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NTT DATA



State of West Virginia | WorkForce West Virginia

Fraud Case Management

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TECHNICAL RESPONSE

March 10, 2022 – 1:30 p.m. ET

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Info Technology

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DATE March 8, 2022

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

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1 Project Goals and Mandatory Requirements (RFP 4.2)

NTT DATA understands that WorkForce West Virginia (WFWV) seeks a UI fraud case management solution that will protect the integrity of West Virginia's UI system, both now and in the future. In states around the country, the COVID-19 pandemic has stretched unemployment insurance (UI) systems to capacity and beyond. Claims have increased by 10 times or more and new programs have rolled out at a breakneck pace. The challenge of serving legitimate claimants and supporting new benefit workflows placed an enormous additional load on IT systems. This pressure created new vulnerabilities and exposed old ones that fraudsters were ready to exploit, compromising the integrity of UI systems across the nation.

To help WFWV protect the integrity of UI in West Virginia, we offer the NTT DATA UI Fraud Case Management Solution, an on-premises solution that will simplify WFWV's management of fraud cases. This solution includes a powerful case management platform to guide and facilitate investigation and claims determination specifically engineered for UI service delivery.

With this platform, once a claim has been flagged for investigation—either through solution analytics, legacy data science activities, or manual action—our solution's case management functionality will guide users through workflows appropriate to the identified issue. The UI Fraud Case Management Solution will also facilitate the collection of pertinent information as well as the determination and adjudication of each claim issue. Determinations arising from these activities will be stored in the case management solution and pushed to WFWV's UI benefits system of record. The case management platform is based on proven case management technology from Cardinality, which specializes in social benefits case management.

The NTT DATA UI Fraud Case Management Solution will also improve the anti-fraud performance of WFWV personnel through:

- **Automated placement of holds on claims based on system analysis**, without the need for staff intervention (where allowable by the U.S. Department of Labor guidance). In cases where a review is required by merit staff, our solution will also provide a simple review workflow for placement of a hold.
- **Comprehensive case management for suspect claims**, including claim and identity verification and updates of the State of West Virginia's UI system of record. For WFWV, this will provide a guided, repeatable approach to managing and mitigating the impact of improper UI payments.
- **Recordkeeping for fraudulent claims**, including associated overpayments, while also allowing creation of secondary claims for victims of identity theft, who may also establish a valid claim.
- **Improved case handling** for greater accuracy in establishing, validating, and calculating improper payments to claimants. This approach will improve WFWV performance across benefits service delivery, improving first payment timeliness and decreasing the improper payment rate.

All told, the NTT DATA UI Fraud Case Management Solution will provide WFWV with an end-to-end solution for adjudicating claims and ultimately minimizing fraudulent and improper claims. This solution will empower WFWV to improve the UI customer experience, make better use of scarce agency resources, and ultimately preserve the State's UI trust fund and the integrity of the State's UI system.

1.1 Approach to Meeting Goals and Objectives (RFP 4.2.1)

NTT DATA's UI Fraud Case Management Solution blends leading technologies for case management, workflow and business process management, and improper payment adjudication. Together, these technologies will provide comprehensive, integrated UI fraud protection and management capabilities. To deliver this solution, we have strategically created a team with demonstrated experience and knowledge of UI systems, proven technical skills, and an understanding of and commitment to the State's mission and goals.

NTT DATA will deliver this project by drawing on a half century of experience as a system integrator and IT services provider and significant experience working with state workforce agencies. Overall, NTT DATA is a top 10 IT global services provider with a workforce that includes about 15,000 IT professionals in the United States. Our UI-specific capabilities include a UI Practice led by a former state workforce director and additional staff with extensive UI experience. By selecting NTT DATA, WFWV can have confidence that our secure, automated, comprehensive solution will interface with the State's existing UI system, meeting or exceeding all identified requirements through a suite of components expertly designed by a world-class system integrator.



Figure 1. The NTT DATA advantage includes significant experience with UI solutions and state departments of labor.

NTT DATA's capabilities are strengthened by our exceptional team that includes our technology partner: Cardinality. Figure 2 provides an overview of NTT DATA and Cardinality and what they will provide for this project.

Figure 2. The NTT DATA Team

The NTT DATA Team	
<p>As the prime contractor in this proposal, NTT DATA brings an experienced team of skilled UI administrators, partners, and application and data providers along with a combined portfolio of solutions that can be tailored to address any gaps or exploits in state UI systems. As a top 10 IT services provider, NTT DATA helps simplify the complexity of system transformation and business process improvement. For more than 50 years we have helped our clients achieve demonstrable, measurable, and sustainable business benefits and push the boundaries on what is possible with cloud, data, and applications.</p>	<p>NTT DATA will provide:</p> <ul style="list-style-type: none"> • Executive oversight • Project management • UI and system integration subject matter expertise • Business analysis • Organizational change management • Security expertise • Quality assurance (QA) and testing • Integration support
Cardinality brings a fully functional and configurable case	Cardinality will provide:

The NTT DATA Team	
management, recovery, and enforcement solution to provide business process workflows specifically tailored to the State's requirements for overpayment detection, management, collections, and enforcement.	<ul style="list-style-type: none"> • Case management functionality • A rules engine • Workflow configuration • Data integration
This sustainable, future-proof, automated, secure solution will provide WFWV the ability to build cases, identify suspects, control payments, verify identity, perform network analytics, verify data accuracy, and report fraud, all through a single integrated interface.	Cardinality will also provide expertise on its technology as needed.

We have applied UI acumen and solution expertise in developing the NTT DATA UI Fraud Case Management Solution. This solution draws on our own strengths as well as technology from Cardinality. Figure 3 provides a map of NTT DATA's proposed solution and individual components.

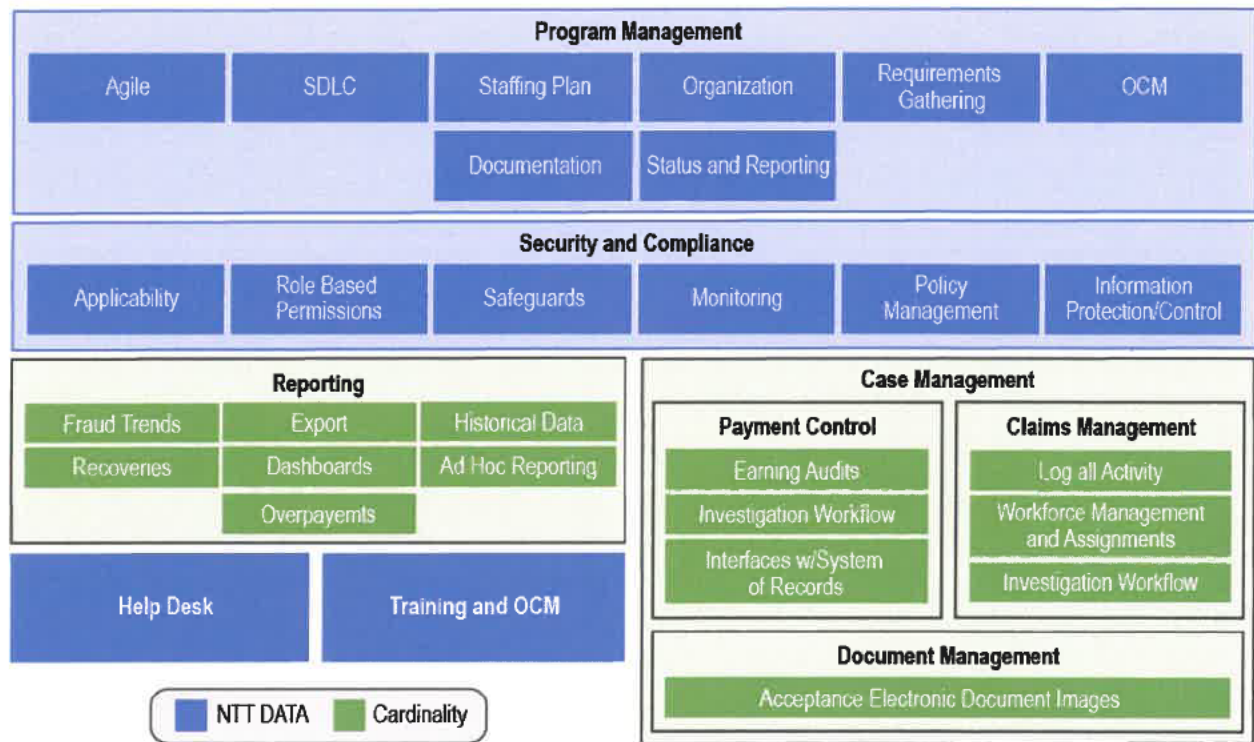


Figure 3. This is an overview of the NTT DATA UI Fraud Case Management Solution.

To deliver this solution, we will use a technology stack that includes 64-bit Windows Server 2019 (or later), MS SQL Server 2015 (or later), NodeJS v12 or above hosted on PM2, Angular v11 or above hosted on IIS, and WSO2. These technologies will align to WFWV's desire for an on-premises, Windows-based solution. While cloud options exist for each component of the NTT DATA UI Fraud Case Management Solution, we recognize the State's preference for an on-premises approach, and we will deliver to that preference.

In addition to the aspects of the NTT DATA UI Fraud Case Management Solution we have already discussed, this solution will provide several other benefits for WFWV. Among them:

- The automation of tasks, reducing the need for manual data analysis
- The ability to view and act on WFWV-generated analytics, increasing performance and decreasing response time
- Compatibility with the WFWV's benefits system and common support databases
- The ability to meet or exceed WFWV's minimum storage requirements

Significantly, this solution will also support future integrations and system expansion.

Additional Solution Capabilities

The NTT DATA UI Fraud Case Management Solution includes capabilities that align to WFWV's stated requirements. We have limited the scope of this proposal and solution to specific elements that closely fit the State's stated requirements. Even so, as an option, we can deliver additional capabilities for inclusion in the WFWV technology roadmap. These additional capabilities include advanced fraud analytics technology or additional sources of data for identity proofing or other purposes. (For now, these options are out of scope.)

Figure 4 provides a complete list of capabilities available in the NTT DATA UI Fraud Case Management Solution and identifies those that are within the scope of this proposal. We would welcome the opportunity to discuss how these additional features currently out of scope would benefit the State.

Figure 4. Solution Scope

Deliverable	Solution Scope
Fraud Case Management	Included
Integration with WFWV's UI System of Record	Included
A Unified Data Repository	Included
Fraud Analytics	Not included
Administrative Workflows	Included
Claimant Workflows	Not included
Identity Access Management, Enterprise Multi-Factor Authentication, and Claimant Identity Proofing	Not included
Online Payment Processing	Not included
Tax and Lottery Intercept Functionality	Not included
Help Desk	Break/fix services and change requests (customizations)
Security Assessment	Limited to application scope

Approach to Delivery

NTT DATA will deploy a solution using the Scaled Agile Framework (SAFe) and our patented Services Project Management Framework (SPMF), which aligns to standards of the Project Management Institute. We will also bring significant UI expertise, the expertise of NTT DATA's organizational change management (OCM) and training practices, and the expertise of our partner in social benefits case management.

Section 1.1.2.7 describes our deployment approach and Section 1.1.2.9 displays our timeline. As the timeline shows, we propose putting a fraud case management solution into production in 17 weeks, a timeline that aligns with the State's goal of obtaining a solution in 4 months or less.

WFWV's Goals, and How Our Approach Meets or Exceeds Them

Figure 5 summarizes our solution and how this proposed approach will meet or exceed the State's goals for this project.

Figure 5. How NTT DATA's Approach Addresses WFVW's Goals

Goal	Approach
Licensing. Vendor should provide licensing for a fraud case management software solution that meets objectives specified in RFP 4.2.1.1.	Exceeds. The NTT DATA UI Fraud Case Management Solution includes appropriate licensing for one-time setup and ongoing operation of our fraud case management solution. In addition, our optional supplemental data can expand and enhance WFVW's available analytics to address a range of identity, claim, wage, and benefit integrity issues, beyond the range specified in this RFP.
One-Time Setup. Vendor's installation should include services specified in RFP 4.2.1.2.	Exceeds. Our approach to delivery will meet each of the one-time setup requirements communicated in RFP 4.2.1.2. Our approach will include enhancements and capabilities that go beyond those required by the State. These additional features are detailed throughout this proposal.
Customization. Vendor should be prepared to provide at least 600 hours of staff time to enhance, modify, and tailor the solution consistent with WFVW's unique needs.	Meets. Our cost estimate assumes 600 hours of staff time to implement post deployment to align the deployed solution with the State's unique requirements.
Support and Maintenance. Vendor should provide for support and maintenance for case management software as specified and data science and case management integration updates, as required.	Meets. Our proposal includes provision for, and pricing of, ongoing support and maintenance of the system. See Section 1.1.4 for details.

The Superiority of NTT DATA's Approach (RFP 4.2)

NTT DATA offers the State of West Virginia a superior solution. Figure 6 summarizes some of the benefits of the NTT DATA UI Fraud Case Management Solution.







	WFVW will gain simplified customization and modification based on low code features. With this solution, a new form and use case flow can be implemented in hours using WFVW developers.
	WFVW will gain intelligent workload management based on critical parameters and various dimensions of case and agency worker data.
	WFVW will gain artificial intelligence (AI) and machine learning extension capabilities that automate the extraction of text, auto classify, automatically detect potential issues, and automatically tag documents and files. All of this will reduce the burden on WFVW's staff.
	WFVW personnel will obtain reduced manual workloads based on automation and one-click determinations along with routing based on an intelligent case management capability.
	WFVW will gain a solution with an easy-to-use interface as well as user-focused workflow management.
	WFVW will gain collaboration features such as video calling and conferencing for effective case management, claim fact-finding, and determinations.

Figure 6. NTT DATA offers a superior UI fraud case management solution.

1.1.1 Licensing (RFP 4.2.1.1)

NTT DATA will deploy and configure a UI fraud case management solution that includes a mature, fully licensed instance of a UI integrity prevention and case management platform. This platform from Cardinality is a best-of-breed component that is scalable and flexible, striking the right balance between electronic workflow and human determination. It has been developed to function in a Windows Server environment and it includes no-code/low-code functionality that will help us achieve the State's 4-month window for configuration and deployment to production. Licensing for this technology will include long-term support provided by traditional on-premises patches and upgrades for the life of WFWV's contract with NTT DATA. This patch and upgrade process will involve use of FTP downloads and specified servers to pull core application updates as well as component software patches to the platform. Our solution also supports a patch, upgrade, test, and verification sandbox.

NTT DATA and our partners have successfully implemented, configured, and deployed multiple case management systems and provided an array of services to state unemployment agencies. More detail regarding our success supporting state agencies with case management solutions and UI-related services is provided in [Section 2.2](#).

A key aspect of our solution's case management platform is the data organization it offers users. The platform is designed to store a huge volume of case-related data—including the multiple interactions associated with investigation and prosecution data—in logically segmented pieces. The built-in unification ability of the system empowers users with quick and easy lookups for tasks, lists, notes, descriptions, and deadlines. It also accommodates the fragments of information that often helps in connecting dots during an investigation.

1.1.1.1 Viewing, Researching, Identifying, and Prioritizing UI Claims in a Single Interface (RFP 4.2.1.1.A)

The user interface of our proposed case management platform streamlines and organizes information access and process management in a way that will help ease effort and administrative overhead for WFWV personnel by combining these functions into a single platform. The intelligent work tools and case management tools in this platform will provide a single intuitive, fully functional interface for each WFWV user to view, plan, and assign priorities for each of their cases and tasks. Using flagged data output from WFWV analytics resources, our proposed case management system will indicate the probability of potential fraud in a case, assisting the State in prioritizing a response. The interface also provides features to automatically allocate priority to claims based on severity of the fraud. While data analytics can be powerful, we recognize that no analytics engine is a complete substitute for human assessments. In our solution, investigators can manually override priority assignments based on their own assessments.

The interface of the NTT DATA UI Fraud Case Management Solution provides an easy-flowing, integrated user experience that gathers all relevant information into case data screens. This enables quick research of the history of each case, identification of activity patterns, and the ability to comment and moving the case to the next logical step. All of these actions are performed through a single interface with smartly grouped screens. With this solution, individual users can choose to customize their dashboards to help prioritize and organize their tasks and efforts based on operational methods and requirements. This capability will enable State case management supervisors, administrators, and other State workers to refine and prioritize assigned case and workloads. This will be possible through the automatic assignment of cases as well as alerts and notifications that flag and prioritize claims and nudge them forward through

the assigned process flow. Tasks will be easier for WFWV personnel to perform, and the agency will see a marked improvement in workforce productivity and velocity.

Our solution will help WFWV investigators protect the State from UI fraud through features enable investigators to:

- Review and filter case histories for important information, such as prior assessments, services provided, service needs, or contact notes.
- Create and manage specific alerts, reminders, and “ticklers” for those tasks that require actions
- Refer actions and tasks in cases to other units of WFWV
- Suggest next actions based on input (a capability that can be configured through business rules and workflows)

1.1.1.2 Processing Cases by Assigning Identified Cases to Investigators Using a Dynamic, Flexible Workflow (RFP 4.2.1.1.B)

Workload Facilitation

NTT DATA will work with the State to determine the workflows currently used in WFWV’s UI fraud case management processes and configure the case management application to automate some of these workflows, such as the workflow associated with case assignments. Our flexible solution can be easily configured to make recommendations for assigning specific cases to specific investigators based on the nature of the case or based on other contextual attributes that can help in deciding on the right investigator for a case. This intelligent automatic assignment of cases will help WFWV make work assignments effectively and efficiently. Moreover, the flexible, low-code platform on which our case management application is based can be modified with minimal effort to update existing workflows or create new ones.

In our solution, new cases can be assigned based on each workers’ established skills and experience working with previously assigned cases. For example, if a case related to identity theft is reported, the case can automatically be assigned to an investigator with the experience and skills needed to tackle such a case. Case-related information is auto-populated and can be automatically assigned to an appropriate investigator.

Case assignments can also be assigned manually by an investigator’s supervisor using a few clicks to select the investigator’s name and to confirm the assignment. The system’s workflows can also automatically push notifications to the assigned investigator so he or she is aware of the new assignment or reassignment.

The NTT DATA UI Fraud Case Management Solution is also equipped with analytics capabilities that can track the ratio of cases assigned to individual investigators or all workers, the investigators assigned to a specific type of case, or the investigators handling cases in a specified area or region. Insights such as these will enable UI fraud analysts and case supervisors to make better assignments of cases and better manage agency resources. These capabilities will also inform continuous refinement of supporting workflows and processes.

In our solution, case assignment and distribution is determined through established business process flows based on events or case details that drive skills-based routing. System user quotas and limits are configured by users in authorized roles to help optimize the solution to WFWV’s specific requirements.

Workforce and Workload Management

To enable investigators to manage their caseloads and daily tasks more effectively, our solution will provide users with a comprehensive dashboard. This dashboard is embedded with a built-in workflow engine that associates each event with one or more worklists or notifications that trigger the case's lifecycle. Alerts are assigned to investigators based on configurable rules for assignments. These assignments can be made either manually or automatically based on system rules.

1.1.1.3 Beginning and Closing a Case Workflow (RFP 4.2.1.1.C)

Time and Event Based Workflows

The case management platform included in our solution will enable WFWV to manage cases referred for criminal prosecution with minimal staff input through workflow automation, event triggers, time-based operations, and ticklers via a built-in workflow engine. This functionality will allow investigators to refer new cases for prosecution, create personalized document templates, subscribe to court forms and calendar rules, and manage work to meet deadlines, all through single clicks. Additionally, as a case progresses through the workflow, approval of each task can be handled via a single click in the dashboard. The NTT DATA UI Fraud Case Management Solution also includes a bulk action option through which multiple selected cases can be acted upon in a single action.

In our solution, investigators and supervisors can view their tasks in a queue within a dashboard. They can create a to-do list to keep track of pending tasks based on time and event-based workflows. The workflow engine can also be configured to determine how long an individual can take to address a task before it is considered overdue. Events can also trigger workflows. For example, the creation of a new case, unsigned documents, changes in field values, service-related deadlines, and the completion of forms can trigger specific workflows based on the configuration of this solution.

Our solution's case management application also includes checklists with lists of tasks that should be performed by investigators. This application will also:

- Allow investigators to update the status of their cases with completion dates
- Prohibit investigators from closing cases until all tasks are performed
- Provide alerts with details to help investigators prioritize tasks

In addition, our solution will offer a case closing summary report through the case management application. This will allow investigators to capture narratives, comments, or notes related to case closure.

Figure 7 through Figure 9 include screenshots that show our solution in action and demonstrate the work aids we have described in this section.

INVESTIGATOR » **CHECKLIST**

Search...

Case Number	Intake/Referral	HOH	Status / Decision	Reviewer	Days
2020028401051	1202000159348	Columbus Fortner	Open / Inprogress	Eligia Wallis	219 ELAPSED

Claims Threats Investigation Persons **CheckList** Assignments Appointments Contacts Review Assessments Documents Decision Scheduled Hearing Appeals Timeline

Sort Reset

TOTAL TASKS 20 OPEN TASKS 20 CLOSED TASKS 0

ASSIGNED DATE	TASK	DUE DATE	COMPLETED DATE	STATUS
07/02/2020	ADD FORM	07/03/2020		Closed
07/02/2020	Acknowledgement to reporting source	07/03/2020		In Progress
07/02/2020	Safety Plan, if applicable	07/03/2020		Open
07/02/2020	Service Log updated	07/03/2020		

Figure 7. This is a case checklist for investigators built using our solution's technology.

The screenshot shows a web application interface for 'INVESTIGATOR * DECISION'. A modal window titled 'Case Closure Checklist' is centered on the screen. The modal contains the following text: 'A check mark indicates that the activity has been completed. All unchecked items must be completed to close the case.' Below this, there are three checklist items, each with a blue checkmark in a box: 'All employment dates have been verified with employer', 'Claimant does not have any active employment at the moment', and 'Claimant does not have any other pending investigations from WWV'. A fourth item, 'Site visit and contact has established that the claimant is/was not engaged in any fraudulent activities during the claim period', is partially visible. At the bottom right of the modal are two buttons: 'CANCEL' and 'CONFIRM CLOSURE'. The background interface is dimmed, showing a sidebar with icons, a search bar, and a main content area with tabs for 'Claims' and 'Threats'. A table with columns 'DATE', 'STATUS', 'RECOMMENDATION', 'NOTE', 'RULE', 'RESPONDER COMMENTS', 'APPROVAL STATUS', and 'APPROVED BY' is visible at the bottom. On the right side of the background, there are sections for 'Days' (219 ELAPSED), 'Payments', 'Decision', and 'Case Timeline'.

Case Closure Checklist

A check mark indicates that the activity has been completed. All unchecked items must be completed to close the case.

- ☒ All employment dates have been verified with employer
- ☒ Claimant does not have any active employment at the moment
- ☒ Claimant does not have any other pending investigations from WWV
- ☐ Site visit and contact has established that the claimant is/was not engaged in any fraudulent activities during the claim period

CANCEL **CONFIRM CLOSURE**

Figure 8. This is a case closure checklist for investigators built using our solution's technology.

Morgan Bertrude morgan9924 926622638-005 *****-1174 Possible New Account Fraud 12/06/2021

Case Number Alerts Assigned Investigator

202100160896 No Alerts Tom Hudson

CLAIMS

THREATS

INVESTIGATION

PERSONS

APPOINTMENTS

CONTACTS

REVIEW

ASSESSMENTS

DOCUMENTS

DECISION

SCHEDULED HEARING

APP

Case Decision

Decisions regarding all your cases in one place

Name	Claimant ID	SSN	Threat Type	Fraud Score
Bertrude, Morgan	morgan9924	*****-1174	Possible New Account Fraud	86

Threat	Fraud Score (Per Threat)	Decision
Threat - RR-Fraud-NewAcct-IP-Zip-distance over 1000km USA IP - Rule	10	Possible New Account Fraud
Threat - RR-Fraud-NewAcct-shared passwords - Rule	25	Possible New Account Fraud
Threat - RR-Fraud -- Successful logins from different regions - Rule	10	Possible New Account Fraud
Threat - RR-Fraud -- Successful logins from multiple IP addresses - Rule	10	Possible New Account Fraud
Threat - RR-Fraud -- Excessive Logins - group behavior - Rule	64	Possible New Account Fraud

B **I** **U** **S** **”** **“** **H1** **H2** **≡** **≡** **x₂** **x²** **≡** **≡** **▶** Normal **⌵** Normal **⌵** **A** **🔍** Sans Serif **⌵** **I** **🔗** **📎** **📧**

Figure 9. This is a decision-making interface for investigators built using our solution's technology.

1.1.1.4 Notating Unemployment Cases and Adding Attachments (RFP 4.2.1.1.D)

The NTT DATA UI Fraud Case Management Solution includes a highly capable document manager module for the storage of attachments. This document manager provides a robust, organized, user-friendly document storage and retrieval structure. With it, each attachment can be annotated with notes or remarks to augment the information in the attachment or to indicate why the attachment has been included. Documents can also be classified into categories (such as "court," "assessment," "appeal," "legal," "identity," or "income," for example), and these categories can be extended or customized based on WFWV requirements. In addition, each uploaded document is also associated with metatags with information such as the document title, the category, the sub-category, a description, the document type, the author, a timestamp, and the version. These metatags can also be expanded or customized based on WFWV's requirements.

Our solution also includes advanced indexing and storage techniques to encrypt, retrieve, redact, search, and filter documents securely. All documents are organized based on the county, the person, the case, metatags, and other criteria.

Figure 10 illustrates the ease with which documents can be uploaded in our solution and the process used for capturing associated information in the form of metadata for indexing, searching, and filtering documents.

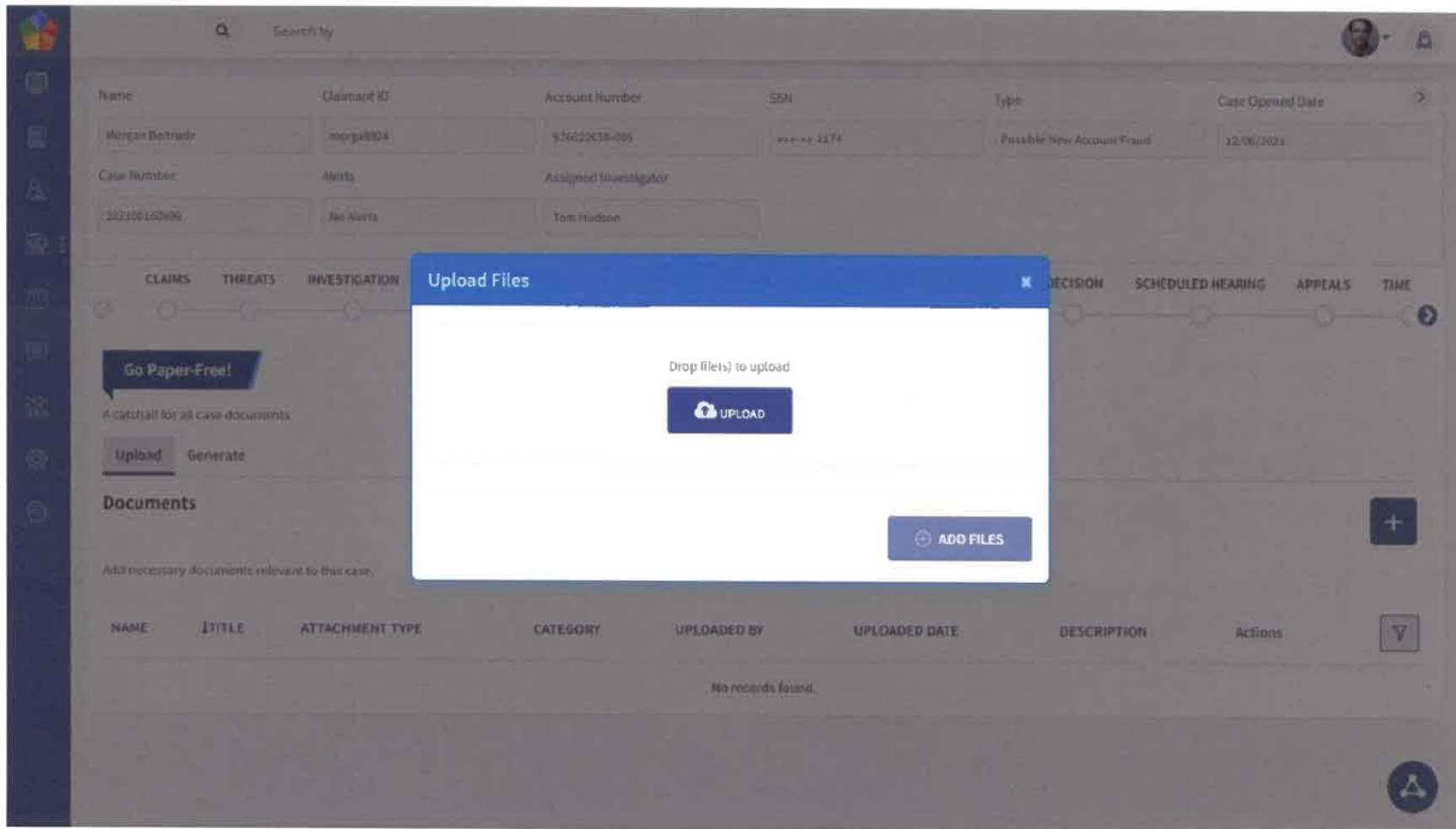


Figure 10. This screen shows our solution's case document upload capability for investigators.

1.1.1.5 Use of a Single Repository of Data that Allows Important Case Details to Be Viewed While Resolving Cases (RFP 4.2.1.1.E)

NTT DATA's proposed solution uses a single repository of data to support case management reviews and case resolution. This repository will be populated from the State's UI benefits system of record, the available WFWV analytics stack, and NTT DATA's proposed case management application. The methodology we use to populate this repository will be driven by the characteristics of the WFWV's system of record. We will refine this methodology in coordination with WFWV and State data policies.

In our solution, all case details reside in appropriate tables that can be viewed based on user profiles and established roles. Our proposed solution is flexible; any variations in the system of record not documented in the RFP are unlikely to present a significant impediment to data consumption or to impact the projected level of effort for this project.

1.1.1.6 Integration with Existing Fraud Data Science and Business Intelligence Reporting Tools (RFP 4.2.1.1.F)

We are offering a modular, interconnected system that will integrate with WFWV's sub-systems and partner systems via application programming interface (API) integration. By connecting with a WFWV enterprise service bus, APIs, or other integration methodologies available for connecting with the State's existing Data Science Library and other State business intelligence tools, our solution can seamlessly ingest and process data from partner applications for near real-time integration. The case management application in our solution can also provide data feeds to downstream applications for data science applications. These data feeds can be customized to include message queues, periodic data files for batch processing, or API-based data interfaces.

Our case management application's database includes dedicated tables and views that enable business intelligence and visualization tools. For WFWV, this capability will help provide compelling reports and pertinent analyses. In addition, a component of our solution offers the ability to manage file transfers and monitor batch files to and from external partner systems. This component uses Secure FTP (SFTP) as a foundation for enabling and managing secure file exchanges that deliver compliance documents or other reports to secure file servers.

1.1.1.7 Combining and Organizing Relevant Unemployment Claim Information Into One Application (RFP 4.2.1.1.G)

The NTT DATA UI Fraud Case Management Solution will provide fraud investigators, benefit payment control case workers, and other authorized personnel and stakeholders a single application that presents a unified view of all relevant claim information. This includes:

- Initial claim details
- Possible fraud characteristics and associated scoring
- Agency workforce management information, information on scheduling, and insights and dashboards
- Employer requests and responses (including information from the UI State Information Data Exchange System, or SIDES)
- Claimant requests and responses
- Claim activity and information
- Staff activity, including data calls
- Claim resolution information
- Overpayment statuses and repayment activities

- Bankruptcy status information

The next two figures include sample screenshots that illustrate how our proposed solution organizes and displays pertinent characteristics of claims.

- Home
- Dashboard
- Claims
- Threats
- Investigation
- Persons
- Appointments
- Contacts
- Review
- Assessments
- Documents
- Decision
- Scheduled Hearing
- Appeals
- Time

Search by

Name

Claimant ID

Account Number

SSN

Type

Case Opened Date

Case Number

Alerts

Assigned Investigator

CLAIMS

THREATS

INVESTIGATION

PERSONS

APPOINTMENTS

CONTACTS

REVIEW

ASSESSMENTS

DOCUMENTS

DECISION

SCHEDULED HEARING

APPEALS

TIME

Claims

Efficiently view claim information

Claim Id	Name	Case Number	SSN	Address	Phone	Actions

Claim History

Claim Type	Benefit Year Start Date	Benefit Week Ending Date	Confirmation Number	Payment Method	Status	Current Authorized Amount	Reported Earnings
Regular Unemployment Benefits	11/01/2021	11/07/2021	202103240004	Electronic Transfer	Paid	\$100	\$0.00
Regular Unemployment Benefits	11/01/2021	11/14/2021	202103240004	Check	Paid	\$100	\$50
Regular Unemployment Benefits	11/01/2021	11/21/2021	202103240004	Check	Paid	\$100	\$50

Figure 11. This screen provides claim investigators with an individual's claim history.

Efficiently view claim information

Claim Id	Name	Case Number	SSN	Address	Phone	Actions
[REDACTED]						⋮

Claim History

Claim Type	Benefit Year Start Date	Benefit Week Ending Date	Confirmation Number	Payment Method	Status	Current Authorized Amount	Reported Earnings
Regular Unemployment Benefits	11/01/2021	11/07/2021	202103240004	Electronic Transfer	Paid	\$100	\$0.00
Regular Unemployment Benefits	11/01/2021	11/14/2021	202103240004	Check	Paid	\$100	\$50
Regular Unemployment Benefits	11/01/2021	11/21/2021	202103240004	Check	Paid	\$100	\$50
Regular Unemployment Benefits	11/01/2021	11/28/2021	202103240004	Electronic Transfer	Paid	\$100	\$0.00

Payment History

Payment ID	Payment Date	Payment Amount	Payment Type	Payment Status
509212	11/29/2021	\$100	Check	Paid
473829	11/22/2021	\$100	Check	Paid
334742	11/15/2021	\$100	Check	Paid
317652	11/08/2021	\$100	Check	Paid

Figure 12. This screen, available to investigators, provides a history of claims and payments for an individual.

We will finalize the requirements governing workflows and associated screens and interfaces through coordination with WFWV. Based on these requirements, we will design workflows, screens, and interfaces to not only maximize the utility of our proposed solution for WFWV, but also empower WFWV users to conduct the same activities they pursue today.

Given the low-code, configuration-driven nature of our solution's case management platform, changes to workflows will be easy to accomplish following deployment.

1.1.1.8 Integration and Retrieval of Data from Multiple Sources (RFP 4.2.1.1.H)

The NTT DATA UI Fraud Case Management Solution is designed from the ground up to ingest, collate, combine, and correlate data from any source of data from any device or application, even across disparate domains or security zones. Integration with existing and planned WFWV applications along with core and supplementary data sources can be achieved through a number of technological approaches, including:

- Real-time APIs
- Scheduled batch processes
- An enterprise service bus
- Webhooks
- Combined orchestration

These integration methodologies can be deployed as appropriate to the strengths or limitations of the target system as well as the workflows or processes the integration supports. In this way WFWV can be assured that the optimal integration support can be achieved.

A primary distinction between our solution's approach to ingesting and retrieving data and the approaches taken by other systems is the ability of our platform to correlate information based on both real-time data streams (where available) and stored historical data. We will marry this capability with data from WFWV and other available data sources to deliver a powerful, flexible case management tool.

For more information on our approach to data science and case management integration, see [Section 1.1.4.2](#),

1.1.1.9 Integration with Third-Party Services for Complete Lifecycle Management (RFP 4.2.1.1.I)

The NTT DATA UI Fraud Case Management Solution easily integrates with third-party data and services across the benefit administration lifecycle to address a range of integrity and claims administration concerns. For example, it is able to integrate with technologies that drive:

- Identity verification
- Claim management
- Scoring of fraud risk based on WFWV's data science assets

Our solution supports end-to-end processing through overpayment workflow processes. It includes a case management system that supports bi-directional integration with other sources of information, including case management and ticketing systems. Our solution is also uniquely flexible in its ability to ingest data from nearly any source. Based on this capability, our solution can take in data related to changes to claims and claim status changes from external systems.

Third-party integration capabilities of our solution also include:

- The ability to leverage external services for identity verification and fraud risk scoring

- Interactive dashboards that provide contextual links and actions via other tools, supporting an entire investigative workflow
- Automatic search tools that can integrate with external systems by use of an alerting system to create new cases, by enriching data from other systems, or by updating cases as new risks are detected

Our solution is built as a modular, interconnected system that facilitates data-driven decision making. For data exchange, we will integrate with WFWV's sub-systems and partner systems via API integration or other available interfaces as appropriate. This approach will transform back-end complexity into predictable, interoperable, consistent interface patterns that allow teams to access and exchange data across State systems. Modules in our solution are implemented using a REST API architecture to interact with the backend database.

This approach drives flexibility and adaptability by providing a canonical data model that we use to simplify integration. This canonical data model consists of enterprise integration design patterns used to standardize communication between different applications that might employ diverse data formats. This model makes available a subset of all data elements required for the exchange of data between modules and other systems.

In addition, a component of our solution offers the ability to manage file transfers and monitor the exchange of batch files to and from external partner systems. This component uses SFTP as a foundation for enabling secure file exchanges and management. Figure 13 summarizes the integration architecture of our case management system.

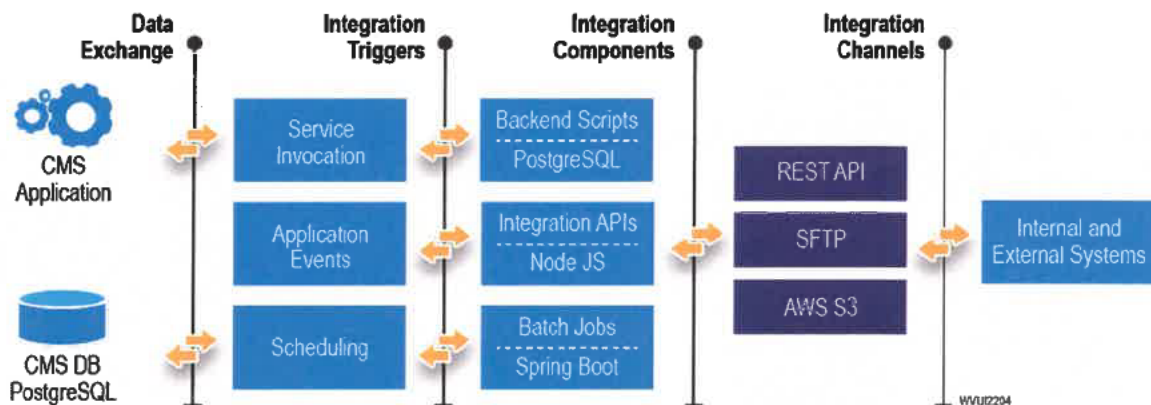
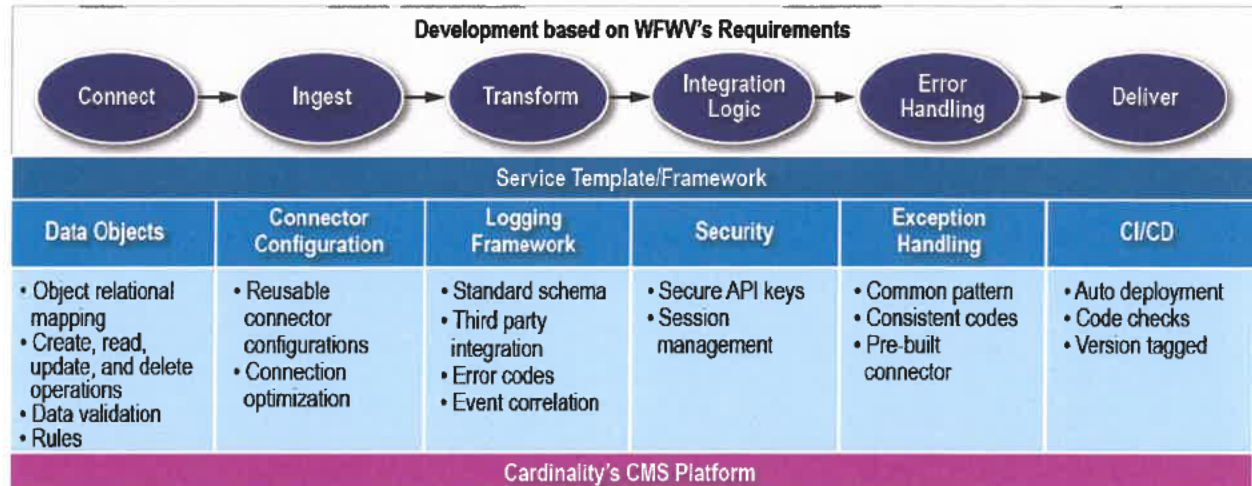


Figure 13. Our case management system includes this integration architecture.

A Blueprint for Integration Services

Our solution includes a blueprint for integration service development, summarized in Figure 14. This blueprint provides repeatable, predictable integration with third-party services that can be shared across multiple teams for implementation as more and more services are developed. This approach to discovery and reuse of platform features would support WFWV's vision for reducing costs while providing consistent service delivery across the agency's operational domain.



WWU12205

Figure 14. We propose this blueprint for integration service development.

1.1.1.10 A Design Specifically for UI Fraud Case Management (RFP 4.2.1.1.J)

The NTT DATA UI Fraud Case Management Solution is specifically designed for UI fraud case management. It automates claim integrity detection and prevention tasks, speeding legitimate claim approval and reducing the need for manual intervention. With our solution, claims are flagged based on business rules and the calculation of a fraud score that not only indicates potential issues, but also conveys the specific nature of these findings based on available information—such as whether they have to do with fraud, theft, overpayment, wage issues, or separation issues, for example. These capabilities will benefit WFWV by helping reduce costs and improving claim accuracy, providing a significant return on investment.

1.1.1.11 Searching and Identifying Fraudulent Patterns (RFP 4.2.1.1.K)

Our solution provides quick, robust searches that identify the characteristics of suspect claims through pattern recognition and behavioral insights into data provided by available data science analytics. (This capability can be enhanced through use of supplementary data.) The system flags issues based on established business rules or through staff intervention. All such issues are assigned automatically to investigators according to their availability, their skills, their past performance, or based on administrative intervention.

As part of our case management technology partner's continuous improvement roadmap, machine learning models extend the power of AI across our solution. For example, our partner's proprietary RedBird AI tool is built from open-source building blocks such as the Stanford Natural Language Processing API, the Google API, and the Amazon Web Services (AWS) API. This tool is trained to learn new use cases, surface predictive insights, automate repetitive tasks, and point out suspect patterns. This enables the collection of relevant evidence that will aid and expedite the work of WFWV fraud investigators as they pursue the resolution of cases.

These machine learning models also use a variety of other techniques, including:

- Supervised learning techniques for categorical decisions
- Rule-based fraud management techniques that inform the automation and extension of existing rules to better support the adjudication of valid and suspect claims.

1.1.1.12 Editing of Fields In-Place Using Access Control Roles (RFP 4.2.1.1.L)

Our proposed solution allows for in-place edits of data fields within the case management workflows using access control roles. Permission to edit these fields is imposed at a user level and is governed by role-based access control (RBAC). Any such edits are monitored by our solution and captured in an audit log.

Figure 15 is a screenshot that shows how investigators will be able to use our solution to add contact notes to a case.

The screenshot displays a web application interface for 'Fraud Case Management'. A 'Contact Notes' modal window is open, allowing a claims investigator to add notes. The background shows a case summary with fields for Name, Claimant ID, Account Number, SSN, Type (Possible New Account Fraud), and Case Opened Date (12/06/2021). The 'Contact Notes' window includes dropdown menus for Staff (Youth), Staff Type (Adjudicator), Contact Type (Face to Face), Location of the Contact (Home), Purpose (Investigation), and Persons Involved (Claimant). It also has a 'Contact Status' section with radio buttons for 'Yes' (selected) and 'No'. A text area for 'Notes' contains the text 'Conducting interviews to understand the current status of the Claimant'. At the bottom of the modal are 'CANCEL' and 'SAVE' buttons. The background interface also shows a table with columns for Case Number, Alerts, Assigned Investigator, DATE, and a detailed description of the contact.

Name	Claimant ID	Account Number	SSN	Type	Case Opened Date
[Redacted]	[Redacted]	[Redacted]	[Redacted]	Possible New Account Fraud	12/06/2021

Case Number	Alerts	Assigned Investigator	DATE	
[Redacted]		BPC/Fraud Team	12/06/2021	Face to Face meeting with Claimant's former employer

Figure 15. This screen shows the window a claims investigator would use to add contact notes.

Role-Based Access Controls

Through our solution's RBAC settings, management of permissions is simplified and effective. The RBACs in our solution provide control over who can access particular screens as well as who can edit or delete fields and data on those screens. This functionality protects information that must be kept confidential by providing access to authorized persons only. Figure 16 summarizes some of our solution's RBAC capabilities.



Figure 16. Our solution includes a range of user administration and security features.

These RBAC capabilities also enable easy creation of roles and access permissions. An RBAC administrator can set authorizations for users at the field, page, and functional module levels. Our solution also includes a user administration and security portal that enables administrators to manage users, manage roles (both preconfigured and user-defined), and manage access permissions. Administrators can also assign access levels to application components at the user or role level.

Our solution also comes with out-of-the-box user roles. Figure 17 displays various available roles, descriptions, and corresponding responsibilities.

Claim Intake	UI Investigator	Administrator	Supervisor
<ul style="list-style-type: none"> • View my intake • Create new intake • Action profile • View case-work workflow • Reports 	<ul style="list-style-type: none"> • View case-work workflow • Create assessments forms • Record assessments • Reports • Investigation profile • Audit trail • Review case-work • History 	<ul style="list-style-type: none"> • Configure DA profile • Create DA • Create roles & users • User login • Modify DA • Delete DA • Manage disposition • Delete users & roles 	<ul style="list-style-type: none"> • User login • Manage team & position • Create person • Create entry • Create assessments forms • Create provider • History • Audit trail • Configure DA profile
Enhanced privileges to view, delete, or update department action (DA) configuration, users and roles, and role profiles.	View, create, update, delete DA configuration. Create, delete, and update dynamics forms and assessments and associate to action and investigation profiles. Can also perform review to teams.	View, update, complete assigned cases. Create, update, complete, and route intake.	Create, save draft, complete, and route intake case details.

Figure 17. Our solution includes these out-of-the-box user roles.

The user administration and security portal in our solution also supports configuration and validation of workflows and business rules based on a business rules engine. In addition, the user administration and security portal:

- Allows controlled user access to certain features of the application based on the level of security that a user has. For example, the portal helps in customizing user dashboards for different user types (for investigators, supervisors, or other stakeholders, for example) as well as for different work units.
- Allows authorized supervisors to provide access to staff information, client information, case information, referral information, or investigation information based on their roles and level of access. With it, a supervisor will be able to configure menus, screens, and actions based on role, group, or unit to provide and manage necessary access.
- Enables configuration of fields and forms (such as assessments, screenings, and evaluations) and the generation of reports with specific fields. With it, WFWV will be able to set up and view users' calendars, individual user tasks, case lists, pending cases, and caseloads. WFWV will also be able to view case records, audit logs, and events with time and Internet Protocol (IP) address stamps.

Other salient features of our solution's user administration and security portal include:

- The ability to assign roles and control user-level screen views
- A role and reporting hierarchy
- Record-level sharing
- Management of user permissions with profiles
- Field-level security
- The ability to schedule user shifts
- The ability to grant access to share rules
- A report functionality that allows supervisors to create security access reports when required for quality reviews

Our solution also has great flexibility. With it, supervisors will be able to assign different pieces of work within a case to different users. Our solution will also allow WFWV to define rules and set alert messages based on the needs of a particular process. Our solution also keeps track of data on organizational structures and reporting relationships to optimize workflow and assignments.

An Activity Audit Trail

Monitoring and reporting on access to sensitive data and screens for future auditing is a standard feature of our proposed solution. These audit logs are accessible as read-only and are not editable under any circumstances, regardless of user rights. These logs include information on the activity performed, a time stamp, the IP address of the computer used to make the change, and a user identifier. In addition, any special notes involved are stored in formats that can be readily used for troubleshooting, performance metrics, and security monitoring. Logs are available at the specific log source or in a centralized collections system that protects the integrity of log data by preventing modification or erasure. Activity logs can be viewed in the application and exported to existing log aggregation solutions. All modules in our solution record activity associated with all functionality.

1.1.1.13 Single-Click Actions for Commonly Used Features (RFP 4.2.1.1.M)

The NTT DATA UI Fraud Case Management Solution can be configured to provide a list of single-click actions for each screen based on the user or role accessing the information. These single-click actions can be used to view and assign cases, initiate workflows, and add notes, yielding efficiencies for users and enhancing the user experience.

Our solution's user interface also streamlines and organizes access to information and process

management. For WFWV, this will help ease the effort and administrative overhead associated with fraud case management. For example, our solution provides an instinctive user interface that minimizes the effort associated with advancing cases through process flows and that intelligently minimizes the need for user actions through automation and process learning. In addition, navigation to specific tasks (such as approvals) is quick based on nudges and alerts provided by the system. For WFWV, these capabilities will provide a timely way to address priorities while automatically moving cases through the business processes as required.

Our solution will also allow users to track and view all case-related activities, including case management activities and case statuses. Moreover, our solution provides role-based dashboards on users' home pages that allow managers and supervisors to manage the caseloads of individual investigators. These dashboards provide key metric information to claim factfinders and adjudicators to help them manage and address individual workloads. Supervisors can also use our solution's dashboard data to determine:

- Whether investigators are meeting compliance requirements and timelines
- The efficiency of the caseload-to-investigator ratio
- How to better support investigators

A contact log also allows investigators to capture details of events, interviews, or meetings in a timely fashion. For WFWV, this means descriptions of these events should accurately reflect what WFWV knew at the time the transaction took place. Through such accurate, timely recording of information, WFWV can be confident that facts and impressions are clearly identified and distinguishable and that this information will support its position and actions if a record is audited.

Our solution's workflows can also be designed to trigger actions based on the timing of an event or at key points during the flow of a case. With our workflow technology, staff can receive automated tasks and appointment reminders, be prompted to complete time-sensitive documentation, and much more.

AI and Machine Learning Capabilities in Case Management

Our solution's AI and machine learning capabilities will provide investigators and supervisors with rich insights on data residing in the system of record or in supplementary data science assets. This will enable investigators and supervisors to identify patterns among cases. An auto-tagging capability adds structure to unstructured data through tags and taxonomies, providing much additional insight into the relevance of a content source. This, in turn, will enable investigators and investigators to focus on the information they need to know and to ignore information that is not applicable.

Our solution's smart use of AI technology through natural language processing and machine learning also reduces the need for administrative work such as text extraction, document classification, and routing of documents to the right personnel for action. Our solution automatically classifies documents by reading structured as well as unstructured data and then accurately assigning categories. We recognize that our case management application may need to accommodate hundreds of incoming documents and other multimedia created and uploaded by investigators or adjudicators. To manage this information, our system uses a document classification algorithm to automatically route information to the right people, enabling progress towards the closure of cases.

Chat-Based Workflow Management with Video Calling

Our solution's case management application includes a chat-based workflow that enables collaboration by bringing team members together in one place. Case timelines can be viewed in a single window and daily tasks, case documents, structured decision-making recommendations, and persons involved in a particular case are all integrated into the chat-based workflow. The workflow also allows for uploading of documents and provides the ability to set meetings with people involved in the case, including through video calling features.

Our solution's chat-based workflow also lists cases by priority for the day, such as cases with a court hearing scheduled for that day, cases coming close to a deadline, or cases with associated meetings scheduled for that day, for example. The chat-based workflow feature is device-compatible and can be accessed from tablets or mobile devices.

Analytics and Pattern Recognition

Both our analytics platform and our case management application provide pattern recognition and behavioral insights into data provided by users or collected during user interactions with the system. These insights are pulled not only from claimant interactions but also from staff interactions.

Figure 18 through Figure 20 are examples of the case management screens available to investigators.

The screenshot displays the 'Claims' section of a Fraud Case Management system. At the top, there is a search bar with a magnifying glass icon and the text 'Search by'. To the right of the search bar is a user profile icon and a lock icon. Below the search bar, there is a table with columns: Name, Claimant ID, Account Number, SSN, Type, and Case Opened Date. The first row of data shows a redacted row for Name, Claimant ID, Account Number, and SSN, with 'Possible New Account Fraud' for Type and '12/06/2021' for Case Opened Date. Below this table, there is another table with columns: Case Number, Alerts, and Assigned Investigator, with a redacted row. A horizontal navigation bar contains the following tabs: CLAIMS, THREATS, INVESTIGATION, PERSONS, APPOINTMENTS, CONTACTS, REVIEW, ASSESSMENTS, DOCUMENTS, DECISION, SCHEDULED HEARING, APPEALS, and TIME. The 'CLAIMS' tab is selected and highlighted. Below the navigation bar, there is a 'Claims' section with the text 'Efficiently view claim information'. Below this text is a table with columns: Claim Id, Name, Case Number, SSN, Address, Phone, and Actions. The first row of data shows a redacted row for Claim Id, Name, Case Number, SSN, and Address, with a redacted row for Phone and a vertical ellipsis for Actions. On the right side of the screen, there is a 'Notification' button with a bell icon, and below it are three circular icons: a video camera, a speech bubble, and a globe.

Figure 18. This screenshot shows our solution's selection functionality for investigators.

Search by

Know Everything, As It Happens

System Alerts
 Alerts From External Entities

Date/Time	Priority	From	To	Subject	Residential	Case Number	Action
12/17/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/17/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/17/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/17/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/17/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/17/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/17/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/17/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/17/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/09/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo			
12/09/2021 , 11:30 PM	High			Claim Fact-Finding Review Fo		202100616056	

Figure 19. This screenshot shows our solution's notification list for investigators.

The screenshot displays the 'Contacts' section of the Fraud Case Management system. The interface features a sidebar with various navigation icons, a top search bar, and a main content area. The main content area includes a timeline with steps: CLAIMS, THREATS, INVESTIGATION, PERSONS, APPOINTMENTS, CONTACTS (highlighted), REVIEW, ASSESSMENTS, DOCUMENTS, DECISION, SCHEDULED HEARING, APPEALS, and TIME. Below the timeline, there are sections for 'Contacts' and 'Notes'. The 'Notes' section includes a 'Notes On The Go' feature with a plus icon for creating notes. A table of contact records is shown at the bottom.

DATE	WORKER NAME	STAFF TYPE	CONTACT TYPE	CONTACT STATUS	LOCATION	PURPOSE	PERSON INVOLVED	NOTES
[REDACTED]	[REDACTED]	BPC/Fraud Team	Face to Face	Yes	Office	Office Visit	Employer	Face to Face meeting with Claimant's former employer

Figure 20. This screenshot shows how investigators can create notes on the go in our solution.

1.1.1.14 Multi-Selection Functionality to Identify, Assign, Promote, or Close Cases Individually or in Bulk (RFP 4.2.1.1.N)

The user dashboard in our solution provides an intuitive way for users to sort and filter cases. This capability allows for easy identification of certain types of cases, and it supports bulk activities through multi-selection functionality. In addition, a global search functionality applies searches to multiple fields at once, which also supports multi-selection functionality. In combination with our solution's single-click actions (discussed in [Section 1.1.1.13](#)), this multi-selection functionality provides a quick and powerful way for investigators to send multiple cases for approval or even close them.

For supervisors, our solution enables supervisors to:

- Assign multiple cases to investigators.
- Assign both concurrent users and multiple users per case and to assign different case management tasks for these users.
- Transfer multiple assigned tasks to a single user when a case is in progress. This action triggers an alert notification to that user's inbox regarding the case task assignment. This capability provides greater flexibility for the supervisor to plan user workloads accordingly.

Figure 21 shows how with our solution supervisors can assign responsibility for one or more cases to one or more appropriately skilled case workers. Similar functionality is also available for other processes and steps.

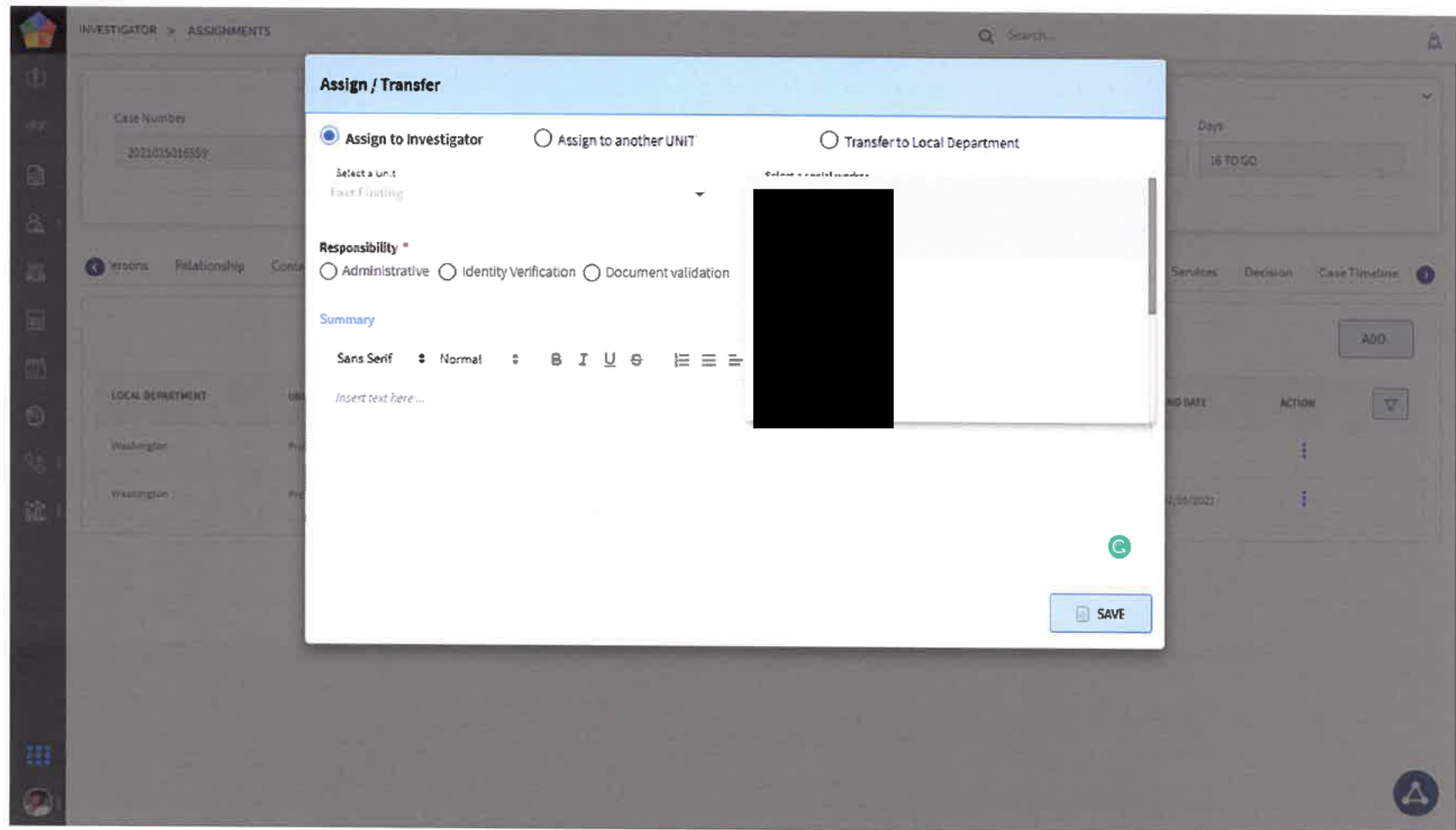


Figure 21. This screenshot shows the supervisor case assignment or transfer popup window included in our solution.

INVESTIGATOR » ASSIGNMENTS

Search...

Case Number Intake/Referral HOH Status / Decision Reviewer Days

Claims Threats Investigation Persons CheckList Assignments Appointments Contacts Review Assessments Documents Decision Scheduled Hearing Appeals Timeline

ADD

LOCAL DEPARTMENT	UNIT	ASSIGNED BY	ASSIGNED TO	START DATE	END DATE	ACTION
Washington	Document Verification			02/05/2021		
Washington	Identity Verification			02/05/2021	02/05/2021	

Figure 22. The screen shows how case assignments can be made to multiple investigators in our solution.

1.1.1.15 Role-Based Access Controls with Advanced Logging and Audit Capabilities (RFP 4.2.1.1.O)

Role-Based Access Controls

Our solution makes extensive use of role-based access controls (RBACs) to manage access to both data itself (stored in application “indexes”) as well as specific dashboards or ways to view and enrich data, including advanced logging and audit capabilities. Based on techniques to summarize and potentially sanitize sensitive data, users can be given different role-specific views into data (based on the principle of least privilege) while also protecting personally identifiable information (PII) and other sensitive data. For example, an investigator may need to see individual names, addresses, and payments, while a business analyst may only need to see summaries or anonymized lists built from the same raw data.

For more insight into our system’s RBACs, see [Section 1.1.1.12](#). These role-based controls can be integrated with Active Directory, the Lightweight Directory Access Protocol (LDAP) or any compliant Security Assertion Markup Language (SAML) provider to leverage existing user groups and administration processes.

Audit Capabilities

Our UI case management application includes detailed logs that are secure and immutable. These logs leave an audit trail for every action, event, notification, and data modification. In addition, administrators can access this audit trail to analyze system interactions at a highly granular level for any specified period of time, including by user, by role, or by type of action performed. This allows for quick, focused investigations of security incidents, the source of a data breach, and the extent of any such breach.

Our solution also includes auditing functionality that applies to the creation, modification, and viewing of critical information. These actions are constantly monitored by auditing user activities. Types of audits possible with our solution include:

- Audits of person-based searches, including input criteria
- Audits of persons viewed by a particular user
- Audits of who has viewed case details
- Audits of who has uploaded or modified an attachment
- Audits of who has created or modified claims
- Audits of who has viewed financial data
- Audit of the date and time information has been modified

1.1.1.16 A Centralized Database to Securely Manage Data (RFP 4.2.1.1.P)

Our proposed solution uses a centralized database with robust controls to securely manage data. With multiple centralized configurable security features, this system allows for customization based on the sensitivity of data and user profiles, which we can align with WFWV and State data management policies and procedures. Our solution’s data security functionality emphasizes the security of data itself rather than security of the network, database, or server privileges. This solution enforces data security via:

- Role-based access
- Data masking
- Encryption
- Auditing

In addition, through our solution’s effective role-based access controls, setting permissions is easy, providing control over who can see and access screens, and edit and delete fields and

data. This protects confidentiality while still providing access to authorized personnel. For more information on these controls, see [Section 1.1.1.12](#).

1.1.1.17 Featuring Manager, Investigator, Administrator, PII Access Roles (RFP 4.2.1.1.Q)

Through our solution's role-based access controls (RBACs), control of permissions is made easy. In our solution, roles for managers, investigators, and administrators are pre-configured. These preconfigured roles can be augmented as required through the creation of additional roles and associated privileges by authorized personnel. These roles are applied to staff activities and limit access to PII to the minimum required level for any individual role. Control options include like who can access particular screens and who can edit and delete fields or other data. This protects the confidentiality of information and limits access to authorized persons only.

These RBACs enable easy creation of roles and access permissions that define access to resources needed by particular users or services. In our solution, a RBAC administrator can set authorization for users at the field, page, or module levels. This portal enables administrators to manage users, roles, and access permissions, as well as configure components of the application that users require to roles.

Figure 23 summarizes features offered by our solution's user administration and security portal.



Figure 23. Through a user administration and security portal, WFWV will be able to assign roles and control what users see.

This portal helps in configuring and validating workflows and business rules with our solution's business rules engine. In addition, it allows controlled user access to certain features of the application, based on the level of security that a user has. For example, the user administration and security portal help in customizing user dashboards for different user types (such as investigators, supervisors, or other stakeholders) and for different work units. This portal also:

- Allows authorized supervisors to provide access to staff information, client information, case information, referral information, or investigation information based on their roles and level access.
- Allows supervisors to create security access reports as and when required for quality reviews.

For more detail on our solution's RBAC capabilities and the user administration and security portal, see [Section 1.1.1.12](#).

Our solution also comes with out-of-the-box user roles that can be expanded or modified as

WFWV desires. Figure 24 displays various available roles, descriptions, and corresponding responsibilities.

Claim Intake	UI Investigator	Administrator	Supervisor
<ul style="list-style-type: none"> • View my intake • Create new intake • Action profile • View case-work workflow • Reports 	<ul style="list-style-type: none"> • View case-work workflow • Create assessments forms • Record assessments • Reports • Investigation profile • Audit trail • Review case-work • History 	<ul style="list-style-type: none"> • Configure DA profile • Create DA • Create roles & users • User login • Modify DA • Delete DA • Manage disposition • Delete users & roles 	<ul style="list-style-type: none"> • User login • Manage team & position • Create person • Create entry • Create assessments forms • Create provider • History • Audit trail • Configure DA profile
Enhanced privileges to view, delete, or update department action (DA) configuration, users and roles, and role profiles.	View, create, update, delete DA configuration. Create, delete, and update dynamics forms and assessments and associate to action and investigation profiles. Can also perform review to teams.	View, update, complete assigned cases. Create, update, complete, and route intake.	Create, save draft, complete, and route intake case details.

Figure 24. Our solution includes these out-of-the-box user roles.

1.1.1.18 Audit Trails of Case Views and Field Updates (RFP 4.2.1.1.R)

As we indicated in [Section 1.1.1.15](#), our case management solution maintains a detailed, secure, immutable audit trail for every action, event, notification, and data modification. This functionality maintains a high bar on data protection and privacy controls for all content, including PII as well as other data. Protection of all data, including PII, is driven using object encryption and database table encryption to prevent unauthorized access.

Administrators can access the audit trail sent to our solution's analytics engine to analyze system interactions at a highly granular level for any specified period of time, including by user, by role, or by type of action performed. This allows for quick, focused investigations of security incidents. Our solution also includes auditing functionality that applies to the creation, modification, and viewing of critical information. Types of audits possible with our solution include:

- Audits of person-based searches, including input criteria
- Audits of persons viewed by a particular user
- Audits of who has viewed case details
- Audits of who has uploaded or modified an attachment
- Audits of who has created or modified claims
- Audits of who has viewed financial data
- Audits of the date and time information has been modified

1.1.1.19 Solution Scalability (RFP 4.2.1.1.S)

Our proposed UI fraud case management solution is designed to be rapidly scalable in accordance with workload demands. Built on a microservices platform, the application is designed to leverage available compute and storage without modification of system operations. In this approach, as additional capacity is needed, resources can be accessed to readily support that need.

Our proposed solution's case management components are also extremely nimble, modular, and scalable, and they include a high degree of configurability. For example, our proposed

multi-channel case management platform can synchronize data almost instantaneously to a central database.

A key strength of this case management platform is the data organization it offers users. It is designed to store huge volumes of case-related data—including the multiple interactions associated with investigation data—in logically segmented pieces. This built-in unification capability of our proposed solution empowers users with quick, easy lookups of tasks, lists, notes, descriptions, and deadlines, including the fragmented types of information that helps connect information during an investigation.

NTT DATA's architectural experts will work with WFWV to define and configure this on-premises environment so that the native ability to scale—which is intrinsic to the application design—is supported throughout deployment. We can also offer insights that will allow for the minimalization of environment-related overhead costs when additional compute and storage is not required.

For this deployment, we are proposing an on-premises solution based on the State's stated desire for an on-premises approach. If at some point in time the State wishes to migrate this solution to the cloud, such an action would be supported by our solution (and largely perfunctory).

1.1.1.20 Minimal Hardware and Low Overhead and Space Requirements (RFP 4.2.1.1.T)

Our solution is designed to reside in lean environments without the need for technically or financially prohibitive hardware or technical support. Using standard Microsoft Windows environments, and Microsoft applications and databases, the technology stack required to support this solution is both familiar and accessible. It will include:

- 64-bit Windows Server 2019 (or later)
- Microsoft SQL Server 2015 (or later)
- NodeJS v12 or above hosted on PM2
- Angular v11 or above hosted on IIS
- WSO2

Our solution includes a Windows executable installation package for on-premises Windows server deployments that automatically configures the base installation in the path directory based on a guided installation process. Our Windows-based on-premises deployments support Windows Server 2016 and 2019, and all installation options use the x86 (64-bit) architecture. Our solution is also supported on the latest Firefox, Chrome, Safari, and Edge browsers.

1.1.1.21 Support for a Variety of ID Theft and Overpayment Cases (RFP 4.2.1.1.U)

The NTT DATA UI Fraud Case Management Solution is designed to address a range of identity theft and overpayment events and use cases. Our solution's base configuration includes a number of pre-configured workflows based on both system determinations of fraud as well as external characteristics (such as information from the Data Science Library or other available analytics). For WFWV, we can augment this base configuration with additional workflows defined and deployed using the low code configuration capability of our solution's case management platform.

Dashboards are another tool that can help state workforce agencies reduce improper payments due to identity theft or other types of fraud. Our solution includes a combination of out-of-the-box

dashboards, ad hoc investigation tools, and machine learning capabilities that can provide immediate investigation workflows and support the investigation of suspect claims.

1.1.1.22 Real-Time Dashboard Reporting that Highlights Case Management Metrics (RFP 4.2.1.1.V)

Our proposed solution delivers real-time dashboard-based reporting that highlights important case management metrics. It also provides predictive analytics that provide visibility, actionable insights, and predictions that support stakeholders in performing activities. These dashboards, available for both desktop and mobile devices, also provide an immediate view of necessary case information. The same data used by fraud investigators is aggregated and combined with investigators' own actions to produce an overall view of case management and provide executive-level reporting to all stakeholders.

Our solution also includes powerful business intelligence tools that provide:

- Automatic, online report generation and distribution
- Near real-time dynamic data manipulation and filtering
- Ad-hoc output to text files or files based on comma-separated variables (CSV)
- Advanced geocoding
- Configurable grouping and annotation

Moreover, this solution delivers readily available views and parameter-driven dashboards to give supervisors and administrators an at-a-glance view of how the program is performing. The dashboards are interactive, so users can quickly drill down to an appropriate level of detail and get help making fast, effective, informed decisions.

The configurable dashboards in this solution are based on the roles and preferences of individual users. Administrators and users with appropriate privileges can authorize role-based users to configure their dashboards. Our solution also includes embedded analytics that allow for real-time reports at the system, division, unit, and individual levels. Furthermore, our case management system's database includes dedicated tables and views that will enable WFWV's existing business intelligence and visualization tools to provide the most compelling reports and pertinent analyses and key performance indicators on case management.

Figure 25 and Figure 26 provide screenshots that illustrate the case and workforce management aspects of the NTT DATA UI Fraud Case Management Solution.

INVESTIGATOR » ANALYTICS

Search...

Data-driven insights, at your fingertips
A bird's-eye of cases for informed decision

MY CASES ☒ Active Cases ☐ All Cases

CASE ID	FIRST NAME	LAST NAME	PID	DATE OPENED
2020343423				11/23/19
2020121923				4/12/20
2020000923				2/22/21

MY TASKS ☒ All Open tasks ☐ This week ☐ Today

CASE ID	FIRST NAME	LAST NAME	TASK	DATE OPENED	ACTION
2020000923				11/23/20	<input checked="" type="checkbox"/> <input type="checkbox"/>
2020000923				4/29/21	<input checked="" type="checkbox"/> <input type="checkbox"/>

Figure 25. This analytics-based investigator screen in our solution provides lists of cases and tasks.

The screenshot displays the 'ANALYTICS' section of the investigator interface. It features a sidebar with various tool icons, a top navigation bar with a search function, and a main content area. The main area includes a user profile section with a 'At home' status, a 'MY TASKS' table with columns for Case ID, First Name, Last Name, Task, Date Opened, and Action, a 'MESSAGE CENTER' section indicating 5 unread messages, and a 'RECENT NOTIFICATIONS' section. A large black redaction box covers the names and some task details in the table.

CASE ID	FIRST NAME	LAST NAME	TASK	DATE OPENED	ACTION
2020000923	[Redacted]	[Redacted]	[Redacted]	11/23/20	[Checkmark] [Trash]
2020000923	[Redacted]	[Redacted]	[Redacted]	4/29/21	[Checkmark] [Trash]
2020001543	[Redacted]	[Redacted]	[Redacted]	Today: 11 AM	[Checkmark] [Trash]

Figure 26. This analytics-based investigator screen in our solution provides lists of notifications and a scratchpad.

1.1.1.23 Editable, Printable Investigation Summaries and Reports (RFP 4.2.1.1.W)

Our solution includes a range of capabilities for creating editable and printable investigation summaries and reports. For example:

- Our solution will allow users to create custom templates by leveraging drag-and-drop features from an included form builder. This form builder also allows users to create standardized documents such as letters, notices, forms, reports, and court filings. Additionally, the form builder component can consume data from multiple data sources to create customized forms and notices. These other potential data sources include other systems accessed through APIs, other systems accessed through the State's enterprise service bus (if available), imports of CSV files, and imports from other apps.
- Our solution provides standard email templates, correspondence templates, and mailing labels based on user-defined criteria. The built-in form builder tool can be easily used to create custom forms, mailing labels, and templates based on user-defined criteria.
- Our solution includes a user interface to build and manage templates.

With this configurable form builder, investigators can create, reuse, modify, and complete assessments with minimal technical assistance. This will give WFWV the flexibility to add new fields or validations in the new system after go-live.

Figure 27 describes the key native features of our solution's form builder.



Figure 27. With our solution's native form builder component, WFWV will be able to define templates by choosing fields to be prefilled.

Figure 28 provides a screenshot of our solution's form builder.

The screenshot displays the 'Form Builder' interface within the 'Fraud Case Management' system. The top navigation bar shows 'ADMINISTRATION' and 'FORM BUILDER'. The main area is divided into two tabs: '1 Form Detail' and '2 Design Form', with '2 Design Form' being the active tab. On the left, a 'Basic Components' panel lists various form elements: Text Field, Number, Password, Text Area, Check Box, Select Boxes, Select, Radio, and HTML Element. A tooltip is visible over the 'Form Builder' icon in the sidebar, showing 'Form Builder' and 'RBAC'. The main workspace shows a form layout with a 'New' label, a 'Submit' button, and a 'Number Field' section. At the bottom right, there are 'Previous', 'Cancel', and 'Create' buttons. A user profile icon is visible in the bottom left corner of the sidebar.

Figure 28. This is a screenshot of our solution's form builder.

1.1.1.24 Supporting Flexible, Configurable Fields (RFP 4.2.1.1.X)

NTT DATA's proposed solution is built to be adaptable at a fundamental level. It supports flexible, configurable fields that allow authorized users to configure almost every aspect of this solution, including business rules, data elements, screens, workflows, triggers, navigation, and dashboards. For example, our solution's user administration and security portal provides controlled user access to certain features of the application based on the level of security that a user has. This portal can also be used to customize user dashboards for different user types (such as investigators, adjudicators, and supervisors) and for different work units.

As we indicated in [Section 1.1.1.23](#), this case management platform includes a native, open-source form builder application that helps in easily creating forms and templates through simple, drag-and-drop actions. Customizable content management tools includes both reference data management (related to adding or editing lists of values) as well as static content (such as help files and static text) for web portals. Only administrators and users with appropriate privileges can access the administration portal.

The form builder provided in our solution also allows users to create custom templates and standardized documents such as letters, notices, forms, reports, and court filings. Additionally, our solution's form builder component can consume data from multiple data sources to create customized forms and notices. In our solution, data sources can include WFWV's UI case management solution, other systems accessed through APIs, other systems accessed through the State's enterprise service bus, the import of data from CSV files, and the import of data from other applications.

In addition, our solution's rules and workflow engine can be configured to determine (either manually or automatically) the right path for work assignments from supervisors to assignees based on the defined groupings that WFWV prefers (as well as by county or other geographical area). Our solution is flexible enough to allow supervisors to change the progress of workflow if necessary. Supervisors also receives notifications when a case has not been assigned over a period of time defined in business rules.

Our proposed solution also provides greater flexibility than other technologies in allowing supervisors to assign different pieces of work within a case to different users. For example, it provides an administration portal for system and application administrators to perform activities such as user management, content management, and configuration of any commercial off-the-shelf (COTS) products.

For more information on our form builder, including a screenshot, see [Section 1.1.1.23](#).

1.1.1.25 Permitting Custom and Ad-hoc Workflows for Cases (RFP 4.2.1.1.Y)

Our solution comes with a powerful, easy-to-use business rules engine that permits custom and ad hoc workflows. This rules engine provides the flexibility to route work within a process among different systems and human-based activities. The rule-based automation provided by this engine increases the effectiveness of routing, approval, and authorization processes. For example, a document that requires timely supervisor approval can automatically be routed to a different approver if the first approver did not handle it within a required timeframe.

Figure 29 summarizes features of this business rules engine.

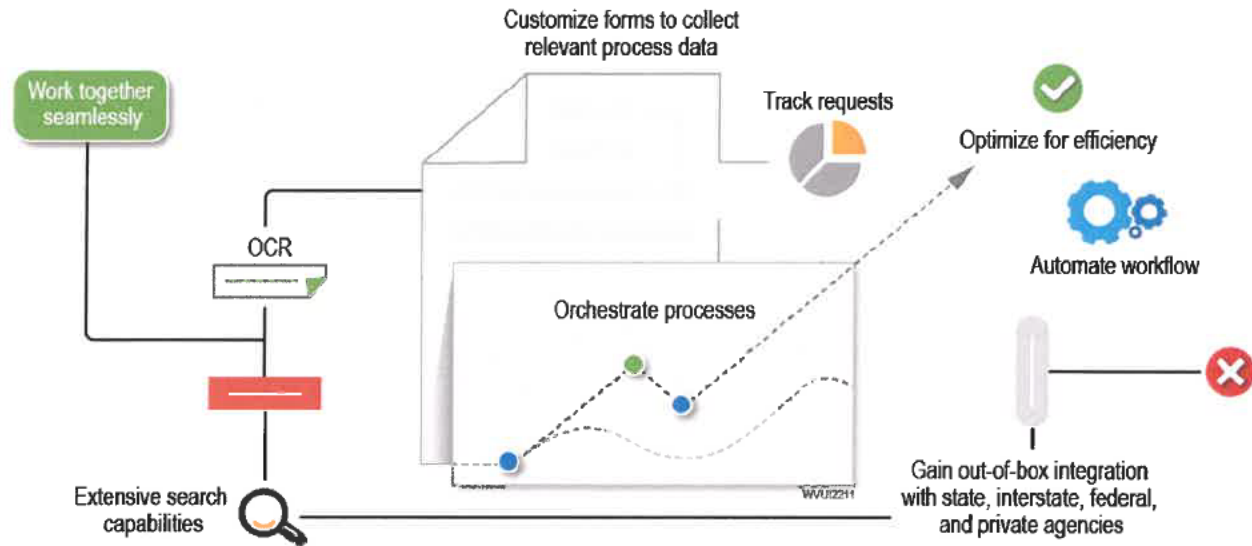


Figure 29. Features of our solution's workflow engine include out-of-the-box integration with other systems.

With this workflow engine, the definition of who is responsible for completing a task can be modified without the need for expensive development work. This capability will insulate the State from high costs when responding to changing business requirements. In addition, with this workflow engine:

- We can set up teams, choose staff for each team, and create workflows based on case type.
- Different cases can have different workflows. Our workflow engine will categorize cases based on priority levels and errors.
- Investigators and supervisors can view tasks in their respective queues in a dashboard. They can also create to-do lists to keep track of pending tasks.

Broadly speaking, our solution can provide two types of workflows: time-based and event-based workflows:

- **Time-Based Workflows.** With our workflow engine, staff can receive automated tasks, appointment reminders, or other prompts to complete time-sensitive documentation. This engine can be configured to determine how long an individual can take to address a task before it is considered overdue. It can also be configured to alert supervisory or managerial staff when a task has not been acted upon for too long. In addition, we can set up alerts, notifications, or emails for when a timeline has been breached.
- **Event-Based Workflows.** Events can also trigger workflows. For example, the system can be set up to trigger workflow based on a new initial claim, unsigned documents, changes in field values, service-related deadlines, or the completion of a form.

Other workflow capabilities in our solution include:

- **Push and System Notifications.** Our workflow engine can alert users to the assignment of new tasks via email or mobile text messages.
- **The Ability to Change the Routing of Approval Requests.** For a case closure, our solution typically routes the request to the direct supervisor of the requesting worker. But the workflow engine supports the routing of requests to named individuals, supervisors within other units, or different approval paths, including paths that vary according to the county in which the request is made. Our workflow engine can also handle backup approval pathways.

- **The Ability to Change the Number of Reviewers.** For case closure, we can require the single approval of a direct supervisor, but other options are also possible, such as:
 - Approval chains, in which approval from one supervisor automatically triggers an approval request to another individual.
 - Approval pools, in which any one of a group of reviewers can make an approval.
 - Approval blocks, in which all members of a group of reviewers must grant an approval.

1.1.1.26 Built-In Support for Attachments, Notes, Claimants, Victims, and Persons of Interest (RFP 4.2.1.1.Z)

Our proposed solution allows comments, contact logs, and notes to be added to case records and attachments. This enables investigators to document:

- Actions they have taken
- Individuals they have spoken to
- Conclusions they have reached and the basis for those conclusions

This capability will enable the documentation of inferences made by investigators in investigations of cases involving identity theft, unreported income, a failure to inform the State of renewed employment, and other types of cases. Each of these comments, notes, and contact logs will include a stored version history that will help reviewers see the progress being made and a history of activities.

Our solution can also capture detailed demographic data about every individual and entity involved in an investigation in any role, including victims, alleged offenders, and claimants. This solution also includes the ability for users to attach person-specific documents such as identification documents or medical and service records. In our solution, documents can also be attached to cases that relate to a specific investigation, such as paystubs or employment records for a specific period.

Additionally, our solution includes a contact log that allows details of events, fact-finding interviews, or meetings to be captured in a timely fashion by investigators so that descriptions of these events are not influenced by later events. This is especially useful for investigators who may be working under tight timeframes guided by WFWV policy and who may need to document quick summary information of a current allegation or a brief thumbnail sketch of a person's prior history with the agency.

Our solution also leverages advanced natural language processing capabilities to convert voice to text. With this capability, WFWV investigators will be able to convert voice dictation to draft case notes. This will enable WFWV investigators to capture a high level of detail that can be reviewed and updated before submission. In addition, our solution protects notes and comments added to a record by making sure they can only be edited or deleted by the originator or another authorized user.

Our solution also captures:

- Information on an incident narrative along with information on the alleged perpetrator(s), victim(s), reporter(s), and other involved parties
- Information on the relationships among parties
- Allegations and key incident details such as the location, the scenario, and file attachments containing documentation and evidence (such as photos or recordings)

The case management platform assigns a timestamp to all aspects of the process to track elapsed time against mandated or recommended turnaround times. These timestamps also

complete the audit trail for information.

Figure 30 through Figure 32 show the screens investigators will use to interact with the system by providing, notes, attachments, and related information.

The screenshot displays the 'Investigations' section of the Fraud Case Management system. At the top, there is a search bar and a user profile icon. Below this, a table shows case details for a 'Possible New Account Fraud' case opened on 12/06/2021. The table includes columns for Name, Claimant ID, Account Number, SSN, Type, and Case Opened Date. Below the table, there is a section for 'Alerts' and 'Assigned Investigator'. A horizontal navigation bar contains tabs for REATS, INVESTIGATION (selected), PERSONS, APPOINTMENTS, CONTACTS, REVIEW, ASSESSMENTS, DOCUMENTS, DECISION, SCHEDULED HEARING, APPEALS, TIMELINE, and MESSAGE. Below the navigation bar, there is a 'Find the status of investigations for cases here' section. This section contains a table with columns for Name, Claimant ID, Date, Status, Owner, Investigation Type, Notes, and Action. The table shows one active investigation for 'Cybercrime' on 12/07/2021, with the note 'Investigation ongoing'. A sidebar on the left contains various icons for navigation, and a bottom right corner contains a circular icon with a triangle.

Name	Claimant ID	Account Number	SSN	Type	Case Opened Date
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	Possible New Account Fraud	12/06/2021

Case Number	Alerts	Assigned Investigator
[REDACTED]	[REDACTED]	[REDACTED]

REATS INVESTIGATION PERSONS APPOINTMENTS CONTACTS REVIEW ASSESSMENTS DOCUMENTS DECISION SCHEDULED HEARING APPEALS TIMELINE MESSAGE

Investigations

Find the status of investigations for cases here

Name	Claimant ID	Date	Status	Owner	Investigation Type	Notes	Action
[REDACTED]	[REDACTED]	12/07/2021	Active	[REDACTED]	Cybercrime	Investigation ongoing	[REDACTED]

Figure 30. Investigators can use this screen to enter case comments or notes.

The screenshot displays the 'Fraud Case Management' interface. At the top, there is a search bar and a user profile icon. Below this, a case summary is shown with fields for Name, Claimant ID, Account Number, SSN, Type, and Case Opened Date. The 'Type' field is set to 'Possible New Account Fraud' and the 'Case Opened Date' is '12/06/2021'. A 'Go Paper-Free!' banner is present, along with a 'A catchall for all case documents' note. The 'DOCUMENTS' tab is selected in the navigation bar. Below the banner, there are 'Upload' and 'Generate' buttons. The 'Documents' section shows a table with columns: NAME, TITLE, ATTACHMENT TYPE, CATEGORY, UPLOADED BY, UPLOADED DATE, DESCRIPTION, and Actions. The table is currently empty, displaying 'No records found.'.

NAME	TITLE	ATTACHMENT TYPE	CATEGORY	UPLOADED BY	UPLOADED DATE	DESCRIPTION	Actions
No records found.							

Figure 31. Investigators can use this screen to upload documents and attachments.

INVESTIGATOR >> SUMMARY

Summary

Threats

Investigation

Persons

CheckList

Assignments

Appointments

Contacts

Review

Assessments

Documents

Decision

Scheduled Hearing

Appeals

Timeline

Case Number

System Created Date

Supervisor Name

Service Type

Claimant

Referral

Start Date

Time

REPORTER DETAILS

First Name

Last Name

Phone

Phone Ext

Title

Organization

Role

Address 1

Address 2

City

State

Zip Code

NARRATIVE

Claimant appears to have returned to work in the last 4 months. Working with the employer and claimant to deduce the details and identify if any funds were received by claimant after his employment restarted.

Figure 32. Investigators can use this screen to enter a case summary narrative.

In addition to these capabilities, our solution allows:

- Investigators to add multiple narratives to a case and edit and delete these narratives during the investigation or at any point during the case lifecycle.
- Supervisors to add or update narratives during the approval or assigning process.

1.1.1.27 Allowing for Drag-and-Drop Attachments with No Restrictions on Filetype (RFP 4.2.1.1.AA)

The advanced user interface of our solution's document manager allows for drag-and-drop placement of files in designated sections for inclusion as attachments. Our solution also includes file size limits that can be configured so that the system accepts large documents. (Our case management application does not include any inherent restrictions on file size or file types for attachments, but the application performance in adding and retrieving such attachments might be limited by the server's processing and caching capabilities.)

Additionally, all incoming files are scanned for possible viruses and exploits.

Our case management solution can store all types of files. This includes:

- **.PDF files.** Reports, forms, and correspondence are generated as snapshots in the Adobe PDF format.
- **.TIF files.** Fax machines and scanners generate these files. Our solution can be configured to interface with the document scanners installed at WFWV's offices to scan documents directly into the system. This capability can be expanded to scan documents provided by beneficiaries, employers, agency users, or others.
- **.JPG and .PNG files.** These digital photo formats can include photographs of each beneficiary. Photographs taken during investigations can also be stored within the system.
- **.WAV, .WMA, and .AAC files.** These formats allow users to record conversations and store them in a secure location.
- **.WMV and .M4V files.** These formats allow users to capture conversations and document activities on video and store these file in a secure location.
- **Common Microsoft Office formats.** Users can upload various files in various Microsoft formats including .XLSX, .DOCX, and .PPTX files.

1.1.2 One-Time Setup (RFP 4.2.1.2)

One-time setup activities in this project will include:

- The installation, configuration, and testing of fraud case management software
- The mapping, integration, and development of unemployment claims data (including third-party data, WFWV Data Science Library data, and mainframe claim and claimant data)
- User acceptance testing
- Integration with WFWV's existing Data Science Library and related testing activities
- Training on case management functionality, including mentoring and knowledge transfer activities
- Development of business intelligence reports and training on these reports, including on case management views, dashboards, and reports
- Project management activities

In addition, we recognize that the State expects us to include in our solution integration and setup costs for working with the State's existing data science solution, and that all one-time setup activities should be completed in 2 to 4 months. Our solution includes pricing and our proposed timeline calls for completion within 4 months.

As part of these one-time setup activities, NTT DATA will collaborate with WFWV in the initial weeks of this engagement to create a requirements management plan. This plan will define how we collect, analyze, document, and manage requirements throughout this project. By creating this plan, NTT DATA will guard against the risk of unintentionally omitting requirements, failing to fully document requirements, or leaving requirements incomplete without a process to properly manage them. This plan will guide the efficient management and implementation of all requirements, helping us implement a system that is a strong fit for WFWV users. This, in turn, will achieve a secondary objective, which is to minimize the impact of the solution implementation on WFWV staff.

To finalize requirements, our delivery team will require access to WFWV personnel. To minimize this need, we will deploy our own personnel to lay the groundwork for requirements gathering. Our personnel offer significant UI experience, and this should minimize the burden of requirements gathering on mission-critical WFWV staff.

To achieve each of the State's objectives in this project, the plan and work breakdown structure we establish will include, at a high level:

- Project planning and setup activities
- Requirements management and design activities
- Iterative configuration and build activities
- Testing activities
- A data migration
- Organizational change management and training

In the following sections, we will address each of the State's one-time setup requirements in more detail.

1.1.2.1 Fraud Case Management Software Installation, Configuration, and Testing (RFP 4.2.1.2.A)

In this project, NTT DATA will perform activities that support the installation, configuration, deployment, and testing of the NTT DATA UI Fraud Case Management Solution. Our approach to achieving a successful go-live with a system that meets all of WFWV's requirements will include:

- Environment configuration and application deployment activities.
- Requirement management and design activities. As part of these activities, we will create an inventory of existing system processes, document system requirements, and produce a detailed design of the to-be system. This work will include an inventory of legacy business rules and data.
- Iterative configuration and build activities. Specifically, we will configure WFWV-specific functionality in the solution we deliver as part of a series of iterative sprints.
- Testing activities. In parallel with other development activities, we will perform a broad range of tests, including functional tests, system tests, integration tests, regression tests, performance tests, security tests, and accessibility tests. We also will support WFWV's user acceptance testing activities.

NTT DATA takes an agile approach to testing. As part of this, we integrate testing activities directly into our configuration and deployment process so that issues are discovered as early and as often as possible. For more detail on NTT DATA's agile development methodology, see [Section 1.1.2.7](#).

Our approach for deploying our UI Fraud Case Management Solution will involve three main components: a logical separation between environments, a defined release management strategy, and continuous improvement to improve automation and features that drive the user experience. This combination will minimize the potential for issues to occur during concurrent development.

In this project, WFWV may choose to install the solution on a dedicated physical server or a virtual machine. Each installation is required to have a unique name and type of environment; this is so the validity of the application can be authenticated online. Unique names also allow the infrastructure administrator to logically separate and isolate environments so that conflicts are not introduced via concurrent development. Isolation is possible by using functionality inherent to the virtualization software and the middleware products. The environments should be organized into stacks that provide our development and testing teams with the capability to work on different code releases concurrently instead of having to work in a serial manner. For example, solution components involving a second development environment (DEV2, for example) can exist on the same virtual server as the components of the first development environment (DEV1). In this example, the logical environment for DEV2 would have parallel software services that mirror DEV1.

Coordination of Deployment Activities

Release management involves planning, managing, scheduling, and controlling software builds through different stages and environments, including the development, testing, and deployment of software releases into production. Through release management, we create release plans that highlight information such as the release schedule, release contacts, the target groups affected, the change management process, the configuration management process, and release back-out procedures.

In our approach to deployment, each environment used for implementing the solution has key personnel who are responsible for authorizing promotions to the next level. In this project:

- NTT DATA's Project Manager will be responsible for authorizing the promotion of system components from the development environment to the systems integration test environment.
- An NTT DATA Testing Lead will be responsible for promoting programs from the systems integration test environment to the user acceptance test environment.
- WFWV's project management team will provide approval prior to promotion from the user acceptance test environment to either the training, performance, or production environment.

Environment Testing

Our Testing Lead will work with WFWV to coordinate code promotion efforts and request authorization to migrate modules into the training, performance, or production environments. When authorized, automated promotion tools will freeze changes until the identified system components have been copied correctly. In addition, a copy tool will also perform a verification read to make certain that the promoted version is an exact copy of the approved version.

In addition, NTT DATA will create a technical environment specifications plan by working in conjunction with the State. This plan will define the infrastructure required to support this project, including (at a minimum) hardware, the operating system, networking, and all COTS software. We will submit this deliverable once and update it as needed.

1.1.2.2 Unemployment Claims Data Mapping, Integration, and Development (RFP 4.2.1.2.B)

NTT DATA will map, integrate, and develop a data repository to serve our proposed solution in accordance with State requirements. This integration will accommodate both mainframe and server-based system and data assets. In addition, NTT DATA can provide supplementary fraud prevention and claim validation data that has proven successful for other UI clients and tailor it to fit WFWV's precise needs and goals. The inclusion of these additional data sources is entirely optional and can be negotiated as part of contract or added to the project roadmap for later inclusion through the change management process that guides this engagement.

1.1.2.3 User Acceptance Testing (RFP 4.2.1.2.C)

In addition to the testing activities identified in [Section 1.1.2.1](#), NTT DATA will work with WFWV to mutually agree on defined and documented acceptance criteria for deliverables in advance of this project. NTT DATA will also facilitate WFWV user acceptance testing activities through scheduled training, test script creation, and reviewing and reporting on test results.

Project Review Cycle

The project schedule we are proposing incorporates a single review cycle (specifically: submit, review, cure, and accept). As part of this review process, WFWV will return one consolidated set of comments (if any) to NTT DATA. Second reviews, if necessary, will only consider defects and comments raised during the first review. Any changes to this review process and timeline will be defined during project initiation and accounted for in the project plan so long as the project schedule is not impacted by the changes.

1.1.2.4 Integration with WFWV's Existing Data Science Library and Testing (RFP 4.2.1.2.D)

NTT DATA will incorporate into the scope of this project integration with WFWV's existing Data Science Library and associated testing based on the future provision and validation of State specifications regarding the Data Science Library.

Data Integration Testing and User Acceptance Testing

All data integration will be tested and validated using industry standard guidelines and best practices and in accordance with State and WFWV policies and procedures.

1.1.2.5 Case Management Training (RFP 4.2.1.2.E)

NTT DATA brings to this project a robust training methodology along with a mature organizational change management (OCM) and training practice. Our delivery team will include a Training Manager and a Training Developer. These individuals will provide a thoughtful, comprehensive approach to training, mentoring, and knowledge transfer to support WFWV adoption of the proposed solution and to make this solution a success for WFWV. The scope and breadth of our proposed of training and OCM is based on the staffing table in [Section 2.1](#). In developing this plan, we assume up to 27 topics at approximately 10 minutes per topic for case management training.

NTT DATA's approach to training focuses on the most important asset of any organization: its people. Through training, we help integrate people, processes, and technologies to achieve improved organizational performance. In this project, NTT DATA will leverage training and communications best practices that have proven successful in our support of other large organizations. We will tailor these approaches to the unique needs of WFWV and the specific goals and objectives of this project. This will mean focusing not only on the technology side of

WFWV's IT solution, but also on the human factors so all users of the new UI solution are prepared with the requisite awareness, knowledge, skills, and ability to succeed in using it. Working in an advisory capacity with WFWV, we will help the agency involve stakeholders through timely engagement, communication, and training. Our collaborative efforts will generate appropriate levels of buy-in and support for effective and sustained change. We will also work with WFWV to emphasize the positive aspects of changes, conveying the value and benefit of these changes while also helping minimize any negative impacts that may occur during this transformation project.

In helping WFWV manage staff through the changes associated with this UI system implementation, our objectives will be to:

- Help users understand the reasons for change
- Encourage their involvement and gain insights
- Create understanding and commitment
- Put in place capabilities for users to make needed adjustments
- Promote user adoption through targeted training activities
- Provide hands-on acclimation training
- Measure the sustainability of change so that users are leveraging new tools and processes for a maximum return on investment

Approach to OCM

NTT DATA's training methodology is supported by our approach to OCM, which promotes successful adoption of technical solutions through the six functional workstreams shown in Figure 33. Three of these workstreams involve changing and influencing behavior. The other three deal with organizational structure and how work will be carried out in the future state within the organization.



Figure 33. NTT DATA's approach to OCM includes these six workstreams.

We will perform our OCM assessments in parallel during the early stages of this project, producing high-level strategic guidelines for the type, scale, and style of OCM tactics needed to support effective user adoption. As part of these assessments, we will identify resource needs and define roles and responsibilities. We will also define approaches for engaging leaders, disseminating communication, promoting stakeholder participation, and delivering education and training. The OCM plan will integrate these assessments and strategies and establish a framework for executing tactical OCM activities.

Throughout our implementation of this new fraud case management solution for WFWV, NTT DATA will help WFWV guide individuals and teams through business process and system change using our OCM methodology. At a high-level, this will include alignment and assessment activities during the requirements and design period followed by tactical communications, training, and sustainment activities in later stages of this engagement.

Our first step will be to develop an assessment strategy that identifies the key performance indicators and metrics to promote robust adoption of WFWV's new UI solution. To achieve this, we will:

- Confirm our understanding of the current system landscape, what will change, and who will be involved.
- Verify alignment among WFWV project leaders and sponsors based on their objectives and goals for this project as well as on the level of support required to effectively achieve buy-in from their teams.
- Outline the current state versus WFWV's desired future state by documenting a case for change and identifying gaps in skills, jobs, and personnel based on a gap analysis and interaction with project leaders and sponsors.
- Create a communication strategy for the project.

We will then drive understanding and alignment through a series of planning activities. These will include:

- Performing assessments and analyses that identify impacted stakeholders, how they will be impacted, their communication needs, and their training needs
- Reviewing WFWV's organizational structure, culture, and roles and responsibilities, and assessing organizational aptitude, capacity, and readiness for change

Based on this information, we will develop a comprehensive OCM roadmap and plan that details a communication strategy and plan, a training strategy and plan, and a change readiness strategy for effective user engagement and adoption. This roadmap will include recommendations to guide the overall change program in successfully realizing expected outcomes and results. We will also craft initial communications and materials that provide information on early changes in WFWV's new UI solution, promoting early awareness, buy-in, and quick wins.

As new features are made available to end users, we will promote new ways of working and user adoption, supporting WFWV in:

- Distributing support documents that target and address prioritized needs, reduce confusion, and increase the speed of adoption
- Providing the right information to the right audience at the right time to build awareness and understanding around how to successfully adapt to new ways of working in the new system
- Empowering WFWV subject matter experts as change champions to assist in communicating changes and model new behaviors
- Managing training development and delivery

Later, as go-live nears, we will perform or support activities that ready users for system rollout, provide a line of sight into what activities are working well, and promote accountability. As part of this, we will support WFWV in:

- Conducting user readiness assessments
- Refining new ways of working
- Baselineing and measuring key performance indicators of adoption

This robust approach to OCM will minimize risk while nurturing adoption of the new system along with associated processes and benefits.

1.1.2.6 Business Intelligence Report Development and Training (RFP 4.2.1.2.F)

The NTT DATA UI Fraud Case Management Solution includes a default collection of dashboards, reports, and searches that can be used as a starting point for business intelligence needs. In addition, the flexibility of our analytics application will enable WFWV to easily explore all data and develop new searches, reports, and dashboards. The searches, reports, and

dashboards created by WFWV personnel will be easily shared with other personnel and teams, enabling collaboration on the development of new insights.

Our fraud case management solution enables organizations to analyze all collected data, to query third-party data in real-time, and to perform multiple levels of analytics. This solution will support WFWV's cybersecurity team and other agency users by incorporating descriptive data analytics, diagnostic data analytics, exploratory analytics, and predictive analytics gathered from WFWV's Data Science Library assets. It will also support case management and claims resolution.

A report builder feature in our solution helps users build reports by selecting fields and statistics from the main interface. Because fields are extracted at search time, the way data is loaded does not limit a user's ability to do custom reports later. Moreover, the solution provides multiple discrete views from the same data set. Once a user has created a report, that user can keep it private or share it with others. Users can format reports by adding titles, formatting legends, and choosing chart types. Reports also can be saved and run according to a schedule, and they can be included in dashboard panels.

Dashboards and Data Analytics

Our case management platform also provides extensive high-end dashboard analytics. Dashboards and data reporting tools will provide visibility, actionable insights, and predictions that support WFWV fraud investigators with insights on patterns. In addition, the reporting capabilities in our solution can offer insights based on claimant profile data, including possible associations with fraudulent profiles, employer data on wages (as compared with the stored value of wages), and points of filing chosen by the claimant as well as the distance between those points.

These dashboards are supported by self-service reporting capabilities that enable every user to understand the progress of their case or cases in one single view. This allows users to make queries, create reports, and visualize data better through a straightforward, easy to navigate interface that facilitates an engaging, insightful analytics process.

NTT DATA's solution also includes powerful business intelligence reporting tools such as automatic online report generation and distribution, real-time dynamic data manipulation and filtering, ad hoc output to CSV or text files, advanced geocoding, and configurable grouping, annotations, and aliasing. Our solution also delivers readily available views and parameter-driven dashboards to give supervisors an at-a-glance view of how the program is performing. These dashboards are interactive, so users can quickly drill down to an appropriate level of detail and make fast, effective decisions, driving each case toward resolution and recovery.

We will provide training on reports in accordance with the best practices described in Section 1.1.2.5.

Case Management Dashboards

The sample dashboards provided in the next few pages (Figure 34 through Figure 41) represent a small subset of the operational, performance, and workforce management reporting capabilities provided in our proposed solution. These reporting capabilities include:

- A **case completeness dashboard**. This dashboard helps agency workers take specific action to rectify missing information in a case.
- A **case aging report**. This report provides a consolidated view of how cases are aging based on configurable “buckets,” or subdirectories.
- A **case status dashboard**. This dashboard provides information on the status of cases for the supervisor and for investigators.
- A **workload management dashboard**. This dashboard provides supervisors with a view of caseload for each investigator.
- An **overpayment aging dashboard**. This dashboard tracks risk metrics associated with overpayment aging.
- **Reconciliation reports**. These reports compare internal information with other data sources to identify anomalies.
- **Historical and aggregate reports**. These reports provide trend analytics.

In addition, in our solution, other dashboards can be quickly configured by WFWV developers with minimal effort.

Figure 34 through Figure 41 provide a small sampling of the mature, robust dashboard capabilities available in our proposed solution.



INVESTIGATOR » WORKLOAD

Search...

Summary Statistics

Total count: 166

CASE NUMBER	Applicant	LOCAL OFFICE(ONE STOP)	UNIT	ASSIGNED BY	ASSIGNED TO	START DATE	END DATE	STATUS
20211020016556			Document Verification			01/20/2021		Open
20211020016556			Identity Verification			01/20/2021		Open
20211020016556			Fact Finding			01/20/2021		Open
20211020016556			Document Verification			01/20/2021		Open
20211020016556			Identity Verification			01/20/2021		Open
20211020016556			Fact Finding			01/20/2021		Open
20211020016556			Document Verification			01/20/2021		Open
20211020016556			Identity Verification			01/20/2021		Open
20211020016556			Fact Finding			01/20/2021		Open

Figure 34. This screenshot shows a supervisor dashboard and a list of assigned cases for approval.



Figure 35. This is an example of a staff dashboard. It includes a list of assigned cases.



Figure 36. This sample dashboard provides information on case management and payment control.

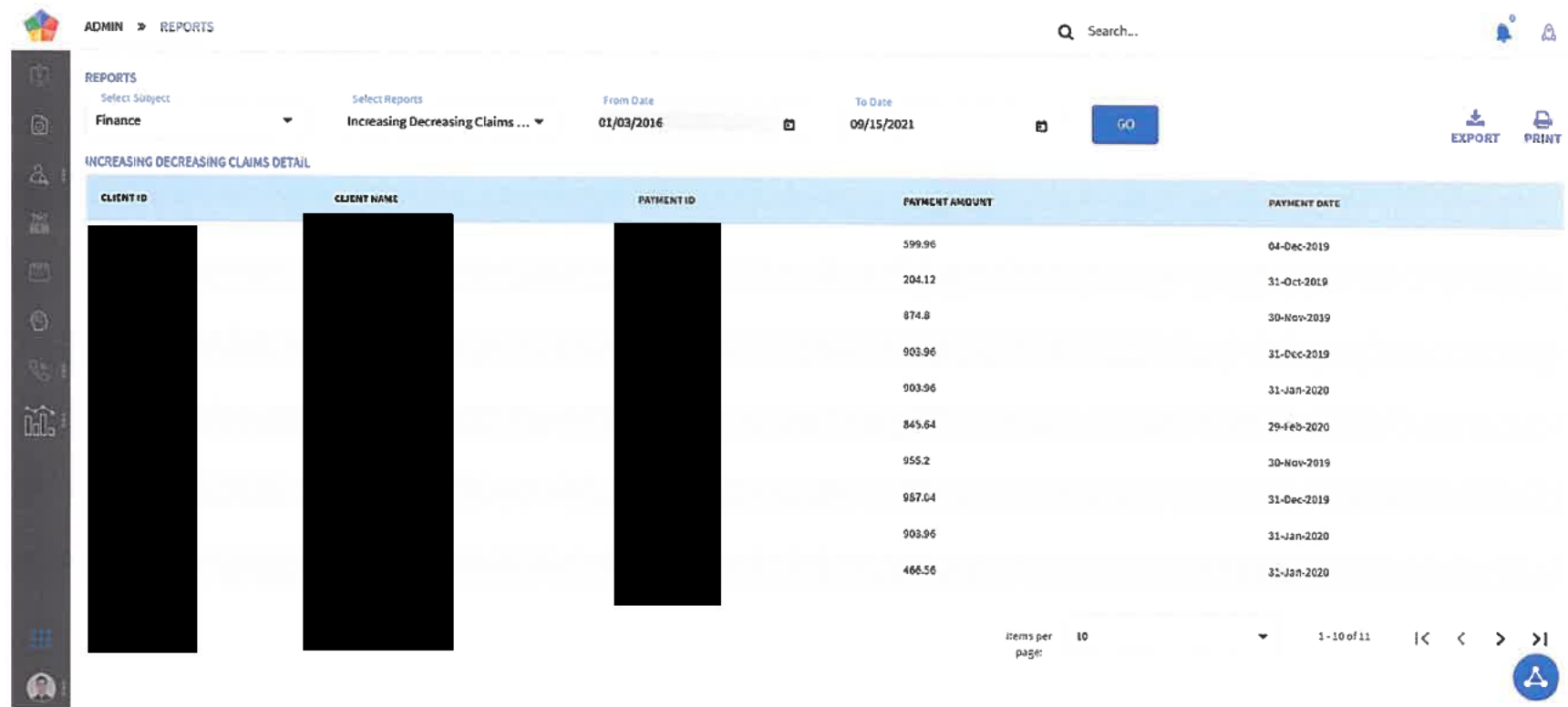


Figure 37. This screenshot provides a sample financial report.

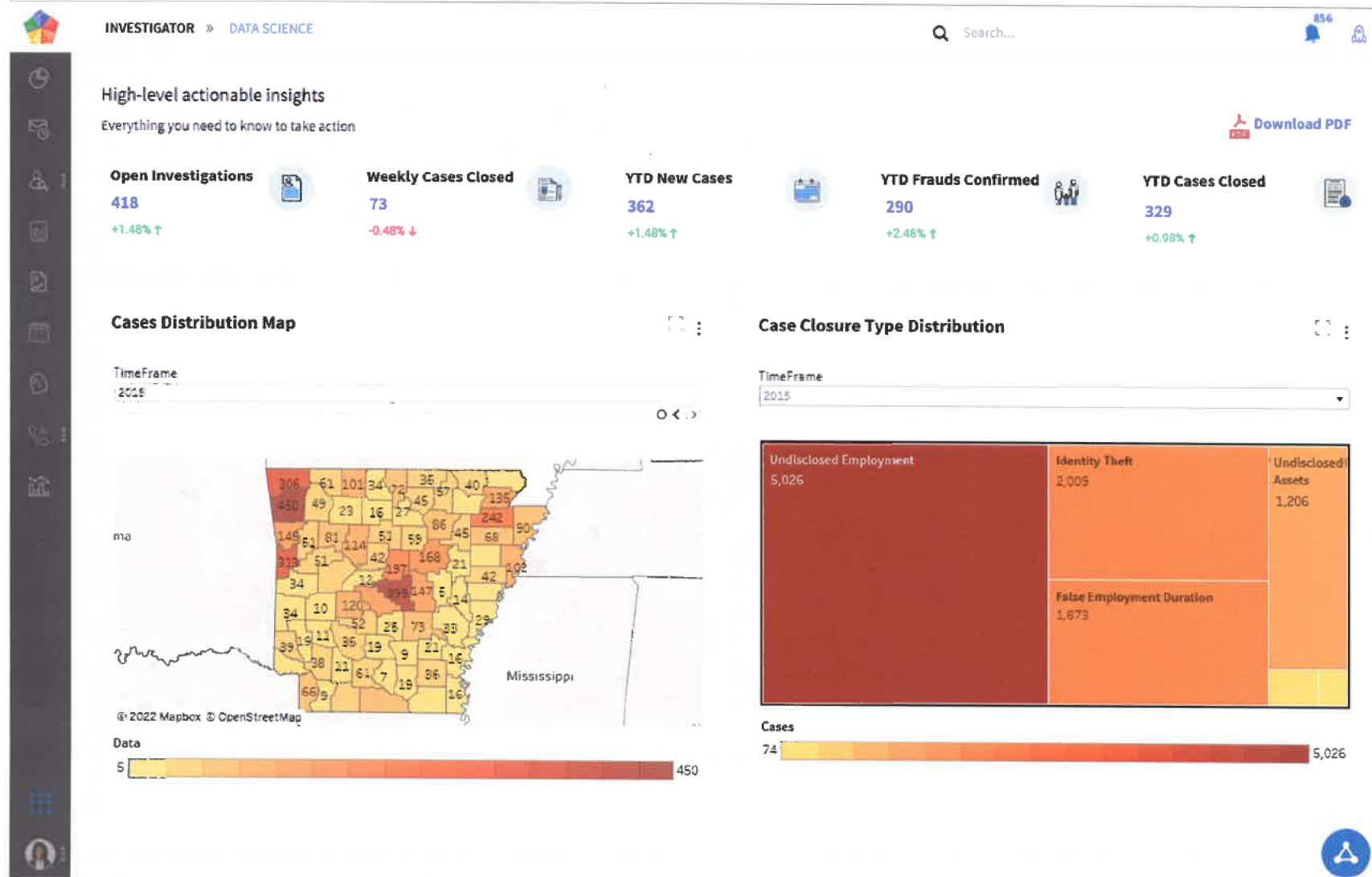


Figure 38. This is an example of the kind of data visualization possible in NTT DATA's solution.

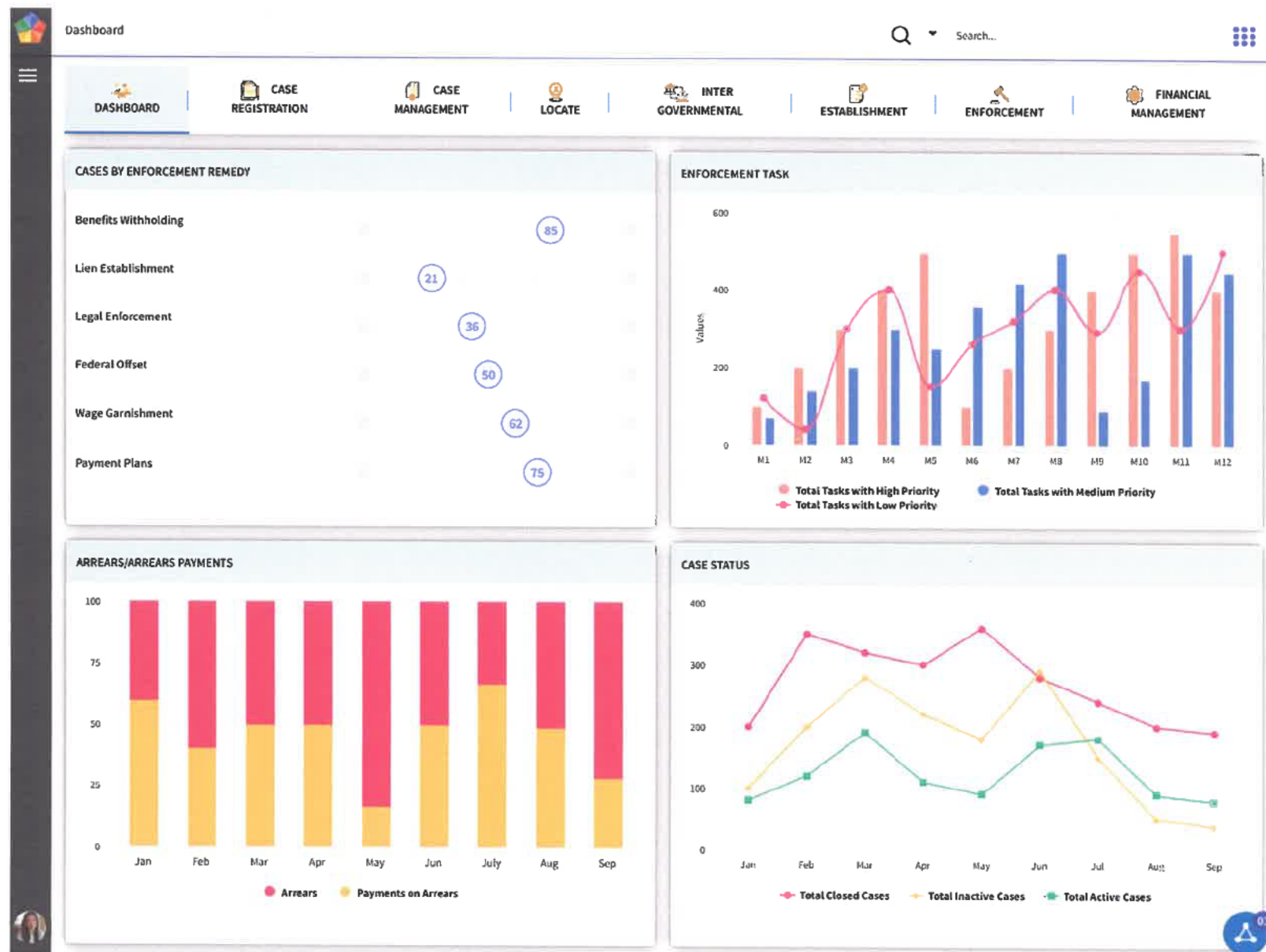


Figure 39. This screenshot provides an example of a financial dashboard.

Dashboard

SEARCH

Search...

DASHBOARD

CASE REGISTRATION

CASE MANAGEMENT

LOCATE

INTER GOVERNMENTAL

ESTABLISHMENT

ENFORCEMENT

FINANCIAL MANAGEMENT

MY WORK QUEUE

ACTION	DESCRIPTION	PARTICIPANT NAME	INVEST CASE NO	DUE DATE	DATE WORK TASK CREATED	TYPE	PRIORITY	SOURCE
Review Request for Modifications	Review for Possible Modification		C1938	02/16/2022	09/27/2019	Action	High	System
Review Request for Modifications	Review for Possible Modification		C2492	02/16/2022	09/24/2019	Action	High	System
Call Center - CP Payment Inquiry	Review Financial Payment History		C1111	02/18/2022	09/22/2019	Informational	Med	System
Call Center - CP Payment Inquiry	Review Financial Payment History		C6940	02/18/2022	09/26/2019	Informational	Med	System

APPOINTMENTS

Thursday, February 17, 2022

9am

8:30 am to 9:30 am

Thursday Team Meeting @ conference room

10am

9:30 am to 10:30 am

Priority Approval Meeting @ conference room

12pm

11:30 am to 12:30 pm

Provider Verification Meeting @ conference room

1pm

1:30 pm to 2:30 pm

Case Verification Meeting @ conference room

RECENTLY VIEWED

VIEWED DATE	INVEST CASE NO	NAME	SCREEN
02/17/2022	C1938		Case Information
02/17/2022	C1111		Process Review Request
02/16/2022	C1151		Court Scheduling
02/15/2022	C2111		Payment Plan

Figure 40. This screenshot provides another example of a financial dashboard.

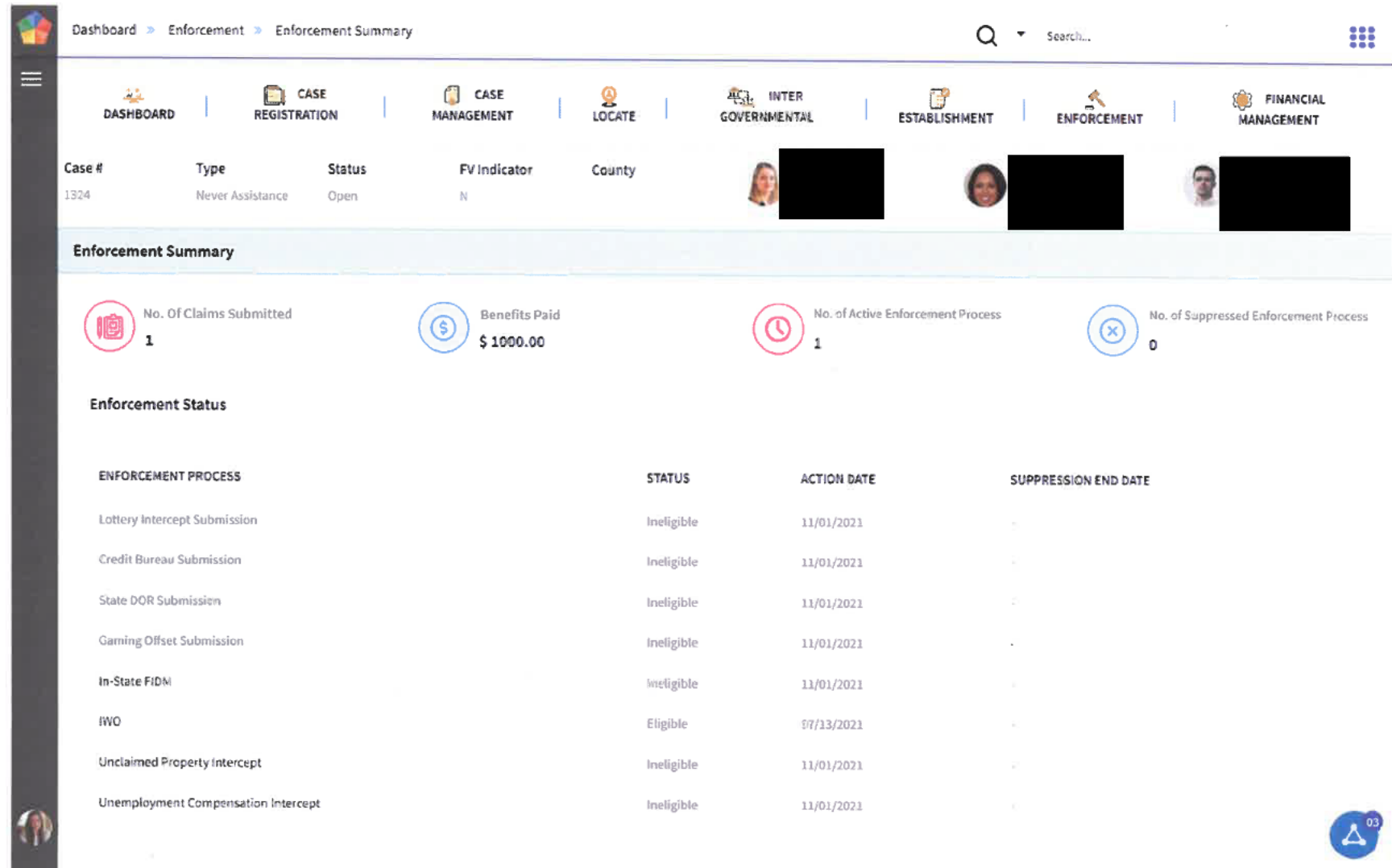


Figure 41. This screenshot shows enforcement information.

1.1.2.7 Project Management (RFP 4.2.1.2.G)

To effectively govern this project, efficiently manage delivery of multiple solution components, and maintain a consistent level of delivery quality, NTT DATA will establish a project team using the framework shown in Figure 42. This model includes proven processes for IT project, program, and portfolio management, including processes for obtaining the right resources and tools to make projects and programs a success. Our project team, led by NTT DATA Project Manager James Fox, will use this NTT DATA framework—the Services Project Management Framework (SPMF)—to rapidly stand up a project team and drive delivery success.

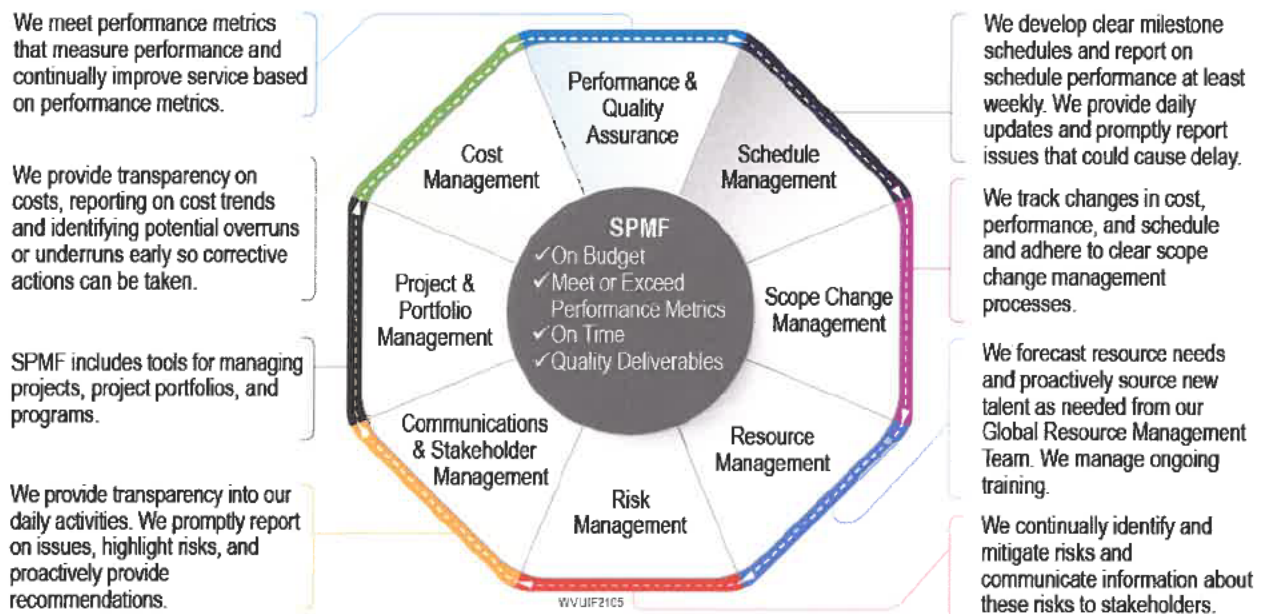


Figure 42. SPMF provides management processes and tools for successful project delivery.

SPMF is an award winning, industry recognized patented framework for managing project, programs, and portfolios that consistently produces a high level of project delivery quality. It helps manage and reduce project risk while supporting cost effective, optimal allocation of project resources. We have used SPMF with great success in managing on-time and on-budget projects that require effective management of several concurrent deliverables. SPMF emphasizes proactive resource planning and coordination, and it supports the prioritization of critical tasks. It also provides ample time for personnel from our clients (in this case, WFWV) to prepare for any assigned tasks.

A Recognized Project Management Framework

Industry recognition for SPMF includes an award from the Project Management Institute (PMI). It's patent number is 8,407,078 B1.

SPMF and our agile software development methodology (Figure 43) work together to form NTT DATA's overall agile framework delivering continuous integration in conjunction with the approach to continuous delivery shown in Figure 44.

Our Approach

- Testing and defect containment
- Testing teams are engaged throughout all iterations
- Offshore team participants in Stand-ups
- Daily hand-off between onsite and offshore test teams

Our Practices

- Fully tested code at the end of each iteration
- Tests are written before or parallel to development
- Developers build code that is inherently testable - potentially shippable
- Continuous integration and test automation is a must

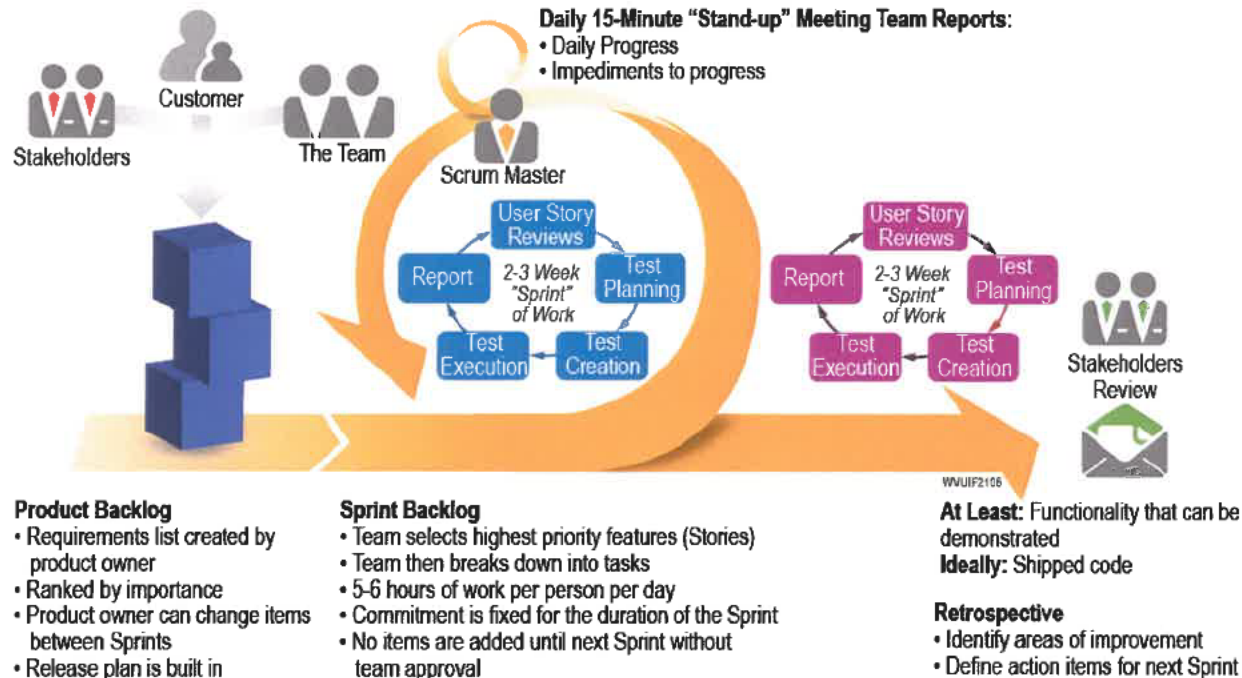


Figure 43. NTT DATA's agile software development methodology drives rapid iterative development.

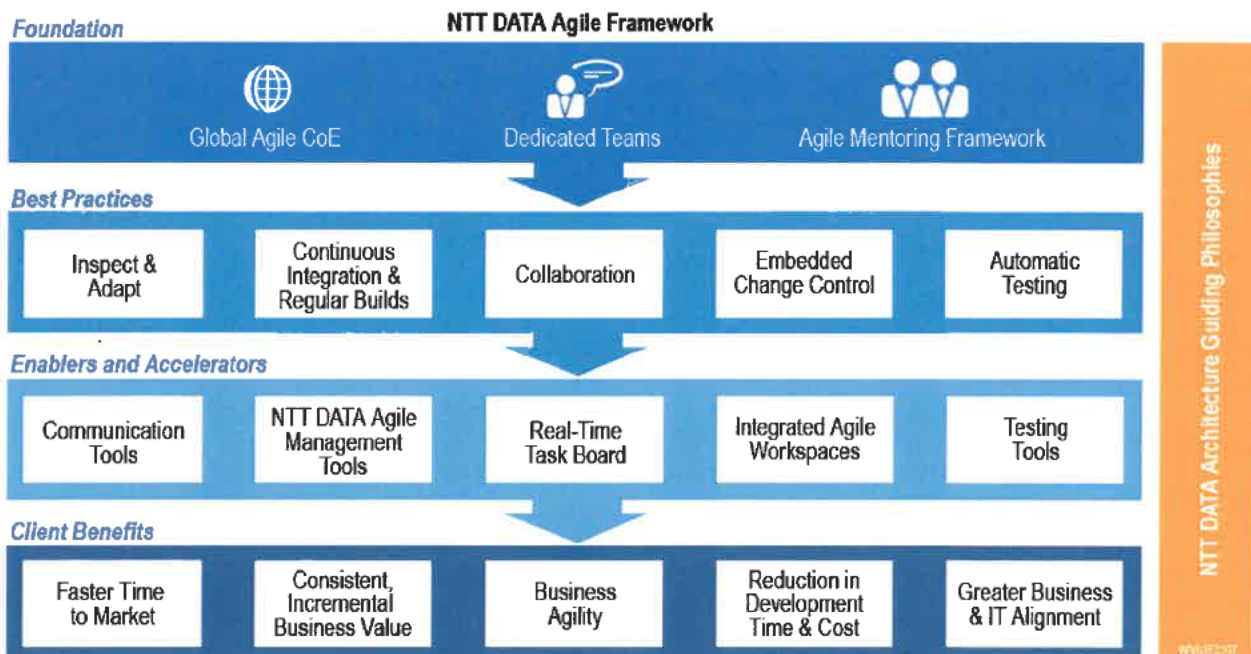


Figure 44. NTT DATA's agile framework blends SPMF and our agile methodology.

1.1.2.8 Integration and Setup Costs for Working with Existing Data Science Solution (RFP 4.2.1.2.H)

NTT DATA will incorporate into the scope of this project integration with WFWV's existing Data Science Library and associated testing based on the future provision and validation of State specifications regarding the Data Science Library.

1.1.2.9 Completion in 2 to 4 Months (RFP 4.2.1.2.I)

The implementation timeline provided in Figure 45 reflects our proposed 4-month implementation timeline based on the information provided by the State. We will use an agile-based approach to delivery that includes a number of sprints. Through these sprints, our delivery team will "burn down" a list of State requirements while providing WFWV frequent reviews of project progress.

Note that our pricing includes rates for ongoing support, maintenance, and organizational change management (OCM) for Year 1 as well as three optional renewal years. This estimate is based on our experience with projects of similar size and scope. A mutually agreed upon statement of work (SOW) and timeline will be created in accordance with finalized requirements and assumptions.

Figure 45. NTT DATA Implementation Timeline

No.	Activity, Deliverable, or Milestone	Week
1	Fraud case management: requirements gathering and validation	Weeks 1–3
2	Delivery of a fraud case management and integration business and technical configuration document	Week 4
3	Finalization of a fraud case management and integration business and technical configuration document	Week 5
4	Stand-up of environments for case management	Weeks 4–6
5	Data mapping and analytics: requirements gathering and validation	Weeks 1–3
6	Delivery of data mapping and an analytics business and technical configuration document	Week 4
7	Finalization of data mapping and analytics and a business and technical configuration document	Week 5
8	Stand-up of environments for analytics	Weeks 3–5
9	Reporting: requirements gathering and validation	Weeks 1–2
10	Delivery of a reporting business and technical configuration document	Week 3
11	Finalization of a reporting business and technical configuration document	Week 5
12	Fraud case management system configuration and deployment sprints	Weeks 7–14
13	User acceptance testing for case management functionality	Week 15
14	User acceptance testing for analytics	Week 12
15	User acceptance testing for reporting	Weeks 15
16	OCM and training activities	Weeks 15–16
17	Deployment of the fraud case management to the production environment and initiation of production use	Week 17
18	Hypercare support	Weeks 17–20
	OCM planning and delivery	Weeks 1–20
19	Ongoing support and maintenance	Week 21 on

1.1.3 Customization (RFP 4.2.1.3)

Our proposed cost estimate includes an additional 600 hours of support staff time to implement post deployment changes. These changes will help in more closely aligning our deployed solution with the State's unique requirements. In addition, as we will explain, WFWV personnel

will be able to perform some additional customization on their own.

1.1.3.1 Degree to which Software Solution Can be Customizable and Customizations Made for Other Customers (RFP 4.2.1.3.A)

A Highly Customizable Solution

The NTT DATA UI Fraud Case Management Solution includes low code features that will enable a range of WFWV personnel to participate in customization. Claim specialists, factfinders, investigators, adjudicators, supervisors, administrators, and line of business IT workers will be able to build forms using easy drag-and-drop functionality. The solution also includes dynamic form builder integration that allows for easy creation and assignment of assessment forms.

This self-service reporting will enable WFWV developers to create their own forms, integrate them into their workflow, and create dashboards and charts without the need to know any programming languages.

For more substantial changes, such as the addition of new features or feature modifications, it would be helpful for WFWV personnel to have training on AngularJS, node.js, and PostgreSQL.

Customizations for Other Customers

As a global Top 10 IT services provider and systems integrator, NTT DATA offers a half-century of IT experience delivering IT solutions that meet the precise needs of our clients. In the case of the NTT DATA UI Fraud Case Management Solution, the case management and analytics components we are proposing have been customized to meet the highly specific needs of other clients, including the Maryland Department of Human Services. (For details on how this solution has been configured to meet the needs of the State of Maryland, see [Section 2.2.2.](#))

1.1.4 Support and Maintenance (RFP 4.2.1.4)

In the following sections, we will describe in detail NTT DATA's approach and methodology to providing ongoing support and maintenance for components of the NTT DATA UI Fraud Case Management Solution. We will structure our approach to delivering these services to exceed WFWV's requirements for this project. Our goal in providing post-deployment services will be to keeping the system current and functionally appropriate as WFWV's needs evolve.

1.1.4.1 Case Management Software (RFP 4.2.1.4.A)

As part of our support and maintenance activities, our case management technology partner will release solution level bug-fixes, security patches, and updates for the case management platform in our overall solution twice per year. These updates will be delivered securely online via a downloadable executable to be applied in environments deployed by the State. We will also provide periodic client-specific updates to user interfaces and minor tweaks to application features requested by individual agencies through custom updates shared with clients individually. Large enhancements and major feature requests are generally part of an overall product backlog and addressed as part of an overall product roadmap.

The philosophy at work with improvements to the case management platform is simple: Make ongoing, incremental improvements that eventually swell into impact multipliers, enabling efficient, targeted, and timely product upgrades for business users and constituents. The goal: Deliver a positive user experience while maintaining enterprise-grade security and stability.

This approach to developing an intuitive, user-friendly experience is termed "consumerization" in

the industry. Our technology partner has applied the principles of consumerization to government technology, delivering an intuitive, user-friendly application experience.

A Continuous Improvement Approach to Platform Maturity

Our partner's approach to enhancements—and, in turn, updates and service packs—is based on the goal of providing a strong case management platform. This means focusing on solving key customer problems as opposed to focusing on feature-fixated development cycles. To this end, the roadmap for solution's case management platform is vision-oriented rather than a typical feature-based roadmap. It also embraces a continuous improvement model that aligns with the critical factors for customer success shown in Figure 46.



Figure 46. These critical factors for customer success inform our approach to support and maintenance.

In this project, our team will work closely with WFWV to understand the State's vision and align evolution of this platform with that vision to achieve maximum impact for the State of West Virginia. To accomplish this, our team will break this vision down into measurable "North Star metrics" (NSMs) and subsequently create themes based on these metrics. Platform features will align to these themes, which will vastly help with prioritizing continuous improvement and taking an impact and value-driven approach to such activities.

An overall Continuous Improvement Plan for this case management platform is summarized in Figure 47. This plan is broadly structured around four key themes. We will adjust these themes as needed to align with the State's overall vision to help maximize program impact.

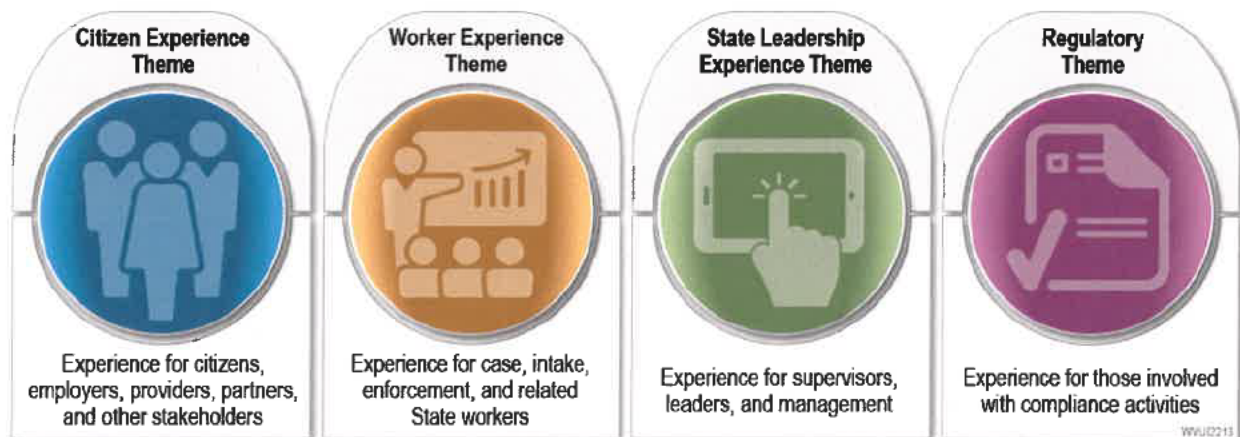


Figure 47. These are key themes of the Continuous Improvement Plan that applies to our solution's case management platform.

Approach to the Product Roadmap

We will align the product roadmap for the case management platform to incorporate the State's vision, combining NSMs and theme-based buildouts so that key State stakeholders experience a marked difference. We will also design the product roadmap so that the success of WFWV always comes first. During initial installation and setup, we will work with stakeholders to arrive at a consensus on NSMs. This will help us align our roadmap with these NSMs.

To achieve an exceptional user experience, we will break each NSM down into these themes:

- Engineering
- Mobility
- User experience and user interfaces
- Analytics
- Security
- Advanced tech capabilities

These themes will lead to feature enhancements, eventually becoming the guiding principles of the product roadmap.

Each release will be aimed at improving the product's fit to function, and releases will be timed to coincide with known forthcoming changes to applicable laws or policies. This will avoid the need for updates at different frequencies and cut down on the overall IT administrative effort associated with the product.

In addition, our team will set priorities for the roadmap to address the product backlog and release train through an impact analysis that follows our delivery team's consultation with various stakeholders.

Feature Rollout Roadmap

Figure 48 describes the features now forecast for the post-go-live release of the case management application. The colored boxes in each feature indicate the stakeholders impacted by the improvements. For example, the user interface update and refresh is slated to be implemented in Release Cycle 2. This release will impact investigators and executive staff. The bug fixes and patches impact all stakeholders and will happen in Release Cycle 1 and Release Cycle 3.

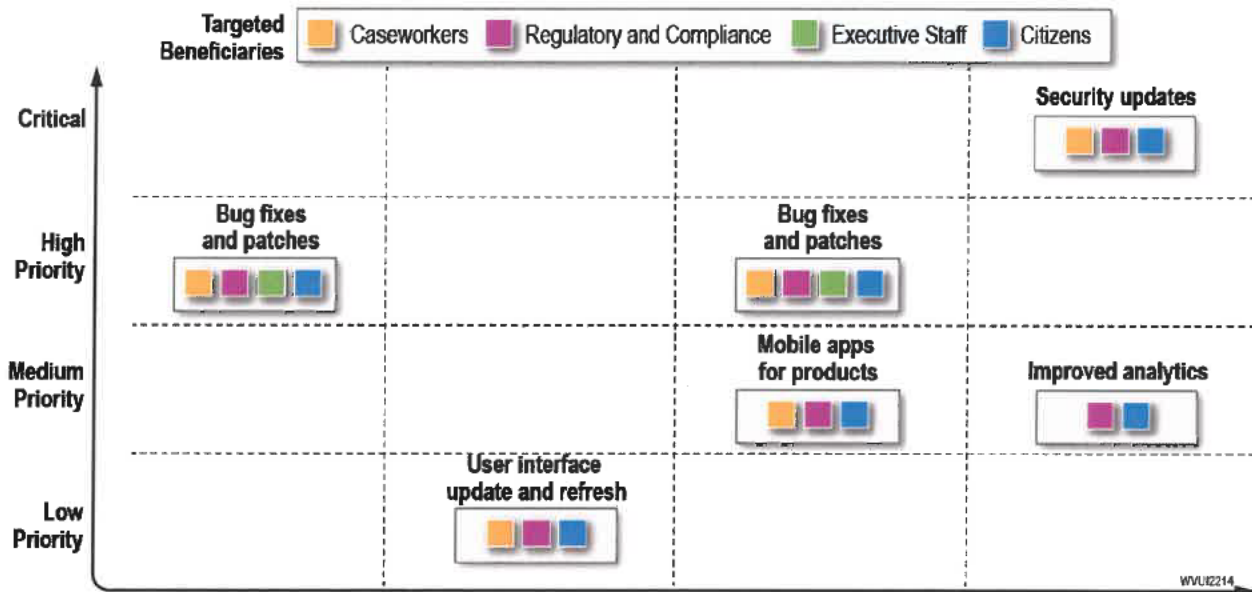


Figure 48. This is a high-level forecast of new features and future release cycles.

Release Frequency

Figure 49 summarizes the frequency of releases for our solution's case management platform during the setup stage of this engagement and during ongoing support and maintenance activities. All improvements will be managed releases based on well-defined processes for continuous integration and continuous delivery.

Figure 49. Release Frequency

Release Frequency	Release Type	Frequency
One-Time Setup	Theme driven	Monthly or quarterly
Following Go-Live	<ul style="list-style-type: none"> Technology platform Themes and feature sets Performance upgrades Security updates Critical patches 	Twice each year (summer and winter)

1.1.4.2 Data Science and Case Management Integration Updates (RFP 4.2.1.4.B)

NTT DATA will incorporate into the scope of this project integration with WFWV's existing Data Science Library and associated testing based on the future provision and validation of State specifications regarding the Data Science Library. These integration activities will also accommodate changes to the underlying Data Science Library and case management application via the change management process that applies to this project and by leveraging available and budgeted hours.

1.2 Approach to Complying with Mandatory Project Requirements (RFP 4.2.2)

This proposal from NTT DATA meets the mandatory criteria for this project identified in RFP 4.2.2. Specifically:

- We will deliver an on-premises installation.
- We will provide a case management system installation, configuration services, mentoring, and knowledge transfer services.

- We will provide annual maintenance and support.

We will provide more detail on our approach to each requirement in the following sections.

1.2.1 On-Premises Installation (RFP 4.2.2.1)

We acknowledge that WFWV requires an on-premises implementation of a UI fraud case management solution, and we have taken this requirement into account. The features, specifications, and costs associated with this proposal are all based on an on-premises deployment involving a Windows Server 2019 (or later) operating system and Microsoft SQL Server 2015 (or later). The installation package has been developed to provide executable functionality within a 64-bit Windows architecture based on a guided installation process.

Depending on the type of deployment the State requires, we can provide a single-instance deployment or a distributed deployment. Given the on-premises approach sought by the State, we recommend a distributed deployment because such deployments are designed to separate the index and search functionalities into dedicated tiers that can be sized and scaled independently without disrupting the other tier. Distributed deployments are also useful for developing co-location data centers to support disaster recovery and continuity of operations.

For colocation and disaster recovery, we recommend duplicating the environment and allowing NTT DATA to provide real-time sync and verification functionality.

1.2.1.1 Supporting Windows Server Environment (RFP 4.2.2.1.1)

We will deploy NTT DATA's proposed fraud case management solution into a Windows Server environment. The solution has been packaged for deployment on Windows Server 2019 to Windows Server 2022 (the current version).

1.2.1.2 Supporting SQL Server Enterprise (RFP 4.2.2.1.2)

NTT DATA's proposed UI Fraud Case Management Solution will use and integrate with versions of Microsoft SQL Server ranging from Microsoft SQL Server Enterprise Database 2015 to SQL Server 2019 (the current version). Our solution will include SQL clusters to support on-premises scalability.

1.2.2 Case Management System Installation, Configuration, Mentoring, and Knowledge Transfer (RFP 4.2.2.2)

As we indicated in Section 1.1.2.1, we will finalize a technical environment specifications plan with the State that addresses specific requirements involving data volume, the number of users, and storage requirements. This plan will define the infrastructure required to support this project, including (at a minimum) the hardware, the operating system, networking, and all COTS software. We will submit this deliverable once and update it as needed.

Installation

Installation of our proposed solution will be performed by our team in accordance with State technical and security policies using an application installation executable obtained via a secure online link. The executable will contain a package customized specifically for the State. This executable can be copied to the server or servers appropriate for installation. We will configure the system based on information provided by WFWV during initial planning activities; these configurations will be included in the installation executable.

Configuration

The system's built-in form builder and configurable rules engine will provide an easy way for WFWV to create and configure custom forms and process flows as needed. In addition, during the support and maintenance phase of this engagement, our team will address State-specific updates to UI processes or minor tweaks to application features requested by individual clients through custom updates shared with individual agencies separately. Larger enhancements and major feature requests will generally be included in a product backlog and addressed as part of the product roadmap.

The environments in our solution are organized into stacks that provide our development and testing teams with the ability to work on different code releases concurrently rather than serially. For example, the case management components of a second development environment (DEV2) can exist on the same virtual server as the components of the first development environment (DEV1). In this example, the logical environment for DEV2 would have parallel software services that mirror DEV1.

This implementation will require environments for development, testing, and production. Each installation will require a unique name and type of environment so that the application's authenticity can be validated online. Unique names also allow the infrastructure administrator to logically separate and isolate environments so that conflicts are not introduced due to concurrent development. Isolation is possible by using functionality inherent to virtualization software and middleware products.

Mentoring and Knowledge Transfer

Our case management platform is built with industry-standard technologies. For each implementation, our technology partner provides orientation and training for users and administrators. This training consists of initial instructor-led sessions augmented by quickly accessible help videos and documentation.

Through this training, we will make sure users can use the configured system. We will also make sure administrators:

- Understand the code base
- Can manage and troubleshoot the application
- Can provide smooth and consistent operation of the application

In addition, our team will allow WFWV personnel to shadow members of our support team and participate in support of the application during our team's initial product support activities. Prior to handover, we will collaborate with the State and seek approval to handover based on our evaluation of capabilities of State personnel.

For additional information on our approach to training, see [Section 1.1.2.5](#).

1.2.3 Annual Maintenance and Support (RFP 4.2.2.3)

Our pricing (provided in a separate volume) anticipates and accommodates ongoing maintenance and support of the software environment used for the NTT DATA UI Fraud Case Management Solution. This includes configurations, updates, and imaging to support WFWV's disaster recovery co-location efforts (if applicable). The environment supported by NTT DATA will be patched and maintained independently of WFWV's infrastructure, which is outside of the scope of this project. Additionally, if hardware upgrades are necessary to support scalability or hardware issues, NTT DATA will coordinate with WFWV to address hardware concerns related

to the server environment. This support will include:

- Two upgrades annually for the case management application included in this solution
- Upgrades of any third-party products included in the case management application (such as WSO2)
- Monthly hot fixes to address any application critical issues or defects or operating system security patches
- Resolution of any bugs or defects
- Some 600 hours of post-deployment customization support per RFP 4.2.1.3.

2 Qualifications and Experience (RFP 4.3)

NTT DATA and our partner have extensive experience supporting state UI programs and addressing other requirements through IT modernizations, the introduction of advanced data analytics, the automation of workflows, and support for fraud prevention efforts. As a company and as a team, NTT DATA has the experience necessary to make this implementation of a fraud case management system a success for WFWV.

We will provide more information on the qualifications of NTT DATA in the next two sections. Specifically, in [Section 2.1](#), we will share our staffing plan. We will follow this plan by staffing this project with qualified IT professionals able to expertly guide implementation of a fraud case management solution and provide long-term support for this solution. We will provide these IT professionals by drawing on resources from across our company and from our partners. NTT DATA is the U.S. arm of a top 10 IT services company with 15,000 IT professionals in the United States. These talented personnel are dedicated to meeting project timelines, budgets, and goals in projects such as this one.

Later, in [Section 2.2](#), we will share information on past projects. NTT DATA and our partners have provided services to a broad range of UI agencies, including Arkansas, New Mexico, Alabama, and other states.

2.1 Proposed Staffing Plan (RFP 4.3)

NTT DATA will deliver a team of UI subject matter experts (SMEs) with sufficient experience to work independently and create specific requirements with minimal guidance. We will require limited participation from WFWV, including a WFWV Project Manager and a WFWV Benefits Business Analyst who can bring in agency SMEs when necessary and appropriate. This should be sufficient to augment NTT DATA's proposed team.

Our proposed staffing plan is presented in Figure 50. We will finalize this plan in negotiations with WFWV as we work together to define the SOW.

Figure 50. Proposed Staffing Plan

Delivery Components	Labor Category (Offering)	Commitment
One-Time Setup (Project Management and Oversight)	Dedicated Project Manager	Full Time
	UI SME (Executive Oversight)	Part Time
	Security SME	Part Time
	Fraud Analytics SME	Part Time
	UI Project Manager	Full Time
	UI Business Analyst	Full Time
One-Time Setup (UI Fraud Analytics)	Analytics Project Manager	Full Time
	Analytics Consultant	Full Time
Post Deployment (OCM and Training)	OCM (Training Director)	Part Time
	OCM (Training Project Manager)	Full Time
	OCM (Training Consultant)	Part Time
One-Time Setup (Case Management)	Case Management Project Manager	Full Time
	Case Management Technical Lead	Full Time
	Case Management Sr. Data Analyst	Full Time
	Case Management Sr. Technical Architect	Full Time
	Case Management Development Lead	Full Time

Delivery Components	Labor Category (Offering)	Commitment
	Case Management Developer	Full Time
	Case Management Designer	Full Time
	Case Management Jr. Tester	Full Time
Ongoing Support	Project Manager	Part Time
	Support Team	As Required
	Solution Customization (600 hours)	As Required

In the next two sections ([Sections 2.1.1 and 2.1.2](#)), we will discuss our proposed Project Manager, James Fox, and our Senior Advisor, Tom Luparello. Mr. Fox will manage this project and be the point of contact to the State. Mr. Luparello is the head of the NTT DATA UI Practice and will provide oversight. Mr. Luparello brings significant technical and programmatic UI experience, including stints as Executive Director and CIO of the District of Columbia Department of Employment Services.

2.1.1 Project Manager (RFP 4.3.2.1)

Our proposed Project Manager, James Fox, brings 25 years of project management experience. Mr. Fox's relevant experience includes serving state agencies and managing pertinent data science projects. For the Texas Department of Transportation (TxDOT), Mr. Fox oversaw the deploy of Tableau business intelligence and analytics software as well as the implementation of Azure Data Lake Analytics. Also, for the State of Iowa, he rewrote the state's software development lifecycle to include agile and scrum development concepts.

Mr. Fox is certified by the Project Management Institute (PMI) as a Program Management Professional, as a Project Management Professional, and as a Risk Management Professional. He is also a Certified Scrum Master (Scrum Alliance) and a Certified Information Systems Security Professional (CISSP). Copies of these and other relevant certifications are provided in [Appendix A](#).

Mr. Fox earned a Master of Business Administration from Washington University in St. Louis and a Bachelor of Arts from Wichita State University. Documentation of his academic degrees can be provided upon inquiry.

Mr. Fox's resume begins on the next page.

Resume: James Fox, Project Manager

Summary

Brings extensive IT experience and project management experience, including more than 10 years of experience working with agile software development methodologies, significant state government experience, and 25 years of overall project management experience. Offers experience with data science, risk management, and information security. Brings strong leadership skills as well as experience with client relationship building, problem solving, and collaboration.

Education

- M.B.A, Washington University in St. Louis. Studies included statistical analysis, computing, and processing of large data sets.
- B.A., Education, Wichita State University.

Certifications and Training

- Program Management Professional (PgMP), PMI, Certification No. 1338533.
- Project Management Professional (PMP), PMI, Certification No. 328912.
- Risk Management Professional (PMI-RMP), PMI, Certification No. 685151.
- Certified Scrum Master, Scrum Alliance, Certificate No. 00005255.
- Scrum Master Certified (SMC), SCRUMstudy.
- CISSP, ISC², Member No. 375017.
- ITIL Foundations v3, ITIL.

Employment Experience

Senior Project Manager and Scrum Master, NTT DATA

08/16 – Present

For the Texas Department of Transportation (TxDOT), managed more than 15 different IT projects involving critical applications, security, and infrastructure. In this role:

- Recently led a team that completed customization and deployment of a web-based payment card system, PeopleSoft My Wall, that earned accolades from TxDOT's finance and IT divisions. Served as Scrum Master for eight 4-week deployment sprints involving implementation of delivered features and customized functionality. Delivered services on time and on budget.
- Managed a pair of projects involving deployment of Tableau business intelligence and analytics software as well as the implementation of Azure Data Lake Analytics.
- Led and managed a variety of other infrastructure and software application projects involving the complete software development lifecycle (SDLC), some involving agile and others involving waterfall. Led efforts to:
 - Reorganize, secure, and upgrade Active Directory
 - Deliver process improvements for application development
 - Upgrade 12,000 computers from Windows 7 to Windows 10
 - Deploy a Citrix server farm and a virtual desktop infrastructure
 - Upgrade critical software applications
- Served as Program Manager for 12 process improvement projects

Project Manager, Vectrus

09/09 – 12/15

Served as Project Manager for Human Resources, a key leadership role for a Kuwait-based program management office (PMO) from 04/13–12/15. In this role, supported a U.S. military program, the Operations, Maintenance, and Defense of Army Communications in Southwest

Asia and Central Asia (OMDAC-SWACA) program, which spanned seven countries and involved 1,800 Vectrus employees providing IT services to over 80,000 network users. In this role for a \$1.3 billion contract:

- Organized and led a project to integrate and operate custom software for recruiting, processing of new hires, employee transitions, training, and other HR services. Used agile methods and techniques in this project for a system used to hire 900 new employees recruited each year to work in the Middle East.
- Mobilized Vectrus's talent acquisition team to recruit and hire technical personnel and IT engineers, thereby increasing staff to 100% while reducing labor costs by 21,000 hours per year.

Also served as Vectrus's PMO's Project Manager for Infrastructure (06/11 – 04/13). In this role, managed various software, technology, and infrastructure projects, including projects to:

- Create a software application for a request system used by hiring managers to request additional employees. The web-based system, deployed to AWS, was developed in .NET with a SQL Server database and integrated with custom built software.
- Consolidate IT service desks from five military base locations into two locations. Using ITIL principles for IT service delivery and process re-engineering techniques, worked with stakeholders, including management and the customer, to improve service to customers and to reduce the cost of providing these services.

Also served Director of Network Operations and Security Center in Iraq and Afghanistan (09/09–06/11). In this role, directed a team in providing technical control, network management, and information security services and guidance for 15 IT service centers in Iraq and 20 IT service centers in Afghanistan. Also:

- Collaborated with military leaders to establish goals and performance metrics and re-engineered processes to reduce the number of outages and the duration of downtime.
- Gained leadership buy-in and support to focus a problem resolution team on the most important, dynamic, and fluid priorities.
- Facilitated collaboration among diverse and dispersed technical teams for enhanced problem solving.
- Within 6 months, reduced the duration of outages by over 15%.

President and Principal Consultant, Ankeny Group

01/01 – 09/09

Started technology consulting company and served as a project management consultant for the State of Iowa's IT Enterprise Division (ITE), which provides professional IT services such as custom software development, software application support, hosting services, network services, email services, help desk, and desktop services to state agencies. In this role:

- Initiated, planned, and led deployment of 14 e-government software applications.
- As a project manager assigned to client software development projects, worked with agencies to initiate projects, secure funding, understand requirements, prepare statements of work, assign personnel, and complete projects by deploying software systems that met customers' business needs. Located new business opportunities for ITE. Projects were successfully completed, launched, and deployed.
- Directed and led all aspects of the full SDLC for software development projects, including management of stakeholder relationships, business analysis, initiation, development, testing, user training, and deployment.
- Delivered projects and software applications on budget to meet customer requirements for health and human services, student loans, state budgeting, and logistics and transportation.
- Built relationships with department directors who reported to the Iowa Governor.

- Rewrote SDLC documentation for ITE to include agile and scrum processes and practices. Transitioned ITE to agile project management and scrum principles and values. Led a transition project and three software development projects that converted to scrum processes, methods, ceremonies, and artifacts. Authored and instituted scrum processes and best practices. Educated and mentored product owners and team members. Made sure that scrum process were followed.
- Collaborated with customers and authored funding documents that analyzed return on investment and enabled state agencies to obtain funding for software development projects that involved state and federal regulatory compliance, achievement of strategic goals, and cost savings.
- Improved ITE's relationship with a major state agency that felt ITE had not delivered the software requested. Immediately engaged the customer and gained approval for an agile approach and greater involvement by the customer. Established time-boxed iterations (sprints) where working software was delivered every two weeks and collaborated with the product owner to implement scrum principles, planning, processes, and ceremonies. With the customer engaged in the process, it felt a greater level of control of the outcome. This improved the relationship with the agency, bringing more business and additional projects for ITE.

Concurrently, as President and Principal Consultant of the Ankeny Group:

- Recruited staff and provided project services in a variety of other industries and for a variety of companies. Projects included software development for a medical laboratory robotics system and a behavior health care system. Deployed a Microsoft email system and provided a point-of-sale study and consulting as well as IT staffing services.
- Established a software development team in Chennai, India, that significantly reduced costs. Secured a \$900,000 contract to rewrite a legacy software system with modern technology for a launch to the web. Orchestrated all aspects of the launch of a software development facility. Implemented an SDLC as well as a project management and quality methodology for 20 software engineers. Managed projects with a combination of offshore and onsite teams.

VP Marketing and Product Development, Nexterna

07/99 – 01/01

Built a marketing and product development infrastructure for this pioneer in wireless data technology. Expanded the marketing staff from one person to 18. Led and managed cross functional teams to build software and hardware for installation on mobile service vehicles to monitor work orders, GPS locations, and work fulfillment by mobile workers.

Director, Software Development, Union Pacific Railroad

01/92 – 07/99

Led enterprise-wide IT software development projects for the largest railroad system in North America. Projects included transportation, logistics, supply chain management, human resources, and finance. In this role:

- Led technology group in the launch of the industry's largest national customer call center supporting 110 branches across 21 states. Reduced costs by \$100 million annually by streamlining operations and boosting productivity.
- Recruited, mentored, and directed project managers and personally managed several large multi-year IT projects.

2.1.2 Senior Advisor

Mr. Luparello is a Delivery Senior Director who leads NTT DATA's UI Practice. He combines a strong understanding of the technical and operational needs of state UI agencies based on his experience as Executive Director of the District of Columbia Department of Employment Services and as the agency's CIO. He has also served as the chief executive for a technology company that specializes in UI systems.

In his work for the District of Columbia, Mr. Luparello remediated issues that had plagued the District's Department of Employment Services for more than a decade, clearing 57 active federal Department of Labor corrective action plans. Later, as a senior technology executive, Mr. Luparello oversaw all aspects of his firm's relationship with 21 state or territorial UI agencies with installed systems.

Mr. Luparello has also served on the board of the National Association of State Workforce Agencies (NASWA) as well as the Illinois Chamber of Commerce Unemployment Insurance Committee. In addition, he has also served as a consultant to NASWA's Center for Employment Security Education and Research. He currently serves on the board of directors of Strategic Services on Unemployment and Workers' Compensation.

His resume begins on the next page.

Resume: Tom Luparello, Senior Advisor

Summary

Tom Luparello leads NTT DATA's UI Practice. He is a proven senior executive with more than 20 years of business administration and IT experience in the public and private sectors. As Director of the District of Columbia's Department of Employment Services, Mr. Luparello managed a staff of more than 500 employees and an operating budget of more than \$160 million. Mr. Luparello has also been active with NASWA and other organizations in the UI space.

Education

- J.D. Certificate Program in Business Law, Chicago-Kent College of Law
- M.B.A., University of Chicago Graduate School of Business
- B.A., Philosophy and Math, St. John's College

Employment Experience

Senior Director, NTT DATA

03/2020 – Present

Leads NTT DATA's UI Practice. In this role:

- Develops services and solutions for state workforce agencies responsible for UI programs.
- Writes technical papers and white papers to provide thought leadership in UI.
- Builds NTT DATA's relationships with strategic partners.

President and CEO, On Point Technology LLC

04/2015 – 12/2019

Led a technology company that specializes in IT solutions for state UI agencies. Oversaw all organizational operations, providing both technical and strategic direction. Conceived and executed a strategy to increase the company's scope of services and market opportunities. In this role, also:

- Substantially improved productivity while managing operational costs.
- Fostered a corporate culture emphasizing engagement, personal growth, and inclusion.
- Developed new relationships and opportunities within existing and adjacent verticals.
- Interfaced with functional heads, outside partners, industry networks, a Board of Directors, and other leaders on all aspects of company activities.
- Served as a liaison to both public sector clients and vendors. Made presentations to stakeholders and prospective clients as well as at industry conferences.

Consultant, Center for Employment Security Education and Research **02/2015 – 11/2015**

The Center for Employment Security Education and Research (CESER) is the leading education, research, and IT center focused on workforce development and UI issues. As a consultant for this organization:

- Assisted with developing project requirements and business rules for the National UI Integrity Hub to prevent organized fraud and maintain UI fund integrity.
- Worked with a team of national leaders to help identify and respond to requests from state UI programs for advice and assistance for activities within the scope of the contract.
- Provided advice on project start-ups and implementation. Guided tasks identified by CESER related to technology development.
- Developed technical and business requirements for IT-related projects.

Executive Director, District of Columbia Dept. of Employment Services 01/2014 – 01/2015

As head of the state workforce agency in the nation's capital, gathered and analyzed intelligence to provide optimal solutions for agency initiatives and challenges. Also:

- Managed a budget of \$160 million (not including \$450 million in federal pass-through funds).
- Rehabilitated a historically troubled relationship with the U.S. Department of Labor.
- Reorganized departments to follow best practices per state workforce agency guidelines.
- Initiated an industry-leading retooling of the department's workforce development systems to support accurate assessments of customers' needs and barriers to facilitate a path to lifelong reemployment.
- Consulted with department administrators, managers, and stakeholders to exchange information, present new approaches, and implement system improvements. Engaged business and technical leaders within the organization to align goals.
- Reestablished a good working rapport the union members and leaders.
- Renewed ties to D.C. Workforce Investment Council, enabling certification of American Jobs Center for the first time.

CIO, District of Columbia Department of Employment Services 02/2011 – 01/2014

As CIO for the District of Columbia's state workforce agency, architected and initiated a modernization strategy for case management that involved an array of department business processes. Also:

- Achieved milestones for document digitization and for combining UI registration and tax portals.
- Researched and applied a systematic program of industry best practices. As part of this, identified training requirements for assigned staff and encouraged their continued professional development. Reviewed and evaluated application development requirements that resulted from changes to existing program. Assessed and presented complex technical software.
- Created, updated, and codified agency audit procedures and policies.
- Defined and initiated projects to manage costs, schedule, and performance of component assignments. Assigned project managers while working to drive program success and program acceptance.
- Saved millions of dollars per year by creating an in-house payment system now leveraged by multiple District of Columbia departments.
- Rejuvenated an agency plagued by historical deficiencies, reengaged staff, and brought an atmosphere of support and accountability.
- Rebuilt relationships and formed or renewed productive alliances with sister agencies within the District of Columbia.

Co-Founder, Vice-President, and CTO, Fedmarket.com 06/1995 – 11/2010

Built business from a start-up into a \$14 million per year company. As part of this:

- Identified IT applications to support business aspirations and created new strategic options.
- Envisioned and led the development of systems, databases, an application architecture, and a hardware infrastructure that served the company from initial rollout to the present day.
- Recruited, trained, and directed teams of 3–10 developers and programmers to meet each corporate goal.
- Managed costs in the start-up phase by leveraging technology, capabilities, and bandwidth outside of core market.
- Established and directed successful corporate and consumer internet service provider business group, a database consulting practice, and a commercial web-design arm that

produced websites for Washington Technology (News Corporation), Smith Sport Optics, Action Optics, Scott USA, Walrus Gear, Moss Tents, Armadillo by Walrus, and Carrera USA.

- Brokered and executed a consulting engagement to produce an internet-based public relations system.
- Designed, coded, and deployed a custom Oracle-driven customer relationship management system geared towards increasing sales while minimizing lead cleansing and contention among sales personnel.
- Worked both independently and with an executive team to prioritize and reduce costs across the organization without impacting performance, quality, or uptime. Renegotiated vendor contracts to minimize expenses.
- Administered and controlled the information systems expense budget to contribute to a cost-effective operation.

2.2 Past Projects (RFP 4.3)

NTT DATA and our partners have provided an array of services that align with the State's requirements for a fraud case management software solution to assist WFWV with fraud investigations. Figure 51 shows this alignment. Specifically, it shows:

- How our team's past performance aligns with the requirements of this RFP with respect to the solution itself (RFP 4.2.1). This is shown in the "UI Fraud Solution" column.
- The correlation of past projects with our approach to meeting WFWV's mandatory project requirements (RFP 4.2.2), such as support for an on-premises installation (RFP 4.2.2.1) in a Windows Server environment (RFP 4.2.2.1.1). This is shown in the "Case Management System Configuration Requirements" column.
- Our experience supporting (RFP 4.2.2.3) requirements, shown in the "Annual Maintenance and Support" column.

Each of the examples shown in Figure 51 demonstrate our ability to successfully deliver a case management system based on WFWV's desired requirements on the schedule we have proposed, within our proposed cost, and up the quality expected by the State. Specifically:

- Our work for the **Lexington-Fayette Urban County Government** demonstrates our ability to deploy and integrate a case management system that supports operations across a government organization.
- Our work for the **Maine Department of Labor** demonstrates our ability to support fraud solutions within a case management system over a long-term contract while meeting specific architecture requirements.
- Our team's work for the **Arkansas Division of Workforce Services** demonstrates our experience supporting a state workforce agency in execution of a UI modular modernization.
- Our team's work for the **Oklahoma Department of Labor** illustrates our capabilities to provide UI fraud solutions with long-term maintenance and support.
- Our team's work for the **State of Maryland** demonstrates our ability to provide a comprehensive case management system solution, in this case for child, juvenile, and adult case management.

Figure 51. Projects Demonstrating NTT DATA's Ability to Provide Fraud Case Management Monitoring Software

Project Title & Description	Relevancy		
	UI Fraud Solution (RFP 4.2.1)	Case Management System Configuration Requirements (RFP 4.2.2)	Annual Maintenance and Support (RFP 4.2.2.3)
Lexington-Fayette Urban County Government: Modernized a 311 operation by implementing modernized customer relationship management and case management technology.	Project 1 ✓	✓	✓
Maine Department of Labor: Provided maintenance and support by provisioning a technical subject matter expert in UI system design, testing, deployment, and audits		✓	✓
Arkansas Division of Workforce Services PMO Support: Provided UI modular modernization, COVID support and other services.	Project 2 ✓	✓	✓
Oklahoma Department of Labor: Provided anti-fraud, cybersecurity, and IT operations services.	✓		✓

Project Title & Description	Relevancy	
Maryland Child, Juvenile, and Adult Management System: Delivered a comprehensive statewide case management system that addresses provider management, fiscal management, and enforcement.	Project 3	✓

As the preceding figure shows, we have selected three of these projects to use as references. We will discuss each of these references in the next three sections.

2.2.1 Project One: Lexington-Fayette Urban County Government

In Lexington, Kentucky, NTT DATA replaced a 20-year-old homegrown solution for managing public contact with a modern customer relationship management and case management system based on Salesforce. This experience in Lexington is relevant to this WFWV project given that it involved integration of a solution with significant case management capabilities. As with this WFWV project, our role in Lexington involved project management and integration of a modern solution with an array of other technologies.

Location of the Project
Lexington-Fayette Urban County Government (LFUCG), Lexington, Kentucky
Project Manager Name and Contact Information
Will Prible, Client Executive Phone: 859-753-0127 Email: will.prible@nttdata.com
Type of Project
LFUCG is the consolidated city-county government in Lexington, Kentucky. This project involved replacement of a customer (or citizen) relationship management (CRM) system for LFUCG's 311 service known as LexCall 311. LexCall 311 has long served as the first stop for citizens facing everyday challenges such as potholes, graffiti, or trash collection.
Project Goals and Objectives and Where and How They Were Met
Project Goals. LFUCG selected NTT DATA to replace what was then an overextended, 20-year-old, homegrown solution for managing public contact. The goal of the project was to implement a more modern technological approach to CRM by updating and consolidating information in one system and by providing a platform on which LexCall could grow.
Where and How They Were Met. NTT DATA's solution was to implement a new CRM and case management system based on Salesforce. This solution includes case creation and management functionality and workflow, including procedures for assigning cases, escalating cases, and turning telephone calls or email messages into cases. The Salesforce technology in this solution provides the ability to assign any number of tasks or activities to a single parent case and to route cases to appropriate LFUCG departments or employees.
Our solution is now used by LFUCG to field inquiries from local residents who dial 311 or who contact LFUCG by other means. Our work included integration of a new CRM system based on Salesforce, software-as-a-service that involves multiple new releases every year. Our solution also included integration with new GIS functionality, an Avaya phone system, a waste management application, and a water quality application from Accela. NTT DATA's implementation team included a project manager, a lead architect, a business analyst, an integrations developer, a 311 specialist, and two GIS specialists.
References
Kendra Carter, LexCall Director 200 E. Main St., Lexington, KY 40507 Phone: 859-280-8021 Email: kcarter@lexingtonky.gov

2.2.2 Project Two: Arkansas Division of Workforce Services

NTT DATA is providing project management support for a major UI modernization project at the Arkansas Division of Workforce Services as well as an array of other services related to UI. These services in Arkansas show NTT DATA's familiarity with the needs of state UI providers. Our work in Arkansas is particularly relevant given that NTT DATA's role in this UI modernization project involves project management, services we will also be providing as prime contractor in this project for WFWV.

Location of the Project
Arkansas Division of Workforce Services, Little Rock, Arkansas
Project Manager Name and Contact Information
J.J. Dunn, Program Director Phone: 601-862-2689 Email: jj.dunn@nttdata.com
Type of Project
<p>NTT DATA provides an array of UI-related services to the Arkansas Division of Workforce Services, part of this state's Department of Commerce. Examples of these services include:</p> <ul style="list-style-type: none"> • COVID Support. The Arkansas Division of Workforce Services sought NTT DATA's assistance to manage the multiple projects and system changes required at the Division of Workforce Services during the early stages of the COVID-19 pandemic. NTT DATA provided project management services as well as a technical analysis and business analysis support. Our team worked directly with the department's CIO and system vendors to track changes and federal regulations so that Arkansas citizens received all the services and support for which they were eligible. • UI Modular Modernization. The Division of Workforce Services also awarded NTT DATA a contract to provide project management support for the state's UI Modernization Project. This 7-year modular modernization program includes a 3-year UI modernization project, as well as the migration of existing systems and solutions to the cloud. In a contract with an initial term of 19 months, our team provides program and project management support, advisory services, process mapping and process improvement services, user testing services, training, and UI subject matter expertise. • SAP (S/4HANA). Development and Implementation Services. The Division of Workforce Services has also contracted with NTT DATA for direct support of SAP development and implementation services, including (1) SAP public sector cloud functionality, (2) interfaces and integration, (3) data migration, (4) reporting, and (5) a configured cost allocation system per federal requirements.
Project Goals and Objectives and Where and How They Were Met
<p>Our UI experience in Arkansas includes several different projects with a variety of goals and objectives:</p> <ul style="list-style-type: none"> • COVID Support. Our goals in providing COVID-related support included helping the State of Arkansas provide eligible citizens with timely unemployment services. We met these goals by providing project management services as well as technical and business analysis to track and better understand quickly evolving federal regulations and their impact on the Division of Workforce Services. Our team worked directly with the division and with system vendors to track needed system changes through to implementation so that eligible citizen services were not negatively impacted or delayed. • UI Modular Modernization. The goals of this project include implementing a modular UI system and components, migrating existing systems and solutions to the cloud, and streamlining and improving business processes. To meet these goals in preparation for what will be a 3-year modernization project, NTT DATA is providing program and project management support as well as advisory services. Our team is working with the Division of Workforce Services to identify and establish project governance and staffing plans. Our team will also assist with process

improvement initiatives to streamline this client's current processes so that they align with a modular implementation.

- **SAP (S/4HANA) Development and Implementation Services.** Our **goals** in this project include implementing SAP cloud functionality for an upgraded cost allocation system and a grants management system. We are **meeting these goals** by quickly deploying an SAP development and implementation team to stand up an SAP cloud environment and system by Dec. 31, 2021. Another priority in this project is to deploy cost allocation and reporting capabilities based on a series of integrations with state time reporting and other required systems. Throughout this project, our team is providing development and implementation support for the requested SAP modules.

References

Carder Hawkins, CIO
 P.O. Box 2981 Little Rock, AR 72203
Phone: 501-682-3210.
Email: carder.hawkins@arkansas.gov

2.2.3 Project Three: Maryland Child, Juvenile, and Adult Management System

In this project, Cardinality provided services to the State of Maryland's Department of Human Services and Department of Juvenile Services by implementing a purpose-built case management system based on Cardinality.ai. This experience directly relates to WFWV's requirements given that NTT DATA's overall solution for WFWV also involves Cardinality.ai case management technology. Cardinality implemented an environment and architecture as requested by the State of Maryland using an approach that supported this client's needs. Cardinality also provided long-term support and maintenance for applications.

Location of the Project

Maryland Department of Human Services (DHS) and Maryland Department of Juvenile Services

Project Manager Name and Contact Information

Martin Prabhu, Vice President of Architecture
Phone: +91 9600094008
Email: martin@cardinality.ai

Note: The Project Manager responsible for this implementation has left Cardinality, but Mr. Prabhu is able to speak to this project as Vice President of Architecture at Cardinality.

Type of Project

Maryland Child, Juvenile, and Adult Management System (CJAMS)

Project Goals and Objectives and Where and How They Were Met

Project Goals. The goal of this project was to consolidate all systems and applications that relate to Maryland DHS services in a comprehensive case management system known as CJAMS. This included the consolidation of services from other State of Maryland departments, including the Department of Health and Mental Hygiene; the Department of Juvenile Services; and the Department of Labor, Licensing, and Regulation. Project stakeholders wanted a single, cloud-based application for Maryland's child welfare, juvenile justice, and adult protective services operations to serve as the centerpiece for the entire platform. The cloud-based solution was delivered using a phased approach and a containerized environment.

Where and How They Were Met. The Cardinality.ai platform includes a modular structure by which child welfare, adult services, juvenile services, and other functionality could be delivered in a single application but deployed at different times based on the State of Maryland's requirements. Cardinality used its Cardinality.ai platform to successfully deliver every requirement sought by Maryland DHS through four phases of deployment. This effort began with a pilot involving 5% of the caseload, followed by incremental modernization and deployment in other counties. The full pilot was achieved in 19 months from project start. A statewide deployment was completed 27 months after the start of the

project. The base platform continues to be upgraded twice a year.

A key success factors in this project was Cardinality's ability to listen carefully to stakeholders, take meaningful feedback, act on the feedback promptly, and ultimately make sure caseworkers' requirements were correctly captured and reflected in the final solution. The implementation also included the seamless migration of close to 12 million records in four months from a range of entities, including Maryland DHS and the Maryland Department of Health and Mental Hygiene.

CJAMS now directly serves over 5,000 case managers supporting over 6 million residents and 12 million records. It serves as the statewide case management system of record in Maryland for child welfare, adult services, and the Department of Juvenile Services. This comprehensive system addresses case management, provider management, fiscal management, and other needs for the Maryland DHS and related activities for the Maryland Department of Juvenile Services, including child support enforcement. The system provides critical data exchanges for health records, case information, educational information, and court information.

Cardinality designed CJAMS as a multi-tenant system that provides a different user experience for users based on agency, role, and case type. This allows critical case management and data management to occur seamlessly while users perform daily duties within the system. The platform across child, adult and juvenile welfare has 300+ screens and multiple workflows, supporting these core business processes:

- Intake
- Investigation
- Assessment
- Service planning
- Service authorization
- Case management
- Financial management
- Reporting
- Resource management
- Referrals

Hosted in AWS, the solution leverages native scalability features such as auto-scaling and elastic load balancing. It dynamically scales horizontally or vertically, reduce the resource utilization costs while maintaining performance. The solution also includes integrations with 18 different systems or agencies, including:

- The State of Maryland's accounting system, known as the Financial Management Information System
- The Adoption and Foster Care Analysis and Reporting System (AFCARS)
- The Department of Public Safety and Correctional Services
- The Maryland court system
- The National Electronic Interstate Compact Enterprise (NIECE), a national system used by states to exchange information on placing children across state lines

Key capabilities and benefits of the solution include:

- Immediate and better access to electronic mobile devices
- Streamlined reporting and resolution of problems
- Advanced sorting and filtering components
- Bulk validation for placements
- Enhancement of child protective services after-hours and in emergency responses
- A reduced upload time for documentation
- The ability to export contacts to email
- A human-centered experience based on a modern architecture
- AI that has reduced by more than 20% the time previously spent by intake workers routing assigned cases

- Cases based on evidence-based risk scores
- Automation plus natural language processing to automate redundant activities and optimize the user experience
- Efficient use of natural language processing for rapid information capture
- A machine learning platform that learns about constituents, users, and cases over time to make intelligent decisions
- A foundation for digitizing case information and providing easy access through the cloud
- API-based integration with related systems to provide 360-degree case view

References

Subi Muniasamy, Chief Technology Officer

Phone: 443-845-8427

Email: subi.muniasamy@maryland.gov

APPENDIX A – PROJECT MANAGER CERTIFICATIONS

Our proposed Project Manager, James Fox, holds a range of certifications. He is a PMI-certified Program Management Professional, Project Management Professional, and Risk Management Professional. He is also a Certified Scrum Master and a CISSP. Copies of these and other certifications are provided starting on the next page.

Project Management Institute

THIS IS TO CERTIFY THAT

James W. Fox

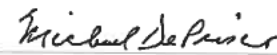
HAS BEEN FORMALLY EVALUATED FOR EXPERIENCE, KNOWLEDGE AND PERFORMANCE OF
PROGRAM MANAGEMENT AND IS HEREBY BESTOWED THE GLOBAL CREDENTIAL

Program Management Professional (PgMP)®

IN TESTIMONY WHEREOF, WE HAVE SUBSCRIBED OUR SIGNATURES UNDER THE SEAL OF THE INSTITUTE




Jennifer Tharp
Chair, Board of Directors


Mike DePrisco
Interim President & CEO

PgMP® Number: [REDACTED]
PgMP® Original Grant Date: 06 June 2010
PgMP® Expiration Date: 03 May 2022



Project Management Institute

THIS IS TO CERTIFY THAT

James W. Fox

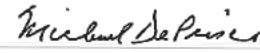
HAS BEEN FORMALLY EVALUATED FOR DEMONSTRATED EXPERIENCE, KNOWLEDGE AND PERFORMANCE
IN ACHIEVING AN ORGANIZATIONAL OBJECTIVE THROUGH DEFINING AND OVERSEEING PROJECTS AND
RESOURCES AND IS HEREBY BESTOWED THE GLOBAL CREDENTIAL

Project Management Professional (PMP)®

IN TESTIMONY WHEREOF, WE HAVE SUBSCRIBED OUR SIGNATURES UNDER THE SEAL OF THE INSTITUTE




Jennifer Therp
Chair, Board of Directors


Mike DePrisco
Interim President & CEO

PMP® Number: [REDACTED]
PMP® Original Grant Date: 04 May 2006
PMP® Expiration Date: 03 May 2022



Project Management Institute

THIS IS TO CERTIFY THAT

James W Fox

HAS BEEN FORMALLY EVALUATED FOR EXPERIENCE, KNOWLEDGE AND SKILLS IN THE SPECIALIZED AREA OF
ASSESSING AND IDENTIFYING PROJECT RISKS AND IS HEREBY BESTOWED THE GLOBAL CREDENTIAL

PMI Risk Management Professional (PMI-RMP)®

IN TESTIMONY WHEREOF, WE HAVE SUBSCRIBED OUR SIGNATURES UNDER THE SEAL OF THE INSTITUTE



Jennifer Sharp
Chair, Board of Directors

Mike DePrisco
Interim President & CEO

PMI-RMP® Number: [REDACTED]

PMI-RMP® Original Grant Date: 09 June 2015

PMI-RMP® Expiration Date: 08 June 2024



International Information System Security Certification Consortium

The (ISC)² Board of Directors hereby awards

James Fox

the credential of

Certified Information Systems Security Professional

having met all of the certification requirements, which include the professional experience prerequisite, adoption of the (ISC)² Code of Ethics, and successful performance on the required competency examination, subject to recertification every three years, this individual is entitled to all of the rights and privileges associated with this designation, as defined in the (ISC)² Bylaws.



Zach Tudor - Chairperson



Yiannis Pavlosoglou - Secretary



Certification Number

Oct 1, 2016 - Sep 30, 2019

Certification Cycle

Certified Since: 2010

(ISC)²

Verify Member is in good standing at: www.isc2.org/verify

Printed On: 2/17/2022

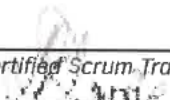


James Fox

is awarded the designation Certified ScrumMaster® on this day, October 20, 2019, for completing the prescribed requirements for this certification and is hereby entitled to all privileges and benefits offered by SCRUM ALLIANCE®.



Certificant ID: [REDACTED] Certification Active through: 20 October 2023 Certified Since: 24 February 2009


Certified Scrum Trainer®


Chairman of the Board



This is to certify that

James Fox

has successfully passed the certification exam for

Scrum Master Certified

and is hereby designated as an SMC®

Granted Date : May 24, 2016

Expiry Date : May 24, 2022



Certificate ID

Executive Director

Chairman Academic Council

The Certificate remains the property of VMEdU, Inc. and shall be returned immediately on request.
VMEdU, Inc., 12725 W. Indian School Road, Suite F-112, Avondale, AZ - 85392
Web: www.SCRUMstudy.com; Email: support@scrumstudy.com

APPENDIX B – FORMS

In this appendix, the following forms are provided in the order listed.

- Designated Contact
- Addendum Acknowledgement Form
- Request for Proposal
- Purchasing Affidavit

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

DocuSigned by:

Billy Johnson Sales Executive

(Name, Title)

Billy Johnson, Sales Executive

(Printed Name and Title)

7950 Legacy Drive, Plano, Texas 75042

(Address)

(513) 444-9684

(Phone Number) / (Fax Number)

Billy.Johnson@nttdata.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

NTT DATA, Inc.

(Company)

Christopher Merdon President

(Authorized Signature) (Representative Name, Title)

Christopher Merdon, Division President, State & Local Government and Education

(Printed Name and Title of Authorized Representative)

March 8, 2022

(Date)

(443) 812-6900, Christopher.Merdon@nttdata.com

(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

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:

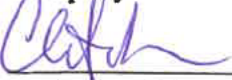
(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> 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.

NTT DATA, Inc.

Company



Christopher Merdon,
Division President, State & Local Government and Education

Authorized Signature

March 8, 2022

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

REQUEST FOR PROPOSAL

WorkForce West Virginia Fraud Case Management System

Proposal 1: Step 1 – $\$1,000,000 / \$1,000,000 = \text{Cost Score Percentage of } 1 (100\%)$
Step 2 – $1 \times 30 = \text{Total Cost Score of } 30$

Proposal 2: Step 1 – $\$1,000,000 / \$1,100,000 = \text{Cost Score Percentage of } 0.909091 (90.9091\%)$
Step 2 – $0.909091 \times 30 = \text{Total Cost Score of } 27.27273$

- 6.8. Availability of Information:** Proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for disqualification, will not be available until after the contract has been awarded pursuant to West Virginia Code of State Rules §148-1-6.3.d.

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

NTT DATA, Inc.

(Company)

Christopher Merdon, Division President, State & Local Government and Education

(Representative Name, Title)

(443) 812-6900, Christopher.Merdon@nttdata.com

(Contact Phone/Fax Number)

March 8, 2022

(Date)

Revised 07/01/2021

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Christopher Merdon, Division President, State & Local Government and Education

Authorized Signature: 

Date: 3/1/22

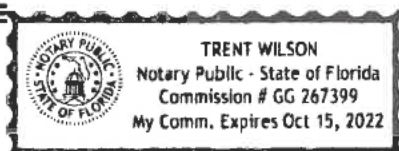
State of Florida

County of MARTIN, to-wit:

Taken, subscribed, and sworn to before me this 1st day of MARCH, 2022.

My Commission expires October 15, 2022.

AFFIX SEAL HERE



NOTARY PUBLIC 

Purchasing Affidavit (Revised 01/19/2018)

APPENDIX C – SERVICE LICENSE AGREEMENT

On the following page we provide the software license for Cardinality.



Cardinality.ai

Fraud Analytics Case Management

Cardinality: End User License Agreement
Version 1.0



END USER LICENSE AGREEMENT

This End User License Agreement (“EULA”) is between West Virginia Department of Commerce - WorkForce West Virginia (“You” or “Your”) and Elixir Lab USA, a Delaware corporation (“Cardinality” or “Elixir” or the “Company”) having its principal place of business at 1775 Tysons Blvd. Level 5, Tysons, VA 22102. This EULA sets forth the terms and conditions on which You may avail the Company’s proprietary software, a comprehensive Case Management System (“Elixir Solution”) and the products included therein (collectively, the “Services”).

It is important that You carefully read and understand this EULA prior to availing the Services. By availing the Services, You agree to be bound by this EULA. If You do not agree with all the terms of this EULA and do not agree to be bound by this EULA, please do not avail the Services or use the Elixir Solution.

By using the Elixir Solution or availing the Services, You affirm that You are of legal age and have the legal capacity to enter into this EULA. If You are entering into this EULA on behalf of an entity, such as the company You work for, You represent to Elixir that You have the legal authority to bind that entity.

1. Grant of License and Services

1.1. Subject to Your acceptance of these EULA, the Company has agreed to grant You a limited, non-exclusive, sub-licensable, license to use the Elixir Solution to enable You to avail the Services.

1.2. You agree and acknowledge that the implementation of the Elixir Solution for availing the Services is dependent on the connectivity infrastructure and facilities available at the locations where You attempt to access the Services. The Company shall not be responsible to provide such connectivity infrastructure and facilities.

2. Representations, Warranties, and Covenants

You represent, warrant and covenant that:

*Business Confidential—Not to be discussed with third parties without consent.
Information in this document is proprietary to Cardinality.ai*

Cardinality, Inc. User License Agreement
Version 1.0



2.1. If You are accepting this EULA on behalf of an entity, such entity is validly existing and has good standing under the laws of its jurisdiction and is organized under the laws of the jurisdiction where it operates; and that it has the requisite authority and licenses to legally conduct business in its jurisdiction and has all requisite power and authority to enter into this EULA.

2.2. All Your obligations under this EULA are legal, valid, and binding obligations enforceable as against You in accordance with the terms provided in this EULA.

2.3. At all times, You shall act equitably and in good faith and shall duly comply with the terms and conditions of this EULA in letter and spirit.

2.4. For a period of 1 (one) year from the effective termination of this EULA, You shall not, either, directly or indirectly, contact, solicit or do business with any client, customer or agent, employee or contractor of the Company.

2.5. You shall make good any damages caused due to the act or omission of any of Your personnel resulting from any claim from Your users, customers, clients, or third-parties and You shall indemnify and hold harmless the Company for any such damages or liability.

2.6. You shall be responsible for ensuring compliance with applicable laws on use and access of the Elixir Solution in Your jurisdiction including compliance with applicable data security and privacy legislations.

2.7. Any and all advice, diagnoses, actions taken by You using the Elixir Solution shall solely be Your responsibility and liability. The Company shall not be liable for any advice rendered using the Elixir Solution.

3. **Termination and Revocation**

3.1. This EULA shall be valid for the duration as set forth in any purchase order, invoice, work order, or similar commercial document between You and the Company or until terminated by either You or the Company as per the provisions of this Clause 3.

*Business Confidential—Not to be discussed with third parties without consent.
Information in this document is proprietary to Cardinality.ai*

3

Cardinality: End User License Agreement
Version 1.0



3.2. You and the Company shall have the right to terminate this EULA with immediate effect, without issuing any notice, in the event that the other has committed any act of fraud or misrepresentation or if the other is being investigated for any act of illegality or corruption by a statutory body.

3.3. The Company shall have a right to immediately terminate the EULA without issuing any notice to You, if You fail to pay the commercials as set forth in any purchase order, invoice, work order, or similar commercial document to the Company within 30 (thirty) days from the receipt of the invoice by You.

3.4. Upon the termination of this EULA, the following obligations shall be executed: (i) You shall return to the Company all the Confidential Information (hereinafter defined), and any copies thereto within 7 (seven) working days from such termination; (ii) You shall pay all amounts due to the Company; (iii) You shall cease to use the trademarks, logos, names of the Company; (iv) You shall inform all users registered under You, that Elixir Solution is no longer being by used by You; and (v) Any limited and/or perpetual licenses to the Elixir Solution shall immediately cease and You shall ensure that all sub-licensees forthwith cease to use the Elixir Solution;

3.6. In the event of termination for any reason whatsoever, You shall not be entitled to any refund of any payments made by You.

4. Consideration for Services

4.1. In consideration of the licenses provided herein, You shall pay to the Company the license fees as set forth in the purchase order, invoice, work order or similar commercial document issued to You by the Company.

4.2. You agree that all payments will be subject to tax as per applicable law. Any and all taxes, fees, expenses additionally incurred in the jurisdiction of Your use of the Elixir Solution shall be paid by You without recourse to the Company.

*Business Confidential—Not to be discussed with third parties without consent.
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5. Confidentiality and Intellectual Property

5.1. You agree that Confidential Information, including information which is proprietary and confidential in its very nature exchanged or disclosed by the Company, shall be kept confidential and shall not be disclosed or given to any third-party or made use of in any manner otherwise than for the purposes agreed herein, during and after the expiry or termination of this EULA, without the prior written consent of the Company. It is clarified that the terms of this EULA shall remain confidential.

5.2. For the purpose of this EULA, "Confidential Information" shall include, without limitation, all the Company's and third-party (including any client or customer) information which is proprietary and not available to the general public. It shall mean the design, materials, product specifications, know-how, final products, pictures, technical data, developments, and intellectual property of the Company, and all technical information, including, specifications, designs, drawings, algorithms, processes, systems and procedures, computer programs, methods, ideas, business information such as sales and marketing materials, customer personal information and data, plans, accounting and financial information, credit information on customers, list of databases containing the names, addresses and business needs of customers, sales reports, price lists, personnel records including the names and addresses of the Company's employees, contractors, sub-contractors and other information which is accessed, created, received, exploited, developed or obtained by You during the course of Your engagement with the Company whether or not designated as confidential expressly.

5.3. Both You and the Company shall each retain all rights, titles and interests, in each of their respective pre-existing intellectual property, including, but not limited to, all trademarks, logos, software, technology, information, content, materials, guidelines and documentation. Neither You nor the Company will acquire any right, title, or interest therein, without the prior written consent of the other. Any rights that are not expressly granted herein are deemed withheld.

5.4. You consent to and agree to provide the Company with a limited license to use Your name, logo, trademark, photograph and details (or those of the entity You represent) in any marketing and publicity materials.

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5.5. You agree that the Company is sole and exclusive owner of all intellectual property rights in the Elixir Solution. The limited, non-exclusive, and non-transferable license to use the Elixir Solution shall be subject to the following limitations: (i) You shall only use the Elixir Solution as per the terms of this EULA; (ii) You may not copy the Elixir Solution; (iii) You shall not reverse compile, disassemble, or otherwise reverse engineer, or determine the source code or protocols from, the executable code of the Elixir Solution; (iv) You agree not to assign, lease, rent, sublicense or otherwise transfer to any third-party nor to modify or create derivative works of the Elixir Solution or otherwise use the Elixir Solution, except as permitted in this EULA. The Company retains all rights not expressly granted to You. In the event of any violation of this Clause 5, the Company shall be entitled to immediately suspend the licenses to the Elixir Solution.

5.6. The rights granted to You under this EULA are also conditioned on the following that You will not: (i) remove or modify any program markings or any notice of Elixir's or its licensors' proprietary rights; (ii) make the programs or materials resulting from the Services available in any manner to any third-party for use in the third-party's business operations (unless such access is expressly permitted for the specific program license or materials from the Services You have acquired); (iii) modify, make derivative works of, disassemble, reverse compile, or reverse engineer any part of the Services (the foregoing prohibition includes but is not limited to review of data structures or similar materials produced by programs), or access or use the Services in order to build or support, and/or assist a third-party in building or supporting, products or services competitive to Elixir; (iv) disclose results of any Services or program benchmark tests without Elixir's prior written consent; (v) license, sell, rent, lease, transfer, assign, distribute, display, host, outsource, disclose, permit time-sharing or service bureau use, or otherwise commercially exploit or make the Services, Elixir Solution or materials available, to any third-party other than, as expressly permitted under the terms of this EULA; (vi) except as expressly provided herein, no part of the Services may be copied, reproduced, distributed, republished, downloaded, displayed, posted or transmitted in any form or by any means, including but not limited to electronic, mechanical, photocopying, recording, or other means; and (vii) You agree to make every reasonable effort to prevent unauthorized third parties from accessing the Service.

6. Indemnity and Limitation of Liability

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6.1 You agree to indemnify, keep indemnified, defend and hold harmless the Company and its directors, officers and employees, against any and all losses, expenses, claims, costs and damages suffered directly, arising out of, or which may arise in connection with (i) any misrepresentation or any breach of any representation or warranty contained in this EULA; (ii) any breach of or non-compliance with any covenant or any other term of this EULA or breach of statutory or regulatory guidelines in respect of the use of the Elixir Solution; (iii) breach of the intellectual property rights or licenses to the Elixir Solution; and (iv) any claim from any third-party for any act, advice rendered using the Elixir Solution.

6.2 The Company shall defend, indemnify and hold You, Your directors and employees, harmless from and against any loss actually incurred by You and directly arising from a third-party claim that Your use of the Elixir Solution in accordance with this EULA infringes a copyright of any third-party; provided that You promptly notify the Company in writing of any such claim and allow the Company to control, and fully cooperate with the Company in the defense of any such claim and all related settlement negotiations. In the event an injunction is sought or obtained against Your use of the Elixir Solution as a result of any such infringement claim, the Company may, at its sole option, cost, and expense: (i) procure for You the right to continue using the Elixir Solution, or (ii) replace or modify the Elixir Solution so that it does not infringe, or (iii) correct any material deficiencies in the Services provided by the Company immediately on intimation of such deficiency by You. The Company shall have no liability for any claim based upon (w) use of other than the then current, unaltered version of the Company's Elixir Solution, unless the infringing portion is also in the then current, unaltered release; (x) use, modification, operation or combination of the Company's Elixir Solution with non-Company programs, data, equipment or documentation if such infringement would have been avoided but for such use, modification, operation or combination; (y) compliance with Your designs, specifications or instructions; or (z) any third-party software at its own risk, cost, expenses and consequences. The foregoing constitutes the entire liability of the Company.

6.3 Notwithstanding any other provisions of this EULA, in no event shall the Company be liable to You for indirect, special, or consequential damages arising out of or in connection with the materials or assistance provided under this EULA.

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7. Disclaimer

7.1. The Elixir Solution is provided 'AS IS' without warranty of any kind, express or implied, including, but not limited to, warranties of performance, merchantability, fitness for a particular purpose, accuracy, omissions, completeness, correctness, and delays. The Company does not warrant that the operation of the Elixir Solution shall be uninterrupted or error free.

7.2. You acknowledge and agree that the use of the Elixir Solution shall be Your responsibility. The Company is not responsible or accountable for the accuracy of the results of the Elixir Solution, any advice or act or omission of any act by Your practitioners or personnel, or for any usage of the Elixir Solution by You or Your personnel.

8. Warranties

8.1. The Elixir Solution will perform in accordance with the specifications provided by the Company for a period of 90 (ninety) days. If during the warranty period the Elixir Solution does not perform as warranted, the Company shall, at its option, correct the Elixir Solution. The warranty will apply only if (i) the Elixir Solution have been used at all times and in accordance with the instructions of the Company; (ii) no modification, alteration or addition has been made to the Elixir Solution; and (iii) the Elixir Solution have not been used with any other software or device not approved by the Company.

9. Miscellaneous

9.1. This EULA shall be binding upon and ensure to the benefit of the parties hereto and their respective successors. Neither this EULA nor any of the rights, interests or obligations hereunder shall be assigned to any third-party, unless otherwise agreed in writing by You and the Company.

9.2. Neither party shall be liable to the other for failure or delay in the performance of any of its obligations under this EULA for the time nor to the extent such failure or delay is caused by force majeure or reasons beyond the reasonable control of the concerned party. This will not, however, apply to the obligation to make accrued payments.

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9.3. Any notices, requests and other communications required or permitted hereunder shall be in writing and shall be given by hand against written acknowledgement or receipt, or sent by registered mail, or by facsimile followed by a confirmation letter by registered mail, at or to each of the parties at the addresses set forth in this EULA.

9.4. The headings contained in this EULA are solely for the purpose of reference and shall not in any way affect the meaning or interpretation of this EULA.

9.5. It is clearly understood and accepted by both parties that this EULA and the contract between the parties evidenced by it are on "principal to principal" basis and nothing herein contained shall be construed or understood as constituting either party hereto the agent or representative of the other under any circumstances.

9.6. Failure of either party to require performance of any provision of this EULA shall not affect such party's right to full performance thereof at any time thereafter, and any waiver by either party of a breach of any provision hereof shall not constitute a waiver of a similar breach in the future or of any other breach. No waiver shall be effective unless in writing and duly executed by an authorized representative of the concerned party.

9.7. If any part of this EULA is held to be invalid or unenforceable in any jurisdiction, in which this EULA is being enforced, then the meaning of such part of the EULA shall be so constructed so as to render it enforceable to the extent feasible and if no feasible interpretation would save such part of the EULA, it shall be severed from the EULA. If such part of the EULA is considered an essential element of this EULA, the parties shall promptly negotiate a replacement thereof.

9.8. The terms of the services and supply shall be governed by laws of West Virginia, United States of America. Courts in West Virginia, United States of America shall have exclusive jurisdiction over matters arising pursuant to the services. Any disputes will be resolved in good faith and upon discussions among senior executives of the parties. In the event of a failure to resolve the disputes in good faith, the parties will refer such disputes to arbitration before a sole arbitrator.

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10. U.S. Government End Users Terms.

10.1. U.S. State and Local Government Terms. This Section 10.1 applies only if You are a U.S. public entity other than a U.S. Federal Government entity. The Company acknowledges that applicable law may prohibit some U.S. public sector entities from agreeing to binding arbitration to resolve disputes; in such case, the provisions in this EULA relating to binding arbitration, if any, shall not be applicable. In addition, if You are a U.S. public entity, notwithstanding anything to the contrary herein, THIS EULA WILL BE GOVERNED BY THE LOCAL LAW OF THE STATE OR COMMONWEALTH IN WHICH YOU ARE LOCATED.

10.2 U.S. Federal Government Terms. This Section 10.2 applies only if You are a U.S. Federal Government entity ("**Federal Government End User**"). The Elixir Solution, the Services, and any accompanying documentation are commercial items that have been developed entirely at private expense. This license shall prescribe exclusively the Federal Government End User's use and disclosure of the Elixir Solution, the Services, and any accompanying documentation. If You are a Federal Government End User only, this EULA is hereby amended as follows: (i) Dispute resolution and governing law: Any arbitration, mediation or similar dispute resolution provision in this EULA is hereby deleted. This EULA shall be governed by and interpreted and enforced in accordance with the laws of the United States of America, and dispute resolution shall take place in a forum, and within the time period, prescribed by applicable federal law. To the extent permitted by federal law and then only to the extent not preempted by federal law, the laws of the state specified in this EULA (excluding its choice of law rules) will apply. No equitable or injunctive relief, and no shifting of legal fees or costs, may be sought against the Federal Government End User except as, and then only to the extent, specifically authorized by applicable federal statute; (ii) Any provisions in this EULA requiring any Federal Government End User to indemnify any party are hereby deleted and shall not apply. Any requirement for the Federal Government End User to give control of the defense for any claim for which the licensor indemnifies the Federal Government shall be subject to 28 USC 516; (iii) Changes in templates: Subsequent updates to or changes in the Company's standard commercial templates for such agreements shall not be binding on the Federal Government End User, except by prior express written agreement of both parties; (iv) Fees, taxes and payment: If the Elixir Solution or Services are licensed as part of a separate government contract between the Federal Government End User and a prime contractor, the provisions of such contract regarding fees, taxes and payment shall supersede

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any provisions of this EULA regarding same. Notwithstanding the foregoing: (a) express written agreement of the Federal Government End User shall be required prior to (i) any extension or renewal of this EULA or the associated fees or (ii) any change in the fees; (b) late payments shall be governed by the Prompt Payment Act and the regulations at 5 CFR 1315; and (c) no cost of collection on delinquent invoices may be sought against the Federal Government End User except as, and then only to the extent, specifically authorized by applicable federal statute; (v) No waiver of liability or cause of action: Any provision requiring the Federal Government End User to agree to waive or otherwise not to pursue any claim against the licensor it may otherwise have is hereby deleted. Without limiting the generality of the foregoing, the parties agree that nothing in this EULA, including but not limited to the limitation of liability clauses, in any way grants the licensor a waiver from, release of, or limitation of liability pertaining to, any past, current or future violation of federal law and that no clause restricting users' statements shall be read to restrict the Federal Government End User's ability to pursue any course of action otherwise permitted by federal law, regulation, or policy, including without limitation making public statements in connection with any suspension or debarment action; (vi) Audit: Any clauses in this EULA allowing for an audit of the Federal Government End User's records or information systems, or verification of its compliance with this EULA generally, shall be subject to the Federal Government End User's requirements pertaining to security matters, including without limitation clearances to be held and non-disclosure agreements to be executed by auditors, badging or escorting requirements for access to premises, and other applicable requirements. Any over-use of the Elixir Solution or the Services in excess of the license identified in an audit shall be referred to the prime contractor or the Federal Government End User's contracting officer (as applicable) for action. No audit costs may be sought against the Federal Government End User except as, and then only to the extent, specifically authorized by applicable federal statute; (vii) Compliance with laws: The parties acknowledge that the United States, as a sovereign, is subject to the laws of the United States. Nothing in this EULA shall be interpreted to imply consent by any Federal Government End User to submit to the adjudicative or enforcement power of any regulatory, administrative, or judicial authority of, or the application of the laws of, another jurisdiction. Any provision inconsistent with applicable federal law that is not listed above is hereby deemed omitted from this EULA to the extent of such inconsistency; (viii) Third party terms: Any third party licensing terms associated with third-party software components or products embedded in or otherwise provided with the Elixir Solution or Services shall be deemed amended in accordance with the provisions in 10.2 (i) - (vi), above.

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End of Document.

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