information during transmission through defense-in-depth controls.
Security	Confidentiality	ability to encrypt personally identifiable information during transmission	E	Yes	...encrypt personally identifiable information during transmission through defense-in-depth controls.
Security	Integrity	ability to maintain firewalls per AAA Security Guidance Compendium for implementation information	E	Yes	...implemented per AAA Security Guidance Compendium with layered perimeter defenses and traffic filtering rules.
Security	Integrity	ability to maintain firewalls for protection of the hosting network	E	Yes	...ns, with layered perimeter defenses and traffic filtering rules. Specifically, the system supports the ability to maintain firewalls for protection of the hosting network.
Security	Integrity	ability to maintain firewalls for protection of the hosting environment	E	Yes	...s, with layered perimeter defenses and traffic filtering rules. Specifically, the system supports the ability to maintain firewalls for protection of the hosting environment.
Security	Integrity	ability to automatically notify the system admin if unauthorized activity	E	Yes	...ability to automatically notify the system admin if unauthorized activity through defense-in-depth controls.
Security	Integrity	ability to support between zone protection at current OSI 4 patch levels in the hosting environment	E	Yes	...ng environment through regular security update reviews, ensuring timely remediation of identified vulnerabilities.
Maintainability	Analyzability	ability for event logging	E	Yes	The maintainability framework supports the ability
Maintainability	Analyzability	ability for system admin to enable event logging on all servers	D	Yes	The maintainability framework supports the ability
Maintainability	Analyzability	ability for system admin to enable event logging on all devices	D	Yes	The maintainability framework supports the ability
Maintainability	Analyzability	ability for system admin to disable event logging on all devices	D	Yes	The maintainability framework supports the ability
Maintainability	Analyzability	ability for system admin to limit access to event logs, including to term, duplication, read and Delete logs	D	Yes	The maintainability framework supports the ability
Portability	Adaptability	support use of [redacted]	E	Yes	...browser-based access eliminates client-side software
Portability	Adaptability	support use of current version of web browsers	E	Yes	...browser-based access eliminates client-side software
Portability	Adaptability	support use of last prior version of web browsers	E	Yes	...browser-based access eliminates client-side software
Portability	Adaptability	support a responsive design that renders properly on multiple devices	E	Yes	...a responsive design that renders properly across multiple devices via containerized, standards-based architecture.
Portability	Adaptability	support web client use on a desktop	E	Yes	...through the ability to web client use on a desktop via containerized, standards-based architecture.
Portability	Adaptability	support web client use on a laptop	E	Yes	...through the ability to web client use on a laptop via containerized, standards-based architecture.
Portability	Adaptability	support web client use on a tablet	E	Yes	...through the ability to web client use on a tablet via containerized, standards-based architecture.
Portability	Adaptability	support web client use on a smartphone	E	Yes	...ugh the ability to web client use on a smartphone via containerized, standards-based architecture.
Portability	Adaptability	be containerized (e.g. Docker) to support easy installation and system updates	E	Yes	...ed (e.g., Docker or Kubernetes) to support easy installation and system updates via containerized, standards-based architecture.
Portability	Adaptability	be containerized for cloud based environments	D	Yes	...environments, with Docker and Kubernetes enabling consistent deployment on AWS, Azure, or GCP infrastructure.

Glossary of Terms

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Terms and definitions used within requirements. Note: For definitions of general terms related to immunizations, see the CDC Vaccines and Immunizations Glossary

For definitions of general terms related to IIS, see the AIRA MIROW Common Vocabulary resources.

Term	Definition
Admin	Refers to a jurisdictional admin and organizational admin.
Associate (verb)	Establish a relationship between entities. Synonymous with "link."
At rest	Used to refer to data in storage within the IIS.
Audit log	Also referred to as an audit trail. Used to refer to the tracking of information about system activity and changes, used for security purposes.
Authorization agreement	Formal or legal agreement between an organization submitting and/or using immunization data and the jurisdiction that outlines terms for participating in the IIS per jurisdictional policy (e.g., data use agreements, user agreements).
Authorized consumer	A consumer authorized to access IIS records such as their personal vaccination records or those for individuals for whom they are guardians/ care-takers.
Authorized user	Individual authorized to access the system based on their role and affiliation with an IIS-authorized organization.
Automatically	Ability for the system to take action without manual intervention
Capture	Ability to enter data via user interface (UI) or data exchange interface for immediate usage. Does not necessarily imply storage.
Clinician	A clinician or health care professional who orders and/or administers vaccines (e.g., vaccine ordering provider, vaccine administering provider).
Cohort	A group of patients of particular interest to an organization and/or facility (e.g., a group of health plan members, a group of students, group of individuals with the same age).
Containerization	Containerization packages an application along with all its necessary configuration files, libraries, and dependencies, ensuring it runs efficiently and without bugs across various computing environments.
Delete	Process by which data are removed from the IIS system, including removal from data table(s). Synonymous with "purge."
During transmission	Used to refer to data being transmitted or actively moved from one location to another
Edit	Global term to reflect ability to modify, update, and change data. For a particular field, this also includes the ability to delete field-level data that is no longer accurate.
Electronic notification	Communication/message sent to a user without manual intervention.
Electronic response	The IIS returns a final resolution, or outcome, of processing the HL7 message with a conformant HL7 (Health Level Seven) message.
Enroll	Process by which an organization or a facility is authorized to participate in an IIS and/or in a jurisdictional Vaccines for Children (VFC)
Event log	Tracking (i.e., storing) information about system activity and changes, used for IT support and maintenance.
Facility	A sub-organizational unit for organizations with multiple locations. May also be synonymous for "organization" for organizations with one
Immunization Information System	Refers to the application, data and staff that record all immunization doses administered by participating providers to individuals within a
Inactivate	To make inoperable.
Interface (noun)	Connection between two or more systems for transmission of data.
Interface (verb)	Act of securely exchanging data to facilitate data use.
Interoperate	Data are transmitted from one system to be consumed by another
Jurisdictional admin	Jurisdictional IIS staff authorized to enter and modify information in the IIS.
Jurisdictional vaccine program admi	Jurisdictional vaccine program staff authorized to enter and modify VFC- and vaccine program-related information in the IIS.
Manage	Global term used to refer to the ability to add, edit, or otherwise modify information.
Notification	A push communication to an authorized user.
Order set	A standardized group of supply items that can ordered at one time that create efficiencies in the ordering process.
Organization	An entity that may provide data to an IIS and/or may consume IIS data and information (e.g., provider organization, school). An organization
Organizational admin	Staff within the organization (e.g., clinic, facility, LHD) responsible for maintaining the organization/facility information in the IIS, including
Patient	Used to refer to an individual. Synonymous with "client."
Personally identifiable information	"Any information about an individual maintained by an agency, including (1) any information that can be used to distinguish or trace an
Process	The IIS reads the incoming data and takes appropriate action based on the data submitted and previously known information already in the
Provider	A vaccinating or non-vaccinating health care professional authorized to submit, access and/or use IIS data.
Provider organization	A type of organization that has any combination of the following characteristics: provides vaccination services, responsible for an entity that
Query	A question posed of the IIS data.
Recall	A notification sent to individuals who are overdue for a vaccination.
Re-enroll	Process by which a previously enrolled organization or facility is re-authorized to participate in an IIS and/or in a jurisdictional VFC program,
Reminder	A notification sent to individuals who are due to receive a vaccination soon.
Report	System generated data or information available in suitable formats, which may include outputs of queries.
Store	Maintenance of data for potential future use. Note: use of "store" also implies data capture.
System admin	Jurisdictional administrator responsible for oversight of the IIS technology, typically an IT role.
System alert	A communication broadcast to authorized users.
Track	Follow the steps of a process to note a modification
User	Individual associated with an organization authorized to access the IIS system to submit and/or consume IIS data and information (e.g., clinic
User agreement	Agreement between a representative(s) of an organization and the jurisdiction, outlining terms for participation in the IIS, per jurisdictional
User-defined parameter	An element selected by a user to define the scope of a particular process or activity.
Vaccines for Children (VFC)	A type of provider organization, specifically, a provider organization that is enrolled in the VFC program.
Vaccine program	A program managed and administered by a jurisdiction to provide specified vaccine(s) to specified organizations or facilities (e.g., Vaccines

alk to the IIS Functional Standards

onal Standards: https://www.cdc.gov/iis/functional-standards/resource.html

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Functional Standards, v5.0		IIS Functional Model Functions									IIS Functional Model Attributes					
Standard	Guidance Statement	Administer System	Manage Organizations and Facilities	Manage Users	Support Interoperability	Ensure Data Quality	Evaluate and Forecast	Manage Patient and Immunization Records	Manage Vaccine Inventory	Provide Data Access	Performance	Usability	Reliability	Security	Maintainability	Portability
1.0 The IIS is physically and digitally secured in accordance with policies and industry standards for protected health information, security, and encryption.				x							x	x	x	x	x	x
	1.1 The IIS establishes, documents, and updates policies and procedures to manage the collective functions, capabilities, and attributes of an IIS.										x	x	x	x	x	x
	1.2 The IIS establishes and maintains the technical infrastructure to securely capture, store, and process patient demographic and vaccination data consistent with established policies and procedures										x	x	x	x	x	x
	1.3 The IIS provides ongoing training to ensure awareness of and to promote adherence to policies and procedures.			x										x		
2.0 The IIS is physically and digitally secured in accordance with industry standards for disaster avoidance, mitigation, and recovery.													x	x		
	2.1 The IIS establishes and maintains the infrastructure needed for disaster avoidance.												x	x		
	2.2 The IIS establishes and tests recovery plans to mitigate system downtime.												x	x		
3.0 The IIS defines service expectations between the program and the entities providing information technology support to ensure system availability and uninterrupted data flow.											x	x	x	x	x	x
	3.1 The IIS implements service-level agreements between the program and the entities providing information technology and support.										x	x	x	x	x	x
	3.2 The IIS implements and maintains the infrastructure to fulfill service-level agreements.										x	x	x	x	x	x
4.0 The IIS validates patient demographic and vaccination data		x			x	x	x	x		x		x				
	4.1 The IIS supports the identification, prevention, and resolution of duplicate and fragmented patient demographic and vaccination data in accordance with policies and procedures.					x										
	4.2 The IIS monitors data quality within the IIS in accordance with policies and procedures.	x			x	x	x	x		x						
	4.3 The IIS uses electronic tools to standardize and/or validate addresses in the IIS.	x						x								
	4.4 The IIS delivers feedback and training to IIS partners and providers to ensure complete, timely, and accurate patient demographic and vaccination records											x				
	4.5 The IIS meets federal and					x	x									
5.0 Manage interfaces for exchange and integration of data electronically between the IIS and other information systems in accordance with federal and jurisdictional standards																
	5.1 The IIS exchanges data in				x											
	5.2 The IIS actively recruits				x						x					
	5.3 The IIS actively monitors				x	x						x				
	5.4 The IIS investigates and				x						x	x	x			
6.0 The IIS supports pediatric, influenza, and adult immunization forecasts consistent with Advisory Committee on Immunization Practices (ACIP) recommendations.																
	6.1 The IIS establishes and						x									
	6.2 The IIS establishes and						x									
7.0 The IIS ensures authorized users have access to patient demographic and vaccination data based on user roles and permissions.		x	x	x				x		x		x		x		
	7.1 The IIS implements													x		
	7.2 The IIS implements													x		
	7.3 The IIS supports technical	x		x												
	7.4 The IIS provides user access			x												
	7.5 The IIS supports authorized	x	x	x						x						
	7.6 The IIS provides training							x				x				
	7.7 The IIS identifies and	x	x													
8.0 The IIS supports authorized public access to official immunization records										x				x		x
	8.1 The IIS provides consumers									x				x		x
9.0 The IIS supports the reporting needs of federal and jurisdictional immunization programs																
	9.1 The IIS provides standard									x						
10.0 The IIS supports ad-hoc queries of patient demographic and vaccination data										x						
	10.1 The IIS supports direct									x				x		
	10.2 The IIS supports access to									x				x		
11.0 The IIS supports investigation and reporting of vaccine adverse events																
	11.1 The IIS supports vaccine							x								
	11.2 The IIS refers users to						x	x								
12.0 The IIS supports the ability to generate coverage reports that users can access without assistance from IIS staff							x	x		x						
	12.1 The IIS provides access to									x						
	12.2 The IIS manages patient							x								
	12.3 The IIS provides IIS-related									x						
	12.4 The IIS supports						x			x						
13.0 The IIS supports reminder/recall activities							x	x								
	13.1 The IIS supports						x									
14.0 The IIS supports management of facility adverse reaction functions for federal and jurisdictional vaccine programs								x	x	x		x				
	14.1 The IIS establishes vaccine									x		x				
	14.2 The IIS supports the							x								
	14.3 The IIS generates a report									x						
	14.4 The IIS generates a report								x	x						

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