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STATE OF FLORIDA - AGENCY FOR WORKFORCE INNOVATION

Invitation to Negotiate

Compensation Claims and Benefits Information System Design, Development, and Implementation

SOLICITATION NO: 10-ITN-001-SS

Technical Response – Tab 5

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5. TAB 5 - PROPOSED SOLUTION (LIMITED TO 150 PAGES)

The Proposed Solution will be evaluated based on responses to the following key business functions: Claims, Appeals, Benefit Payment Control, and Adjudication. **In order to facilitate the response evaluation process, Respondents should format their response to the requirements below in a way that is clearly delineated for each of these functions.**
The Respondent shall, at a minimum, address the following:

TCS UI Transfer System has been designed and developed using a multi-layered, component-based architecture that facilitates easy addition, modification or deletion of components that together make up the functionality of the system. The key benefit that the states and most of the State Workforce Agencies have received using TCS UI Transfer System is the ease with which business processes spanning multiple departments (Claims Intake and Determinations, Adjudication, Appeals, BPC, BTQ, BAM and Payments) are integrated into a uniform application.

5.1 Solution Overview

a. Provide a detailed overview of the proposed solution. In order to facilitate the evaluation of the responses, responses shall be organized to align with the following key business functions:
- Claims, which includes: Initial and Continuing Claims, Wage Determination, Short Time Compensation (STC), Trade Readjustment Act (TRA), Disaster Unemployment Assistance (DUA), Special Payments, Customer Information Requests, Audit, Federal Reporting and Workforce;
- Appeals;
- Benefit Payment Control; and
- Adjudication, which includes Adjudication and Employer Chargeability.

b. Describe how the proposed solution provides flexibility in day-to-day operations.
c. Describe how customers will interact with the system to obtain UC information and services.
d. Describe how the Agency users will interact with the system to perform their activities.
e. Describe how the proposed solution enables all users to interact, collaborate and communicate with each other to achieve the goals and objectives of the UC program.

This section provides an insight on how the solution proposed by Team TCS will cater to the functional requirements of the AWI UC System. Team TCS shall deliver the Modernized UC System by customizing our TCS' Unemployment Insurance (UI) Transfer System to suit the needs of the AWI.

About TCS' Unemployment Insurance (UI) Transfer Base System

TCS has developed an Unemployment Insurance (UI) Transfer System for the Department of Labor, New Mexico, state of Nebraska Workforce Management and the state of Mississippi Department of Employment Security. The product is one of the most comprehensive and integrated UI Benefits Solutions in the UI domain, implemented in three states. TCS has developed this product from the ground-up right from requirements gathering and design to implementation, and in the process has accumulated vast experience in the Unemployment Insurance domain. TCS has been able to effectively build upon the Base System from one State to another resulting in a very evolved and mature framework. Refer Exhibit 5-1 Evolution of TCS UI Transfer System. The evolution of the TCS UI Transfer System can be gauged through:

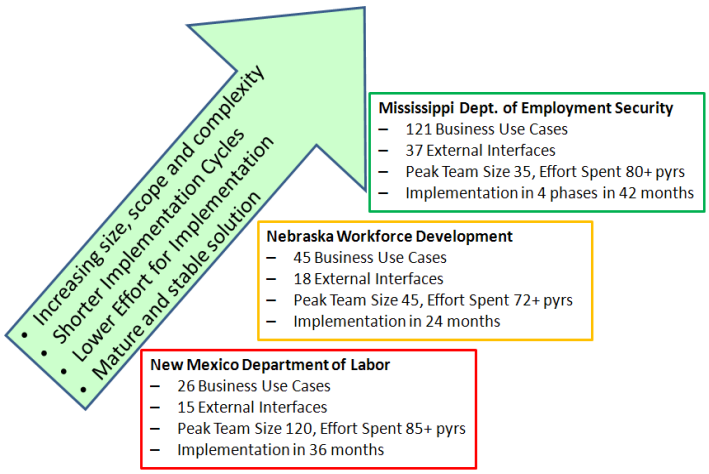

Exhibit 5-1 Evolution of TCS UI Transfer System

- Increased flexibility and robustness in addressing business cases with greater complexity and scope

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- Capability to implement these business cases in shorter life cycles
- Ensuring stable results all through, enabling faster realization of the benefits of using an evolved system.

To go with the proposed solution, TCS has defined a set of distinct processes, procedures and methodologies that work extremely well for large-scale UI Modernization Programs. From initial estimates based on the ITN requirements, TCS is confident of continuing this journey further with the State of Florida and delivering the most cost-effective and functionally rich solution within time

Foundation for FL AWI UI Solution

Team TCS has identified that our UI Transfer System has the capability to address, to a very large extent, the most important business functionality AWI expects of the proposed solution. Considering that the AWI is looking to qualified vendors for providing a functionally rich, n-tier architecture-based and highly integrated solution built on a relational data source, Team TCS proposes its **Unemployment Insurance (UI) Transfer System** as the base system for modernizing benefits processing at AWI.

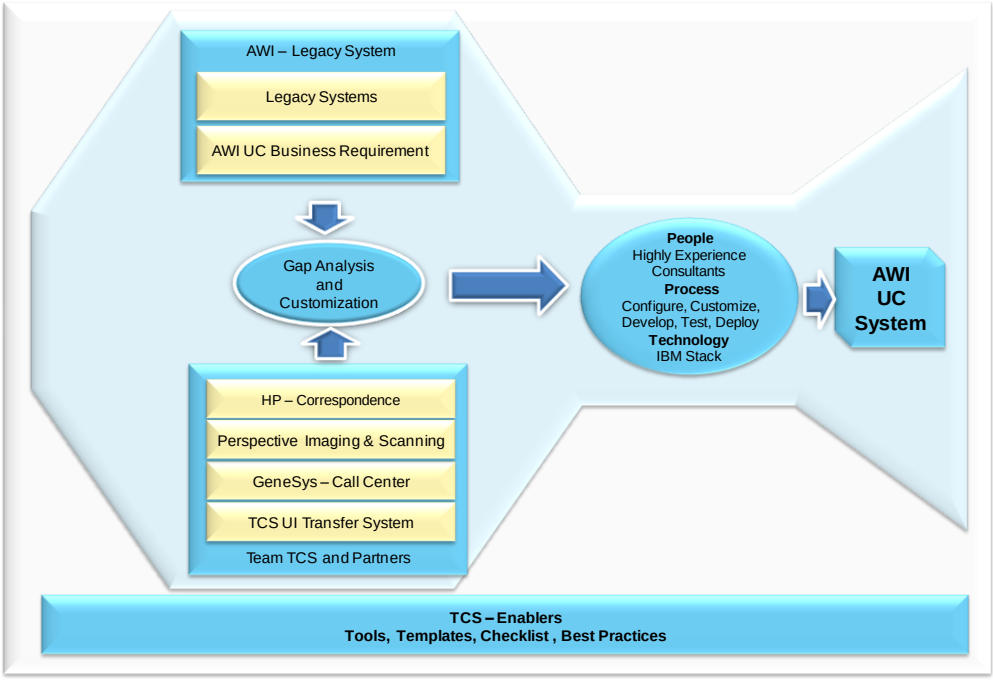

Exhibit 5-2 TCS UI Transfer System transition to AWI UC System

Based on our understanding from the ITN and the clarifications provided, Team TCS has conducted a due diligence exercise to identify:

- Base functionality from the TCS' UI Transfer System that meets the core business requirements of AWI
- Additional functionality required by AWI that is not available in the base system
- Functionality that is already available in the base system that exceeds the expectations of AWI

The benefits processing system proposed by Team TCS (called "TCS UI Transfer System" in the remainder of this document) is a combination of all these aspects of the functionality.

Team TCS' functional solution meets and exceeds the core UC Claims and Benefits system Business Processing requirements of many State Workforce Agencies, including AWI. At the same time, Team TCS also understands that there are several business requirements specific to each State Workforce Agency. In the true spirit of partnership, Team TCS believes that an exact definition of requirement needs a discussion and mutual agreement between AWI and TCS primarily based on what works best for AWI.

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Hence, at this stage, Team TCS proposes a functional solution that meets the stated requirements of AWI and is complete in itself. This functional solution forms the basis for the definition of all other project variables such as Quality, Cost, Resources and Schedule. While this solution is functionally complete in itself, Team TCS will discuss with AWI any specific modifications (additions, modifications and deletions) to scope of this solution. By virtue of our vast experience in the Unemployment Insurance arena, Team TCS will be able to provide an assurance to AWI if such modifications can be accommodated within the existing system or if they should be considered as changes or enhancements to the base system. Accordingly, the other project variables, i.e., Cost, Schedule, Quality and Schedule can be determined for the finalized scope of the system.

The sections below explain the functional capabilities and the features of the TCS UI Transfer System considering the specific requirements of AWI as mentioned in ITN.

5.1.1 Detailed Overview

a. Provide a detailed overview of the proposed solution. In order to facilitate the evaluation of the responses, responses shall be organized to align with the following key business functions:
- Claims, which includes: Initial and Continuing Claims, Wage Determination, Short Time Compensation (STC), Trade Readjustment Act (TRA), Disaster Unemployment Assistance (DUA), Special Payments, Customer Information Requests, Audit, Federal Reporting and Workforce;
- Appeals;
- Benefit Payment Control; and
- Adjudication, which includes Adjudication and Employer Chargeability.

The TCS UI Transfer System has the capability to effectively and efficiently manage the UI **business processes** such as:

- Filing of various types of claims
- Wage Determination
- Determination and adjudication of monetary issues
- Determination and adjudication of non-monetary issues
- Benefit Payment Control (BPC)
- Certifications and continued claims
- Filing and processing of appeals
- Benefit payment processing
- Federal and non-federal reporting
- Re-employment services
- Employer Charges
- Auditing of claims for Accuracy Measurement (BAM) and Timelines and Quality (BTQ)

In addition, the system incorporates the security infrastructure to control activities of users within the system and the facility to maintain the claims and the claimant information history. The system interacts with the following subsystems for infrastructure management:

- Call center and IVR
- Workflow Management
- Document Management System
- Imaging and Scanning System
- Security services
- Printers and
- Email servers

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The **Claimant** register with the TCS UI Transfer System in order to file unemployment insurance claim. The Claims Intake functionality of the TCS UI Transfer System interacts with SSA systems for validation of the claimant information. Unemployment Insurance claims are filed through Internet or Interactive Voice Response (IVR) or through the Call Center.

On submitting the claim, the initial Monetary Determination is done based on the wages available in DOR Tax system. The correspondence related to the benefit determination is generated accordingly. For UCFE and UCX claims, wage request documents are sent to the claimant and/or employer to obtain wages information. Once wage proof and wage request documents have been received from the employer, these wages are verified through FCCC followed by a Monetary Re-determination. For the Combined Wage Claims (CWC), wages are obtained through ICON. Work items are created for monetary issues and non-monetary issues that are identified in the claims process. Waiting week criteria is managed using business rules.

Once the claim is established, certification process takes place every week. Issues are identified automatically during the certification process and adjudicated. When the issues are cleared, the benefit payments processing functionality is invoked to initiate payments.

Monetary Issues and Non-monetary Issues are detected manually or automatically at different stages of the claims processing (when filing a claim or during certification or during audit process). The system enables the users (staff of AWI) to adjudicate these issues and do re-determination to establish new benefits. These benefits are mailed to the claimant stating their Rights to Appeal against the determinations.

The TCS UI Transfer system uses issue codes and action codes for **adjudication of monetary or non-monetary issues**. Issue codes have been identified for the standard set of issues that can be detected during the claims processing. For each issue, there is an action code that specifies whether payments should be made or not and in case payments are made already, whether an overpayment needs to be established. This facilitates the process of adjudication of issues by suggesting default action codes for standard issues. The issue codes, action codes and determinations are parameterized and can be added or modified as per business requirements.

The **Benefit Payments functionality** maintains the payments made every week and stock inventory of the daily checks issued to the printing department. The process of generating warrants, processing missing warrants and re-issuing them are accounted in this section of the system. In addition to warrants, the system will provide payments by means of checks.

The **Benefit Payment Control** functionality of the TCS UI Transfer system contains resources like different types of cross-matches (Intrastate, Interstate, New hire, Death Tape), tip and lead to detect any fraud in the claims processing. If a fraud is detected, the overpayments will be established for the claim. The system provides also mechanisms to collect overpayments like manual repayments, collection notices, benefit offsets, tax intercepts etc.

The **Re-Employment Services** functionality allows the AWI to identify the claimants in need of re-employment services. The system profiles all the claimants and identifies the group of claimants, based on the federal statistical model and state statistical model, which are likely to exhaust all their benefits and in need of assistance to become employed. This information is shared with the external systems (Employment Services) that provide assistance to the claimants in need of employment.

The **Reporting feature** provides the capability to generate the reports that are to be submitted to other federal agencies in addition to the internal reports and ad-hoc reports for internal use within AWI.

The system incorporates the functionality, which handles the procedures related to the Audits that conducted to measure the correctness of the benefits established for the claims. The system provides features to schedule audits, conduct the audit and record the observations, log monetary/non-monetary issues if necessary and link to benefit payment control in case of any fraud.

The **Employer Charging** functionality of the TCS UI Transfer calculates the charges for the employers who are identified as liable base period employers. The charges are recalculated based on the changes in the claims like establishment and collection of overpayment, change in the pro rata ratio of base period wages of different employers etc.

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The system provides the claimant the option to update their information in the system. The system, however, maintains all the changes that are done to the claimant information and also to the claim information.

The TCS UI Transfer system interfaces with the **Workflow Management System** (WMS) to track the workflow processes involved in the processing of claims. The creation of electronic work items, tracking of the work items and generation of reminders automatically after a pre-defined period are some of the features of WMS that are exploited by the TCS UI Transfer system.

The Document Management System (DMS) interacts with the TCS UI Transfer system to effectively store the images of the correspondences, forms and requests that are sent or received by the system for claims processing. When required, these documents are retrieved by the DMS and given to the TCS UI Transfer system.

The Exhibit 5-3 depicts the functional model of the TCS UI Transfer system.

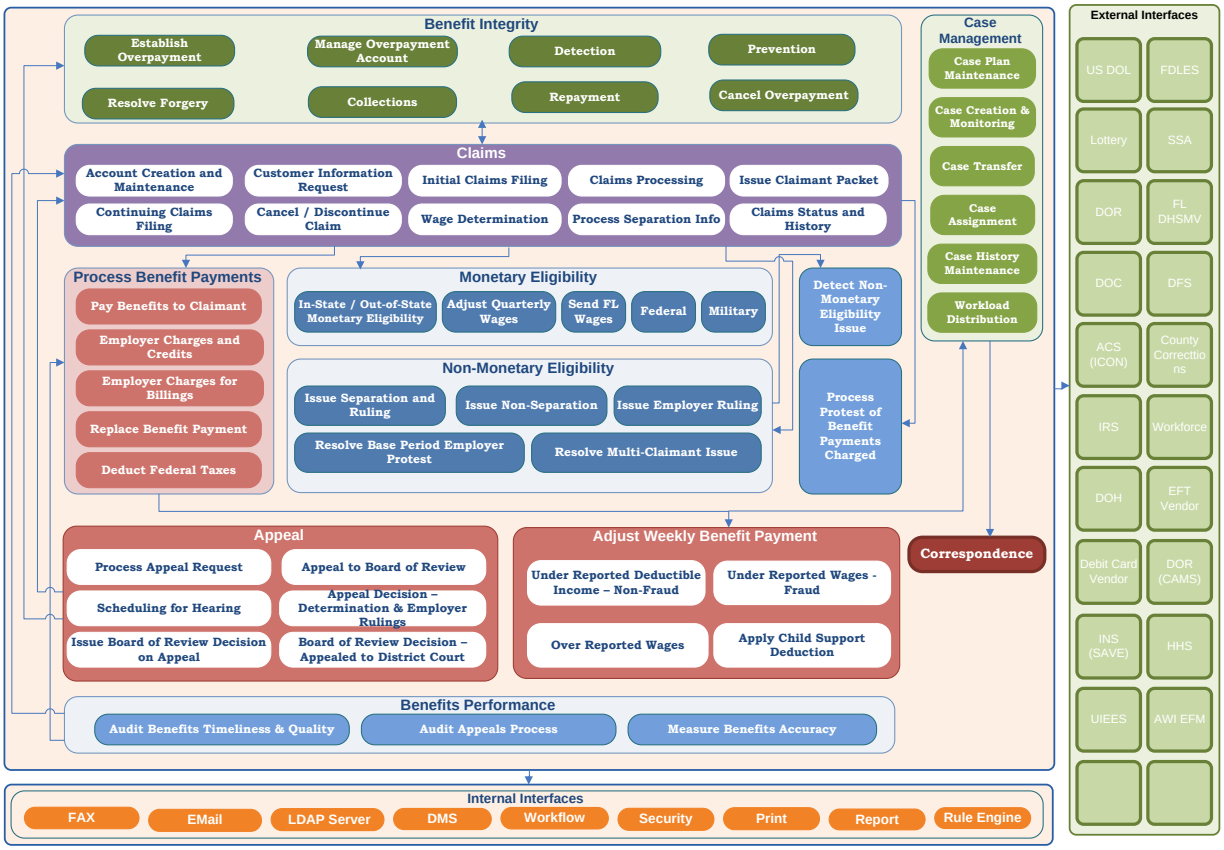

Exhibit 5-3 TCS UI Transfer System – Benefits and Claim Processing

There are several functions, features and capabilities in TCS' UI Transfer System that exceed the capability of AWI's existing Unemployment Insurance System. A representative list of additional functionality inherent in the base system that exceeds the requirements listed by AWI in the ITN, include:

- Claim Inquiry for claimants
- Filing of Worker Compensation Claims
- Automatic detection of issues during filing of claims
- Automatic Sequence Building
- Filing Mass Layoff
- Notify Mass Claims

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- Usage of Issue Codes for adjudication
- Manual and Automated adjudication of issues
- Purging of determinations
- Certifications (Late/Re-certifications)
- Detection of Overpayment by Tip and Lead, Death-tape Cross-match, New Hire Cross-match, Multiple Warrants Cross-match, Inter-state and Intra-state Cross-matches
- Adjudication of Overpayments
- Generate and Save (as PDF, Word Document, Excel Workbooks) or Print of Reports
- Re-print saved previous period reports
- Generated reports imaged and saved to document management system
- Inquiries on pseudo-monetary, monetary, non-monetary, claims, base period wages, certification, payment, overpayments, appeals and functional security information that will aim to reduce the number of physical paper-based reports to be generated.

5.1.1.1 Claims

Claims which includes: Initial and Continuing Claims, Wage Determination, Short Time Compensation (STC), Trade Readjustment Act (TRA), Disaster Unemployment Assistance (DUA), Special Payments, Customer Information Requests, Audit, Federal Reporting and Workforce;

The claims process is the input process for the TCS UI Transfer System. The TCS UI Transfer System has the necessary capability in terms of the processing logic, integration of components (hardware and software) and the interfaces with the external systems to interpret these inputs, process them and respond effectively and efficiently.

The TCS UI Transfer System handles the following processes related to the claims intake process. These processes form an integral part of the system's claim intake capability.

- Filing of regular claims
- Filing of Short Time Compensation (STC) Program
- Filing of worker compensation claims
- Filing of combined wages claims
- Filing of Trade Readjustment Allowances (TRA) claims and Reemployment Trade claims Adjustment Assistance (RTAA)
- Filing of Disaster Unemployment Assistance (DUA) claims
- Filing of interstate agent and liable claims
- Filing of claims with option to use Alternate Base Period
- Detection of issues during filing of claims
- Automatic sequence building
- Interfacing with external systems

Initial Claims Process

The TCS UI Transfer System facilitates the filing of the initial claims by providing a list of pre-defined set of questions to the claimants and capturing their responses. The questions are grouped according to relevance. Some of the typical information captured about the claimant includes:

- Personal details of the claimant –information like name, date of birth, marital status and dependents

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- Contact details
- Alien details –alien status, number and supporting document details
- Identity details - SSN (which is validated real-time with SSA web service)
- Employment details like type of employment (for ex. military), type of benefits applied for or currently receiving (for ex. DUA, EB) etc
- Employer details associated with the claimant during the last 18 months
- Claimant's current availability status for new employment.

Based on Claimant information, TCS UI Transfer System determines the claim type, the program type and the claim tier during claims intake process. If the system detects any issues, the relevant questionnaires (such as the child support questionnaire and transportation questionnaire)are displayed to the user. When the process is completed, the initial monetary determination screen listing the monetary benefits depending on the wage information is shown. Also, the system creates a case for agency staff to investigate for the issues which can be auto adjudicated.

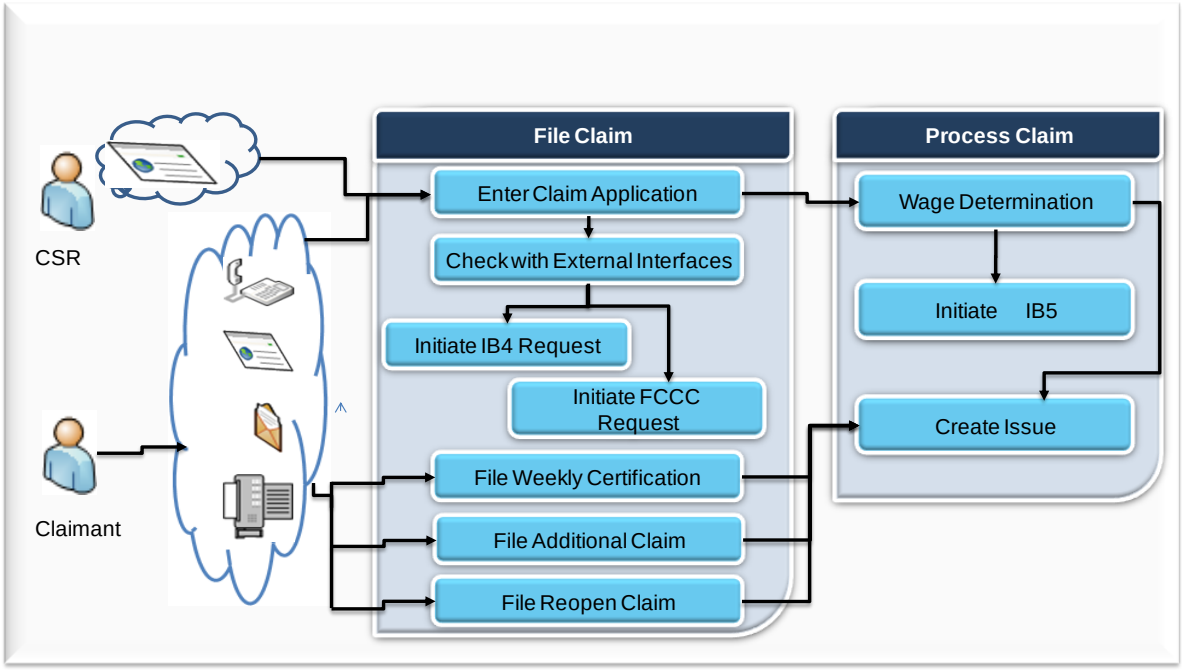

Exhibit 5-4 Initial Claims Business Process Flow Diagram

The TCS UI Transfer system supports the functionality to file & process the claims for mass layoffs. Agency staff can also file the mass layoff claims on behalf of claimant by providing the minimal information. Also when claimant logs in and files claim, system detects that mass layoff information available in the system and asks claimant questions related to mass layoff.

Automatic Sequence Building: The TCS UI Transfer system has the intelligence to build the logic for capturing additional data about specific scenarios. For instance, during filing of the claim, if the claimant answers that, he/she was self-employed; the system has the screens to capture all the information about the claimant's self-employment. The other scenarios about which more information can be captured after the initial claim entry are the separation details of the claimant, transportation, childcare, training details, self-employment. The user (claimant or customer service representative) has an option to save or cancel the filing process at any point of time, in case the user does not have the required information to continue. The incomplete claim that has been saved can be completed it at a later point of time.

Issue Detection during Claim Filing Process: The TCS UI Transfer system detects the conflicting/adverse responses provided by the claimants during the file claim process. Depending on the questions & the adverse

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responses provided, the system detects an issue. The issues are classified by the system as monetary issues that are related to discrepancies in wages & earnings and non-monetary issues that are related to conditions like separation reason from the employer, reason for unemployment etc. The system has the facility to capture the responses of the claimant in response for the issues raised. During adjudication of these issues, based on response, benefits are either released to the claimants or held back. The processing of these issues from the stage it is detected and assigned to the work queue until it is adjudicated by the adjudicator is managed by the case management system.

The System Key functionalities is listed in Exhibit 5-5 TCS UI Transfer System Mapping to AWI Requirements.

Exhibit 5-5 TCS UI Transfer System Mapping to AWI Requirements

Business Process	Sub Processes	TCS UI Transfer System
Initial Claims	Automated Claims processing (Self-service and CSR Mode)	√
Initial Claims	Regular Claims (UI, UCFE, UCX, UI-UCFE, UI-UCX, UCFE-UCX, UI-UCFE-UCX)	√
Initial Claims	Extended Benefits (EB)	√
Initial Claims	Emergency Unemployment Compensation (EUC)	√
Initial Claims	Disaster Unemployment Assistance (DUA)	√
Initial Claims	Trade Readjustment Act (TRA)	√
Initial Claims	Automated Sequence Building	√
Initial Claims	Automated Issue Detection	√
Initial Claims	Real time asynchronous validation with SSA and INS	√
Initial Claims	Lifting of previous issues, if any, based on business rules	√
Initial Claims	Backdating of a claim	√
Initial Claims	Handling of employer chargeability due to employer transfer	√
Initial Claims	Capturing the O*NET-SOC code for claimants job title using Autocoder (useful for re-employment services)	√
Initial Claims	DUA Claims and Multiple Disasters	√
Initial Claims	Automated Payments	√
Continued Claims	IVR, Internet (Self-service), CSR Assisted	√
Continued Claims	Weekly Certifications	√
Continued Claims	Late Certifications	√
Continued Claims	Re-certifications	√
Continued Claims	AIC/Reopen claims	√

The Current System at Mississippi has handled the demonstrated in

Exhibit 5-6 system Capability of TCS UI Transfer System for Initial Claims Processing.

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Exhibit 5-6 system Capability of TCS UI Transfer System for Initial Claims Processing

Type of Initial Claim	% claim established without agency staff intervention	Reason
Regular Claim (Initial)	92.00	In the case of the following monetary issues, agency staff intervention is required to resolve the issues before establishing of the claim: 1. Name Mismatch Monetary Issue 2. Incorrect Wages Monetary Issue 3. Missing Employer in the Base Period Monetary Issue 4. Claim involves federal and/or military wages in the claim
Regular Claim (NBY)	100.00	System will automatically establish NBY claim for eligible claimants based on business rules
FEB / SEB Claims	100.00	System will automatically determine the eligibility for FEB / SEB claims and establish them accordingly. The count EUC claims is 25% of the total claims.
DUA	0.00	System will take the DUA application and based on the business rules for DUA eligibility, system will create a case and assign it to agency staff to work on. Based on the decision of the agency staff, the DUA claim will be established or denied. But the total percentage of DUA Claims compared all claims is very less (0.016)
TRA	0.00	TRA claims can only be filed by agency staff. Although the percentage of TRA claim compared to all other claim is very less (0.812).

Continued Claims

The TCS UI Transfer System implements the following functionalities related to the continued claims processing.

- Weekly certifications
- Late certifications
- Re-certifications
- Additional/ Re-open claims

The TCS UI Transfer System supports the functionality of the ongoing receipt of certifications on an already established initial claim. The claimant has the ability to file multiple weekly certifications 24X7 through internet and IVR system. Continued claims are allowed on both monetarily eligible and ineligible claims; but not on cancelled or agent claims.

The TCS UI Transfer System automatically does the marking of waiting week following the date of claim based on the underlying business rules before the payment begins. The system questions the claimant to know whether he/she is still able and be available for work, actively searching for work, and to record weekly earnings. Based on the responses given by the claimant, non-monetary issues are automatically detected online. The system also gathers more details about non-monetary issues pertaining to school, job refusal and instructs the claimant to contact an adjudicator to resolve the issue. Benefits are issued for the certified week when there are no issues present or the issues present were cleared for payment. The claim remain unpaid until the claimant contacts the adjudicator as

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instructed or else a default open-ended denial is issued automatically once the time to respond expires.The TCS UI Transfer System checks for the following criteria before making payment on a weekly claim made by claimant:

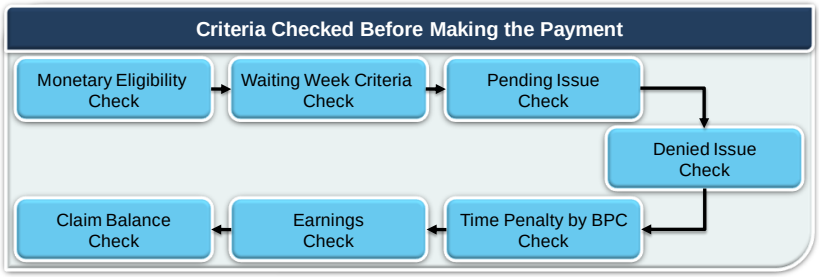

Exhibit 5-7 Criteria Checks performed before making payment

The benefits that are paid along with the details of the deductions made are shown online to the claimant on Internet.

The Exhibit 5-9 System Capability of TCS UI Transfer System for Continued Claims Processing depicts TCS System capabilities. This will be further enhanced by using Genesys Call center components.

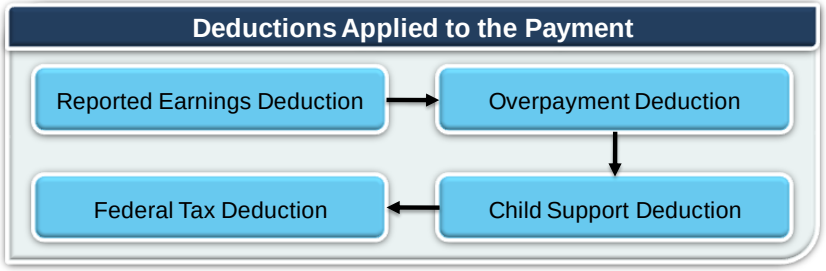

Exhibit 5-8 Deduction Applied to the Payment

The Exhibit 5-9 System Capability of TCS UI Transfer System for Continued Claims Processing depicts TCS System capabilities. This will be further enhanced by using Genesys Call center components

Exhibit 5-9 System Capability of TCS UI Transfer System for Continued Claims Processing

Continued Claim Certification Mode	Percentage (%)	Benefits
IVR	99.35%	Most of the continued claims are handled without any manual intervention.
Internet	0.15%	
CSR Assisted	0.5%	If the claimant provides any adverse answers, an issue has to be created for the claimant. So all these continued claim certifications are routed to CSR in order for CSR to review / modify the answers after discussing with claimant. The CSR can then choose to create issues if applicable.

Wage Determination

Wage Determination is the process of re-determining the claim eligibility by applying the changed/added wages of the claimant. These changed/ added waged can come a part of response from different state or federal employer or it can come from an employer.

TCS UI Transfer system is capable of handling the process of Wage Determination. System can perform the wage determination for the claim based on the wage information available to the system.

Exhibit 5-10 System Capability of TCS UI Transfer System is capable to process wage determination Process

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Business Process	Sub Processes	TCS UI Transfer System
Wage Determination	CWC Wage Transfer In/Out	√
Wage Determination	Review and Resolve the IB6 Discrepancy	√
Wage Determination	Resolve issues reported form any prior quarters	√
Wage Determination	To update the wages associated to the claim upon change in wages from employer/SunTax system.	√
Wage Determination	To update claim's wages upon receipt of Appeal decision	√

TCS UI Transfer System is capable in re-determining the claim eligibility in case wages are changed due to UCB-13/ blocked claims/Tax Investigation. TCS UI Transfer System will interface with DOR SunTax system for investigating the Reconsideration Request to get the Employer Wage Report information to deduce the information regarding the keyed in Wages for a claimant. In case no records found in SunTax System, System will send the communication to Claimant/Employer to provide the information to deduce the final outcome.

System will create a Case Number once any UCB-13 issue is created. Once an issue is created, the system will initiate the automated workflow which will have an in-built algorithm to balance the workload amongst the system users.

Short Time Compensation

The TCS UI Transfer System will be modified to implement Short Time Compensation process of AWI.

The TCS UI Transfer System implements similar functionality for TRA where claimant needs to report the training hours before a payment is issued to the claimant.

Trade Readjustment Act (TRA)

The TCS UI Transfer System initiates a Trade Re-adjustments Act (TRA) claim when the claimant is unemployed because of the TRA-affected employer. The system establishes a regular claim if the claimant is found eligible for it. The case mechanism also creates a case for the TRA section for establishing the basic TRA during certification on the penultimate week of the regular claim. If the regular claim is found ineligible, the TRA case is created immediately. The system also sends the form TAA-1A to the employer to get the information about the claimant. The system supports the processing of additional TRA and extension of Benefit Year End (BYE) for the basic and additional TRA claims.

Following are the functionalities provided by the TCS UI Transfer System:

- File/Approve TRA Claim Application.
- File/Approve ATAA Claim Application.
- TRA and ATAA Claim Certification
- Add Potential TRA Claimants.
- Maintain Potential TRA Claimants.
- Maintain Training/Waiver Information
- Enter Additional TRA Claim
- Enter Remedial TRA Claim
- Update TRA Eligibility Deadline

Disaster Unemployment Assistance (DUA)

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The TCS UI Transfer System provides the facility to the claimant to file a DUA claim online. The CSR enters the Disaster Details into the system to activate the claim filing. Multiple disasters can be entered at any point of time and the system can established multiple DUA claims.

Special Payments

TCS UI Transfer System provides payment related functionalities which include issue payment, cancel payment, re-issue payment after verification. Though the issuing of payments is handled automatically, the CSR can override to cancel and re-issue it. The claimants can opt for different modes of payment like check, debit card, direct deposit to the account. It also provides various deductions depending upon the options provided by the claimant.

Customer Information Requests

The TCS UI Transfer System provides the facility to authorized users to request confidential information. A majority of the information for claimants and employers are already available online via inquiry screens.

Claimants can access the following information using online inquiry screens:

- Claimant Account Details
- Claim Details
- Claimant Correspondences
- Claimant Profile
- Claimant Payment Options
- View and print 1099

Employers can access the following information using online inquiry screens:

- Tax Reports
- Wage Reports
- Wage Details
- Account Information
- Tax Payments
- Correspondences
- Employer Charges

Audit

TCS UI Transfer System is capable of establishing and maintains internal controls that deter and detect fraud, and secure confidential data. The reports provided for this section in shown in Exhibit 5-11 System Capability of TCS UI Transfer System for Audit Trail.

Exhibit 5-11 System Capability of TCS UI Transfer System for Audit Trail

Business Process	Sub Processes	TCS UI Transfer System
Audit	Internal Audit Security Log (Daily Report) to keep track of the different users logging in to the system, time of login and duration of session.	√
Audit	To assure the address changes done in the system for claimant /employer are correct, the system generates the Internal Audit Address Change Listing report	√
Audit	To avoid duplicate addresses for an entity, the system generates the Internal Audit Duplicate Address Listing report.	√
Audit	Report showing claimants that received multiple checks at the same address – in order for the Agency to carry out an investigation into the reasons for such receipt	√
Audit	Report for all the agency employees which have overpayment pending with Agency.	√
Audit	Report for all the agency employees which has business associated in the State.	√

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Business Process	Sub Processes	TCS UI Transfer System
Audit	Report of the entire Fictitious Employer which has less than X no of employee and no FIEN.	√

Besides the Internal Audit, the TCS UI Transfer System provides audit process, which is a weekly process, to measure the quality of benefit payment and denial decisions. The four different types of audit (one for benefit payment and three for denial) are:

- Benefit Accuracy Measurement (BAM)
- Denial for Monetary reason (DCA-MON)
- Denial for Separation reason (DCA-SEP)
- Denial for Non-Separation reason (DCA-NONSEP)

All the above sections generate reports from online or batch mode based on the business requirement.

Federal Reporting and Workforce

The TCS UI Transfer System provides Actuarial Research section the ability to generate the reports that are listed below. The Actuarial Research section deals with federal reports, generating reports for extended benefits, initial/continued claims, alien claims, profiling and payment/detection/determination time lapses

- ETA-538 Advance Weekly Initial And Continued Claims Report
- ETA-539 Weekly Claims And Extended Benefits Trigger Data
- ETA-5159 Claims And Payment Activities
- ETA-9016 Alien Claims Activity Report
- ETA-203 Characteristics Of The Insured Unemployed
- ETA-9048 Worker Profiling and Reemployment Services Activity
- ETA-9050 First Payment Time Lapse
- ETA-9050P Partial First Payment Time Lapse
- ETA-9051 Continued Weeks Compensated Time Lapse
- ETA-9051P Partial Continued Weeks Compensated Time Lapse
- ETA-9052 Non-Monetary Determination Time Lapse, Detection Date
- ETA-9053 Non Monetary Issue Detection Time Lapse, Affected Week
- ETA-9054 Appeals time lapse
- ETA-207 Non Monetary Determination Activities
- ETA-227 Overpayment Detection and Recovery Activities
- ETA-218 Benefit Rights Experience
- ETA-563 Quarterly Determinations, Allowance Activities and Reemployment Services under the Trade Act
- ETA-586 Interstate Arrangement for Combining Employment and Wages
- ETA-5130 Benefit Appeals Report
- ETA-9055 Appeals Case Aging
- PMR Appeals Issue Sample

UI Dashboard

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The TCS UI Transfer System implements a chart based UI Dashboard. This is highest level analytical layer built primarily for the executives to provide very quick insight into various strategic parameters to assess the health and status of strategic objectives. This will provide a consolidated report of Key Performance Indicators (KPI) for various areas of UI and this will be aligned to the Balanced Score Card. The representation will be graphical with traffic lighting, dials with easily interpretable colors and captions. These graphical charts can be used to drill down to the lower level KPIs and other details, if felt necessary.

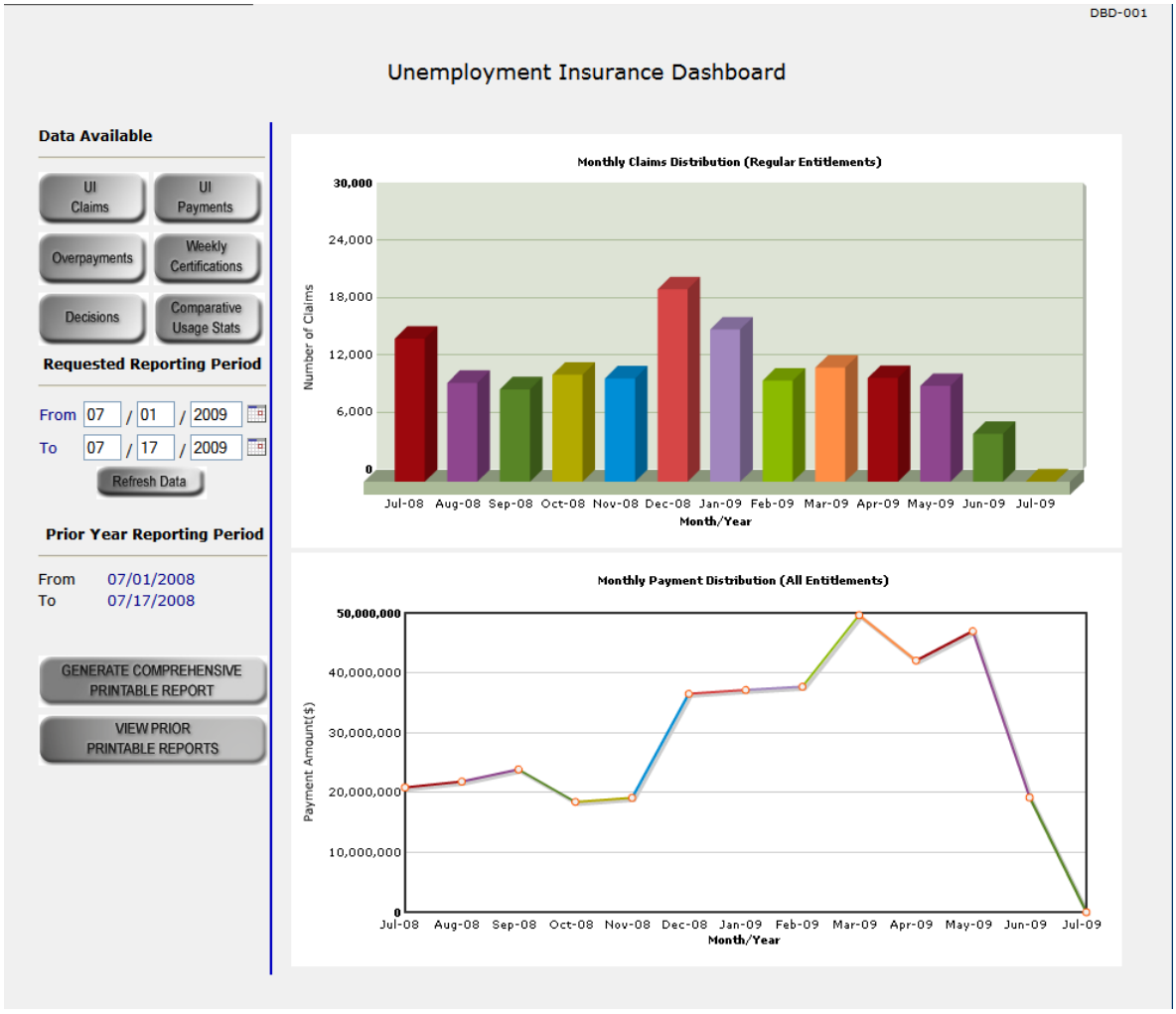

Exhibit 5-12 TCS UI Transfer System – Dashboard

5.1.1.2 Appeals

Appeals

Appeals in TCS UI Transfer System is nicely integrated with Benefits, Payment and Overpayment subsystems. The system implements the business process of appeals processing in which appellant can file an appeal against an adverse determination given for a claim. The appellant can be either a claimant or an employer. The TCS UI transfer System used Role based securities for access control. The TCS UI Transfer System implements

Benefits: Real-time visibility of Key Performance Indicators to the Executive Management

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following stages of appeals processing:

- UC Referee Appeals
- UAC Appeals

The Exhibit 5-13 provides the list of functionalities available in TCS UI Transfer System

Exhibit 5-13 System Capability of TCS UI Transfer System for Appeal Process Capabilities

Business Process	Sub Processes	TCS UI Transfer System
File Appeal	Claims Adjudication Appeal filing	√
File Appeal	Special Deputy Appeal filing	√
File Appeal	Refund Intercept Appeal filing	√
File Appeal	Miscellaneous Appeal filing	√
Appeal Review and Scheduling	Maintain Appeal Party details	√
Appeal Review and Scheduling	Maintain Appeal Documentations	√
Appeal Review and Scheduling	Automatic Appeal Scheduling	√
Appeal Review and Scheduling	Manual Appeal Scheduling	√
Appeal Review and Scheduling	Reschedule Hearing	√
Appeal Review and Scheduling	UC Referee Work Time Maintenance	√
Appeal Review and Scheduling	UC Referee Leave Maintenance	√
Appeal Review and Scheduling	Delete Appeal	√
Appeal Review and Scheduling	Recision Decision to edit wording	√
Appeal Review and Scheduling	Recision Decision to schedule / conduct Hearing	√
Appeal Review and Scheduling	Recision Decision to edit decision	√
Appeal Review and Scheduling	Consolidate Appeal	√
Appeal Review and Scheduling	Withdraw Appeal	√
Issue Decision	Issue Affirm/Reverse/Modify Decision	√
Issue Decision	Remand for Information	√
Issue Decision	Remand for Decision	√
Issue Decision	Timely/Non Timely Decision	√
Issue Decision	Verify Decision Letter wording	√

UC Referee Appeals

UC Referee Appeals processing, there are three stages. They are:

- File an Appeal
- Review and Schedule Appeal
- Issue Decision

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The System allows filing of an Appeal by Customer service representative, a Claimant or an Employer. The System assigns a reviewer who can review and update appeal details, Add, Update or Delete Appeal Party details. Once reviewed, CSR can schedule the appeal for hearing, allocate hearing date and time, decide location and fix UC Referee to conduct the hearing. The System also provides feature of automated Appeal scheduling based on available time slots for UC Referee. Also, the CSR has the facility to maintain UC Referee Work Timings and his Leave days/hours.

Once an Appeal is scheduled for Hearing, the UC Referee conducts Hearing as per schedule. Hearing information like participation details, documents referred in hearing and any comments or any other information for the hearing is captured. UC Referee then issues decision In favor or otherwise taking into account the exhibits provided and the parties involved, to the claimant/employer. The decision letter content is populated based on the Fact Findings, Court Rules, Section of Law used for issuing decision. UC Referee has an option of updating the wordings before generating the decision letter or he can submit the decision letter wordings for verification. The decision letter is then generated and sent to all the parties involved. For consolidated appeals, the decision taken is hold good for all the appeals.

UC Referee Appeals at any stage can be withdrawn on request from the Appellant. CSR can also perform Recision Decision to edit wording, Recision Decision to schedule/conduct Hearing or Recision Decision to edit decision after UC Referee Decision is given.

In case, an appellant/opponent are not satisfied with Higher Level Appeal decision, TCS UI Transfer System allows Appeals to be filed to District Court. The System provides functionalities to effectively facilitate end to end Appeal Processing for various types of Appeals. The system engages UC Referee, UAC, CSR, Appellant and Opponent for any Appeal in order to efficiently carry out the tasks for Appeal processing. This process will be customized to meet AWI Business process requirement. Exhibit 5-14 Appeals Business Process Flow Diagram depicts Appeals process in TCS UI Transfer System.

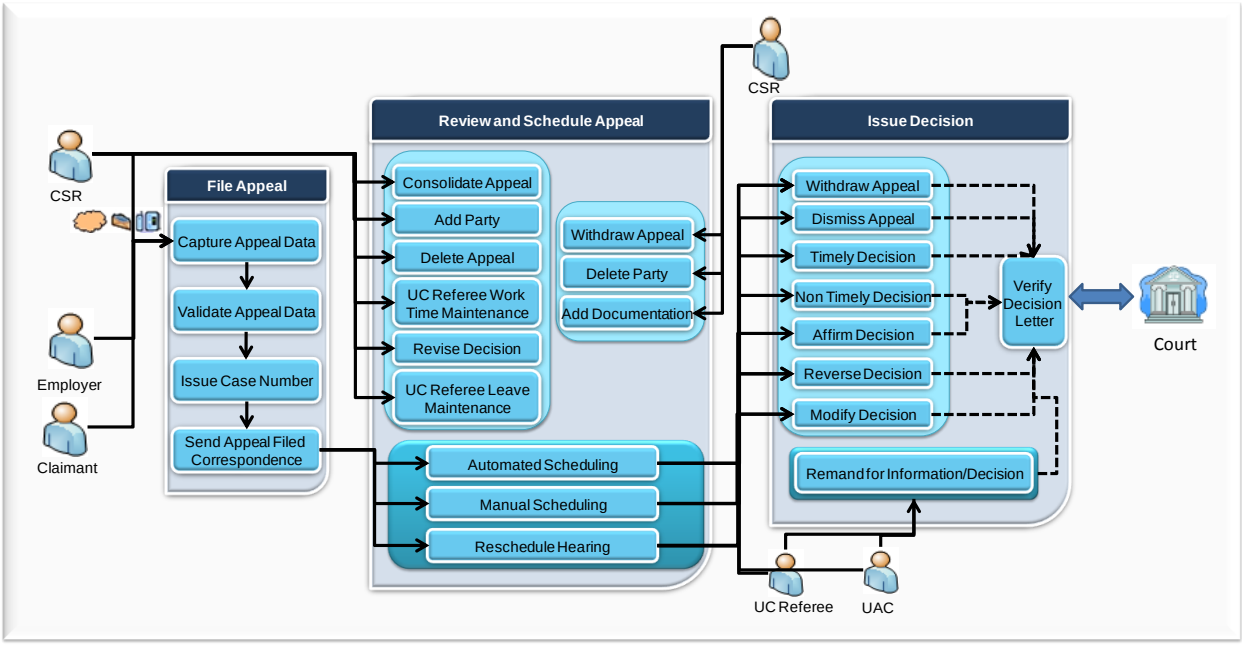

Exhibit 5-14 Appeals Business Process Flow Diagram

This section describes the Appeals Processing in TCS UI Transfer system. Each appeal consists of three levels which are described in this section.

UAC Appeals

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The TCS UI Transfer System has the functionality to file an appeal against the appeal-able decisions granted by the UC Referee. At UAC, an appeal is processed in three stages. They are:

- File an Appeal
- Review and Schedule Appeal
- Issue Decision

The System allows filing of an Appeal by customer service representative, a claimant or by an employer. After the business validations, appeal is filed successfully with the same docket number which is used for further references.

The System allows the UAC to schedule an appeal assigned to UAC for review. A review notice is sent to the claimant/employer. Then the members of UAC vote on the decision to be taken. Majority vote is taken into account and a decision is given for the appeal. The decision letter content is populated based on the Fact Findings, Court Rules, Section of Law used for issuing decision. UAC has an option of updating the wordings before generating the decision letter or decision letter can be submitted for verification. The decision letter is then generated and sent to all the parties involved. UAC decision is appeal-able at district court. For consolidated appeals, the decision taken is hold good for all the appeals. The system provides UAC the option to remand the case to UC Referee.

UAC Appeals at any stage can be withdrawn on request from the Appellant. CSR can also perform Recision Decision to edit decision after the UAC Decision is given..

District Court Appeals

The monetary appeals may not be handled in the UAC and it may be forwarded to the court, especially for monetary determination. In the existing TCS UI Transfer System, the appellant directly files an appeal in the District Court against the UAC Order. A record stating that an appeal is filed to the court and the details of the court is maintained in the system and the mode by which it is intimated (example: in person or over the telephone). Some of the Key performance metrics for Appeals as provided by FL AWI are listed in Exhibit 5-15 TCS UI transfer system Capabilities for AWI proposal.

Exhibit 5-15 TCS UI transfer system Capabilities for AWI proposal

Title	Target	TCS UI Transfer System Proven Capability	Remarks
Time for Appeals Processing	-	40 Days	Total time taken for Appeal processing against the Total number of appeals filed.
Hearing Times by Issue	N/A	58.5 Minutes	Total time taken for hearing of Appeals for year 2009 vs Total number of hearings scheduled for the same time.
Monthly Performance		Affirmed: 88.2% Remanded: 4.6% Reversed:7.1%	Total no of each of the Remanded, Reversed and Affirmed Decisions against the Total UAC Decisions
Time Lapse (Aging) - Decision		2.3 Days	Average of difference between Hearing Date and Decision made day
Time Lapse (Aging) - Mailing		1 Business Day	

Benefit Payment Control The Appeals process workflow is flexible and allows complex primary and alternate workflow paths to be defined through configuration without custom development. Appeals processes can leverage both internal and external information to determine the appropriate action to take to most effectively utilize the agency's human resources.

5.1.1.3 Benefit Payment Control

Benefit Payment Control

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The TCS UI Transfer empowers the AWI to deal with and handle the processes related to overpayment. The processes that are concerned with overpayment are:

- Detect overpayment
- Adjudicate overpayment
- Establish overpayment
- Collect overpayment

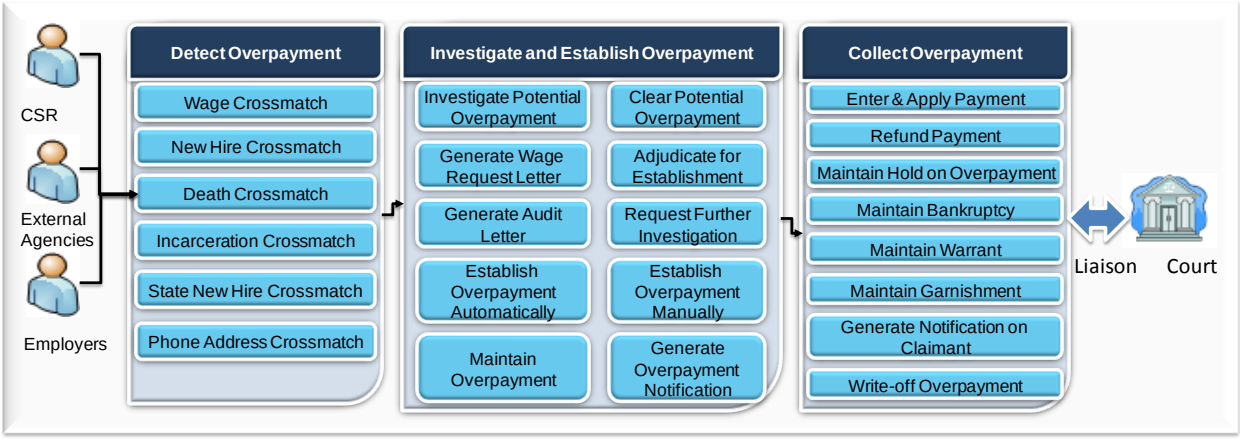

Exhibit 5-16 BPC Process

The TCS UI Transfer System provides following functionalities in its BPC process.

Exhibit 5-17 FL AWI Key performance metrics for TCS UI Transfer System

Business Process	Sub Processes	TCS UI Transfer System
BPC – Detect Overpayment	Tip and Lead Cross match	√
BPC – Detect Overpayment	National Wage (NDNH-Wage) Cross match	√
BPC – Detect Overpayment	National New Hire (NDNH – W4) Cross match	√
BPC – Detect Overpayment	State New Hire Cross match	√
BPC – Detect Overpayment	Intrastate Cross match	√
BPC – Detect Overpayment	Incarceration Cross match	√
BPC – Detect Overpayment	Death Cross match	√
BPC – Detect Overpayment	Address Phone Cross match	√
BPC – Investigate and Adjudicate Overpayment	Audit Letterand Wage Request Letter Generation	√
BPC – Investigate and Adjudicate Overpayment	Maintain Employer and Claimant Response	√
BPC – Investigate and Adjudicate Overpayment	Clearance of Overpayment / Submission for Overpayment Establishment	√
BPC – Investigate and Adjudicate Overpayment	Forwarding the case to Field Representative	√

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Business Process	Sub Processes	TCS UI Transfer System
BPC – Establish and Maintain Overpayment	Establish Overpayment Automatically (Batch Process) and Manually	√
BPC – Establish and Maintain Overpayment	Maintain Overpayment	√
BPC – Establish and Maintain Overpayment	Maintain IRORA Overpayment	√
BPC – Establish and Maintain Overpayment	Maintain Hold on Overpayment	√
BPC – Collect Overpayment	Enter, Apply and Refund Payment	√
BPC – Collect Overpayment	Generate Warrant Manually and Automatically	√
BPC – Collect Overpayment	Generate Garnishment Manually and Automatically	√
BPC – Collect Overpayment	Maintain Bankruptcy	√
BPC – Collect Overpayment	Maintain Correspondence with County Court	√

Prevent Overpayment - Fraud Prevention Algorithm

For prevention of frauds beforehand TCS UI Transfer System can implement the required feature as per the AWI requirement.

The system prevents the fraud upfront by the following means:

1. SSN validation with Social Security Administration
2. Alien verification with Immigration and Naturalization Services
3. Forcing the claimant for filing an Additional Initial claim in the third week, if the claimant has not certified two consecutive weeks,
4. Automatic detection of issues based on the claimant's responses.
5. Name mismatch issue if the name on the wage file is not matching with the claimant's name.
6. Carrying over previous disqualifications.

Detect Overpayment

The TCS UI Transfer System supports different methods to detect overpayments. Each detection process deals with different issues like Nonmonetary Decision, Appeals Decision, Change in Monetary Benefits, Voluntary change in reported earnings, Tip and Lead, Cross matches, National Wage (NDNH-Wage), National New Hire (NDNH – W4), State New Hire, Intrastate, Incarceration, Death and Phone Address mismatch.

Adjudicate Overpayment

The TCS UI Transfer System allows AWI to perform investigations regarding overpayments like -Misuse of SSN, Invalid work search, Working while receiving, Not meeting required AAA status, Mailing multiple warrants to single address, Cross-Matches, Miscellaneous overpayment from Quality Control.

At the conclusion of the investigation, a finalization of report is prepared by the system to establish an overpayment and close the investigation in fraud/non-fraud/non-violent case.

Establish Overpayment

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The TCS UI Transfer System establishes an overpayment process for the claimant based on the input from the successful completion of adjudication of overpayment by Adjudicate Overpayment Process. The Adjudicate Overpayment process creates cases for Establish Overpayment process after adjudication of the overpayment depending on whether the overpayment type is of fraud or non-fraud or willful fraud.

Collect Overpayment

The TCS UI Transfer System allows the collection of the overpayment amount from the claimant by different methods. The input for this process is the establishment of overpayment by Establish Overpayment Process.

The processes by which the overpayments can be realized includes manual repayment process, using Tax intercepts, using WBA offset, using collection notices, using lockbox, update/Change monetary information, IRORA overpayment Processing, processing Bankruptcy

The TCS UI Transfer System implements the process by which collection notices are generated and dispatched to the claimant. This process generates collection notices which include repayment Plan/ Agreement, Statement of Overpayment Account (Billing Notice), Notice of Collection Action (First Notice, Final Notice), Warranty of Levy and Lien (WLL), WLL Claimant Letter and WLL Release Letter, Notice of Garnishment Action, ES454F/Employer Wage Request, Warranty of Levy and Lien for the county clerk.

The system can also be enhanced to define business algorithms to detect potential fraudulent claimants and generate a report for further investigation.

Exhibit 5-18 Performance Matrix for BPC for TCS UI Transfer System

KPI	Target	TCS UI Transfer System Proven Capability	Remarks
Wage Breakdowns Issued	-	102.97%	Letters sent over overpayment issue established
Determinations Issued	-	40% 32%	Total cross match overpayment amount/ Total overpayment amount. Total cross match overpayments / total overpayments established
Payments Received	-	30%	Total payments excluding offsets/ total overpayment amount established
New Hire Audit	-	21	Work item created
Investigations Workload	-	40%	Total number of investigations completed/ Total number of work items created

The TCS UI Transfer System's capability to detect, prevent, establish and collect overpayment uniquely places it for a preferred system.

5.1.1.4 Adjudication

Adjudication, which includes Adjudication and Employer Chargeability

The TCS UI transfer system provides complete solution for handling non-monetary processes like adjudication of separation issues and non-separation issues, modify determination, employer chargeability, labor dispute.

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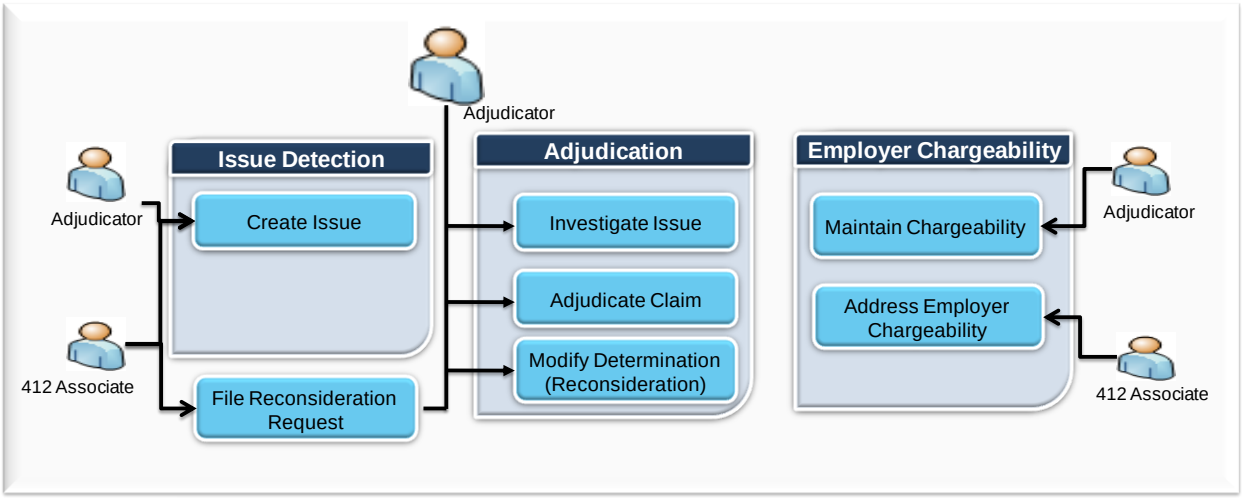

Exhibit 5-19 Adjudication Key Business Process Flow Diagram

The TCS UI Transfer System provides complete solution for handling non-monetary processes like adjudication of separation issues and non-separation issues, modify determination, employer chargeability, labor dispute.

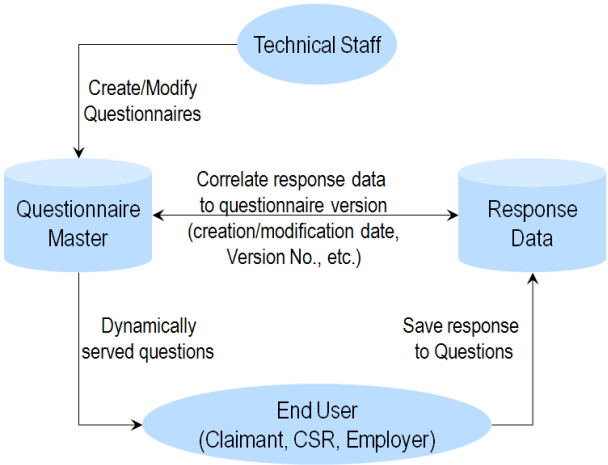

Exhibit 5-20 TCS Questionnaire Engine

The TCS UI Transfer System incorporates the functionality that implements the non-monetary adjudication of claims. The non-monetary adjudication of claims involves detection and determination of non-monetary issues that arise due to the conflicting/adverse answers given by the claimant during claim filing or weekly certification process. The system detects and determines non-monetary issues manually or automatically.

The TCS UI Transfer System incorporates a Questionnaire Engine to assist UI Staff in Adjudication of Claims. The Questionnaire Engine is depicted conceptually in the Exhibit 5-20 TCS Questionnaire Engine. The TCS UI Transfer System key functionalities in demonstrated in Exhibit 5-21 – STCS UI Transfer System – Adjudication Capabilities.

Exhibit 5-21 – STCS UI Transfer System – Adjudication Capabilities

Business Process	Sub Processes	TCS UI Transfer System
Issue Detection	Automatic (based upon the business rules)	√
Issue Detection	Manual	√

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Business Process	Sub Processes	TCS UI Transfer System
Issue Detection	From Incoming Correspondence / Response	√
Investigation	Investigation process	√
Investigation	Writeback	√
Investigation	Questionnaire Engine	√
Investigation	Case Assignment	√
Adjudication	Automatic	√
Adjudication	Manual	√
Adjudication	Configurable Decision Letter generation based on various issue category and sub-category combination	√
Employer Chargeability	Automatic Determination of Employer Chargeability	√
Employer Chargeability	Manual override for employer chargeability	√
Employer Chargeability	Determine Chargeability for 412 Response	√
Labor Dispute	Automatic Decisions for Child case when Lead case decision is made	√
Appeals Modifications	Manual handling for Appeal Modifications	√

The TCS UI Transfer System can detect various issues and creates case for investigation. The investigator is presented with the questions based upon the type of issue using the questionnaire engine. The questionnaire engine is driven by XML based configuration files which governs the type of questionnaire and list of questions to be displayed in order to perform the more accurate investigation and fact finding. once the investigator submits the investigation, the case can be assigned to an adjudicator based upon business logic or round robin.

If the investigation is performed by one person and if the adjudication is being done by another person, the adjudicator can send back the case to investigator in order to provide more information about the case. If the issue can be auto adjudicated, once the investigation is submitted the auto adjudication will be done and the decision will be generated.

The decision letter generation process generates decision letter based on XML based configuration feature. The issue category, issue sub-category, chargeability type of the employer involved in the issue, if the employer is base period employer or not, type of claim attached to the issue - these are the major factors which govern the decision letter content and can be configured in order to change the content. The section of law which supports the decision also can be configured and dynamically generated based upon above mentioned parameters.

Employer chargeability is automatically determined for any decision which impacts the employer chargeability. The TCS UI Transfer System also provides the facility to manually override the automatically determined chargeability in some exceptional case. The access to all functionality is role based.

Also when employer responds to "Notice of Claim Filed" (412) correspondence, the CSR enters the correspondence in the system / get the case for response entered by the employer using self service option. The CSR can then determine using the information available in the system and maintain the chargeability of the employer.

The CSR performs the investigation for the cases involved in labor dispute and indicates one of the case as lead case. Once the lead case is determined, all cases involved in the same dispute are marked as child cases. After investigation is completed for the lead case, an adjudication case is created and assigned to adjudicator. For child cases the investigation is performed and the process stops there. Once the decision for lead case is made, the system automatically performs adjudication for child case based on the lead case decision.

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The below diagram depicts the processes involved in the Adjudication module. Some of the Key performance metrics for Adjudication as provided by FL AWI are listed in Exhibit 5-22 FL AWI Key performance metrics for TCS UI Transfer System.

Exhibit 5-22 FL AWI Key performance metrics for TCS UI Transfer System

Title	Target	TCS UI Transfer System Capability
Auto-Adjudicated Separation Issues	10%	10.02%
Auto-Adjudicated Non-Separation Issues	10%	64%

The TCS UI Transfer System provides extensive solution for Adjudication processes. The adjudication process has configurable features which makes system easy to maintain and customize.

5.1.2 Solution Flexibility In Day-To-Day Operations

b. Describe how the proposed solution provides flexibility in day-to-day operations.

TCS UI Transfer System has so many features and capability which provided system user much desired flexibility in day-to-day operation such as:

Exhibit 5-23 TCS UI Transfer Proposed Features for Day to Day Operation

Functionality	Sub Processes	TCS UI Transfer System
Solution Flexibility	Questionnaire Generation	√
Solution Flexibility	IVR and Call Center Capability	√
Solution Flexibility	Decision Letter Generation	√
Solution Flexibility	Auto Adjudication	√
Solution Flexibility	Work Item Assignment	√
Solution Flexibility	Sorting of Bulk Correspondence	√
Solution Flexibility	Parameterization	√
Solution Flexibility	Batch Scheduling	√
Solution Flexibility	Automatic Sequence Building	√
Solution Flexibility	Internationalization (Multiple Language Capable)	√

Questionnaire Generation

TCS UI Transfer System has capability to dynamically generate the Fact Finding Questionnaire for different type of Issue Category and sub category.

The Features of Questionnaire engine are as mentioned below:

Exhibit 5-24 Proposed TCS UI Transfer - Questionnaire Generation

Sub Processes	TCS UI Transfer System
XML Based setup for Questionnaires	√
Doing the validation	√

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Sub Processes	TCS UI Transfer System
Reduce number of components	√
Better Maintenance	√
Only one JSP component to take care of all the Questionnaire Pages.	√
Centralized control of Questionnaire components	√

IVR and Call Center Capability

The IVR and Call center capabilities will leverage Genesys Voice Portal (GVP) and Customer Interaction Management Platform (CIM). This will provides

- Claimants the flexibility to place their claims through Interactive Voice Response (IVR) system either by Speech or touch-tone
- Platform to integrate and manage Claimants interactions like voice and email
- Claimant the option to speak to the best available agent to resolve their queries
- Insight into daily operation of the Contact Center
- Unified view of the claimant information on the Agent desktop
- Quality monitoring of the services offered to claimant
- Tool for optimized utilization, tracking and scheduling of the contact center workforce
- High availability and Disaster recovery environment
- Option to engage remote agents
- Multi-Site Deployment and Virtual agent environment
- Ease of upgrade to enable future enhancements to the solution as per the business needs

The IVR and Call Center solution will be able to meet call volumes efficiently with high availability and disaster recovery mechanism. The solution is based on open architecture that enables integration with external systems and applications. All the Genesys Call center components within the solution are tightly coupled to meet the day-to-day business requirements of the agency with desired quality of service.

Due to this effective way of handling the claimant interaction, overall cost of operation for a claim process is reduced and customer satisfaction is met.

GVP enables Contact Centers to quickly and easily deliver integrated speech or touch-tone applications to automate customer and employee self-service transactions. GVP leverages standards such as Voice XML, CCXML, MRCP and SIP for the development and deployment of Interactive Voice Response (IVR) and Next-Generation Applications within contact centers to:

- Improve customer satisfaction through automated speech and touch-tone applications;
- Reduce costs through increased operational efficiencies;

GVP provides an integrated management layer to deploy, configure, operate and monitor the self-service solution.

The CIM Platform is a collection of software applications that automates the intelligent distribution of interactions throughout the enterprise. As an interaction arrives at the contact center, CIM Platform uses dynamic enterprise information such as agent availability and queue statistics, customer preferences and service levels collected from enterprise databases, defined business processes and strategies, and agent-profile data to determine the appropriate service or best agent for an interaction.

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With the CIM Platform, companies can seamlessly integrate and manage voice, email and chat media and other interactions such as VoIP, Web collaboration, and wireless, to create a centralized, Internet-ready contact center. It funnels all incoming interactions from various media channels into a single universal queue.

It is possible to define business processes and routing strategies that automate interaction routing from the universal queue to the most appropriate service or agent based on factors like the type of inquiry, the value of the customer, and the media channel.

Decision Letter Generation

TCS UI Transfer System is capable to handle the different Claimant Decision Letters for different issue category and sub category.

TCS UI Transfer System has in built intelligence to identify and generate claimant decision letter using single template. Benefits of this approach are as follows:

- Better Maintenance
- Quick turnaround time for any change due to single template usage

Auto Adjudication

TCS UI Transfer System has in built mechanism for auto adjudicating t the investigation based upon business rules specified by the agency. In this process when an investigation is done by the investigator, and fact-finding report filled then system try to complete the adjudication based upon certain business rules. If these rules are satisfied no Work-Item gets created for Adjudicator and system makes the decision based upon investigator input. For cases where system doesn't auto adjudicate the investigation, System creates a Work-Item for Adjudicator.

This feature reduces the work load of department personnel which make them more efficient in their day-to-day work.

Work-Item Assignment

TCS UI Transfer System has in-built capability to assign the work-item to individuals based upon rules specifies. E.g. During the establishment process of claim if any issue is identified then system tries to assign the investigation work-item in Round-Robin fashion for the identified issue. Also, system provides flexibility to Workflow administrator to reassign this work-item to some other user.

Different algorithms have been implemented in TCS Transfer system for assigning the work-items to balance the work load of department personnel.

Sorting of Bulk Correspondence

TCS UI Transfer System has implemented a proprietary software from G1 for sorting of bulk correspondences. This feature reduces the manual need of sorting the correspondence and at the same time it saves lot of revenue for the department.

Parameterization

TCS UI Transfer System has made the attributes parameterized which has dynamic behavior and tend to change frequently. This approach enables the system user to change the attribute on the fly with little or no hassle.

E.g. Weekly Benefit Amount (WBA) and Maximum Benefit Amount (MBA) are parameterized in TCS UI Transfer System and during project life cycle if this value gets changed then with changing only in one place it will reflect in system.

Batch Scheduling

TCS UI Transfer System has capability of scheduling of batches effectively. TCS UI Transfer System uses quartz framework to schedule the batches. Quartz framework provides flexible way to schedule the batches by specifying the CRON expression. This reduces manual intervention for running the batches. Since there is less manual intervention thus it is less error prone. By using Quartz we can schedule batch is many way e.g. Run a batch on Last Working Day of the Month, Run a batch on 5th Working Day of the Month, Run daily at 6:00 PM or Run Quarterly

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on 3rd day of quarter starting. Also with this batch scheduling we can achieve batch chaining such as after completion of one batch other batch should be triggered or after completion of one batch other batch should start after 30 minutes.

Automatic Sequence Building

TCS UI Transfer System has in built capability for Automatic Sequence Building. With this approach system dynamically brings the next screen based upon the input provided by the user in current screen. This feature given the flexibility to the user to enter data for different scenario with ease.

Internationalization (Multiple Language Capable)

TCS UI Transfer System is capable of handle the multiple languages with little or no change in existing application. System support English and Spanish language and can be configured for any other language as well. Currently all the public interface screens are designed to support multiple languages.

5.1.3 Customers Interaction with UC System

c. Describe how customers will interact with the system to obtain UC information and services.

Customer can interact with AWI system using two means such as :

- Online/Internet
- IVR
- Fax

Self -Service feature makes the claimant and employer users self-sufficient, increases the response time and reduces the workload on agency staff. During the requirements phase, a need analysis is done for the business processes that need to be exposed as self-service. During this analysis a rationale is defined for the self-service functionality based on ease of usage by claimant and involvement of agency staff and response time. Some of the self-service features available in the system for Claimant.

Exhibit 5-25 TCS UI Transfer System Capabilities

Sub Processes	Mode	TCS UI Transfer System
File UI Claim	Online/Internet and IVR/Call Center	√
File Weekly Certification	Online/Internet and IVR/Call Center	√
File Appeal (Non-monetary)	Online/Internet	√
Update Claimant Profile	Online/Internet	√
Update Payment Option	Online/Internet	√
Claimant Inquiry	Online/Internet and IVR/Call Center	√

There is other functionality available in the TCS Solution that is capable of being exposed as Self-Service to constituents. Due to specific reasons considered by each of the States – NM, NE and MS, access to this functionality is currently provided to Department Staff only. By assigning the appropriate security privileges, this functionality can be made available as Self Service to Claimants. For example,

The system currently does not provide any online chat capability for self-service users. However, TCS has performed a preliminary analysis to determine that this facility can be incorporated within the existing solution, to address requirements specific to AWI.

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The IVR system will, to an extent, reduce the human intervention required for filing a claim. During filing of claim, the questions that expect "Yes" or "No" answers and the questions that require numerical information will be captured by the enhanced IVR system. Once these questions are answered by the claimant, the call will be transferred to the AWI where the AWI staff captures the rest of the information and submits the claim. To automate the process further, use of voice recognition software can be explored. Through the facility, the claimants can file initial, additional, reopened and transitional claims.

TCS UI Transfer system is built using Java/JEE technologies on IBM Web-Sphere Application Server platform. This portal functionality provides UI self-service functionality to external customers and business partners through rich and robust Internet interface applications and pages. UI applications include but are not limited to employer registration, tax reporting, wage submittal, claim submittal, claim status access, appeal submittal, reference material submittal, demographic data updates, UI reporting and other UI functions.

This portal supports Self-service, Information Aggregation, Collaboration, Extended Enterprise, Access Integration and Application Integration features.

- **Self-service** – TCS UI Transfer System and its users interact through the internet or intranet and perform business activities with limited or no manual intervention
- **Information Aggregation** – TCS UI Transfer System allows the users can extract useful information from large volumes of data, text, images etc. Typically Business intelligence, knowledge management etc
- **Collaboration** – TCS UI Transfer System supports collaborative work between users E-mail, chat etc.
- Extended Enterprise – TCS UI Transfer System links two or more business processes across separate enterprises or agencies (if required)
- **Access Integration** – TCS UI Transfer System integrates a number of services through a common entry point and allows the users to access through portal
- **Application Integration** – TCS UI Transfer System integrates multiple applications and data sources without the user directly invoking them

Exhibit 5-26 TCS UI Transfer System – Customer Interaction

The custom portal built supports Spanish language support using the Application Server's Localization and Internationalization features. The portal will allow self-service users to efficiently access, view and operate authorized UI functions through mobile devices using WML scripts. The system self-service user interface will comply with current Americans with Disabilities Act (ADA) standards and requirements.

The AWI UC Application is composed of a group of functional subsystems including Claims Intake, Continued Claims, Determination & Adjudication, Payments, Benefit Payment Control and Appeals. The system interacts with the internal interfaces for infrastructure management such as Workflow Management, Document Management,

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Security, and Correspondence services. External interfaces include ICON, IRS, SSA validation, and USCIS to perform interstate wage transfer, wage verification and SSN verification.

The claimant is required to complete registration in order to use the internet application. Claimants can register themselves via the Internet or the Call Center to register over phone. Claimant will be able to establish their account over IVR system as well. Unemployment insurance claims are filed through Internet, Intranet or IVR. Initial monetary determination is made based on the wages available in Tax. Correspondence related to the benefit determination is generated accordingly.

Once the claim is established certification process over internet or IVR takes place every week. Issues are identified real time during the certification process and adjudicated. Monetary and Non-monetary issues are adjudicated and determinations are e-mailed (if the preferred mode of contact is email) to the claimant stating their rights to appeal against those determinations. Payment subsystem maintains the payments made every week and stock inventory of the daily checks issued to the printing department.

The following feature will be available in the web-enabled application:

- Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup
- Documents shall be organized so they are readable without requiring an associated style sheet
- Color-coding will not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

The following self service functions will be available to the users:

Exhibit 5-27 TCSUI Transfer UI - Self Services Features

Self Service Function	TCS UI Transfer System
Claimant Registration	√
Claims Intake	√
Detection of Issues during Claim Filing	√
Automatic Sequence Building	√
Partial Save and Return	√
Weekly Certification	√
Additional/Re-open Claim	√
File an Appeal	√
Change Contact Details	√
Correspondence	√
UI Inquiry	√

IVR (Interactive Voice Response)

AWI IVR and call center Application to provide callers with the ability to certify their unemployment status and earnings with department. Callers will enter their SSN and PIN to authenticate with the system. Once authenticated, callers can file their weekly claim, change or establish their PIN, or get payment history information etc. The systems will interact with an AWI backend via web services. The user interface will be DTMF and callers may use English, Spanish or Creol.

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IVR System will accept the call from the customer and will process the request without department user intervention. When user will call to IVR system and will go through predefined menus. Once all the information related to customer is captured from IVR call will be routed to CSR, if required.

As soon as call is intercepted by the CSR, System screen will be popped for CSR having pre-populated information related to customer.

Once call is completed by the CSR all the details will be saved in System. Once details have been saved in system it will create a unique case number. If required, system will initiate workflow which will be assigned to CSR as per different algorithm to balance the workload.

Exhibit 5-28 Team TCS proposed Call center Features

Transaction	Activity
Provide claim filing information	♦ Provide information to customer using knowledge base
Provide Eligibility Status:	♦ Caller Verification ♦ Access TCS UI Transfer system for data
Conduct Address change	♦ Caller Verification ♦ Access TCS UI Transfer system for data ♦ Form is printed and completed
Conduct PIN reset	♦ Verify caller by asking SSN and employment information ♦ Access TCS UI Transfer system for data
Provide Payment information	♦ Caller Verification ♦ Access TCS UI Transfer system for data
Remove flags from claims	♦ Caller Verification ♦ Access TCS UI Transfer system for data
Return to work	♦ Caller Verification ♦ Access TCS UI Transfer system for data
Status of appeals	♦ Caller Verification ♦ Access TCS UI Transfer system for data
Special payments	
Correcting Social Security numbers	♦ Special Payments staff receives request to correct Social Security number on claim ♦ Access TCS UI transfer to make change
Correcting effective dates on claims	♦ Special Payments staff receives request to correct affective dates on claims ♦ Access TCS UI transfer to make change
Cancelling claims	♦ Special Payments staff receives request to cancel claim ♦ Access mainframe to make change
Cancel and reissue benefit warrants and EFT issues	♦ Special Payments staff receives information that warrant requires cancellation or reissue ♦ Verify information ♦ Access TCS UI transfer to make update Contact claimant and banking institution for EFT issues

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5.1.4 Agency Users Interaction with UC System

d. Describe how the Agency users will interact with the system to perform their activities.

For Agency users the user interface within the UI business functionality is an essential component providing them the ability to seamlessly and easily interact with the system. TCS UI Transfer System provides a user interface that is primarily browser based, and provides a solution that offers a seamless integrated look-and-feel across all system functionality. The interface is simple, clear, easy-to-use and flexible. It allows ready interpretation of required information and provide error and warning messages with resulting action(s) where appropriate. TCS UI Transfer System is based upon defined standards for the Graphical User Interface. Consistency and ease of use is the main feature of the TCS UI Transfer System GUI. Cascading Style Sheet is used to maintain the look and feel parameters at one common place.

Following are some of the key features for Agency Users day to day interaction with the TCS UI Transfer System:

- Consistent GUI helps users similar navigation across the system. TCS UI Transfer System provides single user interface component across the system. The GUI is based on the project standard and provides a consistent look and feel.
- Role based System menu for personalized menu display and ease of navigation across the business processes
- Role Based Access Control (RBAC) – Users and resources are mapped to roles. The GUI of the TCS UI Transfer System contains web pages, data elements, buttons (or images) and links. All links and buttons are considered as source of Transaction execution. Access to these resources is defined by the role of the user. The following diagram depicts how RBAC works:
- Spanish language capability is built in the TCS UI Transfer System for all the screens and helps which are accessible in self-service mode. All the labels and help on the screen are displayed in Spanish language. The system determines the language of the screen based on the logged in user.
- Screen help provides information about attributes displayed on the page and what is expected. This help is available on click of the “Help” button available on the left most side of any screen.
- Context sensitive help provides extra information specific to an attribute on the screen. Attributes are identified during requirements phase which need extra information. An image appears along with such attributes. Users can click on this image to get extra information.
- Helper Text provides extra information specific to an attribute on the screen. Help text in blue is provided for attributes where immediate extra information is required
- My Q provides a list of cases assigned to the user logged in. This facility is available to internal users only
- When a case is created and the user has the role to perform the next level of action in the case, the UI System prompts the user if he wishes to take the assignment of the case. If the user takes the assignment, the case is directly assigned to the user instead of following the case assignment logic.
- Standard palette of button provides a consistent location of navigation buttons across the system
- Calendar feature to capture a date attribute
- Formatted attribute like SSN (xxx-xx-xxxx format), telephone number (xxx-xxx-xxxx format) with auto-tab facility

Automated Business validations, Form level validations and Data level verifications to ensure correctness of the data entered.

- List of Values or Drop-down attribute to help select correct value
- Check-box attribute for multiple selection
- Select option (radio button) for single selection

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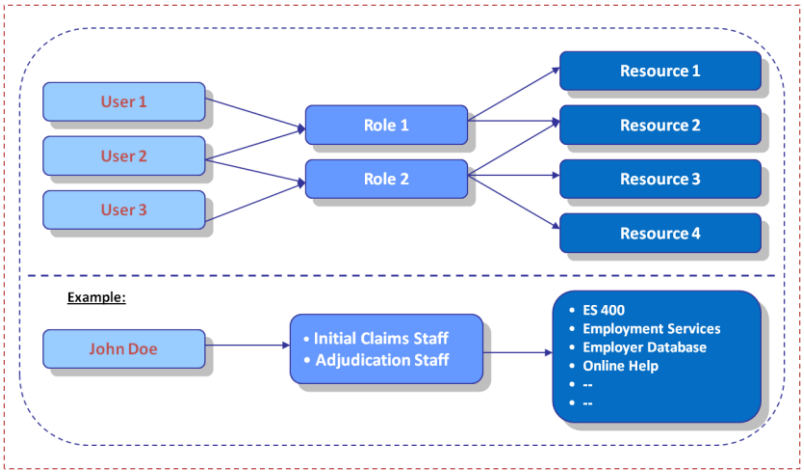

Exhibit 5-29 Role Base Access Model

A typical screen of the UI System is shown below:

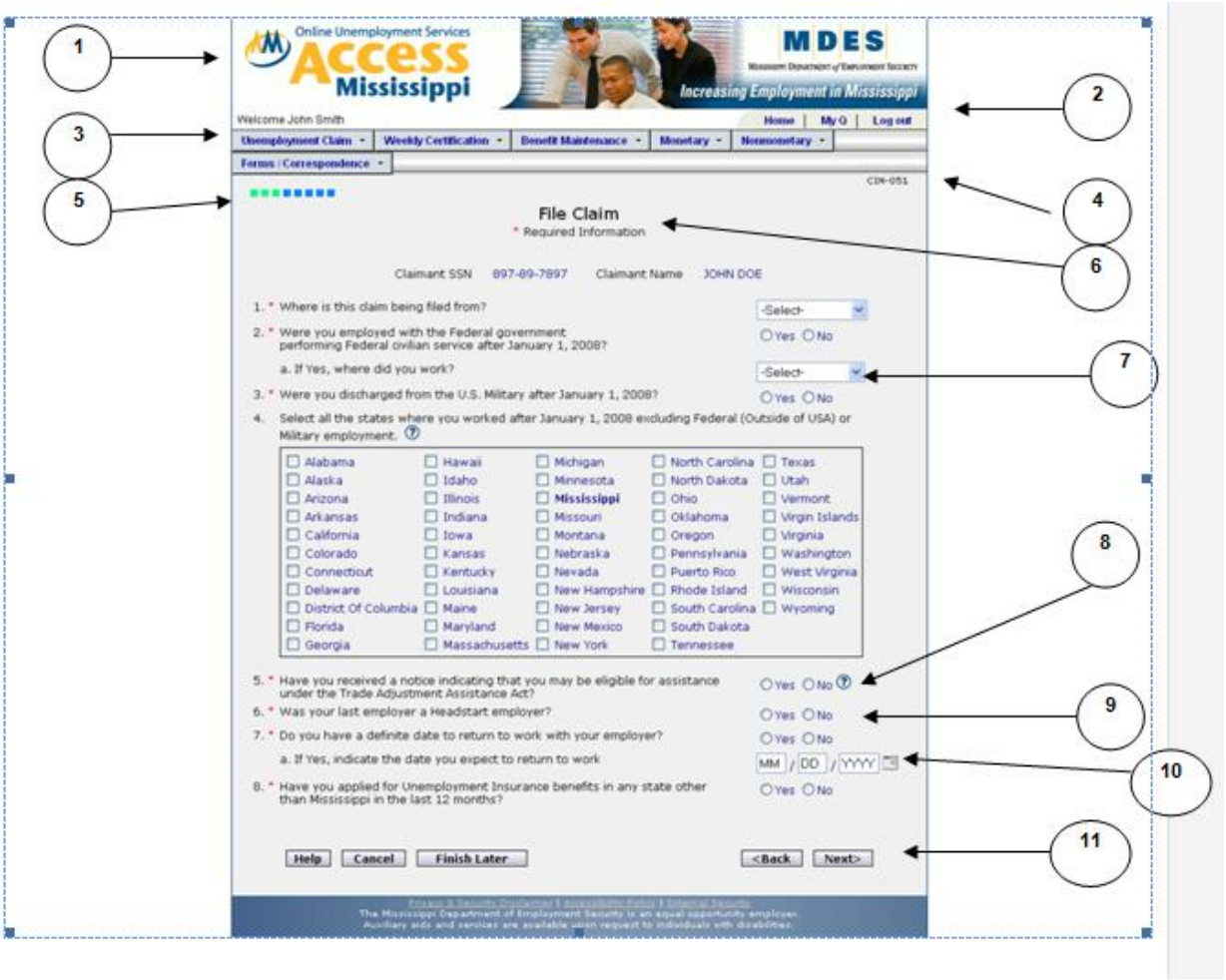

Exhibit 5-30 User interface

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Number	Description
1	Place holder for agency logo and system image
2	Common links for all the screens
3	System menu (based upon role)
4	Unique Screen ID
5	Status Bar (Only for Screens related to Claims Filing Process)
6	Screen Title
7	List of Values or Drop-down populated from master data
8	Context Sensitive Help
9	Select Option (for yes no type answers)
10	Calendar Functionality for Date
10.1	Button Palette
10.2	Left Side Buttons
10.3	Help Button – Always on the left most side. Opens screen help page
10.4	Cancel Button – Always second button from left. Cancels the process and deletes data stored temporarily. A confirmation dialogue box appears on click and before cancelling the process
10.5	Finish Later – Always third button from left if cancel button is present or second button if the cancel button is not present. Saves the data entered up to the prior screen so that it can be retrieved at a later time
11.1	Right Side buttons
11.2	Back – Always second button from right. Navigates to the previous page. If this is the first page then navigates to the home page
11.3	Next – Always on the right most side. Navigates to the next page
11.4	Confirm – Appears instead of Next button on the last screen of a process, if the last screen is a verification screen
11.5	Save – Appears instead of Next button on the last screen of a process
11.6	Home – Appears instead of Next button on the last screen of a process, if the last screen is a confirmation screen

5.1.5 Agency User and Customer Collaboration

e. Describe how the proposed solution enables all users to interact, collaborate and communicate with each other to achieve the goals and objectives of the UC program.

TCS UI Transfer System enables agency users to interact using Workflow Queue (My Q) and using email and chat. We need to have collaboration and communication between agency users to achieve quick and accurate outcome of any task assigned. Following are the ways by which we can achieve the effective communication between the agency workforce:

- Email
- Chat
- Workflow
- Reports
- Voice Call

Email

Email agency users is one of the effective way of communicating and collaborating for the task. TCS UI Transfer System provides the capability for supporting emailing functionality. To communicate about system status and different reports TCS UI Transfer System is capable to send emails to the agency user using the underlying email technology used within Agency.

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Chat

TCS UI Transfer system provided the capability to support the chat functionality for the agency users. Chatting functionality saves a lot of time of agency users. Chat is one of the fastest way of communicating with in agency users.

Workflow

TCS UI Transfer System provided capability to maintain the user work queue referred as MyQ. MyQ consist of item for a agency user to work on. This MyQ work-item can be output of another user action. Also, upon working on work-item it can create another work-item for another agency user. By the means of MyQ agency user communicate and collaborate with in system. Work items can also be reassigned by the administrator to other intended users. TCS UI Transfer System provided the capability to the agency user to reassign the existing task to particular user. See Screen shot below:

Reports

Agency user collaborate and communicate with the help of different reports generated by TCS UI Transfer System. System has in built reports for agency users to collaborate for day-to-day work. TCS UI Transfer System is capable of customizing existing report and adding some more reports based upon AWI requirements which can help agency to perform their day-to-day tasks.

Voice Call

The call flow for claimant interaction with the Genesys solution is as follows :

- Claimant initiates a call through PSTN and arrives at Genesys voice portal (GVP).
- Claimant speaks or enters DTMF data which GVP collects and performs assigned self-service activities. GVP will use Automatic speech recognition to enhance the user experience. All the claimant interactions with the IVR are stored and the data can be used by the Agent in future. If self-service can be completed, claimant hangs up and call is complete.
- If Claimant wishes agent assistance, CIM routes the request and information from GVP to the best available agent. If Agent is available, call is transferred to that Agent.
- If no Agent is available, call is transferred to another component in the Genesys framework where on-hold treatment is applied. This would be music or message on hold announcing expected wait time and his position in the queue.
- If Claimant doesn't want to wait in the queue, he is provided with option of callback. If he chooses the option, system will call back as per his position in the queue.
- Once appropriate Agent is available, call is transferred to Agent. TCS UI Transfer System application is popped up with claimant's information along with current IVR transaction data. Note that all Agents are part of a single system whether they are located in Tallahassee, Ft. Lauderdale, one of the two locations in Orlando, or any other possible future locations via VoIP infrastructure.

Email

Genesys solution can be integrated with the corporate email servers The Email flow for claimant interaction with the Genesys solution is as follows:

- Email interactions are treated much the same way except the email comes through the Internet to the AWI email server either via claimant email account or via AWI web portal.
- Genesys Email Interaction Server checks the assigned email addresses, such as, for example - claims@flawi.gov and performs a keyword search to pull necessary information in order to effectively route email to best agent.
- Once Agent is selected by Genesys router, email is delivered and Genesys Agent Desktop (GAD) application is popped with claimant's information.

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- Agent responds to the Email with the help of knowledge base or readily available templates.
- The Email may be transferred (forwarded) to another agent if needed.

5.2 System Development

This section describes in detail, the approach and methodology that Team TCS will adopt for the AWI UC project.

5.2.1 Proposed System Development Life Cycle Methodology

a. Describe the proposed system development lifecycle methodology that supports the requirements of Section

TCS has over 100,000+ years of extensive experience in developing and implementing large and complex software solutions using a variety of methodologies and tools. TCS system development methodology has been perfected over the years by the result of executing similar projects which will be tightly integrated with the project management.

Team TCS recommends that for maximizing the benefits of the AWI UC system, providing a smooth transition and gaining greater stakeholder confidence, the Software Development Life Cycle should be carried out using the Iterative Development Methodology based on the principles of Rational Unified Process. This methodology will be fine-tuned to the requirements of the ITN and well-integrated with the TCS Service Delivery Management framework and quality management system (iQMS) which is described in Section 4.1.

This methodology is tailored considering the requirements of AWI detailed in the ITN and which is based on:

- The Rational Unified Process, which is customized to meet the client's needs and environment.
- TCS iQMS Framework for Software Development Life cycle and Application Maintenance Framework

The approach for software development life cycle includes the following:

- Iterative multiple time-boxed releases;
- Overlapped phases with production delivery

Software Development Life cycle(SDLC):

The iterative approach for SDLC provides benefits such as: risk mitigation, faster time to implement and improved quality. Each iteration contains a logical set of requirements that are then taken through the analysis, design, build and testing phases. Multiple iteration phases are worked on in parallel to expedite delivery.

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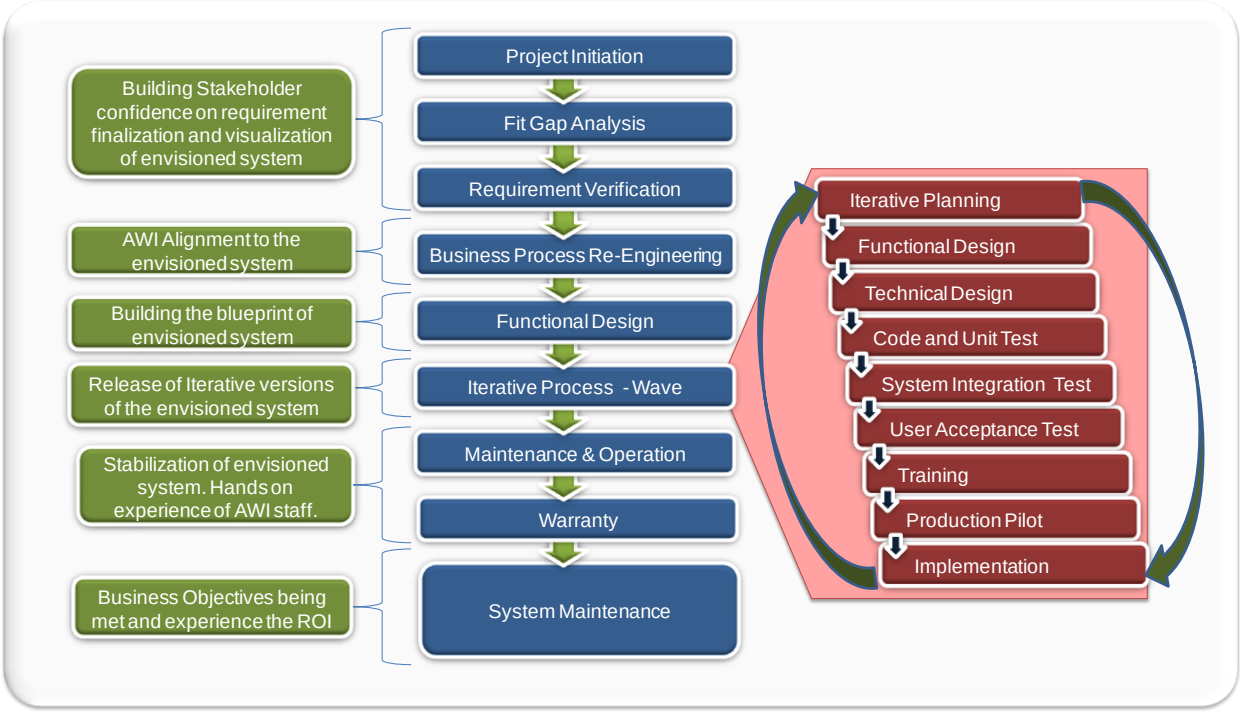

Exhibit 5-31 – Proposed Phased SDLC Model

This phased implementation approach will imply the existence of two parallel software applications (and associated databases) – one being the legacy application currently supporting the UI Processes, and the second, a modernized application that will provide enhanced services in future. These applications will perform mutually exclusive and collectively exhaustive business functions as the States goes through the multi-year multi-phase implementation. In order to ensure that service delivery to constituents in the interim is responsive, transparent, and accurate, TCS believes that a smooth handshake between the two applications is essential.

However, considering that the bridges or interface programs between two applications are temporary and do not ultimately contribute to the end state of a modernized application, TCS' efforts in the past have been to carefully plan and minimize the time, effort and cost involved in the development of such bridges.

Maintenance and Operation Support lifecycle:

Team TCS will follow the Service Delivery Framework for maintenance and support for the AWI UC project. Team TCS has excelled in, and successfully implemented this Framework in similar projects for other states in the US, and for customers in the commercial sector. The experience and knowledge gained in those projects in terms of best practices, checklists, artifacts will be used for this project, which helps to provide better service during the Maintenance and Support phases. These best practices, checklists and artifacts will be shared with AWI during the project transition by Team TCS to help AWI better manage the system efficiently, without much difficulty.

The proposed TCS SDF framework for the warranty and maintenance support period is shown at a high level in Exhibit 5-32 Team TCS Service Delivery Framework. Team TCS has implemented similar approach in many projects resulting in benefits to both Team TCS and its customers.

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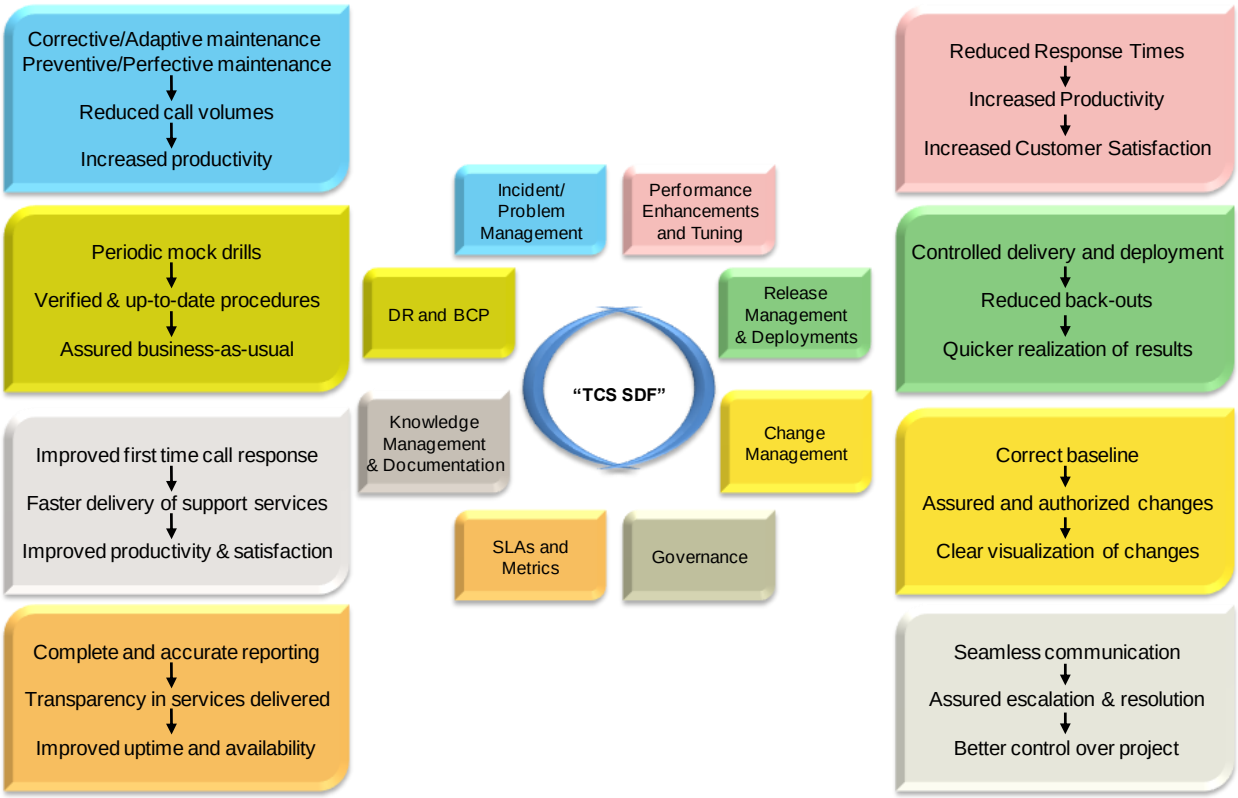

Exhibit 5-32 Team TCS Service Delivery Framework

The service delivery framework comprises the following components:

- Incident Management consists of a centralized Service Desk for resolving incidents / tickets. The incidents are resolved as per agreed service levels; thus, minimizing disruption in the usual business activities of the customer.
- Problem Management identifies potential problem sources in the IT systems and tackles them proactively.
- Change Management ensures that all changes are managed and controlled systematically; thus, minimizing any impact to IT services being delivered following the change.
- Release Management ensures a secure and managed rollout of all software into the production environment by following an appropriate approval workflow.

Key Benefits of the Proposed Development Methodology

The Exhibit 5-33 Team TCS Proposed Tailored RUP Methodology for AWU UC System, provides how Team TCS will use the RUP methodology for building the AWI UC system.

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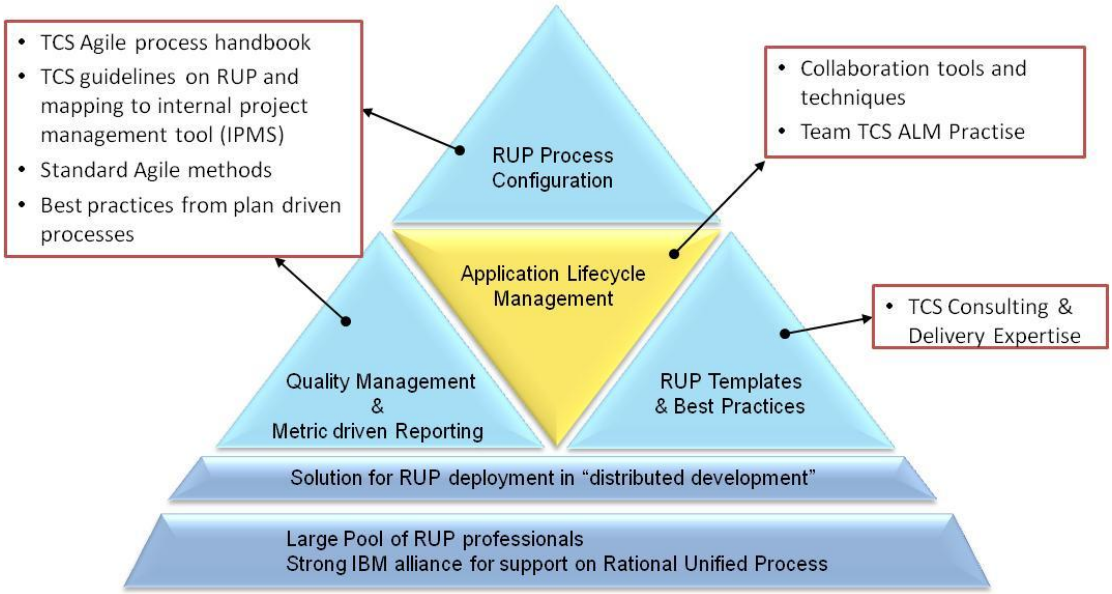

Exhibit 5-33 Team TCS Proposed Tailored RUP Methodology for AWU UC System

Team TCS will offer the following benefits to the AWI UC system through iterative development methodology:

- Helps to identify and address Functional, Technical and Management risks at an early possible stage.
- Ensures that there is maximum possible focus on the core activities of development such as design, coding and testing on the scope of each iteration.
- Results in frequent executable releases, which will help the AWI staff to visualize the final AWI UC system, facilitating easy acceptance of the system after implementation.
- Helps the system architecture validation phase to reaffirm the technical solution and look for alternate options, if required, at an early stage.
- Ensures that the application incorporates the core functional requirements, and usability issues are resolved at the earliest, by performing Early User Acceptance Testing of the functionality (during every iteration in the Construction phase) with participation from the AWI team. This would help in providing crucial inputs to the User Training.
- Frequent deliverables & continuous feedback facilitate mid-course corrections and create a self learning loop for the Software Development Life Cycle – resulting in reduced errors in later iterations.
- Provides better visibility into the project for TCS and the AWI senior management.
- Helps set expectations of all concerned, early on in SDLC due to early and frequent deliverables

The Team TCS project teams are right skilled, focused, and fully accountable to AWI throughout the project's life cycle, thus reducing hand-offs and ensuring that end results meet AWI's expectations. During project closure, Team TCS' transition methodology will ensure an effective hand-off to the AWI staff, allowing them to move forward with confidence and manage the system efficiently.

5.2.1.1 Requirements Validation Approach And Methodology

i. Describe the proposed requirements validation approach and methodology for this project. Refer to Section D, Exhibit 1, 8.2, Requirements Validation.

Team TCS realizes that most of the projects fail because the end product does not meet the stakeholders' expectations. Complete and accurate requirements gathering and verification is an important first step in the

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successful implementation of the AWI UC project. Accurate requirements, referenced in all phases of the AWI project life cycle, ensure that the needs of the users and the stakeholders are met.

Team TCS will follow its proven Requirement Verification approach and methodology, and ensure that the accurate requirements and expectations of all the stakeholders are captured and verified, and thus transformed into the end-product for UC AWI project. Requirements are typically classified into three categories:

- Functional requirements describe the system features or functions that the system must perform.
- Non-functional requirements describe the properties that the system must possess (e.g., performance, availability, accessibility).
- Constraints limit the development of the solution. Constraints include defining the operating system the solution must run on, or the programming language that must be used to implement the system.

Requirement Verification methodology involves a sequence of steps to be followed, to ensure that the end product meets the objectives of the AWI. Following are the steps involved in the Requirement Verification methodology:

- Mapping the requirement with the base UI Transfer system and developing a gap analysis document.
- Collecting involves gathering feedback on the system behavior from a cross-section of individuals.
- Documenting involves compiling feedback into written form for future prioritization and approval.
- Verifying involves confirming that the documented requirements accurately capture the inputs of the participants.
- Prioritizing involves ordering and eliminating the gathered and documented requirements according to a set of parameters.
- Validating involves confirming the prioritized set of requirements with stakeholders, experts, and end-users to ensure that this solution solves the business problem.

This methodology will ensure that the following objectives are met for the project requirements, from all the stakeholders:

- Maintaining completeness and consistency
- Conforming to standards
- Checking ambiguous requirements
- Ensuring that the requirements can be tested
- Creating a preliminary version of the Acceptance Test Plan, including a verification matrix to test the requirements

Involve key stakeholders (internal and external) in the requirements analysis and verification process. This ensures that more visibility is provided to the stakeholders during the requirements verification process, and the requirements are properly identified.

Requirements may change during the project execution. Hence it is important to have a Change Control process in place, to handle such changes. Team TCS will follow an efficient Change Management approach, which is explained in the section 4.4.

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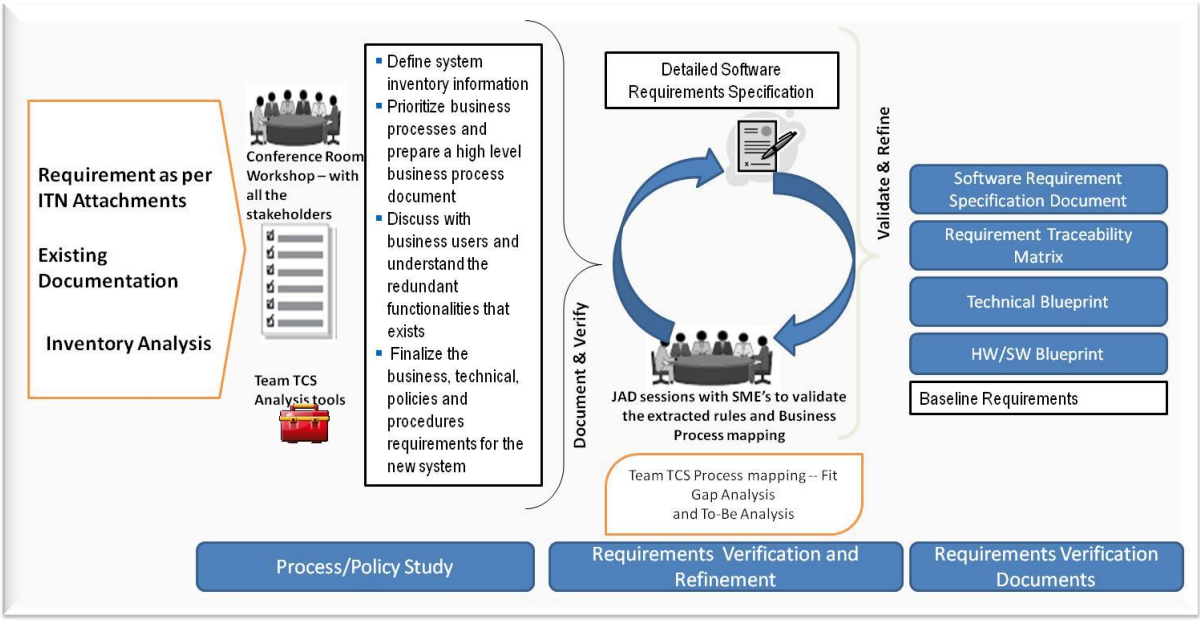

Exhibit 5-34 Requirement Management Approach

Requirements verification techniques provide project team members with various methods for gathering requirements from the stakeholders and validating these requirements. For better involvement of stakeholders during the requirements gathering and validation process, Team TCS will follow the proven techniques listed below:

- Conducting Workshops with the Application Team / Business Users.
- Conducting Joint Application Development (JAD) sessions with Subject Matter experts

Conducting Workshops with the Application Team / Business Users

These are interactive sessions with stakeholders to elicit or validate the requirements. These sessions will include one or more stakeholders. They also involve a question and answer session to discover other potential stakeholders, discrepancies in the requirements, if any, the high-level requirements derived from, and the resulting detailed requirements.

These sessions facilitate obtaining approval from stakeholders on their requirements, and any changes to the requirements. The process is explained below:

- Identify stakeholders to be part of the workshops.
- Obtain a general understanding of the customers business.
- Develop the agenda and questions using open-ended questions.
- Set the meeting time and location for the interview.
- Provide the agenda and a set of questions (if available) to the attendees prior to the workshops.
- Use accepted methods for recording the workshops to accurately maintain the results.
- Provide the results to the attendees for confirmation.

The key advantages of the Workshop sessions are:

- More visibility is provided to the stakeholders during the requirements verification process, and the requirements are properly identified. These planned sessions with prior sharing of agenda and questions will ensure better participation from the application and business users.
- These workshops provide an opportunity to explore or clarify topics in greater detail.

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- Conflicts, inconsistencies and communication gap between stakeholders understanding of the 'to be' system will be resolved.

JAD sessions: The Joint Application Development (JAD) technique is an extended, facilitated workshop. It involves collaboration between Subject Matter Experts and Systems Analysts to identify the requirements in a concentrated and focused effort. The activities include the following.

- Define the purpose, scope, and objectives of the JAD session, select the JAD team, invite and obtain commitment to attend sessions from the appropriate stakeholders, and schedule the session. It is important to obtain management commitment to support the process and identify the appropriate stakeholders.
- Research on the product and become more familiar with the product or service, gather preliminary information, obtaining any models.
- Prepare visual aids, develop a realistic agenda, train the recorder, and prepare the meeting room.
- Conduct the session, and follow the agenda to gather and document the project requirements. It is important to ensure that all participants are given equal treatment during the process.
- Prepare the formal documents. The information captured in the JAD session is further refined through analysis efforts. Open questions or issues discovered through the sessions are resolved, and the final document is returned to stakeholders for review and validation.

The advantages of JAD session are:

- This technique allows simultaneous gathering and consolidation of large amounts of information.
- This technique produces relatively large amounts of high-quality information in a short period of time.
- Discrepancies are resolved immediately with the aid of the facilitator.
- This technique provides a forum to explore multiple points of view regarding a topic.

Team TCS assures AWI that the Requirement Verification approach will ensure implementing effective requirement verification techniques. The techniques facilitate right involvement of stakeholders at appropriate platform to collect and verify accurate requirements, resulting in very minimal changes during the project life cycle. This process will help the Team TCS project team to utilize maximum time in building an effective system rather than spending effort in implementing changes or re-work effort.

Team TCS will create a Use Case Modeling and Use Case Realization Standards document and present it to the agency management for review.

Detailed System Requirements Document: Based on the detailed system requirements obtained, Team TCS will prepare a comprehensive System Requirements document. This document will be submitted to the agency for review and approval. On approval, this document will be base-lined for any future scope changes.

This document will also mark the changes and enhancements required to the Proof-of-concept base system provided by TCS during the first 100 days of the project.

Requirements Traceability Matrix: The TCS team will ensure that every requirement documented in the Detailed Systems Requirement document is traced down to a component in the final solution. This will be achieved by creating a bi-directional traceability matrix that will map the requirements to the components in the solution. This will also ensure that all components in the solution can be mapped back to one or more requirements documented in the Detailed System Requirements document.

The TCS project manager will ensure that this matrix is updated throughout the project phase.

Tools and Best Practices
♦ Team TCS would like to have extensive participation from agency IT staff and business users for finalization of the requirements ♦ Use of Non-functional fully -navigated prototype building at an early stage.

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- Finalization of business rules strategy.
- Use of TCS Requirement Verification Checklist

5.2.1.2 Proposed Reports Development Approach And Methodology

ii. Describe the proposed reports development approach and methodology for this project. Refer to Section D, Exhibit 1, 8.3, Reports Development.

Team TCS supports delivery of reports electronically, in three ways: Online reports, Email reports, Ad Hoc reports. This requirement is currently supported by the TCS UI Transfer System, and it is further enhanced by using HP product for managing correspondence.

- ***Online Reports*** – Majority of the reports will be scheduled to generate automatically by the batch programs based on the business rules provided. The reports will be generated by the batch program and uploaded in the Document Management system. Each report will be configured in an xml and will be integrated with application security so that only users who have roles attached to their user Id can view these reports.
- ***Email Reports*** – Reports can also be configured to be sent via email as soon as they are generated. These reports will be available in the user email. The UC system facilitates sending reports as an attachment to the email or just sending the notification of the availability of the report in DMS.
- ***Ad Hoc Reports*** – Some reports are needed to be generated on an ad hoc basis as per the demand of business users. For these reports, the user will be provided with a secured interface to generate the reports. The interface will accept the parameters required for generating the report from the user and then report will be generated. The user will be able to save / print the report as per the requirement.

All the reports generated will be distributed in electronic format as per the AWI business requirements. The online reports and reports sent through email will be available for future reference in document management system. Ad hoc reports can also be generated any time and can be saved on the user's computer. The access to all reports (online, email, ad-hoc) is secure so that only individuals having access rights will be able to access those reports. Thus the UC system reduces dependency on paper reports. All the reports will be in the PDF format so that the users will be able to save the reports on their computer and print them as and when required. These reports also support selective printing.

Both online and archived reports will be integrated with application security so that only users who have roles attached to their user Id can view these reports. Cognos BI Report Viewer provides the web-based user interface for the report authors. The generated reports will be viewed by the authorized users through the UC system's user interface.

Team TCS' proven approach for report development is depicted in Exhibit 5-35 Report Development Approach

Exhibit 5-35 Report Development Approach

Scope & Business Analysis: In this phase, Team TCS identifies the scope for the reporting requirements, tools, techniques required for report development, overall development process for each wave, and stakeholder involvement. Team TCS conducts JAD sessions to capture the report requirements and priorities, and documents the requirements.

Design: In this phase, Team TCS reviews the data requirements, data availability, and data storage requirements. It also defines strategy for the data warehouse design; business objects and transformation; maintenance and currency requirements, considering data volume and content ; address data access and security requirements. Team TCS recommends reporting analysis and tools, considering varying user skill sets; performs assessment of data availability; Data storage in data warehouse & data mart.

Implementation & Rollout: In this phase, Team TCS consultants develop, test and implement reports.

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Maintenance Support: After moving the developed reports into production for each wave, Team TCS' support team carries out support activities.

Standard Reports: Team TCS' UI Transfer System provides a set of standard reports that can be directly used by the AWI business users. However, these reports are formatted as per the AWI reporting standards and guidelines.

Based on the reporting requirements for each wave, Team TCS develops and implements reports. The detailed methodology for report generation is depicted in Exhibit 5-36

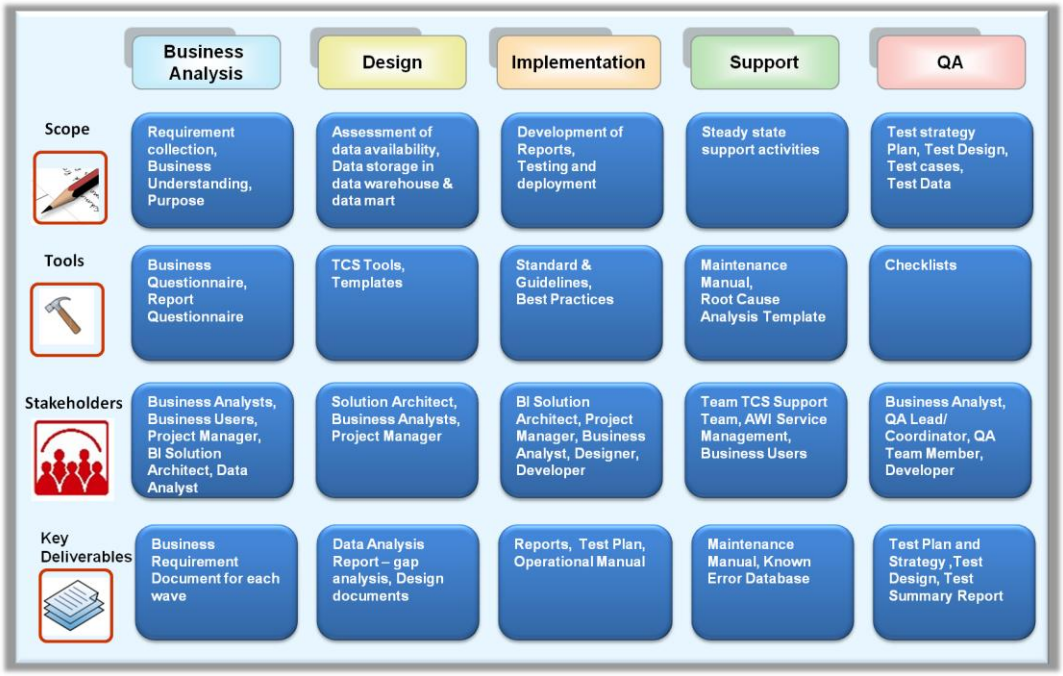

Exhibit 5-36 Report Development Approach

Tools and Best Practices
♦ Team TCS solution will leverage proven tool for Correspondence and Cognos for UC system dashboards.

5.2.1.3 Proposed Forms And Correspondence Development Approach And Methodology

iii. Describe the proposed forms and correspondence development approach and methodology for this project. Refer to Section D, Exhibit 1, 8.4, Forms and Correspondence Development.

Team TCS utilizes HP Exstream as the forms and correspondence solution to create and manage the document generation process for all applications requiring significant amount of text or specialized formatting of text. HP Exstream enables AWI's business users to manage the entire life cycle of creating, assembling, and delivering large volumes of transactional, ad hoc, and personalized documents across multiple channels (e.g. e-mail, Web, print, SMS, and XML).

Florida AWI communicates with its constituents through over 500 documents of various types. As shown in "Exhibit 5-38 AWI document Generation Requirement, HP Exstream enables AWI to have a single solution to produce all documents for every business process. From the UC System's Case Management component, event-triggered documents will be automatically generated in batches, typically after business hours, without the need of human interaction. At other times a Case Worker may need to generate documents on demand in real time for a constituent. HP Exstream will handle this business need as well.

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Finally, in either document generation mode, high volume batch or on demand, if an AWI employee requires the flexibility to update a document it can be output in an interactive format. HP Exstream's interactive, or "Live," capability delivers a controlled editing experience to enhance productivity, while ensuring compliance with front office-generated communications. These intelligent "Live" documents serve as templates that can be moved through a workflow to help enrollment, advisement, and correspondence processes. The AWI document Generation Requirement depicts features of the applications.

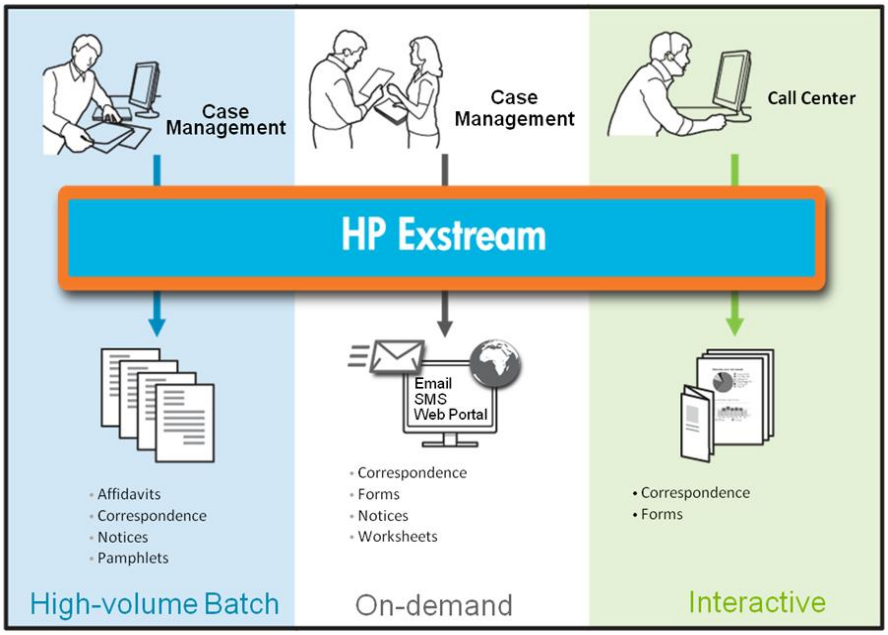

Exhibit 5-37 HP Overall Solution Framework

HPHP Exstream software is a proven enterprise document automation solution consisting of four major functional categories as shown in "Exhibit 5-38 AWI document Generation Requirement". The design environment gives business users and Subject Matter Experts a GUI WYSIWYG to design, maintain, and test document templates. At the core of the solution is the production engine that enables organizations to create any type of constituent communication—from complex statements, to pamphlets, to general correspondence—regardless of variability or delivery channel. Distribution handles the assured delivery of mission critical documents via multiple output channels such as print/mail, email, SMS, Web, and fax. Finally, as discussed earlier, interactive documents typically operate in the front office where constituent facing workers need to change a composed document with variable data and content already populated.

Other capabilities allow advanced data and content integration, streamlined processing for high-volume and on-demand documents, comprehensive document application testing tools, and bundling and sorting for print/mail documents. Data and content integration capabilities let agencies directly access information from multiple sources at the same time, including legacy systems and Web Services, as well as BPM, ECM, CRM, and other applications.

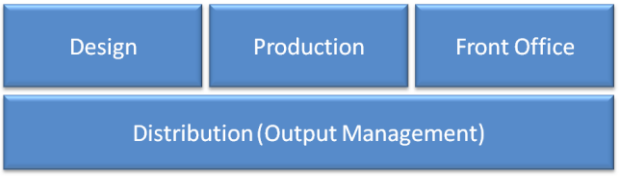

Exhibit 5-38 AWI document Generation Requirement

HP Exstream enables AWI users to improve their productivity by automating the manual correspondence activities. Other benefits of HP Exstream are:

- Changes to the system can be quick and simple, thus reducing cost and complexity.
- Content errors and inconsistencies are easily avoided. HP's software is also extremely intuitive and easy to use, yet it provides AWI business users with powerful rule building capabilities. This enables the business to dynamically control content, branding, personalization messages, and presentation channel.
- The business can easily extend printed documents to support multi-channel delivery from a single template (email, web, SMS messaging, fax, and print). Documents can dynamically present alternative languages or tone of voice.

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- HP Exstream also enables AWI to quickly address the risk of compliance and out-of-date documentation. Content can be created once, then re-used many times. The result is that changes to content such as regulatory wording, standard paragraphs, logos, etc, can be made once and reflected immediately across all documents. With all resources in HP Exstream being version controlled, a graphical display of how and where each resource is used across the entire system enables the business to quickly assess the impact of any document changes.
- HP Exstream's document templates are available to Call Center Service Agents via a web interface to additionally provide a controlled editing environment. The result is that Microsoft Word is no longer required and the agents need to make only minimal changes (if any) to a fully pre-constructed document rather than create each document manually.

HP Exstream is a 100% SOA software platform built upon J2EE, XML, WEB SERVICES, and W3C as its core architecture. This component enables AWI business users to manage the end-to-end process of creating intelligent, personalized communications (correspondence, forms, notices, etc.) across multiple channels from few templates.

5.2.1.4 Proposed Functional Design Approach And Methodology

iv. Describe the proposed functional design approach and methodology for this project. Refer to Section D, Exhibit 1, 8.5, Functional Design.

Team TCS will follow a two-stage approach for functional design. In the initial stage, Team TCS' design activities will be focused on preparing high level functional design for the complete UC System. In this stage, Team TCS' functional consultants will prepare the overall design for the system covering various components of the system. Later the design will be enhanced for each iteration as per the identified application components in the iteration. Team TCS will deploy its proven, mature and advantageous design processes combined with industry standard framework for iterative software development such as Rational Unified Process (RUP) that efficiently delivers consistently high quality products.

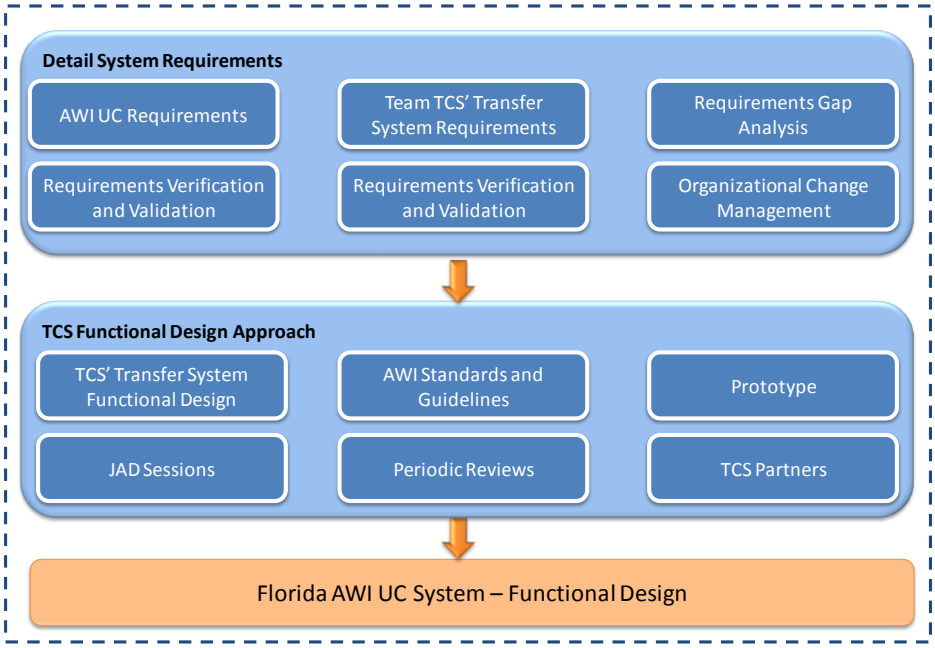

Exhibit 5-39 Functional Design Approach and Methodology

Team TCS' approach for high level design is depicted in Exhibit 5-39 Functional Design Approach and Methodology. During the functional design phase, Team TCS will refine and document detailed system

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requirements of the UC System. Team TCS will validate and demonstrate that the proposed system satisfies the AWI's identified requirements. Team TCS will identify and document any functional or system changes, enhancements and/or additions that must be made to the proposed solution to meet the State's requirements.

Team TCS will consider the validated requirements and fit-gap analysis documents as the baseline requirements and prepare Use Cases by using its Use Case Modeling and Use Case Realization Guidelines that describe project UML techniques and notation for project Use Case models. Team TCS will ensure that these guidelines are in accordance with AWI standards. Team TCS will develop design-ready System Requirements Repository, including functional requirements, non-functional requirements, Use Cases, and detailed business rules and traceability matrix.

Team TCS will prepare the detailed functional design documents so that both State functional and technical staff are able to understand the basis for configurations, modifications and the expected results. The detailed system design will include, but is not be limited to:

- Online screens and content flow
- User interface design and prototype for both internal and external users
- Detailed business, policy, and processing rules
- Unemployment claims case management and workflow
- Batch processes and program flow
- Reports, Letters, Forms, and Correspondence
- Online Help
- System internal and external interfaces
- Common, integrated functionality

Report, Letter and Form Design Team TCS will prepare a list of report, letter, and form designs required for the AWI UC System. This list also provide pertinent information such as content, usage, production, security, retention, volume and frequency.

Business Rule Design and Configuration Team TCS will prepare a list of business rules designed and configured for each iteration as per the iteration plan and provide\ necessary documentation and procedures for maintaining the rules and related tables.

Team TCS will use tools that provide traceability matrix from the Systems Requirement documents to a component in the final solution. This can be achieved by creating a bi-directional traceability matrix that will map requirements to components in the solution. This will also ensure that all components in the solution can be mapped back to one or more requirements documented in the Detailed System Requirements.

Team TCS will conduct workshops for AWI and present functional design documents for review. Recommendations made by AWI will be discussed and mutually agreed by Team TCS and AWI.

Tools and Best Practices

- Unique , Tailored Development Methodology for UI development
- Prioritization the Functionalities
- Process for enhancement / changes to be implemented or deferred
- Accommodates the unplanned legislative and other changes without project interruption
- Transparency, Quality and Commitment

5.2.1.5 Proposed Technical Design Approach and Methodology

v. Describe the proposed technical design approach and methodology for this project. Refer to Section D, Exhibit 1, 8.6, Technical Design

Team TCS will follow a two-stage approach for design and development. In the initial stage, Team TCS' design activities are focused on preparing high level design for the UC system. In this stage, Team TCS' architects prepare the overall architecture for the system by defining various layers and the technology to be used. The communication

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between different layers and overall nonfunctional requirements such as scalability, maintainability, performance, and security will be considered while designing the architecture for the system. Later the design will be enhanced for each iteration as per the identified application components in the iteration. Team TCS' approach for high level design is depicted in **Error! Reference source not found.**. During this stage Team TCS will perform below ctivities:

- Baseline the application's technical and nonfunctional requirements.
- Prepare design standards document in-line with the existing standards of Florida AWI.
- Prepare and present the application architecture, highlighting the benefits for approval by AWI.
- Conduct a review workshop with the AWI architect team on the application blueprint and the technical blueprint.
- Prepare and present the User interface, Migration Plan, Database design including data model following, highlighting their benefits, to AWI for approval:

The high level design approach would initially focus on the design of framework based on the requirements of the UC system abstracted during requirements collection. This will involve understanding the non-functional requirements and the common functionalities of the modernized UC system applications, hardware and networking requirements, security requirements, utility and supporting software requirements, backup and disaster recovery requirements.

Team TCS will integrate its design of the Transfer System with its Innovation Labs to come up with High Level Design in accordance with the AWI design standards and guidelines. Team TCS will conduct workshops to discuss and finalize the theme and goals of the technical architecture. Team TCS will review the current technical architecture and decide on the upgrades and enhancements to be carried out on the existing architecture.

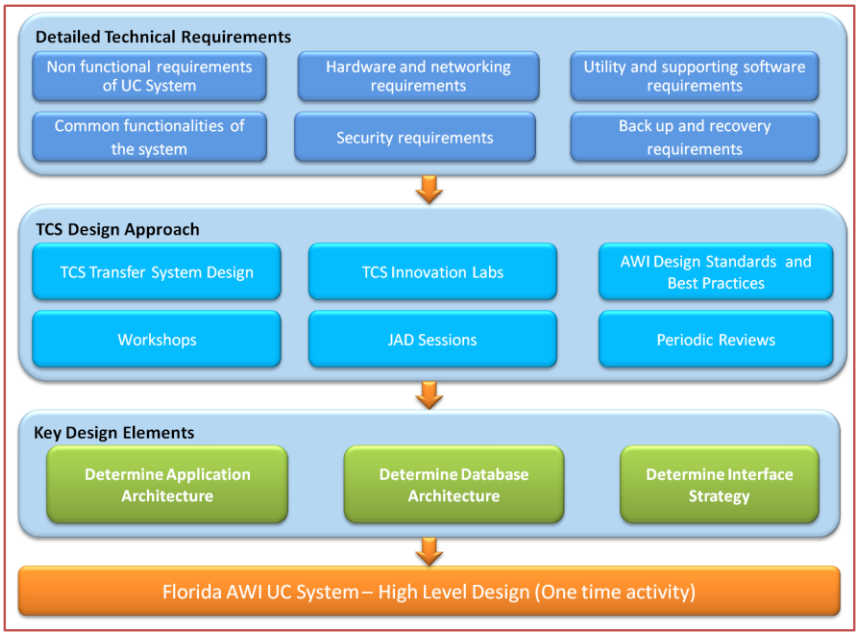

Exhibit 5-40 High Level Design Approach

Exhibit 5-41 Technical Approach and activities

Approach	Activities
Application Architecture	Team TCS will conduct workshops with AWI to establish the goals of the application architecture and defines the technical constraints presented by the technical architecture ♦ Team TCS elaborate will on the application architecture by preparing the following ○ Structural view of the UC system in class diagrams and object diagrams ○ Behavioral view of the UC system in sequence diagrams, collaboration diagrams, activity diagrams, and state diagrams ○ Implementation view of the AWI UC system in component diagrams and deployment diagrams ○ Technical standards to be followed during application design and identifies common features and interfaces to be available for all functions

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Approach	Activities
	○ Domain standards in accordance with AWI design standards and guidelines ♦ Team TCS will review the architecture of the TCS' UI Transfer System's and design artifacts, and update the overall application architecture to meet the AWI requirements ♦ Team TCS will map the application architecture components to the technical architecture components. ♦ Team TCS and AWI will jointly review and update will cover the following aspects: ○ Application features ○ GUI requirements and features so that the entire system looks alike ○ Interface requirements ○ Security architecture ○ Performance and scalability parameters
Database Architecture and Data Access/Reporting Strategy	Team TCS will conducts workshops with AWI teams to define the target database architecture by defining the following: ♦ Logical/Physical Data Model ○ Analyze the entities and relationships ○ Identify all attributes for each entity ○ Normalize the data tables ♦ Data Dictionary ○ Define all data elements ○ Define the list of all files in database ♦ Data Access/Reporting Strategy ○ Define strategy for the data warehouse design ○ Define strategy for business objects and transformation ○ Define strategy to meet maintenance and currency requirements, considering data volume and content ○ Define strategy to address data access and security requirements ○ Recommend reporting analysis and tools, considering varying user skill sets
Interface Design	♦ Team TCS will analyze the current design as per the requirements of the RFP and any other new requirement put forth by AWI ♦ Team TCS will conduct workshops for AWI to present functional and design aspects of the applications that needs to integrated ♦ For each required system interface, Team TCS will provide an interface design that includes, but is not limited to: interface data specification, architecture, security and authentication, connectivity, operation, maintenance, frequency, source, target, and volume ♦ Recommendations made by the AWI will be discussed and mutually agreed by Team TCS and AWI
Prepare Final Implementation Model Diagram	The TCS Team will prepare the initial structure of the AWI UC system as major and minor components and map each component to one of the elements in the application, technical, and database architecture models. The construction team will use this implementation model during the Construction phase. The following activities will be carried out: ♦ Prepares final deployment blueprint of UC system from functional and technical perspectives ♦ Map the implementation model components to phased releases. ♦ Synchronize the release plan with the implementation model to confirm all components are

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Approach	Activities
	considered to perform successful releases. ♦ Plan and design for temporary interface components, if required to enable the modernized UC system components in a release to co-exist with the existing legacy application counterparts. ♦ Update this document on a regular or as needed.
IVR Design	IVR Interface Design and Integration – Team TCS analyze and complete an interface design between the UC system and its IVR environment. The design will include required connectivity, IVR script content, screen-pops and other telephony features that refine and improve the UC functional processes. Established connectivity shall include bi-directional flow of relevant data between the IVR system and the UC system.
Conduct Design Review and Assessment:	Team TCS will support the AWI for assessment of technical architecture and detailed design artifacts. AWI will review the technical, application, interface and database architectures and AWI's recommendations for the architecture will form the basis for Team TCS implementation of the architecture. ♦ AWI will assess the deliverables of the design phase according to the design plan ♦ Team TCS will conduct workshops for the AWI to share review comments on design artifacts. ♦ Recommendations made by the AWI will be discussed and mutually agreed by Team TCS and the AWI.
Imaging Design and Integration	Team TCS will analyze and provide an interface design between the UC system and the proposed imaging solution. The design will include bi-directional flow (storage and retrieval) of images between the imaging solution and the TCS' Transfer System. Team TCS will design indexing schemes to support the UC functionality, including the ability to capture and retrieve information as required, for business purposes.

Design Approach for each wave: Team TCS methodologies and approach for design methodology for system design have been explained above. Since this phase is for revisiting and detailing the design of the applications related to a particular iteration the focus will be on dependencies and new requirements or modifications necessary for the existing design of the applications in current iteration.

Our design approach for each iteration is depicted in Exhibit 5-42 Design approach for each Team TCS will analyze the dependencies for the first iteration modules as part of high level design phase itself. For all other iterations, Team TCS will revisit the design specification for applications as part of iteration and finalizes the design specifications. In case of first iteration, the design specifications for common framework are reviewed and finalized with AWI. Also, Team TCS will prepare design for bridge programs for coexistence of legacy and partially modernized UC system. For each iteration, Team TCS will perform refinement and update of the Use Case diagrams, Activity diagram, Class Diagram, Sequence Diagram, Collaboration Diagram, Data Model, Data

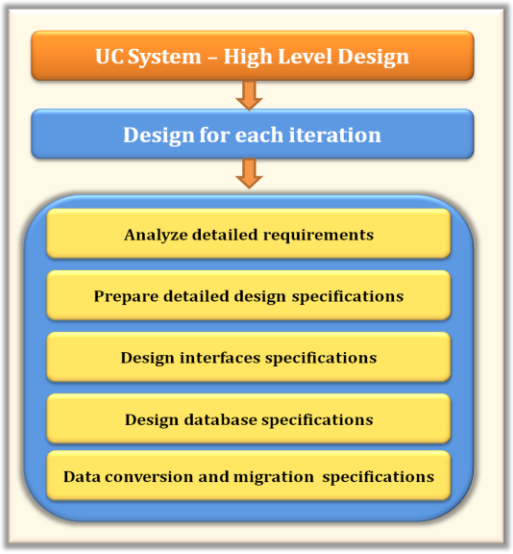

Exhibit 5-42 Design approach for each wave

Conversion and Migration Strategy

Team TCS will follow totally collaborative approach to System Design which provides transparency to AWI to have the transparency in the design activities.

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5.2.1.6 Business Process Re-Engineering Approach And Methodology

vi. Describe the business process re-engineering approach and methodology for this project. Refer to Section D, Exhibit 1, 8.7, Business Process Updates.

Team TCS has realized that in a lot of organizations, rules of work design are based on assumptions about technology, people, processes and organizational goals that are no longer valid. An effective process is a balanced function of People, Workflow and Technology and any process level intervention should address all these three aspects. The fact that AWI is supported by a 38-year old legacy mainframe-based computerized system, indicates that there may be several business processes in vogue at AWI, that may need to be modernized to exploit modern technology. One classic example of such technology is Workflow Management – where legacy computer systems provided transactional computing, work could not be made to flow from one person to another, or even if it was possible, it resulted in cumbersome processes that users had to follow. Modern technology products ship with a workflow process already built in, that can be customized to meet specific workplace needs of organizations.

The key factors driving the Business Process Re-Engineering of the AWI systems are highlighted below:

- Team TCS understands that AWI has put in a lot of effort during the Phase1 and Phase 2 in understanding the AWI's strategic vision, performing gap analysis to derive at the TO BE processes.
- "TO BE" State that defines the AWI's strategic vision. Team TCS understands that the To-Be business processes explained under various documents of the ITN. These TO BE states will be refined further in addressing the current and future challenges for AWI. These business processes after the refinement will enable the Stakeholders to effectively employ the proposed UC solution to realize the benefits of system implementation.
- Team TCS understands that this engagement's scope is the system implementation, but we will analyze the current business processes of the department so as to identify areas where significant opportunities for improvement exists. Team TCS will then derive strategic solution which brings in the best of Team TCS base system developed from the expertise gained from past experiences, AWI's existing systems and processes to align with the AWI's strategic vision defined as TO BE processes.

Team TCS will carry out an in-depth study and analysis to refine the "TO BE" for the various business and functional processes within the AWI. This will help Team TCS understand the:

- Existing processes within AWI and related efficiencies.
- Business Model based on which the AWI functions.
- Most critical areas in terms of administrative and operational processes
- High-impact Business Processes which could lead to efficient performance.
- Provision of critical services to the citizens in a better, faster and more economical way
- Improvement in the internal efficiency of AWI functioning.
- Effectiveness of processes as perceived by each of the key stakeholders

Based on all the information collected and analyzed, Team TCS together with AWI will prepare the refined "TO BE" processes that will recommend the changes to be made to the current processes and functions. The key aspect is the definition of a process framework for the AWI that will facilitate a systematic, structured and uniform approach to achieving its objectives. Team TCS value creation to AWI through this BPR activities are listed below:

Team TCS proposes the approach shown in picture below to refine and update the provided reengineered, future state Agency business processes to reflect the approved system design and shall document and rollout the new business processes to the Agency.

During this approach, Team TCS along with AWI will study the AS IS, TO BE processes documented and refine the TO BE state with best practices being brought by Team TCS. This will provide a refined TO BE state which helps design better solution to implement. Team TCS will then perform a gap analysis keeping the refined TO BE state as reference with the existing business processes. BPR provides a cycle of capabilities from process analysis, design,

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optimization and management to process execution, monitoring and back to analysis. TCS' multi-faceted approach with focus on people, processes and technology is geared to facilitate Business Process and IT Alignment efforts for AWI.

BPR requires the establishment of a baseline process on the current business processes and then defining a future business process. For the purpose of business process updates activity, Team TCS will treat the To-Be processes defined in the ITN as baseline.

Team TCS BPR methodology is depicted in the Exhibit 5-43 BPR Process consisting of different phases along with indicative activities:

- **Initiation Phase:** This phase will set the expectation among the stakeholders on the BPR and agree upon the approach and the model to be followed.
- **Refine "Future-State":** This phase is a very critical for BPR where in rigorous discussion with the stakeholders will be conducted in refined the TO BE processes defined in the ITN. This will set the stage for designing the solution for this engagement.
- **Gap Analysis:** After The Refine "Future-State" will provide the updated TO BE state. Team TCS will perform Gap Analysis of the existing system with the TO BE state in identifying the process changes.
- **Bench Marking:** During this phase, Team TCS along with AWI will define the objectives at low level and baseline the metrics to monitor the progress in the right direction
- **Simulation & Implementation**: During this phase the defined strategy is tested through simulation and the results are studied then fine tune the approach before implementing the BPR.

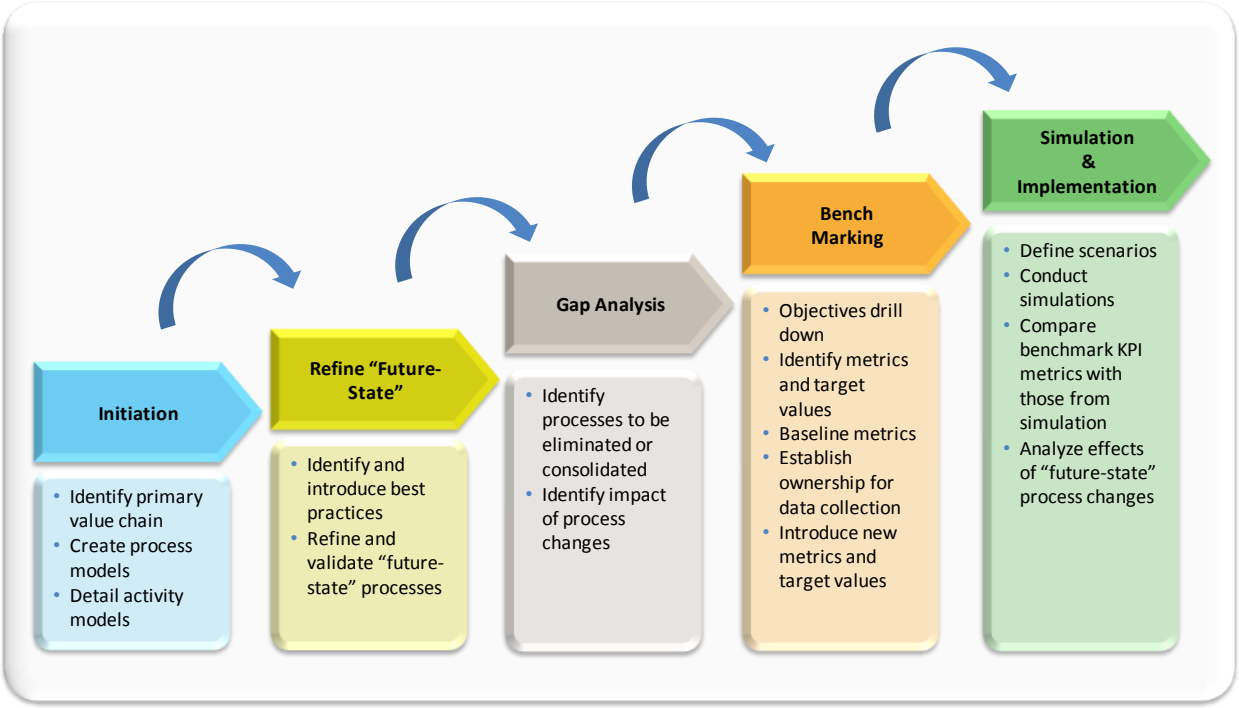

Exhibit 5-43 BPR Process

Team TCS foresee the following factors as critical to the success of the business process updates related activities:

- Senior Executive commitment
- Nomination and release of an empowered, committed full time project team
- Ownership and participation by business users/ process owners; and

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- Commitment to ensure that project is completed on time

Team TCS will work with AWI and other stakeholders throughout the business process update process and deliver the services as agreed. Team TCS will enable AWI rollout the reengineered business processes in an efficient manner

5.2.1.7 Proposed Interface Design and Implementation Approach and Methodology

vii. Describe the proposed interface design and implementation approach and methodology for this project. Refer to Section D, Exhibit 1, 8.8, Interface Definition.

Team TCS' methodology for interface design and implementation helps AWI to improve New UC system interfacing by reducing custom "hardwired and one-off" design approach to a more "declarative" design approach. Our declarative interface solution will allow the State to define "what" an interface ought to do, versus "how", and provides superior interface environment and tools to facilitate interface implementation.

Our Approach

Team TCS will prepare an "Interface Management Plan" to identify tasks and strategies associated with developing the interfaces for UC System. This plan is to identify various internal and external systems to which the UC system will interface and specific tasks associated with developing the necessary interfaces listed below:

- Establish a Joint Application Development (JAD) team to manage the interface requirements
- Identify systems to which UC system will interface and document all interfaces as identified in the Requirements Definition
- Develop Interface Design Document for each interface describing the purpose, format, content, frequency, and processing for each interface transaction
- Validate and reuse existing external interfaces where AWI already has the information required to build the UC solution

For interfaces that do not provide the information needed by the proposed UC solution, the JAD team will coordinate approval from the entity in these instances:

- Define a formal communication plan for exchange of information between JAD team and the owner that controls the interface
- Communicate and acquire concurrence on timelines with owners of External Systems for their readiness
- Build an escalation mechanism between AWI and the constituent agency
- Follow up with owners of external systems to ensure that the necessary tasks are completed in time for a successful implementation that leverages valuable interface components
- Team TCS coordinate with the Agency and the owner of the Interface when interface changes and approval is needed. Support all meetings on the interface, prepare meeting minutes, and track interface coordination status in the status meetings
- Document approach for temporary interface programs
- Develop plan for coordinating System Testing between UC project team and external systems
- Design and develop the interfaces as per the Interface Design Document
- Identify timelines for all the interfaces and prepare a plan for acceptance testing
- Help align the information systems to meet the technical requirements for interfaces
- Help identify the technological changes that are necessary for the external systems
- Update the requirements traceability matrix to include interface requirements
- Prepare for training and implementation

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Interface Design and Implementation Approach

During the design phases of the project iteration, Team TCS will prepare an interface design specification which describe each interface operates to and from all subsystem areas. The documentation will include error handling and error conditions for each integration point along with details of each request sent and response received. TCS proposes solution for interface development categorization of the interfaces based on the communication mode and an XML based design to implement the interfaces.

Team TCS' interface solution consists of multiple application subsystems with access mechanism to interfaces to other systems from the UC System. Team TCS use the WebSphere Process Server as the Enterprise Service Bus (ESB) for services within application and outside the UC system. Team TCS solution ensures that change in interface will not require the expect application logic to be changed and provides high level interfaces as per the business requirements by hiding all internal complexities within in the sub system. This layer makes use of configured attributes business process to act specifically.

External Interfaces will be given using the Enterprise Service Bus (ESB) to provide the integrated access to the different external interfaces and systems. Depending upon the requirement of the integration with the different systems, various technical methodology or approach will be used like FTP, Batch/Real Time Updates, Flat file transfer, Online integration, so on. TCS has successfully implemented this approach for other large insurance customers such as AXA, USAA, AIG.

5.2.1.8 Proposed Code And Unit Test Approach And Methodology

viii. Describe the proposed code and unit test approach and methodology for this project. Refer to Section D, Exhibit 1, 8.9, Code and Unit Test

This phase will focus on the transformation of the system design into a working software product. The TCS Team will use a phased iterative approach as described above. The methodology and approach defined in this section is common for each iteration.

Before the application configuration and development of the system, the TCS Team will prepare the development standards and define the tools to be used. This will involve identifying standards to be used when developing the system, developing standard objects and routines to facilitate reusability, and developing the application migration/build procedures to confirm that code is developed and migrated efficiently. Adherence to standards throughout development will save considerable time over the project's life. These standards will be reviewed and approved by AWI.

TCS will use tools to upgrade the legacy code in the existing systems, but previous experience related to similar projects suggests that this code might not be usable as is. This is due to the unknown extent of legacy code fitment into new system technical framework. However, TCS would use appropriate tools to upgrade the code and would evaluate the possibility of reusing the converted legacy code.

Following methodology is followed for coding and unit testing:

- Setting the standards for construction and testing
- Develop the Application configuration and Development plan
- Develop the unit test plan
- Develop the unit test scripts and expected outcomes
- Setup the environment and develop the application
- Code walkthrough
- Unit testing

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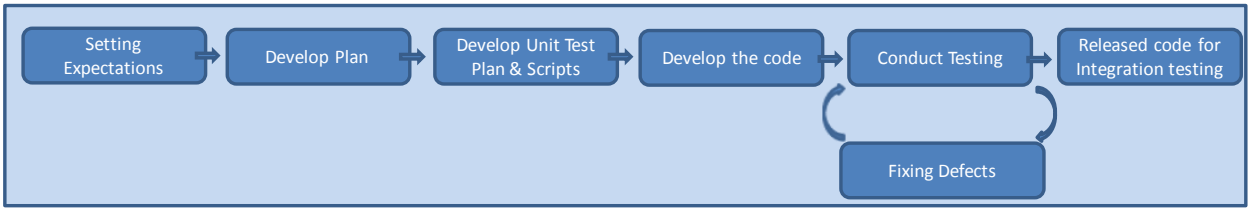

Exhibit 5-44 code and walk thorough Process

The TCS Team will come up with the standards for construction and unit testing by combining the standards, tools and checklist Team TCS has been using in similar engagements and also studying the standards followed in AWI covering aspects of naming conventions, project development practices, and recommendations for various aspects of programming. To maintain consistent interfaces with other systems, the TCS Team will study the messaging standards set by the AWI for various formats. The documentation standards for system architecture, application architecture, database architecture, and security architecture will be studied and adhered to during this phase.

The Development Plan will be in accordance with the Design Plan and documents produced in the previous phase (design plan, detailed technical architecture, application architecture, and database architecture). During the Construction Phase, the system documentation will be produced according to the agreed documentation standards. All design specifications will be mapped to the development business objects, and these objects will be documented in the identified design tool.

TCS will perform unit testing to verify the application software meets the functional and technical requirements. The developers and development lead will perform initial unit tests. The functional lead will serve as the initial quality check of software developed.

Each program will be thoroughly documented by mapping requirements to the design, development models, requirements, and test cases. This mapping will validate that all requirements are included in the design, and all design elements are incorporated into the system.

The project team will develop system test cases to simulate case conditions. These cases will be in scripts so that system testing can be performed more efficiently. An automated test tool to further facilitate testing will reference the scripts. The scripts will be developed by design team members to better provide for testing of the full system functionality. This approach will reduce the risk of not including business functionality in the test cases.

The following table lists the deliverables that will be completed during the Configuration and Development phases of the project

Develop Application Configuration and Development Plan

- Unit Test Plan
- Unit test scripts
- Code
- Weekly unit test and defect report, system testing-ready code, user documentation, and system documentation
- Finalized Project Test Plan

Development of Application Configuration and Development Plan

As part of this plan, TCS will define development activities required to implement AWI UC System. This plan will encompass all the modules that will be custom built. The plan will detail the order of construction of the modules. These modules will constitute applications and databases, and the plan will have the modules clearly mapped to applications and databases.

Develop Unit Test Plan

For every customized and newly developed unit, Team TCS will prepare the test plan, test specifications, and test data. Using these, the Team TCS development team will conduct the unit test.

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The unit test plan will consists of the following items:

- Unit testing principles
- Approach to testing (testing prioritization and testing standards)
- Testing tools
- Definition of expected test results
- Defect management
- Unit testing scenarios and scripts
- Test plan sign-off procedures

Each identified unit module will have a unique test plan tailored to confirm the completeness of testing of the following aspects:

- Functionality
- Presentation
- Business logic
- Integration with external units or modules

TCS quality assurance procedures will mandate the review of the Unit Test Plan by peers internally and other module teams externally. This two-level screening will confirm the completeness of the Test Plan in all aspects of the module.

Develop Unit Test Scripts and Expected Outcomes

TCS will develop detailed unit test scripts and expected outcomes from design documents and in accordance with the unit test plan. This will confirm that each unit of code performs according to the design specifications for functional, presentation, business logic, and integration aspects with other modules. The expected outcome will define the outcome of the result.

Set up of Development Environment and Development of the Applications

All relevant system environments needed to support the project phases will be developed, tested, created, and populated. This process will involve analyzing the platform environment to affirm that it will support the system test. The environment will be developed from this analysis, created, and appropriately populated with data. The environments will be analyzed to affirm successful creation and deliverables will be produced. The Commonwealth will review and approve the System Environment deliverable.
TCS will complete the application code to support the detailed System Design document. All coding will comply with existing standards, including those for database management, coding, naming conventions, security, and disaster recovery. The core system development will include:

- An Internet browser-based front end
- An Intranet browser-based front end
- Application logic
- A disaster recovery and archival process
- Middleware objects
- Database objects
- Required interfaces

During this phase, TCS will rely on the Application Configuration and Development Plan for confirming coding standards and Unit Test Plan to test the modules developed as described above. The Test Plan will provide a list of basic functionality that must be tested and guidelines for unit testing.

For each module, TCS will review the database to confirm that the structure supports what is needed, and the GUI and logic objects are created. Developers will do the initial unit test after these objects are generated. This process will be repeated for each logical grouping.

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TCS will develop user documentation for the modules in parallel. We will provide user standards and procedures, online help for screens and fields, and online policies. This documentation will comply with the AWI's existing standards for document production and distribution.

TCS will produce operations documentation that will include overviews of the application, system structure, major processing jobs, and required interfaces. This documentation will reflect additions and modifications made to processing requirements in system testing. This documentation will also include the following:

- Description of the overall process schedule, including dependencies, files accessed, critical sequencing, and timing criteria
- Operating instructions for each process and process step consistent with the environment
- Backup operating instructions and online, batch, and database recovery procedures
- Help desk procedures, including problem identification, initial diagnosis, checklists, and problem resolution and referral procedures

Coding Walkthrough

TCS proposes to conduct a code walkthrough of all the source code developed in the Construction and Unit testing phase. This will confirm that the code developed follows:

- Optimized coding
- GUI and coding standards
- Inline documentation

This walkthrough will be performed on all of the code. Test cases for unit testing and functional testing will be derived from this process. All the errors reported during this process will be logged and tracked to closure.

Unit Testing

Team TCS performs Internal Quality Assurance (IQA) review before the code is submitted for phase gate review for AWI. This will ensure that any problems can be identified early and resolved as quickly as possible.

Before the commencement of the IQA, the TCS Team will prepare an approved Unit Test Plan and a set of unit test specifications. Unit testing is white box testing in which each line of code is tested. The percentage of code coverage will be quantified with this tool, and the remaining percentage of code will be covered in scripts or manually. The IQA will target 100 percent of code coverage. Any System Investigation Requests (SIR) or defect discovered in unit testing will be logged in the defect tracking system and tracked to closure. These defects will be addressed by the development team and code fix is for the respective modules will be retested to confirm closure of the defect.

The External Quality Assurance (EQA) team comprises key team members, Team TCS Process Excellence Group (PEG) representative, Team TCS business analysts of this project. External quality assurance is a random verification of functionality. It will be conducted on 20 percent of the code. Reusable code or architecture will be reviewed as appropriate. Compliance against approved designs and standards will also be reviewed. Any SIR raised during the EQA review will be logged in the defect tracking system and the project team will track it to closure.

TCS will do regression testing if code modifications are done to the modules. This will confirm that all the intended functional behavior is retained despite changes to the code.

Phase gate Review

During the phase gate review the AWI review team will review the unit test plans, unit test scripts and monitor the progress and effectiveness of the Unite testing. TCS will deploy a defect tracking tool to log the defects and track them until closure. This defect tracking status will consist of weekly defect status reports and be submitted to the AWI.

TCS will provide weekly unit test status reports on progress of unit testing to the AWI. This report would cover aspects such as:

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- Management overview of weekly development and unit testing effort
- Summarization of accomplishment of tasks during the week
- Planned activities for the next week

A weekly defect report will be appended to the weekly unit test report. The TCS Team will generate this report and provide detailed information on each defect and a summary report on all issues.

The detailed report will consist of the following information:

- Identification Number
- Defect Date
- Program Name/Version
- Explanation
- Priority
- Module
- Person Assigned for Resolution
- Resolution Explanation
- Resolution Date
- Reopened Indicator
- The summary report will contain the following information:
- Number of issues for each issue status
- Number of issues for each priority type
- Number of issues per module.
- Closure of all SIRs will mark the completion of unit testing, and the developed modules will be ready for the Integration Testing phase.

Tools

TCS will use Rational Tools to manage the construction and unit testing phase. Rational Clear case, Rational Clear Quest and Rational Test Manager. A detailed description of Application Development toolkit is provided in SDLC section of this document

Tools and Best Practices
♦ Tea Unique, Tailored Development Methodology for UI development
♦ Prioritizing the Functionalities
♦ Process for enhancement / changes to be implemented or deferred
♦ Accommodates the unplanned legislative and other changes without project interruption
♦ Transparency, Quality and Commitment TCS would like to have Extensive participation from agency IT staff and Business users for Finalization of Requirement
♦ Use of Non Functional Fully Navigated prototype building in early stage. This will help to identity
♦ Finalization of business rules strategy

5.2.1.9 Proposed Location For Software Development Activities

ix. Describe the proposed location for software development activities (Agency offices or Contractor provided facility). Refer to Section D, Exhibit 1, 8.9, Code and Unit Test

Team TCS has invented and pioneered the Global Network Delivery Model (GNDM ™) to leverage its strength in offering valuable services at a reasonable cost. This capability will be leveraged in delivering the services at near shore or offsite with same effectiveness as onsite service support. TCS Cincinnati centre is identified as near shore centre for AWI UC for following reasons:

- Presence of Corporate Technology Excellence Groups IBM Technologies and Rational tools.
- This centre is on same time zone as of Tallahassee, which will help in effective collaboration between AWI Business/Technical users and TCS team at offsite.
- Presence of Government Industry Group Solution Centre

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TCS Cincinnati Delivery Center capabilities

The Exhibit 5-45 TCS Delivery center Capabilities chart provides the infrastructure and supporting capabilities of TCS Cincinnati delivery location which showcased strong delivery excellence experience to the customers.

- TCS Delivery Excellence and Innovation
- Co-creating value for the community along with the customers
- Hiring and training the local workforce
- Proximity & Time zone advantage
- Agility & Responsiveness
- Flexible Resource Management

2008

- Operational since March 2008, Integration with GNDM™
- Focus Offerings : Technology Solutions, App. Maintenance & Development
- Industry Focus : Manufacturing, Retail, Hi-tech
- Set up of CoE's : Agile, Innovation, Performance Engineering
- First ITAR (Regulatory) Engagement
- Head count : 50

2009

- Focus Offerings : Consulting, BPO, Infrastructure
- Industry Focus : Government, Banking & Financial Services, Telecom & Utilities, Health Care
- Integration to eServe (Global BPO)
- Consolidation of Regional Delivery Centers in North America with Cincinnati
- North America Training Center
- Head count : 400

2010

- Broad portfolio of offerings
- Unique innovation capabilities through Cincinnati DC Innovation Lab, TCS' Innovation Network and CoEs
- Testing Laboratories, Domain Competency Groups, Solution Architecture Hub
- Head count : 1000

Exhibit 5-45 TCS Delivery center Capabilities

As per the ITN requirements the Project Management, Solution Design and Testing activities will be performed at Tallahassee. The Cincinnati offsite location will be used supporting the team at Tallahassee. The Development and Unit testing will be carried out at Cincinnati office. Regular interaction will happen between the Team TCS project team to maintain synchronization of the activities.

During the system testing/integration testing phases the offsite and onsite teams will be collaborating effectively using the project management portal and other collaboration tools like e-mail, chat and so on. User acceptance will be at onsite. Deployment activity will be performed at Tallahassee. Post deployment support can be managed by TCS' onsite and offsite model.

5.2.1.10 Proposed System Integration Testing Approach And Methodology

x. Describe the proposed system integration testing approach and methodology for this project. Refer to Section D, Exhibit 1, 8.10, System Integration Test

System Integration Testing is very critical for the success of the UC System modernization as it interface and integrate with numerous internal and external systems. To address this critical part, Team TCS will use its rich expertise and its proven, mature and successful system integration testing processes from its

Team TCS' comprehensive testing methodology will ensure that all the requirements, objectives of AWI UC System are completely met. Team TCS' complete testing strategy will consist of testing at various points in the production process according to the Test-V presented in figure below:

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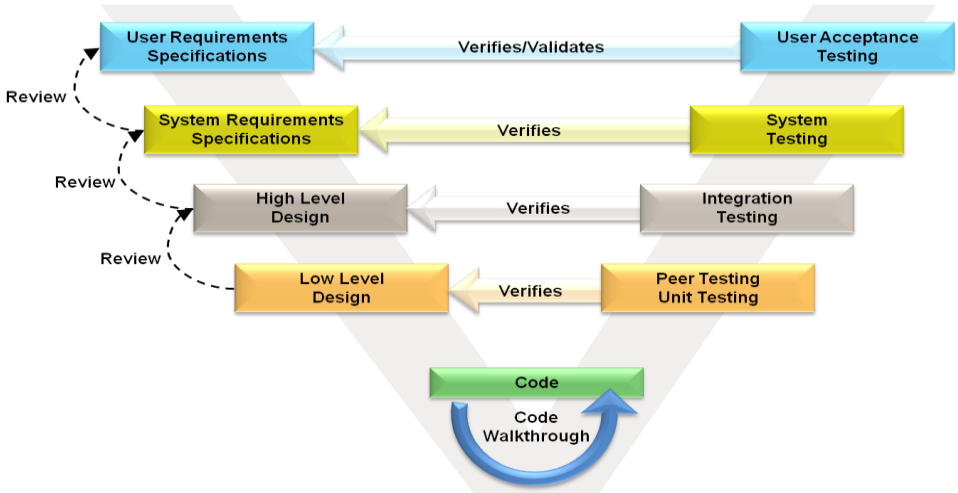

Exhibit 5-46 Team TCS Test-V Methodology

The left side of the V indicates the process involved in the construction of AWI UI system. The right side of the V indicates the testing actions, which correspond to each stage on the left side. Team TCS proven testing methodology contains test planning, design, execution, defect management and test completion. This methodology is supported by Team TCS value enablers such as project management, Team TCS' best practices for testing, environment management, people management, change management and so on.

Team TCS' System Integration Testing Approach And Methodology

The System Integration Testing will combine AWI UC System components together to determine and verify that functions are integrating well together and processing correctly.

Item types to be tested include AWI UC System's code modules, functional features, individual applications, external facing components, data flow between subsystems, interaction of components that work together and other system components. Team TCS will develop a system integration test plan during initial work planning for system integration testing of all UI components. This plan will describe what will be tested, how it will be tested, how problems will be reported and resolved, and how the system will be retested. It will also include test conditions, test cases, data conversion components, and system interfaces and so on

Team TCS' System Integration Testing approach and methodology covers the various testing areas, activities, tools, and software to be used by Team TCS to manage overall AWI UI System successfully. Team TCS will follow the established standards of the AWI PMO for System Integration Testing Management. This testing will be conducted and documented prior to User Acceptance Testing (UAT) of the components.

The testing methodology will cover the test strategy definition or test planning, test bed creation, and test execution.

This customized approach and the TCS Team's extensive expertise will deliver a tested, base lined solution. The following exhibit provides the snapshot of Team TCS' comprehensive system integration testing areas and responsibilities.

Team TCS' comprehensive integration testing will ensure that the AWI UC System integrates with all internal applications, COTS products and external systems in a hassle free manner.

System testing consists of testing integration, functional, non-functional, and behavioral aspects; conformance to design aspects; and security aspects of the system. These aspects will be considered when creating the system test plan. Some of the key elements that will be considered are explained in the following sections.

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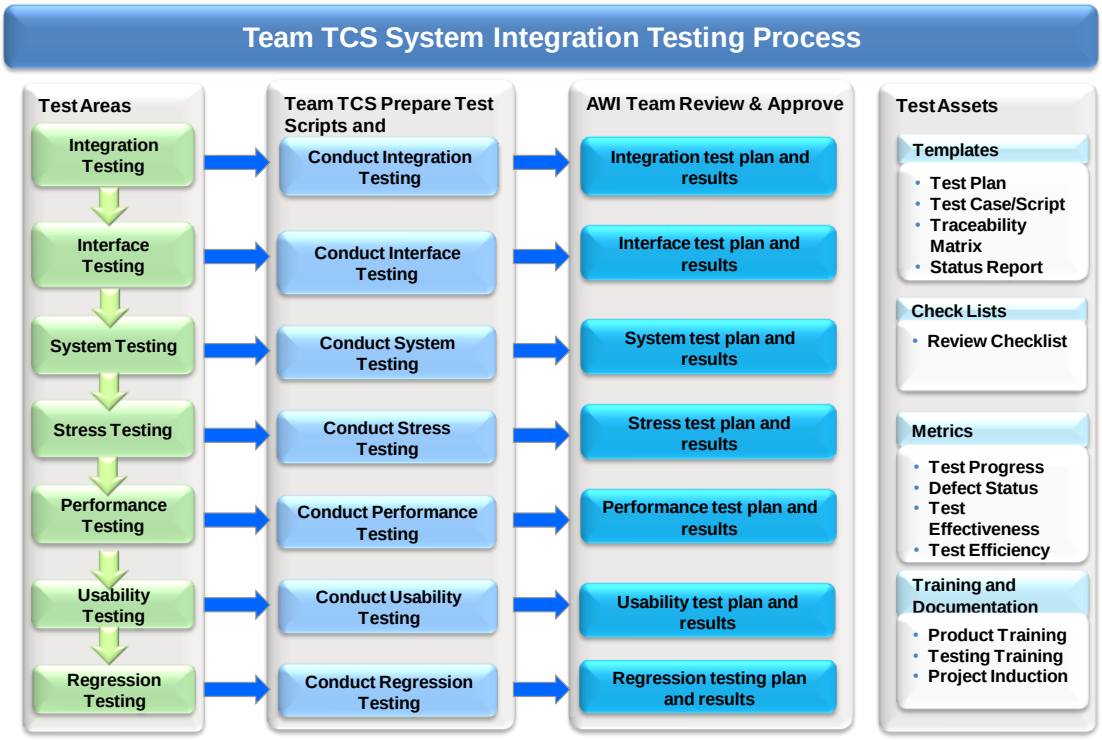

Exhibit 5-47 Team TCS System Integration Testing Process

Integration aspects: Integration testing evaluates how transactions and business processes work together. This type of testing confirms that data exchanges and inter-process synchronization work properly.

Functional aspects: This testing includes verifying the inputs into the system produce the desired responses and outputs; continual retesting (regression testing) to confirm that changes to any component do not adversely affect the system's functionality, and that all expected results continue to be met.

Performance of hardware and software: This plan will cover assessment of production hardware and software configuration performance under a predetermined set of approved test scenarios. This type of testing will confirm that the AWI UC system, as built and deployed, can maintain agreed throughput, satisfactory response, and timely operation under different stress and volume conditions.

Non-functional aspects: This testing includes verifying common non functional requirements.

Security aspects: This verifies the system's security, such as access of database-held data by unauthorized users.

The test scripts will be built to simulate different test conditions between modules to test the application's behavior. This will help the Team TCS validate the system's capability to meet the requirements stated in the Detailed Requirement Analysis and Design documents and the Test Plan. Expected outcomes will be documented to indicate the correct result of the test. AWI team will verify and validate the system test results against the baseline test plan and specification and the issue list of non-conformance tests.

For the AWI UC System, Team TCS proposes 3 iterations. For each iteration, Team TCS will document and report system integration test results including system, interface, integration, stress and performance, usability test results. For each of the tests, Team TCS will track status of test planning and test results and report on this status in status meetings and status reports to AWI. These reports will describe the background, the test requirements, the test environment, testing process followed, the test results, and analysis of the results.

Team TCS proposes the following list of Rational testing tools.

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Exhibit 5-48 Team TCS Testing Tools

Purpose	Tool Name
Test Management, plan and execution	Rational Test Manager
Requirements Repository	Rational Requisite Pro
Version and Configuration Management	Rational Clearcase
Performance, Load Testing	Rational Performance Tester
Defect Tracking	Rational ClearQuest

Team TCS will utilize the expertise of TCS Rational Technology Excellence Group to provide superior benefits in the overall testing of AWI UC System.

Team TCS' proven, System Integration Testing processes ensure that the AWI solution assembled units, modules, and UC System application modules operate effectively together. It will also ensure that all the requirements including business, functional and non-functional objectives are being achieved. It will also address the current pain areas of AWI UC System. This system integration testing will make the UAT conducted in smooth and less time consuming manner for the AWI UC stakeholders.

Tools and Best Practices

- Documenting the test scripts as part of the requirements
- Reusable, Automated Test cases
- Production Simulation - DRY RUN
- No "good to have" at testing stage
- User Acceptance Testing should be owned by agency
- Keeping the traceability Matrix up to date
- Factor in Security , Performance and ADA testing

5.2.1.11 Proposed User Acceptance Testing Approach And Methodology

xi. Describe the proposed user acceptance testing approach and methodology for this project. Refer to Section D, Exhibit 1, 8.11, User Acceptance Test.

Based on its rich expertise in implementing Unemployment Compensation systems in Mississippi, Nebraska and New Mexico, Team TCS will bring in the best practices and rich experience to AWI and provide the required assistance for the UAT.

The users of the AWI UI system will do the User Acceptance Testing (UAT) in the acceptance test environment with test data to confirm that the application meets agreed requirements. Team TCS will develop the UAT plan that includes the methods for documenting and communicating test results back to Team TCS and other stakeholders. AWI UC stakeholders will perform the acceptance test together with help, participation and support of the Team TCS. Team TCS will plan, support, and report on acceptance testing to demonstrate that all requirements are met. It will develop the UAT environment including test cases, test scripts, test data set up, test cycles and necessary UI configuration. It will confirm that acceptance tests have been planned for all requirements by tracing the requirements to the planned acceptance tests and their associated test cases and test scripts.

One of the larger pain points of UAT is how late in the cycle this testing takes place. Team TCS' UAT plan, which will be based on Rational Unified Process (RUP), will be planned very effectively and will address the pain areas early in the AWI UC System project life cycle. Some of the business drivers for AWI UC UAT include:

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- Improved planning and communication;
- Internally consistent policies, standards, work procedures, best practices;
- Improved collaboration; and
- Effective resource utilization & building knowledge management base.

In the journey of AWI UC System implementation, Team TCS will work hand in hand with AWI. Based on its rich expertise in implementing Unemployment Compensation systems in Mississippi, Nebraska and New Mexico, Team TCS will bring in the best practices and rich experience to AWI and provide the required assistance for the UAT. The following table provides the UAT tasks and responsibilities.

Exhibit 5-49 AWI UC System UAT Activities and Responsibilities

Task	Responsibilities
	Primary
Develop all user acceptance testing deliverables	Team TCS
Establish the application in the acceptance test environment	Team TCS
Configure the system to the most current production version of all underlying software, tools, and databases	Team TCS
Arrange for acceptance test staff availability	AWI
Supply training needed for acceptance test	Team TCS
Create acceptance test data and files	Team TCS
Generate acceptance test plan, test scenarios, and test result logs	Team TCS
Execute acceptance test plan	AWI
Update requirements traceability matrix	Team TCS
Provide support during acceptance test	Team TCS, AWI
Document and correct issues	Team TCS
Develop acceptance test analysis reports	Team TCS
Provide documentation for all test results	Team TCS
Develop training and support material	Team TCS
Review and approve acceptance test plan	AWI
Review and approve documentation and correction of issues	AWI
Review and approve acceptance test analysis reports	AWI
Review and approve acceptance test deliverables	AWI

For each iteration of the phased approach, Team TCS will record and track all issues identified during acceptance. It will troubleshoot all test result anomalies to determine the source of the problem. If necessary, Team TCS will update test plan, test cases, and test scripts, and shall modify and re-test the proposed UC solution. Following any software change or test script change made during the acceptance testing period, Team TCS will perform a regression analysis of tests already executed to determine which test results may have been affected by the change and need to be re-executed. It will generate and maintain all required test documentation. It will also update the requirements matrix to reflect the relationship between requirements and planned acceptance tests.

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With proven, mature, RUP based UAT approach and rich expertise in Unemployment Compensation system implementations, Team TCS will plan and provide user friendly and hassle free UAT. After all identified defects have been closed and verified and receiving sign-off from AWI team, the UI solution will be released into production.

Tools and Best Practices

- Team TCS would like to have Extensive participation from agency IT staff and Business users for Finalization of Requirement
- Use of Non Functional Fully Navigated prototype building in early stage. This will help to identity
- Finalization of business rules strategy

5.2.1.12 Proposed Data Conversion Approach And Methodology

xii. Describe the proposed data conversion approach and methodology for this project. Refer to Section D, Exhibit 1, 8.12.3, Data Conversion. The data conversion assumptions are to be used by the respondent in order to properly size and estimate the data conversion effort that will be needed. These are high level requirements that are not intended to provide an exclusive list of all data that will be converted. The complete list will depend on the solution selected and the application and database architecture and design.

Data conversion represents one of the most challenging and risky elements of any Unemployment Compensation modernization initiatives. To address these challenges and manage the risks, Team TCS utilizes its tested and proven data conversion processes .and these processes are repeatedly executing similar size project like TCS implemented these processes successfully in projects such as Mississippi Department of Employment Security, Orange County Property Tax Management System.

The advantage of our approach is that the issues and risks involved in Data Conversion and Migration are discovered early on in the project lifecycle and the project team is afforded adequate time to address such issues and risks.

Team TCS Approach

Team TCS approach for data conversion and migration is structured along the lines we have deployed successfully on prior Unemployment Compensation engagements, tailored for Florida AWI's unique requirements. TCS' tailored 'Iterative Development Methodology' for Unemployment Compensation Implementation warrants that Data Conversion and activities be performed concurrently with the software development lifecycle (SDLC) Activities geared towards software development. The following chart depicts Data Conversion/Migration Activities that correspond to each high level SDLC Phase.

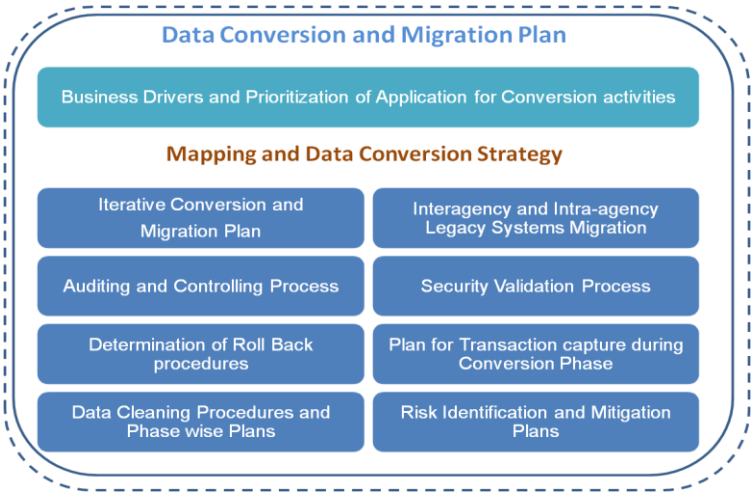

Exhibit 5-50 Data Conversion and Migration Plan

Data Conversion and Migration Plan

Plan for Data conversion and migration cover the following aspects of the data conversion and synchronization:

Business Drivers and Prioritization of Application for Conversion activities: are will be similar to those for Deployment and Implementation such as volume of transactions, data volumes involved in migration, significant business events, regulatory changes, lift and shift model

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Iterative Conversion and Migration Plan: Depending on the number of iterations planned for Florida UC System, data conversion and migration activities are planned accordingly such that State legacy applications and the AWI UC System project will run in parallel and resultant requirements for data synchronization will be considered. This plan will be refined with the findings of the Detailed system requirement and Data conversion phases of AWI UC System Project.

Data Cleansing Procedures and Phased Plan: Team TCS documents the scope of data cleansing and identifies tools for data cleansing. Team TCS and Florida AWI jointly work on data cleansing activities. The data cleansing activities and scripts aligned with data transformation activities.

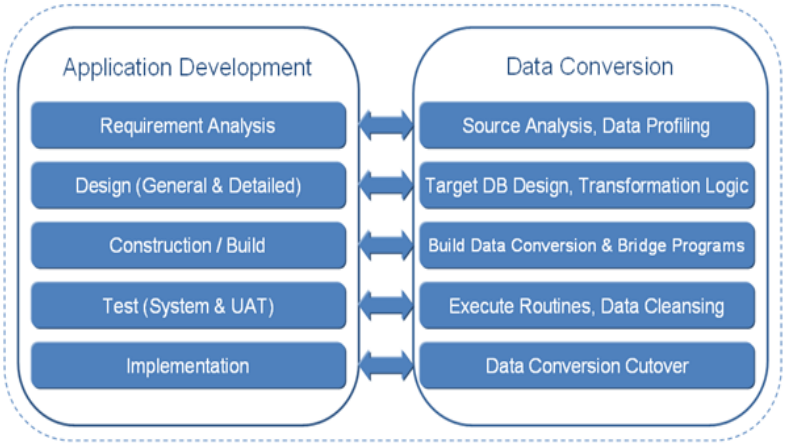

Exhibit 5-51 Data Migration Phases Mapping

Interagency and Intra-agency Legacy Systems Synchronization: TCS Team analyzes the dependency on the legacy systems of other agencies for which synchronization might be required. For example, the data pulled from other agency systems may needs to be executed after the synchronization programs run. This will help other agencies acquire the latest data from Florida AWI legacy systems and new AWI UC system.

Security Validation Process: Security validation planning focuses on the aspects of protecting sensitive data during conversion. The application processing the sensitive data will be identified, and the source data will be mapped to target data. This data will be marked for specific quality checks during the conversion process.

Rollback Procedures: Team TCS identify rollback procedures required when errors in data conversion cannot be reconciled or resolved. This planning is important because the order in which the rollback mechanism has to be applied will be decisive in restoring the database to its pre-conversion state.

Risk identification and Mitigation Plans: TCS Team identify the risks in the conversion process and the mitigation plans to prevent risks from materializing. This includes risks associated with failure of identification of complete dependencies, erroneous phase planning, and insufficient auditing/validation procedures. An indicative risk list is provided in subsequent sections.

Iterative Data Conversion Design Team TCS roll out the UC System project in phased manner and correspondingly we design the data conversion and migration as shown in the Exhibit 5-52 Data Conversion Phased approach.

The Data Conversion and Data Migration Design Strategy for each phase is closely related to implementation of the corresponding application phase. Based on our experience in similar engagements with other State Workforce Agencies within the US and other private sector customers, our solution allow the existence of two parallel software applications (and associated databases) – one being the legacy applications currently supporting the UI Processes and a second modernized application that will provide the same or better services in future – performing mutually exclusive and collectively exhaustive business functions as the State goes through the multi-year multi-phase implementation.

The picture shown in Exhibit 5-52 Data Conversion Phased approach is a design that addresses the issues of data conversion and data migration.

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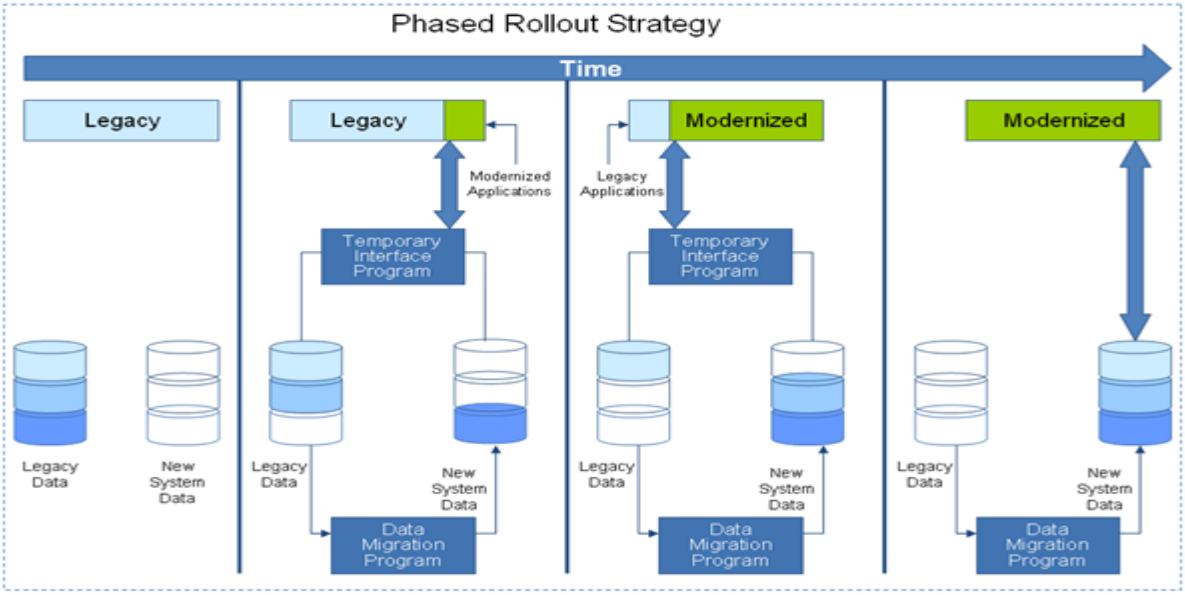

Exhibit 5-52 Data Conversion Phased approach

Team TCS develops the "bridges" or temporary interface programs to manage between two applications and its associated databases, are temporary and do not ultimately contribute to the end state of a modernized application. However TCS' efforts in the past have been to carefully plan and minimize the time, effort and cost involved in the development of such bridges.

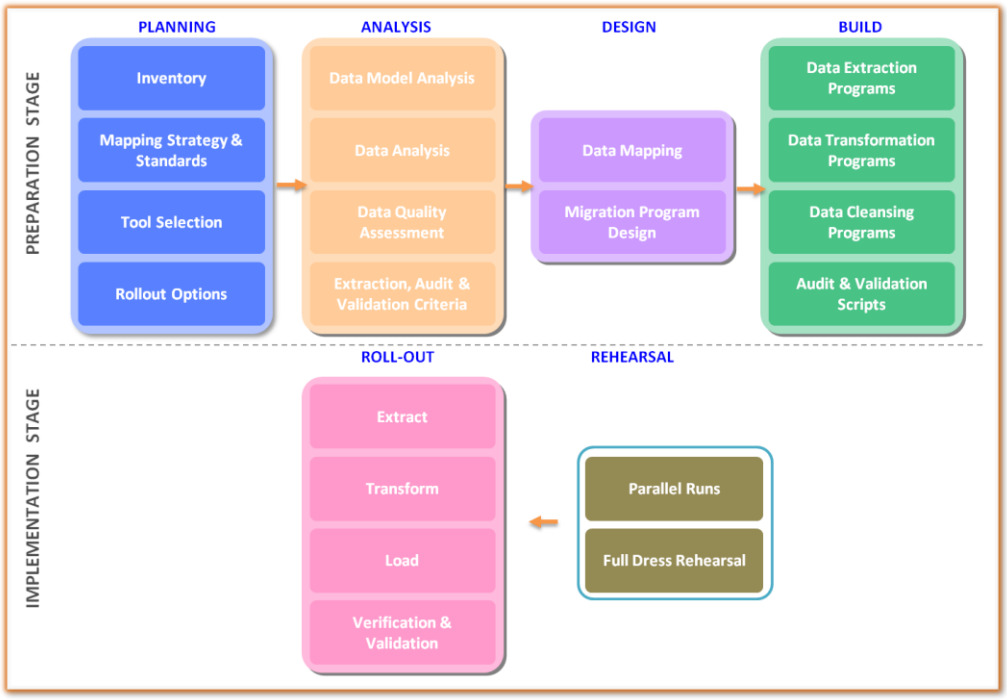

Exhibit 5-53 Data Migration Process framework

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Mapping and Data Conversion Strategy: Team TCS data migration team maps source system tables and fields to the target system tables and prepares the mapping strategy document. This is useful during generation of transformation scripts and these are used by our data migration consultants. The mapping strategy document will be given to the Florida AWI for a review and sign-off. This document will become a reference document for data mapping step.

Define Data Extract Rules: Team TCS defines the strategy of the data extraction based on the analysis of the volume of the data, format of the data, and tools available to extract data. Depending on the data mappings, these extracts will be formatted to enable the import scripts to load data to the target database. All the source databases will be identified and mutually agreed with the AWI.

Define Transformation Rules: Team TCS transformation rules will be designed from the source data structure and target data structure. These rules will define the way the transformation programs will understand the source data and convert them to the required format for import into the target data.

Define Data Import Rules: Based on the target database requirements and design, Team TCS prepares data import scripts and identify the tools required to import the tool. Team TCS prepares the sequence of the import programs execution and identify the input flat files and target tables. The phased execution of import programs are mapped in this exercise.

Define Audit Rules and Validation Rules: The verification of the completeness and correctness of the conversion exercise involves verification of correctness of data extraction, transformation, and import. Team TCS automate the audit scripts using the tools. Team TCS develops the audit rules to enable the phase-specific data conversion programs to be executed in proper sequence. Audit programs/ tools will be configured to detect any discrepancies in the synchronization of the converted data.

Define Data Synchronization Strategy between the Legacy and new UC System: Team TCS identifies the databases and tables that needs to be synchronized. Also, the frequency of data synchronization is identified with mutual agreement with Florida AWI.

Process Track Sheet: Team TCS tracks the each conversion process using track sheet which covers the following details:

- UI Legacy system
- Florida Modernized UC System
- Volume of input data / format
- Type of business information
- Storage space required
- Process sequence
- Roles and responsibilities
- sign off
- Special remarks and guidelines

Data Cleansing Strategy

"Data Cleansing" is the process of purification, correction or re-coding of existing data to a format or series of values that can be successfully migrated to the new system.

- Florida AWI is responsible for data cleanup
- Team TCS helps the AWI staff in determining data cleansing requirements and establish appropriate procedures for managing and executing data cleansing efforts
- Where appropriate, Team TCS run data analysis routines on existing data files and temporary "staging" files that are prepared as part of the conversion effort to help support AWI staff in data cleansing efforts

Implementation Methodology

Team TCS solution for data conversion and migration consists of two distinct stages namely, the preparation stage and the implementation stage. The phases and sub-phases in the preparation and implementation stages are detailed in the Exhibit 5 4 below. Different phases and activities carried out in each phase are described in Exhibit 5-54 Data Migration Methodology.

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Exhibit 5-54 Data Migration Methodology

Phase	Sub Phase	Activities
Planning	Inventory	Consolidating inventory on source and target databases, data models, volumes of data available in the different data stores
	Mapping Strategy	Finalization of mapping strategy. Target to source is the preferred option
	Tool Selection	Identification and selection of tools for data extraction, mapping, cleansing and loading to target database.
	Rollout Options	Rollout or cut-over options for production data migration. The choice of big-bang, incremental or long-bang option is decided based on the requirements and constraints
Analysis	Data Model Analysis	The source and target data models are analyzed for cardinality and optionality. Data stores with multiple layouts are analyzed for record identifiers.
	Data Analysis	The domains, ranges and set of valid values are derived for a set of data items identified for profiling
	Data Quality Assessment	Identification of unclean data in terms of business as well as domain values. The detection rules are employed for this purpose
	Extraction, Audit and Validation Criteria	The extraction criteria is derived based on the analysis results and choice of implementation option. The audit and validation criteria are derived based on the requirements for assessing completeness and correctness of data migration
Design	Data Mapping	The mapping rules and specifications are obtained based on the source and target data structures and domain information. Design and Develop legacy system downloads to feed to the data conversion routines
	Migration Program Design	The sequence of execution of programs based on the dependencies (both technical and business) is drawn. The batch window available for cut-over is the guiding principle for the design.
Build	Development of Programs	The data extraction programs, data transformation programs (some of the cleansing rules are accommodated as part of transformation programs), additional data cleansing programs, if required, audit and data validation programs are developed and unit tested. These programs are also integration tested, if required.

Implementation Stage:

Phase	Sub Phase	Description
Rehearsal	Parallel Runs	The source system and the target system (with migrated data) are run in parallel to ascertain the correctness and completeness of migration
	Dry Run	Mock rollout with almost the exact scenario as the production cutover. This will help understand the complexities during cutover in terms of business continuity, DBA and other staffing requirements, infrastructure requirements and the batch window for data migration
Rollout	Extract	Extract data from source database(s) using standard utilities or data extraction programs
	Transform	Transformation of data to suit the target database requirements using the data transformation programs. Data cleansing is also done during this phase. This can be iterative based on the cleanliness of the data
	Load	Loading the data to target databases using standard load utilities
	Verification and Validation	Hash totals, counts and other verification criteria is used as audit for the completeness of the data migration. The target application is run with migrated data for critical transactions to ascertain the correctness of data migration

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Conversion Results Documents

For each major project iteration or phase, Team TCS provides documentation containing data conversion results. The results include data conversion procedures and processes executed, conversion schedules followed, data conversion and reconciliation results including record counts, actual data conversion and staging files and outstanding issues and tasks.

Tools and Best Practices
♦ Earlier Planning of Data Migration ♦ Part of the each roll out - No "one time" full migration ♦ Cleansing plan and procedure ♦ Inform the user community on what data to expect in the new system. ♦ Develop Bridge Programs ♦ Plan for testing migrated data

5.2.1.13 Proposed Installation And Implementation Approach And Methodology

xiii. Describe the proposed installation and implementation approach and methodology for this project.

Team TCS understood that the production environment will be installed at Southwood Shared Resource Centre (SSRC). As the SSRC is outside the AWI premises, it requires full co-ordination and co-operation from various teams from AWI, TCS, SSRC and other 3rd party vendors. Team TCS will position a dedicated lead to look after the installation and implementation activities (deployment lead - DL). Team TCS DL will act as single point of contact for all activities carried out by Team TCS and its sub-contractors if any. Team TCS proposes that AWI should have a SPOC (AWI DL) representing both AWI and SSRC. Please refer to figure 1 below for the proposed organization structure for the installation and deployment. The deployment leads from Team TCS and AWI will make sure that the installation and deployment of the production environment and other pilot sites is carried out meeting the overall project timelines.

Installation and deployment activities for the production environment are explained in this response. A similar approach will be followed for other environments also.

As there are multiple teams involved in the installation and deployment of the production environment at SSRC, the success of the installation and deployment depends on team work from the all parties involved. To achieve the success, a proven methodology is required which clearly identifies the various stake holders, their roles and responsibilities, activities aligned with the project timelines and monitoring and reporting.

Team TCS has been delivering many large system integration projects in past couple of decades in multi-vendor / multi-party scenarios which are similar in nature and complexity. TCS iQMS defined a methodology which gets refined regularly based on the best practices and lessons learned from projects.

Below are the key factors of Team TCS methodology for installation and implementation as defined in TCS iQMS

- Align installation and deployment activities with the overall project timelines and milestones
- Identify activities that can be grouped into a phase and monitored together
- Define ETVX for each phase
- Identify the stakeholders, roles and responsibilities of each party involved
- A communications plan clearly defining the templates, data to be monitored and reporting frequency

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Roles and responsibilities

Team TCS process involves defining the roles and responsibilities of stakeholders as per the RACI model. Following table contains indicative list of activities, corresponding RACI functions of each stakeholder. The same will be updated during the project implementation and published to all stake holders after AWI's approval.

Exhibit 5-55 Responsibilities matrix

Activity	Responsible	Accountable	Consulted	Informed
Prepare hardware requirements	TCS	TCS	AWI	SSRC
Prepare facility requirements	TCS, SSRC	TCS, SSRC	AWI	AWI
Prepare detailed plan for the production environment installation and deployment	TCS, AWI, SSRC	TCS	AWI, SSRC	
Providing facilities in data centre such as UPS, HVAC, Racks	SSRC	SSRC	TCS	AWI
Install and configure network components	SSRC	SSRC	TCS	AWI
Install server and storage hardware	TCS	TCS	SSRC	AWI
Install OS and configure servers and storage	TCS	TCS	SSRC	AWI
Software and COTS installation	TCS	TCS	SSRC, AWI	AWI
Platform Testing	TCS, SSRC	TCS	AWI	AWI

Benefits of the approach to AWI UC project is as follows:

- Early identification of stakeholders eliminates uncertainties during execution
- ETVX makes sure that the pre-requisites for a specific activity are met
- RACI model enables each stake holder to understand their role, responsibilities and timelines

Tools and Best Practices

- Team TCS would like to have Extensive participation from agency IT staff and Business users for Finalization of Requirement
- Use of Non Functional Fully Navigated prototype building in early stage. This will help to identity
- Finalization of business rules strategy

5.2.1.14 Proposed Hardware Installation Approach And Physical Installation

xiv. Describe the proposed hardware installation approach and physical installation location for each phase of the project. Refer to Section D, Exhibit 1, 8.13, Installation and Implementation

Team TCS understood that the hardware installation has to be carried out at SSRC data center. Team TCS approach for hardware installation described in this section will help AWI seamlessly move the citizen centric services to the new UC solution. Team TCS approach for hardware installation begins with identifying the hardware required for the solution and covers till the OS installation and testing.

Team TCS approach illustrated in the Exhibit 5-56 Team TCS Hardware Installation Approach.

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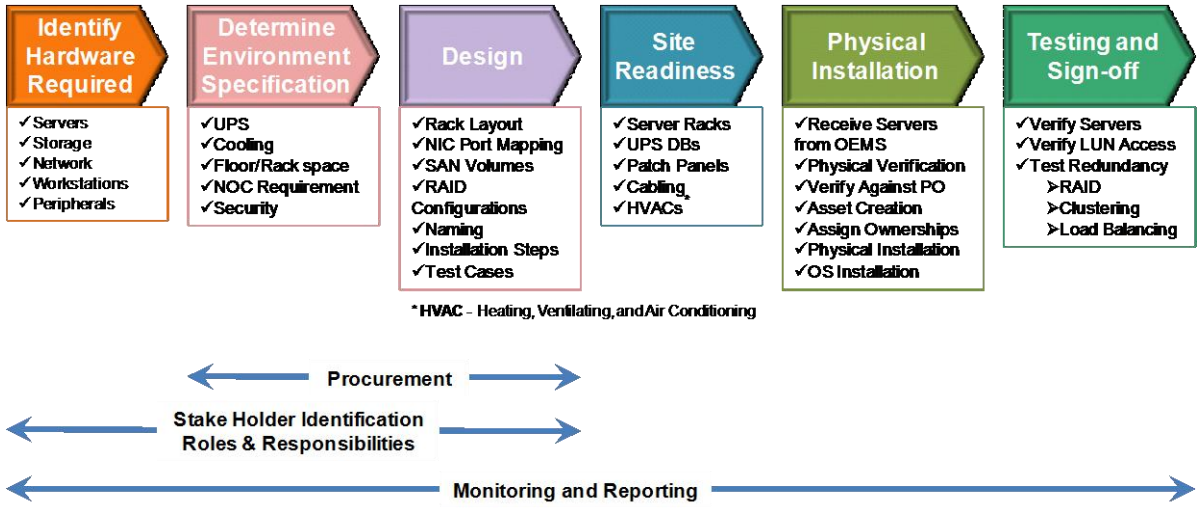

Exhibit 5-56 Team TCS Hardware Installation Approach

As there are multiple locations and parties involved in delivering the solution, it is important to identify stake holders, agree upon the roles and responsibilities. Team TCS will be responsible for getting commitment from all partners and sub-contractors employed by Team TCS. Team TCS assumes that the Agency will get necessary commitments from all other stakeholders such as various departments in AWI, SSRC any other party employed by AWI.

During Project Initiation, Team TCS will work with AWI and prepare the report templates which will be used to monitor the progress throughout the hardware installation process. As TCS' iQMS already has generic templates, Team TCS proposes that the same may be customized to meet the Agency requirement.

Tools and Best Practices
♦ Team TCS would like to have Extensive participation from agency IT staff and Business users for Finalization of Requirement
♦ Use of Non Functional Fully Navigated prototype building in early stage. This will help to identity
♦ Finalization of business rules strategy

5.2.1.15 Proposed Production Pilot Approach And Methodology

xv. Describe the proposed production pilot approach and methodology for this project. Refer to Section D, Exhibit 1, 8.14, Production Pilot.

Team TCS' "Prepare-Implement-Review" methodology for production pilot implementation and helps AWI to ensure state wide implementation of UC system in smoothly manner. We have been delivering many large system integration projects similar and complex as the new AWI UC system.

Team TCS implements the UC system into production. For each major project iteration/phase, Team TCS prepares an system implementation plan and schedule. The plan will describe the steps, tasks, schedules and responsibilities for migrating approved UI components into production environment. After production implementation, the new system is released to pilot user for testing. Simultaneously Team TCS operates and monitors production operations, optimize and tune production UI components to meet requirements, and document implementation results. Team TCS operate the production system and provide UI production support and operations for each major project iteration/phase until all iterations are complete and the State has accepted all UC System final products.

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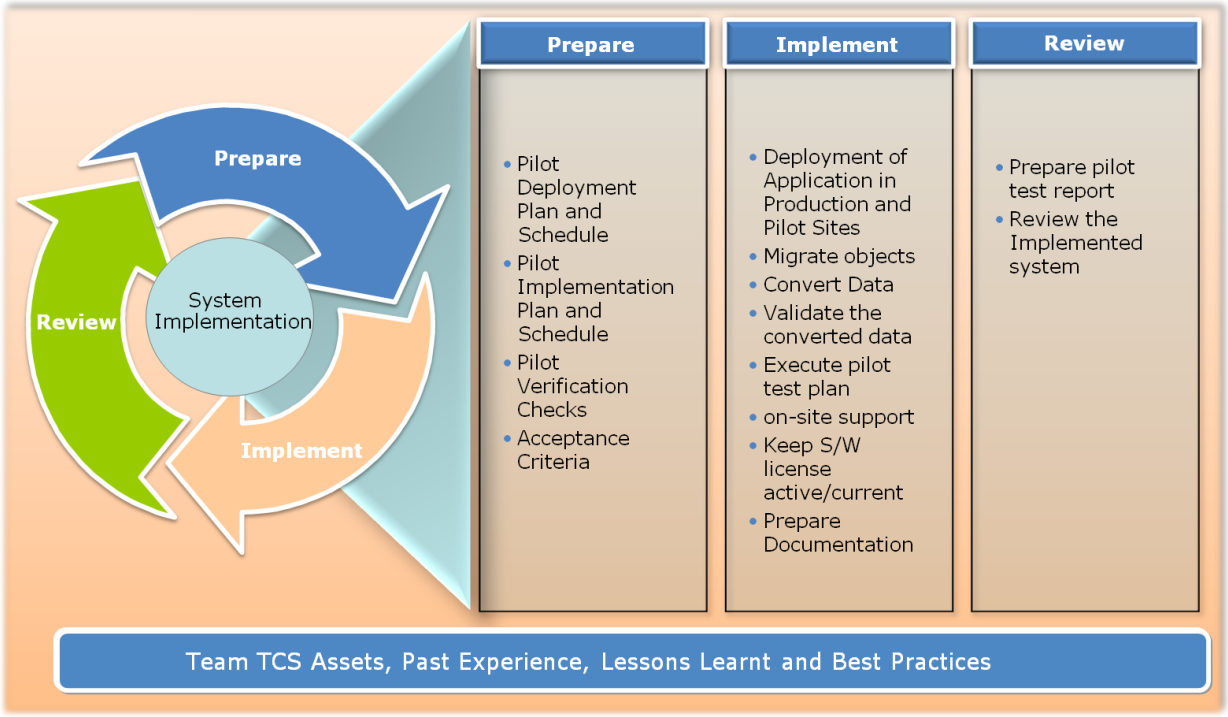

Exhibit 5-57 Response Cross Reference Table

Production Rollout and Pilot Implementation Plan

Team TCS develops, deliver, maintain and execute a Production Rollout and Pilot Implementation Plan, which identifies key milestones, methods, processes, equipment and software requirements, staffing, deliverables, and success criteria necessary to fully implement the system. The plan includes:

- Plan for production deployment and pilot site deployment of the UC application and its required components
- System and business continuity contingency and/or fall-back steps should the production cut-over be disrupted during actual implementation
- Tasks to be performed by State and Team TCS resources across the product and pilot sites
- An estimate of State staff effort, task time, and resources necessary to complete implementation
- Contingency plan for reverting resources back to current processes in case of severe production implementation issues

The Plan is updated for each major project iteration/phase released into production. This plan also covers the steps to manage the current and new UC systems that are being handled by regular user and pilot users respectively including data synchronization, security and cutover plans.

Production Site and Pilot Site Preparation

Team TCS monitors production and pilot site preparation tasks and resources to verify that all production and pilot sites and environment preparations are ready and completed in accordance with specifications and cut-over plans. This task is performed for each production deployment iteration and matches project schedules and planned product releases. Team TCS provides site specification and preparation information that meets the following:

- Hardware, software and network requirements; Installation and configuration guidelines
- Network capacity specifications for use in capacity planning;

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- Identification of high-level tasks
- Identification of Team TCS and State roles, responsibilities, and activities to complete site preparations

Production Deployment

Team TCS executes the production deployment plan and related procedures such as data migration, interfaces with the other systems, bridge components between current and new UC system as per the defined plan. Team TCS coordinates actual data conversion, system start-up, and business and systems operations. Simultaneously Team TCS will execute the pilot site implementation plan and deploys the required components of the UC application at the pilot locations.

Pilot Testing

Within 45 business days or the mutually agreed duration following production pilot system implementation, Team TCS executes the Pilot Testing Plan across all pilot sites to verify correctness of deployed application and determine if business sites are operating as expected. We execute the pilot testing using converted/migrated data and including all relevant existing and new interfaces. Our pilot testing covers, at a minimum, the following:

- All the functional requirements are correctly implemented
- Operability, stability, reliability of implemented system
- Accuracy of conversion of legacy data and manual data and erroneous data
- Impact on workflow and staff productivity
- Monitoring of software, hardware, Non functional requirements such as response time, performance
- Security vulnerability checks across the system components, data and interfaces
- Accuracy and performance of system interfaces;
- Inclusion of on-line and/or batch reports relevant to new functionality
- Ad hoc access to any new data
- Remote internal user access (test VPN)

Completeness and accuracy of system documentation

At the end of pilot testing, Team TCS will prepare a pilot test report in both electronic and hard copy format to certify that our proposed solution is ready for statewide implementation. The pilot acceptance test and report covers all activities that would be implemented during the actual statewide implementation. Pilot Test report includes the following:

- Overview of pilot test results
- Comparison of planned and actual implementation schedule
- Description of major issues encountered, resolutions completed, and corrective action plans for outstanding issues;
- Summary of data cleanup, data conversion, interface activities completed and required;
- Summary of data conversion activities completed and required;
- Summary of end-user and technical feedback regarding system usage and processing pilot testing
- Lessons learned for subsequent UI enhancement and state wide rollout

Pilot System Operations and Support:

Simultaneous with pilot testing, Team TCS provides production system operations, monitor and manage pilot production system activities including production inputs and outputs, and provides production system support for each project iteration/phase implementation until all major project phases are complete. During the production pilot operations, Team TCS provide resources at pilot locations to assist the end-user community with cut-over tasks and start-up operations and provide hands-on instruction and help. Initial system discrepancies and issues are logged,

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categorized, and prioritized for resolution with input from State project management. Operational support includes, but is not limited to:

- System monitoring, maintenance, and scheduling
- Production software upgrades and releases
- Security operations and support
- Batch process operations
- System backup and recovery operations
- Other technical UI production support processes

Tools and Best Practices
♦ Team TCS would like to have Extensive participation from agency IT staff and Business users for Finalization of Requirement ♦ Use of Non Functional Fully Navigated prototype building in early stage. This will help to identity ♦ Finalization of business rules strategy

5.2.2 Proposed End User Training Approach And Methodology

b. Describe the proposed end user training approach and methodology for this project. Refer to Section D, Exhibit 1, 9.1, Training.

The following is a set of objectives, as understood by Team TCS that the training program is anticipated to achieve.

- Enhance the capabilities of the business staff through training on Implementation of UC system using modern and updated technologies to carry out UC business and provide new and improved services to various stakeholders.
- Improve staff competency on tools and core technologies to create and sustain a pool of IT staff within AWI that can facilitate the ongoing operations, maintenance and enhancements to the Implementation UC System.
- Facilitate smooth acceptance, implementation and rollout of the proposed Implementation UC system by setting user-expectations, increasing the acceptance of the new system and managing change within AWI.

The overall training strategy is to divide the user types according to their roles. A multi-phased approach will be used due to the number of trainees.

Team TCS recognizes that effective training and knowledge sharing are two of the crucial factors for the successful implementation of such a large and complex application. Since there will be a significant change in the technology and the way in which business transactions are conducted, training programs will need to be devised in such a manner that users gain good exposure to the new system in a short time. This will lead to smooth induction of the users to the new system, enabling AWI to realize the benefits of the new system implementation.

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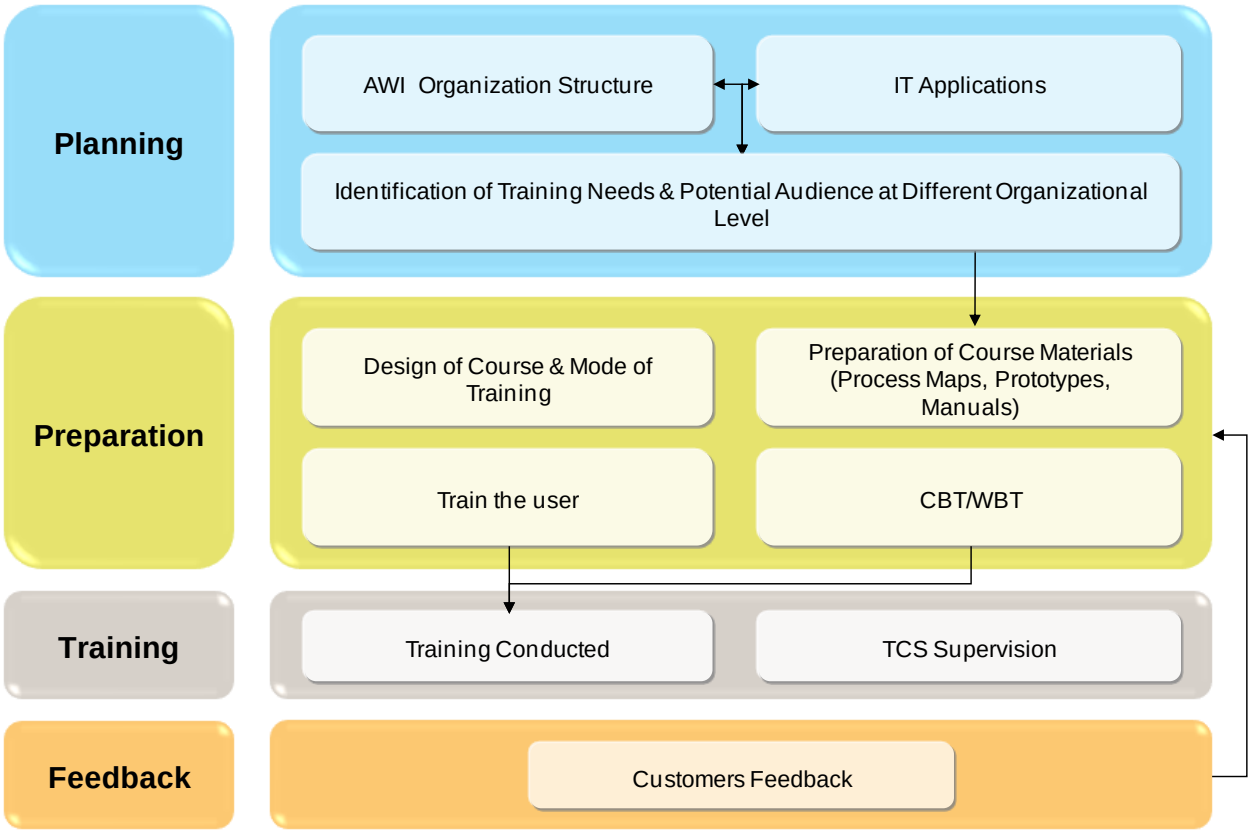

Exhibit 5-58 – Team TCS Training phases

Team TCS also recognizes that the training and knowledge sharing has to be aligned to the Project Implementation strategy. This perspective will be taken into consideration while finalizing the training and knowledge sharing approaches.

Typically training are divided in following three categories:

- **Functional Training**: The Functional training will cover Contributions, Wage, Benefits, Appeals, Fraud, Financial Management and other UC business and Concept of Operations topics, User Operations, Reporting and corresponding operations, Self service functions, rule management, case management, workflow and document management
- **User role-based Training:** The role-based training suggested by TCS is a recommendation to increase the effectiveness of the AWI personnel in the functions they perform. If AWI UI so desires, personnel may be deployed in multiple roles for the UC System Implementation Program and hence attend training specified for multiple roles, provided no single training session comprises of more than 20 participants.
- **Technical Training**: The Technical training will cover the SDLC cycle, Technical products like IBM process server, Database DB2, DMS solution etc.

Team TCS' training approach and plans will be tightly integrated with the project development methodology to derive maximum benefits. In the following sections, we explain the approaches we propose to adopt for this project.

5.2.2.1 Training Approach

Training Needs Analysis

Prior to the design or submission of a formal training program to AWI for consideration, Team TCS will conduct a Training Needs Analysis (TNA). This assessment analyzes the gap between the current skill level of end/IT users

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and required skill level to continue performing their work. This analysis is used to develop a primary learning path for each user. Further, Team TCS will assist AWI in planning a growth path for each of its identified trainees – keeping in mind the long term possibility of setting up a UC system Operations Group, the roles required to successfully set it up, and the people who could fit into those roles. This exercise will essentially determine the training plan for each individual role, aimed at both the short and long terms goals.

Types of Training Programs

- **Initial Training Program (ITP)** This program is intended primarily for the Technical Staff who will participate in the UC Implementation Project. The program will induct the personnel into the UC system Implementation Project and train them on the fundamentals of software and systems development, quality management etc.
- **Just-in-Time (JIT) Training** This program is aimed at addressing the continuous learning needs of the AWI Staff and is intended for the Technical Staff participating on the project at the beginning of each phase in iteration.
- **User Training** – This program will train the business and technical staff of AWI on the UC system Implementation Application, its features and functionality, limitations, modules, navigations, installation, administration and troubleshooting, etc. Team TCS will conduct two distinct streams of training as part of this exercise, one aimed at the Business Users and the other for the Technical Staff.

Training Methods

Training on the UI System Application will primarily be conducted in one or more of the following three ways:

- **Class-room Training:** This training will have an instructor will conduct a class-room session with a presentation and handouts.
- **Computer Based Training**: Through this medium, students are allowed to train themselves at their own pace on specific topics of their interest.
- **Hands-on Training:** Team TCS will utilize the Training Environment as a laboratory for trainees to get firsthand experience on the UI Implementation Application.

Typically, a combination of these methods seems to work well for trainees in terms of both effectiveness and retention of the knowledge obtained.

5.2.2.2 Training Methodology

Team TCS will define and develop the content of the training program, plan the training sessions, and provide training. Team TCS will also help in collecting feedback and thereby improving the quality of the training delivered. As part of the training, there will be evaluation rounds and quiz sessions used to certify the trainers.

TCS over the years has acquired valuable experience in providing training to users of various applications and has developed a training methodology. This training methodology helps minimize training time and maximize learning retention and effectiveness. TCS has a dedicated training group that assists in defining and refining this methodology.

The flow of various training activities that will be carried out is depicted in Exhibit 5-59 Training Program Implementation Activities.

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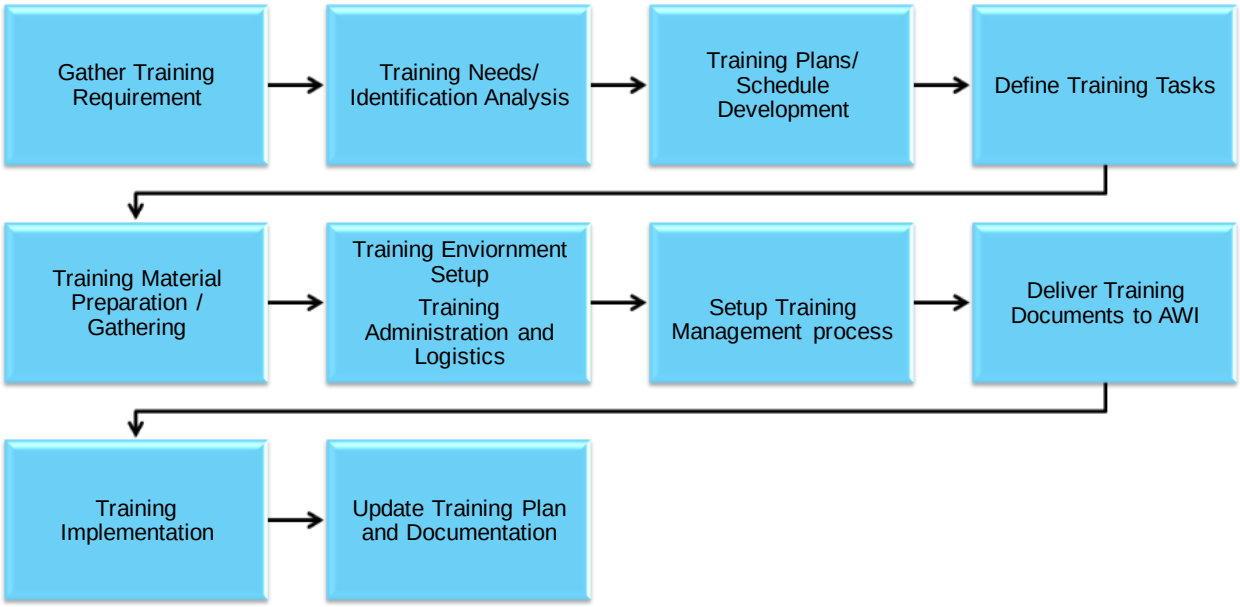

Exhibit 5-59 Training Program Implementation Activities

The key elements of the training approach to meet the needs and requirements identified, are enlisted as follows:

- **Structure for management of training**: Training will be managed through the local implementation training groups.
- **Learning management and administration:** Management of learning and training administration will be performed by local areas using either their existing systems (as is or enhanced) or new systems to meet the requirements for control of the training program.
- **Training delivery**: TCS believes in using the "Train the Trainer" model by first identifying a set of core group who would be trained during the different stages of the life cycle by TCS based on the training schedule. The trainers will then in turn take classroom or hands on sessions as appropriate to the different end users and champion users in their departments. Local areas will need to identify and resource their trainers.
- **Champion users**: Champion users will typically provide support to their local team in the first few months following go-live in respect of simple queries.
- **Training materials**: A modular training materials toolkit will be created allowing selection of systems and process based training appropriate to different end user roles. All material will be available in electronic format. The training will be instructor-led in the initial stage and will move towards an e-learning approach as the project matures..
- **Training facilities: Trainer training and end user training** will be completed in Authority facilities, which meet the requirements of the training environment.
- **Assessment of trainers:** All potential trainers need to meet minimum standards prior to commencing trainer training. Following trainer training all potential trainers will be assessed by TCS to ensure they display the required competencies and systems knowledge to train end users.
- **Assessment of end users:** Local staff are responsible for ensuring all trainee end users meet standards for IT skills prior to commencing end user training. Prior to allowing trainees access to the live system, they will be assessed by local trainers to ensure they meet minimum standards.
- **Evaluation:** The training program will be evaluated to determine the extent to which benefits have been realized in the workplace. Evaluation activities will be conducted by local areas to criteria set by TCS and results reported to TCS.

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5.2.2.3 Training Feedback

At the end of each training session, feedback will be collected from trainees to fill in any gap found in the effectiveness of the training. This may require changes in the training material, skill level of the trainer, or scope of the training. Team TCS, through this feedback mechanism, will constantly try to ensure optimal client satisfaction and comfort of usage of the applications delivered. A report will be submitted to AWI management containing the effectiveness of the training.

Recognizing the complexity and need for solutions to be appropriate to the local area, the localized training plans will be developed. Significant additional detailed local planning will be undertaken at the local level based on the principles and guidance set out in the Training Plan. From a training point of view, a number of individual user needs will have to be fully addressed for deployment activities to be successful. The key elements of the training approach will be similar to the training strategy used across geographies. Whether the business change is small or medium or large, the following action items will be present and undertaken throughout the change cycle.

Communication: Super-users, end-users, and other employees undergoing training will be informed about the various competency development programs, their benefits, details of the various courses, their schedules, venue where the training programs will be held, procedure for registrations, etc.

Assessment / Monitoring / Measurement: The effectiveness and efficiency of a competency development program can only be known by proper assessment through different measurement techniques. Therefore, the conduct of these trainings will be monitored. Feedback from the participants and analysis of the feedback will be analyzed to measure the efficacy and efficiency of the training programs. Simultaneously, the trained employees' performance on the job will also be assessed to understand the level of internalization.

Team Training: This is critical as this team will perform the role of guiding and facilitating throughout the business change. The team members will be trained in various aspects of the change initiative so as to deploy the various TCS training interventions during the business change.

Tools and Best Practices
♦ Team TCS would like to have Extensive participation from agency IT staff and Business users for Finalization of Requirement
♦ Use of Non Functional Fully Navigated prototype building in early stage. This will help to identity
♦ Finalization of business rules strategy

5.2.3 Proposed Approach and Methodology for the Development of User Documentation

c. Describe the proposed approach and methodology for the development of user documentation. Refer to Section D, Exhibit 1, 9.2, User Documentation

Team TC brings vast experience in large end-to-end case and social services management application implementations similar to the AWI UC project. Using our well-defined proven processes and guidelines for system documentation from TCS's Process Excellence Group (PEG) and Technical Communication Group, Team TCS will provide the UC project with superior User documentation.

Team TCS's User documentation methodology takes both the business perspective (top-down approach) and system perspective (bottom-up approach) to ensure traceability of business processes to their realization in the system. UC system has many stakeholders with different needs. Team TCS will analyze their documentation needs before finalizing the user documentation requirements for the this project.

5.2.3.1 Knowledge Repository Composition

Technical Details On the technical side, the repository will house information about the complete software inventory.

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Functional Details On the functional side, complete business functionality will be captured in the form of standard requirements documents. The Use Case methodology is the most commonly followed approach to capture business requirements in an implementation independent manner. Use Cases are written in business terms with a user centric approach. It does not contain technical or implementation details and hence are intuitive for both the technical and business teams to understand. Implementation Details The details of the application deployment environment, including the hardware and software configurations will be captured in this part. Other key implementation aspects like scalability, availability, transaction / database volumes and operational cost details will also be captured

Implementation Details The details of complete application deployment environment – including the hardware and software configurations are to be captured as part of this. Other key implementation aspects like scalability, availability, transaction / database volumes and operational cost details are also to be captured.

The Table of Contents (TOC) of a typical User Manual and Operations Manual are enclosed below for reference

User Manual – Table of Contents

CONTENTS

CHAPTER 1 - INTRODUCTION.....1-2

1.1 Welcome to <Software>.....1-2
1.2 <Software> Modules.....1-2
1.2.1 <Module 1>.....1-2
1.2.2 <Module 2>.....1-2
1.2.3 <Module 3>.....1-2
1.2.4 <Module 4>.....1-2
1.2.5 <Module 5>.....1-2
1.3 <Software> Environment.....1-2
1.3.1 Hardware Environment.....1-2
1.3.2 Software Environment.....1-2
1.3.3 Network Environment.....1-2
1.4 Interfaces with other Systems.....1-2

CHAPTER 2 - SETTING UP <SOFTWARE>.....2-2

2.1 Before Installing <Software>.....2-2
2.2 <Software> Distribution Diskettes.....2-2
2.3 Installing <Software>.....2-2
2.3.1 About the <Software> Setup Screen.....2-2
2.4 <Software> Components.....2-2
2.5 Startup Settings.....2-2

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Operations Manual – Table of Contents

CONTENTS

CHAPTER 1 - INTRODUCTION 1-2

1.1 About <Software> 1-2
1.2 Structure of this Manual 1-2

CHAPTER 2 - SETTING UP <SOFTWARE> 2-2

2.1 Pre-Requisites to Install <SOFTWARE> 2-2
2.2 <SOFTWARE> Distribution Diskettes 2-2
2.3 Installing <SOFTWARE> 2-2
2.4 <software> Components 2-2
2.4.1 On the Server 2-2
2.4.2 On the Client 2-2
2.5 Compilation on the Client 2-2
2.5.1 Network Drive Mapping 2-2
2.5.2 Registry Settings 2-2
2.5.3 Order of Compilation 2-2
2.6 Startup Settings 2-2
2.6.1 On the Client 2-2
2.6.2 On the Server 2-2
2.7 Getting Started with <SOFTWARE> 2-2

CHAPTER 3 - MAINTAINING USERS 3-2

3.1 Maintaining User Details 3-2
3.2 Maintaining User Area Group Permissions 3-2
3.3 Maintaining User Permissions 3-2

CHAPTER 4 - MONITORING BATCH PROCESS LOG 4-2

CHAPTER 5 - MONITORING ERROR LOG 5-2

CHAPTER 6 - MAINTAINING GLOBAL PARAMETERS 6-2

CHAPTER 7 - MAINTAINING INTERFACE JOBS 7-2

7.1 Maintaining Interface Masters 7-2
7.2 Maintaining Interface Log 7-2
7.3 Maintaining Server Processes 7-2
7.3.1 Starting the Process 7-2
7.3.2 Stopping the Process 7-2

CHAPTER 8 - GENERATING REPORTS 8-2

8.1 Modifying Selection Criteria 8-2

Tools and Best Practices

- Application Information is available in more analyzable format
- Better Maintainability of the application
- Helps defining future roadmap
- Better productivity because of tool based approach.

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5.2.4 List of Deliverables

d. Provide a list of all deliverables associated with the proposed project approach by project lifecycle phase. Refer to Section D, Exhibit 1, 10.0, Deliverables.

Team TCS will bring in its rich expertise in implementing Unemployment Compensation systems in Mississippi, Nebraska and New Mexico and also from similar large successful project implementations to its Fortune 500 customers. With more than 40 years of experience in end to end enterprise application development, Team TCS will bring in mature, proven, successful processes and methodologies, which in turn provide the comprehensive and quality deliverables to AWI UC System.

Team TCS's SDLC is based on Rational Unified Process and it provides the comprehensive list of deliverables in each iteration. Team TCS will be responsible for the completion of the project deliverables. All deliverables will be based on the Deliverable Expectation Document (DED), that will be developed by the Team TCS. The DED will include the contents, scope, quality standards, quality assurance measures, approval process, approval criteria and reviewers.

- Some of the business drivers for AWI UC deliverables include
- Strategic alignment between business strategy & operations
- Internally consistent policies, standards, work procedures, best practices
- Effective resource utilization & building knowledge management base
- Improved collaboration
- Knowledge Management System

All these business drivers are part of TCS best practices and Team TCS will address them in each phase of the UC System SDLC.

Team TCS will maintain and update deliverables throughout the project life cycle and term of the contract as required by the Agency. All deliverables and deliverable templates will be developed and submitted as defined by the TCS' adopted and Agency-approved industry standard methodology. Team TCS will provide electronic and information technology resources in complete compliance with the accessibility standards provided in Rule 60-8.002, Florida Administrative Code (F.A.C.)

The following table contains a preliminary list of project deliverables. The final deliverables list will be developed during the project execution phase time after approval from AWI.

Exhibit 5-60 AWI UC System Deliverables

Deliverable Name	SDLC Phase	Description
Project Charter	Project Planning	Formally authorizes the project
Deliverable Expectation Document (DED)	Project Planning	Includes the contents, scope, quality standards, quality assurance measures, approval process, approval criteria and reviewers.
Detailed Project Plan	Project Planning	This includes the following deliverables • Work Breakdown Structure (WBS). • Organizational Breakdown Structure (OBS). • Communication Management Plan. • Document Management Plan. • Schedule Management Plan. • Quality Management Plan. • Issue Management Plan. • Scope Management Plan. • Risk Management Plan. • Resource Management and Staffing plan. • Knowledge Management Plan.

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Deliverable Name	SDLC Phase	Description
		• Phase Gate Review and Acceptance Process. • Phase Gate Approval Criteria. • Project Change Control Management Plan. • Information Security Plan. • Conflict Resolution Plan. • Configuration Management Plan.
Modernization Approach and Strategy	Project Planning	Contains detailed Modernization Approach and Strategy for AWI UC System.
Project Repository	Project Planning	Repository for all AWI UC System implementation artifacts.
Project Close-out Process	Project Planning	Standard process document for project close out.
Organizational Change Management (OCM) Plan	Project Planning	Describes the overall objectives and approach for managing organizational change during the project.
Risk and Issue Registers	Project Planning	Prioritized lists of risks and issues identified and reviewed during the course of the project.
Data Conversion Plan	Project Planning	Plan for converting data from existing systems to meet the specifications of the new database design.
Data Migration Plan	Project Planning	Plan for migration of data from existing systems to the new database.
Fit Gap Analysis Document	Fit Gap Analysis	Gap Analysis Document.
Coding Standards Document	Architecture Validation	Coding Standards Document for AWI UC System implementation.
Development Methodology Document	Architecture Validation	Development Methodology Document based on Rational Unified Process.
Development Tools Documentation	Architecture Validation	Development Tools Documentation.
Test Tools and Products Document	Architecture Validation	Test Tools and Products Document.
Data Modeling Standards	Architecture Validation	Data Modeling Standards.
Technical Architecture	Architecture Validation	Reference architecture for AWI UC System based on TCS UI Transfer System.
Capacity Plan	Architecture Validation	Capacity Plan for AWI UC System.
Weekly Project Status Reports	All phases	These reports are entire duration of the project.
Monthly Project Status Reports	All phases	These reports are entire duration of the project.
Quarterly Project Status Reports	All phases	These reports are entire duration of the project.
Meeting Minutes	All phases	Record of decisions, action items, issues, and risks identified during formal stakeholder meetings.
1st Wave (Same deliverables will be repeated for 2nd and 3rd Waves)		
Requirements Validation Methodology Document	Requirements Validation	Requirements Validation Methodology for AWI UC System.
Functional Requirements	Requirements	Document with detailed AWI UC System functional

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Deliverable Name	SDLC Phase	Description
Document	Validation	requirements.
Systems Requirements Repository	Requirements Validation	Repository with detailed AWI UC System functional requirements.
System Requirements Specification (SRS) Document	Requirements Validation	Complete list of functional and technical requirements that have been validated by AWI stakeholders with Team TCS. It includes: • System Use Cases. • Batch Requirements. • Interface Requirements. • Correspondence Requirements. • Reports Requirements. • Business Rules Requirements. • Data Conversion and Migration Requirements. • General System Requirements and so on.
Requirements Traceability Matrix	Requirements Validation	Requirements Traceability from Requirements Validation phase to Implementation phase.
Phase Gate Closure Report	Requirements Validation	Requirements Validation Phase Gate Closure Report.
Detailed System Functional Design Document	Functional Design	Design specifications for the system to include system functional and non-functional specifications. It includes • Data Flow Diagram. • Interface Model. • Business Process Model. • Data Model. • Batch Process Flow Diagram. • Data Gap Analysis.
Phase Gate Closure Report	Functional Design	Functional Design Phase Gate Closure Report.
Detailed System Technical Design Document	Technical Design	Detailed technical design for data and information processing in the new business system to include: • Class Diagrams, Sequence Diagrams and Entity Relationship Diagrams. • Interface Design. • Database Design. • Migration Design. • Data Conversion Design. • Reports Design. • Forms and Correspondence Design. • System Security Design. • Business Rules Design. • Business Process Design. • Workflow Design.
User Interface Prototypes	Technical Design	Mock-ups of how functional requirements will be translated into screen design. Review and acceptance of Team TCS' design required before proceeding to development. Key stakeholders will experience the prototype and then a go/no-go decision will be submitted to the Project Sponsors for action.
Phase Gate Closure Report	Technical Design	Technical Design Phase Gate Closure Report.

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Deliverable Name	SDLC Phase	Description
Development Environment	Code and Unit Test	Environment for AWI UC System Development.
Data Conversion Environment	Code and Unit Test	Environment for AWI UC System Data Conversion and Migration.
System Component and Source Code Repository	Code and Unit Test	Final production version of the new business system for the corresponding Wave.
Data Conversion Schedule and Routines	Code and Unit Test	Data Conversion Schedule and Routines.
Duplicate Entities/Records Reports	Code and Unit Test	Duplicate Entities/Records Reports.
Data Conversion Results	Code and Unit Test	Data Conversion Results.
Master Test Plan	Code and Unit Test	Master Test Plan for AWI UC System.
Unit Test Plan	Code and Unit Test	Unit Test Plan for the corresponding Wave.
Unit Test Cases	Code and Unit Test	Unit Test Cases for the corresponding Wave.
Unit Test Results	Code and Unit Test	Unit Test Results of the corresponding Wave.
Updated Requirements Traceability Matrix	Code and Unit Test	Updated Requirements Traceability Matrix.
Phase Gate Closure Report	Code and Unit Test	Code and Unit Test Phase Gate Closure Report.
System Integration Test Environment	System Integration Test	System Integration Test Environment for AWI UC System.
System Integration Test Cases	System Integration Test	System Integration Test Cases
Operations/System Administration Manual	System Integration Test	Operations/System Administration Manual of AWI UC System.
System Integration Test Plan	System Integration Test	This includes the following deliverables • Integration Test Plan • Interface Test Plan • System Test Plan • Stress and Performance Test Plan • Usability Test Plan
System Integration Test Results Document	System Integration Test	This includes the following deliverables • Integration Test Results • Interface Test Results • System Test Results • Stress and Performance Test Results • Usability Test Results

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Deliverable Name	SDLC Phase	Description
Updated Requirements Traceability Matrix	System Integration Test	Updated Requirements Traceability Matrix.
Phase Gate Closure Report	System Integration Test	System Integration Test Phase Gate Closure Report.
User Acceptance Test Plan	User Acceptance Test	User Acceptance Test Plan.
User Acceptance Test Environment	User Acceptance Test	User Acceptance Test Environment.
User Acceptance Test Cases	User Acceptance Test	User Acceptance Test Cases.
User Acceptance Test Results Document	User Acceptance Test	User Acceptance Test Results Document.
User Acceptance Test Analysis Reports	User Acceptance Test	User Acceptance Test Analysis Reports.
Updated Requirements Traceability Matrix	User Acceptance Test	Updated Requirements Traceability Matrix.
Phase Gate Closure Report	User Acceptance Test	User Acceptance Test Phase Gate Closure Report.
Training Plan	Training	Defines the objectives, scope and approach for training all stakeholders
Training Deliverables	Training	It includes Training Manuals for Functional End-Users, Super Users, Help Desk and Technical Support.
Knowledge Transfer Report	Training	Knowledge Transfer Report.
Phase Gate Closure Report	Training	Training Phase Gate Closure Report.
Implementation Environment	Implementation	Implementation Environment for AWI UC System.
Implementation Plan	Implementation	It includes Rollout Implementation Plan and System Infrastructure Plan.
Production Pilot Plan	Implementation	Plan for pilot implementation.
Pilot Analysis Report	Implementation	Pilot Analysis Report.
Post Implementation Review Report	Implementation	Post Implementation Review Report.
Phase Gate Closure Report	Implementation	Implementation Phase Gate Closure Report.
System Maintenance and Operations		
System Maintenance and Operations Plan	System Maintenance and Operations	System Maintenance and Operations Plan for all the Waves.
Lessons Learned	System Maintenance and Operations	Documents obstacles navigated during the life of the project and associated best practices.
Phase Gate Closure Report	System Maintenance and	System Maintenance and Operations Phase Gate Closure Report.

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Deliverable Name	SDLC Phase	Description
	Operations	
System Stability Phase		
System Stability Report	System Stability	System Stability Report for the complete AWI UC System.
Phase Gate Closure Report	System Stability	System Stability Phase Gate Closure Report.
Warranty Support Phase		
Warranty Completion Report	Warranty Support	1 Year Warranty Completion Report.
Phase Gate Closure Report	Warranty Support	Warranty Support Phase Gate Closure Report.
Operations Transition		
Transition Deliverables	Operations Transition	Transition Deliverables to AWI UC Team for AWI UC System Maintenance.
Transition Completion Report	Operations Transition	AWI UC System Transition Completion Report.
Phase Gate Closure Report	Operations Transition	Operations Transition Phase Gate Closure Report.
Project Close-Out		
Contract Compliance Checklist	Project Close-Out	Checklist for overall contract compliance
Phase Gate Closure Report	Project Close-Out	Project Close-Out Phase Gate Closure Report.

Quality controls will be built into every stage of the project using Team TCS' proven quality management system iQMS. iQMS is an integrated approach to implement quality practices of world-class benchmarking models like ISO 9001:2000, CMMI, PCMM and Six Sigma. All the deliverables will undergo TCS' rigorous quality assurance and control checks as detailed in section 4.4.7 "Quality Management Plan".

All deliverables will be provided to AWI in a mutually agreed-upon format currently supported by the Agency including existing Agency's standards such as the Microsoft Office Suite 2007, Microsoft Project 2007, Adobe Acrobat 8.0/9.0, and Visio 2007. The content and format of the deliverables will be negotiated and agreed upon in writing and in accordance with relevant industry standards and best practices prior to the start of each deliverable. All deliverables will be submitted to the Agency for approval.

With more than 40 years of rich experience in end-to-end enterprise application development and with its mature successful and proven processes and methodologies, Team TCS will deliver superior quality deliverables to AWI UC System. All the deliverables will undergo industry standard stringent quality assurance and control practices before delivered to AWI.

5.2.5 Proposed Set of Service Level Agreements

e. Provide a proposed set of service level agreements, in addition to those contained in Attachment Q – Requirements Response Matrix, for the Design, Development, and Implementation and Operations and Maintenance phases of the project. Refer to Section D, Exhibit 1, 11.0, Service Levels and Liquated Damages. The formulation of Service Level Agreements and associated liquidated damages for inclusion in the contract will be handled during contract negotiations.

The Service Level Management plays a very important role in AWI UC System implementation. With more than 40 years of rich experience in implementing end-to-end enterprise applications for its global clients, Team TCS has developed a standard Service Level Management Framework to meet AWI's business objectives and deliver value. Team TCS will always ensure timely Service Level Agreements (SLA) compliance to AWI by following Team TCS' SLA Management Framework by thoroughly understanding AWI's processes, complexity, criticality and visibility in conjunction with their specific requirements.

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The following Exhibit 5-61 Team TCS' Approach to SLA Management depicts the Team TCS Service Level Management for AWI UC System Service delivery.

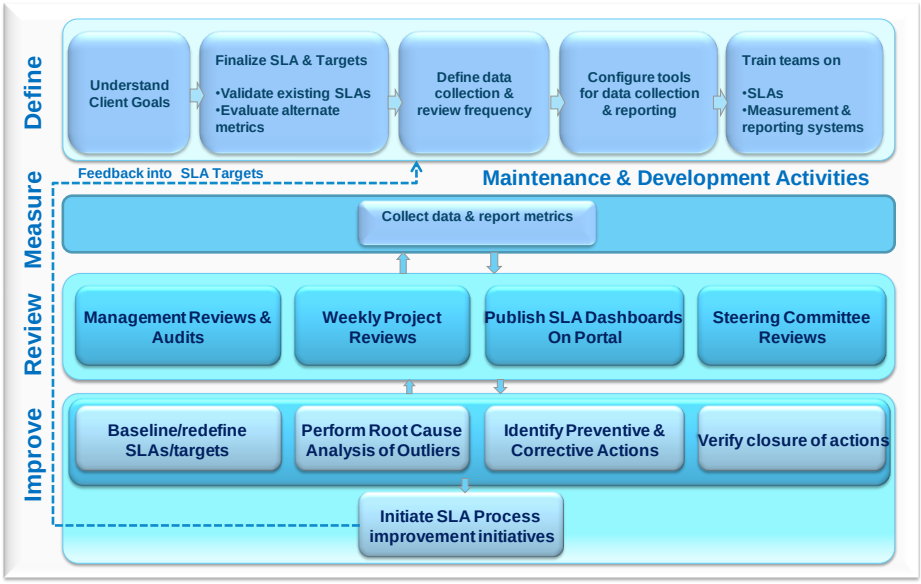

Exhibit 5-61 Team TCS' Approach to SLA Management

5.2.5.1 SLA Life Cycle for AWI UC System

The following exhibit provides the SLA life cycle for the AWI UC System.

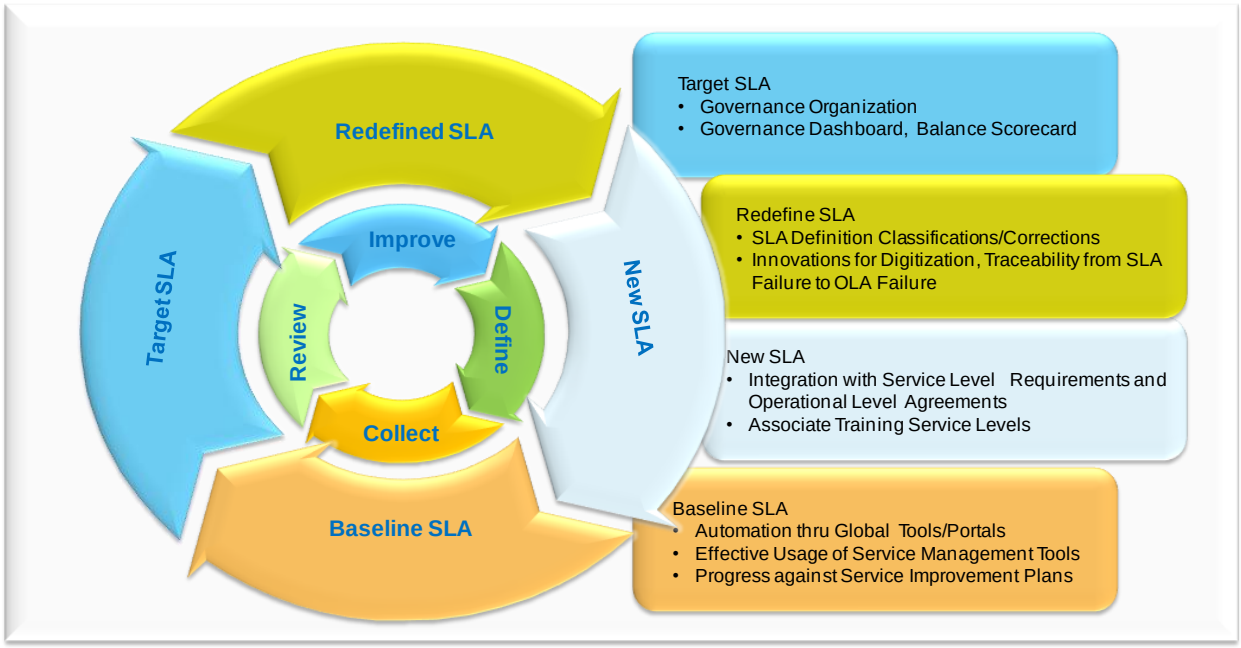

Exhibit 5-62 SLA Life Cycle for AWI UC System

The Team TCS Service Level Management Framework will provide the SLAs for the design, development, implementation and operations and maintenance phases of the AWI UC System SDLC. In the following section, sample SLAs are mentioned for SDLC phases of the AWI UC System project. During the AWI UC System contract negotiations and project execution time, AWI and Team TCS will finalize the SLAs after mutual agreement.

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5.2.5.2 Design, Development and Implementation Phases

Following is the sample list of Service Level Metrics during the design, development and Implement phases of the AWI UC System SDLC.

SLA #	SLA Matrix	Level of Performance
1	Availability of Critical Systems	99%
2	Availability of Medium and Low Critical Systems	95%
3	Scheduled Slippage	10%
4	On Time Delivery	90%
5	Bad Fixes	5%
6	Budget Overrun : Cost of rework, Customer Budget Variance	5%
7	Cost of Quality	5%
7	Total Defect Containment Effectiveness	95%
8	Effort Slippage	5%
9	Defect free deliveries	95%
11	Communication: Releases communicated on time	95%
12	Compliance to SLA	100%
13	Customer Satisfaction Index	90%
14	Customer Complaints	0

5.2.5.3 Operations and Maintenance Phase

Following is the sample list of Service Level Metrics during the Operations and Maintenance Phase of the AWI UC System SDLC.

SLA #	SLA Matrix	Level of Performance
	Response and Resolution time for Severity 1 trouble tickets	95%
2	Response and Resolution time for Severity 2 trouble tickets	95%
3	Response and Resolution time for Severity 3 and 4 trouble tickets	90%
4	Availability of Critical Systems	99%
5	Availability of Medium and Low Critical Systems	95%
6	Scheduled Slippage	10%
7	On Time Delivery	90%
8	Bad Fixes	5%
9	Training Compliance	97%
10	Budget Overrun : Cost of rework, Customer Budget Variance	5%
11	Cost of Quality	5%

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SLA #	SLA Matrix	Level of Performance
12	Effort Slippage	5%
13	Defect free deliveries	95%
14	Total Defect Containment Effectiveness	95%
15	Communication: Releases communicated on time	95%
16	Compliance to SLA	100%
17	Customer Satisfaction Index	90%
18	Customer Complaints	0

5.3 Technical Description

Team TCS solution to modernize Florida's UC System is based on its experience gained from similar engagements in state government agencies and private sector such as Mississippi Department of Employment Security, New Mexico DOL, AIG, USAA, AXA. Our solution will change the paradigm of unemployment compensation processes from document, data collection and folder-centric to customer (claimant, employers, AWI staff, citizen) centric. This solution will enable Florida to consolidate the data and business processes into a single, secure, self-service enabled and accessible environment that can be hosted centrally to provide on-demand services to the stakeholders.

By consolidating constituent information – from claim initiation to closure – and delivering a fully automated workflow driven claim processes, Team TCS' UC solution enables claim collaboration to drive rapid resolution and better fraud detection.

Team TCS' UC solution approach is cost-effective, less risky, and can be implemented quicker than any solution that relies on its functionally affluent transfer system and a balanced COTS products. Our solution offers a complete, open, and integrated Unemployment Compensation solution for Claims and Benefits management. Our solution map highlights the solution differentiators for a best-in-class componentized solution with higher return on investment, lower risk, and faster implementation time.

The contribution of each building block to our proposed solution is explained below:

Team TCS' solution for the Florida AWI Unemployment Compensation System is built on TCS' transfer system with five major auxiliary solution building blocks as depicted below.

- **TCS UC UI Transfer System:** TCS proposes a case management and workflow system based on the Transfer System and WebSphere Process Server (WPS).The TCS UI Transfer System will provide case management solution to cater to all the case flows needs of the agency, including Claim, Adjudication, Audit, Appeal, Legal, etc.
- **TCS UC UI Transfer System - Questionnaire Engine** The TCS UI Transfer System has integrated questionnaire engine which can display different questionnaire based upon issue category and issue sub-category. The questions in a questionnaire are configurable and are dynamically generated while rendering the questionnaire.
- **TCS UC UI Transfer System - Auto-Adjudication**: TCS UI Transfer System provides auto-adjudication feature based upon issue category and issue sub-category and business logic. The issue-category and sub-category can be flagged for auto-adjudication and system will auto-adjudicate those issues without creating the work-item for adjudicator.
- **TCS UC UI Transfer System - Automatic Sequence Building**: The TCS UI Transfer System has in-built feature of automatic sequence building, which means based upon the response of the user (claimant /

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employer/ CSR) the next screen of the system is dynamically determined at the run time. It helps to capture maximum information based upon the case of the claimant / employer.

- **TCS UC UI Transfer System - Business Rules**: The TCS UI Solution implements Business Rules using IBM WebSphere ILOG JRules business rules engine. The proposed solution provides the ability for non-technical business users to be directly involved in rule management and enables flexible decision automation for applications and processes that are subject to complex, variable and evolving rules.

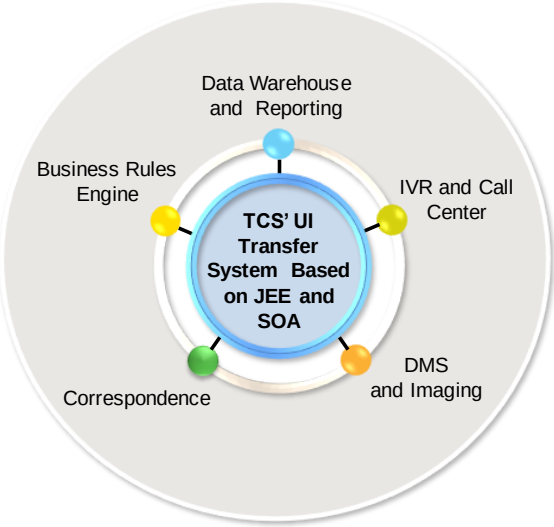

Exhibit 5-63 – Solution Framework

- **IVR and Call Center**: Our solution will use an open architecture-based interface to integrate the Interactive Voice Response (IVR) functionality into the application. Team TCS leverages Genesys' (one of our teaming partners) solution for the IVR in the UC solution. This component will transform the Citizen Interface and interactions quality to a higher level. This solution can be seamlessly integrated with Siebel CRM to provide the better call center services to the claimants and other stakeholders.
- **Correspondence**: Team TCS leverages HP product to create and manage the document generation process for all applications requiring significant amount of text or specialized formatting of text. HP product enables business users to manage the entire lifecycle of creating, assembling, and delivering large volumes of transactional and ad hoc, personalized documents across multiple channels (e.g. e-mail, Web, print, SMS, and XML).
- **Other Systems:** Team TCS reuses the business knowledge built into current legacy systems and other interfacing systems serving the unemployment benefits. Team TCS builds the UC solution for Florida in a way that helps users to make a seamless transition from the old legacy-based systems to the new UC System.

Team TCS recognizes that the AWI UC Project is a strategically aligned business transformation effort targeting its complex business and technology environments. Team TCS defined the conceptual technical solution as shown in Exhibit 5-64 UC System – Solution Building Blocks, which is focused on implementing the required number of complementary technologies that support appropriate segments of the various key end-to-end business processes.

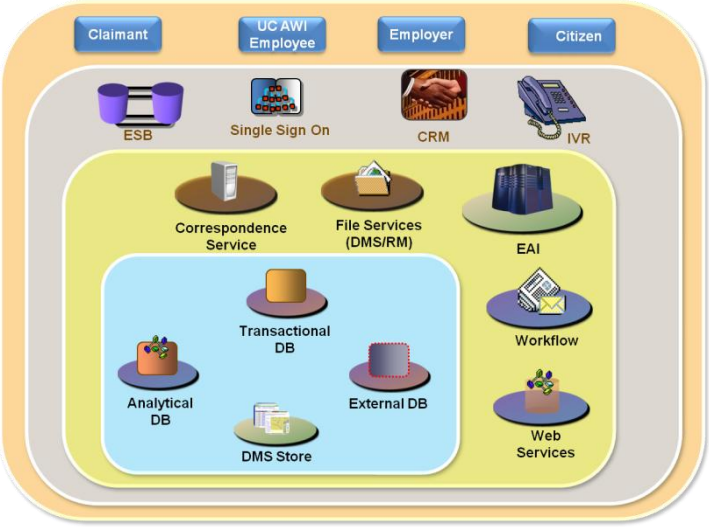

Exhibit 5-64 UC System – Solution Building Blocks

Exhibit 5-64 UC System – Solution Building Blocks depicts our high-level view of the system design and blueprint. Beginning with the outer layer, end users are presented with a common look and web feel via the enterprise portal and have access through standard TCP/IP connections. Moving inward toward the data store there are several layers, such as a robust security layer, information exchange, business services layer, and finally the resource layer, to implement the desired solution.

The conceptual technical building blocks of the UC System solution include:

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- Presentation Services
- Information Exchange and Security
- Business Services
- Resources

Presentation Services: Users can access AWI UC System through different channels such as browser, mobile, smart phones, and IVR.

Information Exchange and Security: This layer provides necessary security access controls and privileges to the users through single sign-on and role management using LDAP-compliant directory servers. Enterprise Service Bus can be used to efficiently reuse existing IT assets within an FL AWI and interconnect them with the broader IT environment to make the most of the existing applications. Self services functionality and collaboration services are also rendered to the users through this portal.

Business Services: This layer externalizes the business rules and enables AWI to achieve the desired agility to meet the policy changes and the changes in business requirements.

Rules Engine: Externalizes the business rules allowing AWI to achieve the desired agility to meet the policy changes and the changes in business requirements

File Services. Includes electronic documents, electronic health records, record management, and archival.

Integration Services. Includes enterprise integration services and enterprise service bus.

Workflow Services. Includes **c**ase management workflow, notifications, and correspondence services.

Web Services. Includes business and technical services to integrate with internal/external systems in order to achieve the desired business functionality

Resources: The Resource layer is responsible for providing all business data (textual and non-textual) from various heterogeneous data sources including legacy databases, relational data sources, electronic document management systems, transactional databases, transactional databases, analytical database like data marts, data warehouses, and external databases.

5.3.1 Proposed Solution - General System Architecture

a. Provide a description of the General System Architecture of the proposed solution. Describe the benefits of this System Architecture and how it supports the objectives of the proposed UC solution.

Team TCS' proposed General System architecture will provide improved self service and case management; business process automation and reengineering; integration with workforce activities; interfacing with internal and external systems; document management and imaging; business rules engine; reporting and so on. It will also provide improved information security, data accuracy, data integrity, data availability, and data maintainability while providing a scalable architecture that accommodates growing demands for the AWI UC System. It will comply with all requirements established in federal and state law. The following exhibit provides the detailed technical capabilities of Team TCS Solution for the AWI UC System.

- Be secure, user friendly, and self-service based, delivering accurate, complete, timely, up-to-date, and secure claims/benefits information, reports, and services for meeting stakeholder needs and expectations
- Meet non-functional requirements, such as performance, reliability, availability, serviceability, localization, portability, maintainability, testability, and extendibility, and retention standards to match the requirements specified by Florida AWI
- Support multiple channels of service delivery, produce accurate statistical recording and reporting
- Use proven technology that is adaptable, scalable, flexible, enduring, and affordable—technology that can be easily maintained
- Bring about increased operational efficiency and effectiveness, improve interactive and business intelligent service enhancements, promote cost savings, provide premier customer satisfaction, and facilitate appropriate fulfillment of the Florida's strategic objectives

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- Be built to make use of SOAs that enables easier collaboration with partners and other agencies and reuse of modules

The key objectives to be realized by the proposed architecture are high capacity, scalability, reliability, recoverability, administrative capabilities, management capabilities, and security capabilities. The software proposed for the AWI UC System is capable of meeting the architecture goals. How the solution meets these goals is depicted in Exhibit 5-65 Response Cross Reference Table.

Exhibit 5-65 Response Cross Reference Table

Goals/ Objectives	Our Solution
Create flexible, integrated UC applications, information, and business processes for the UC Program in order to create operational efficiencies.	♦ Our solution is a "one-stop shop" for all UC information that helps AWI in reducing its staff's effort spent on each UC process. We implemented the similar solution for Mississippi Department of Employment Security ♦ Our solution has functionally rich work item based workflow component to manage complete life cycle of claim processing from claim initiation, determination through claim closure. Also, our solution manages claimant, employers' data ♦ Other capabilities our case management solution o Based on defined workflow and business rules, work items are assigned or re-assigned to the case workers (AWI staff) o Team TCS' solution has an inbuilt notification component which allows prioritized and customized alerts are set to be fired in the event of fault or outage in UC system o Our solution has superior imaging system that helps AWI to share the information seamlessly and eliminates the redundant information o Allow AWI staff to monitor progress of their assigned work and allows AWI supervisors to monitor progress their workers ♦ Our solution is designed in such a way that data is not duplicated across the various applications in the UC System ♦ Our training solution is prepared to meet sired skill levels of AWI staff ♦ Wherever cost-effective and operationally feasible, Team TCS solution eliminates or automates the existing paper UC processes and enhance any existing automated workflows in order to expedite customer transactions and eliminate redundancy ♦ Our solution benefit payment control component that can seamlessly integrate with the adjudication program and collection system in order to improve the detection of fraud. Also, it can integrate with the Department of Revenue's statewide unified tax
Provide a consolidated system with user-friendly search criteria to provide internal and external stakeholders, partners, and the general public with easily accessible, secured and "on demand" access to claims data	♦ Team TCS solution provides self-service capabilities to the authorized claimants, AWI staff and employers ♦ Our solution provides an integrated UC system and supports multiple delivery channels including internet, intranet, IVR, FAX which allows consumers to access the information seamlessly. Also, it allows simultaneous access to data among various users ♦ Team TCS solution is browser-based user interface that conforms industry web development standards ♦ Team TCS solution has data warehouse and reporting capabilities which provides complete and accurate reports to allow AWI to take "informed" decisions

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Goals/ Objectives	Our Solution
	♦ Provide automated data population and cascading of data between input screens to improve productivity and reduce data entry errors ♦ Our solutions LDAP complaint directory server to provide security services, audit trial capabilities
Provide a system that is fully compliant with Federal and State laws and statutes as well as Agency procedures and rules.	Team TCS' solution utilizes the capabilities of its superior rules engine to achieve full compliance with federal and state laws
Provide a state-of-the-art technology system architecture that will effectively support the dynamic application processes and modifications required because of legislative changes and Agency needs.	♦ Our state-of-the-art technology solution has superior case management solution is supported by rules engine to provide the desired agility to AWI in supporting dynamic application processes and modifications required because of legislative changes and Agency needs. With the help of our solution, MDES was able to successfully achieved ARRA compliance in 6 days ♦ Team TCS IVR solution, Call Center solution and CRM solution fully integrated with the UC Central database helps AWI to manage customer information requests through Customer Relationship Management (CRM) functionality ♦ Our solution utilizes the latest proven technologies which have clear roadmap for future upgrades and modifications ♦ Team TCS offers scalable functional and technology platform with an open architecture to support process improvements and system integration requirements of AWI

Considering all the technical and business elements of AWI UC System, Team TCS implements the logical architecture depicted in Exhibit 5-4, which shows all the components involved in the system architecture at a logical level. This Logical Architecture shows the conceptual solution's components in more detail. In accordance with best practices, this architecture is based on layers and offers a component-driven approach. Layers are defined as logical groupings of similar functional components. To make the applications more maintainable and extensible, the application must be divided into highly cohesive, loosely coupled areas of interest, called layers. Proper layering improves reusability and reduces the complexity.

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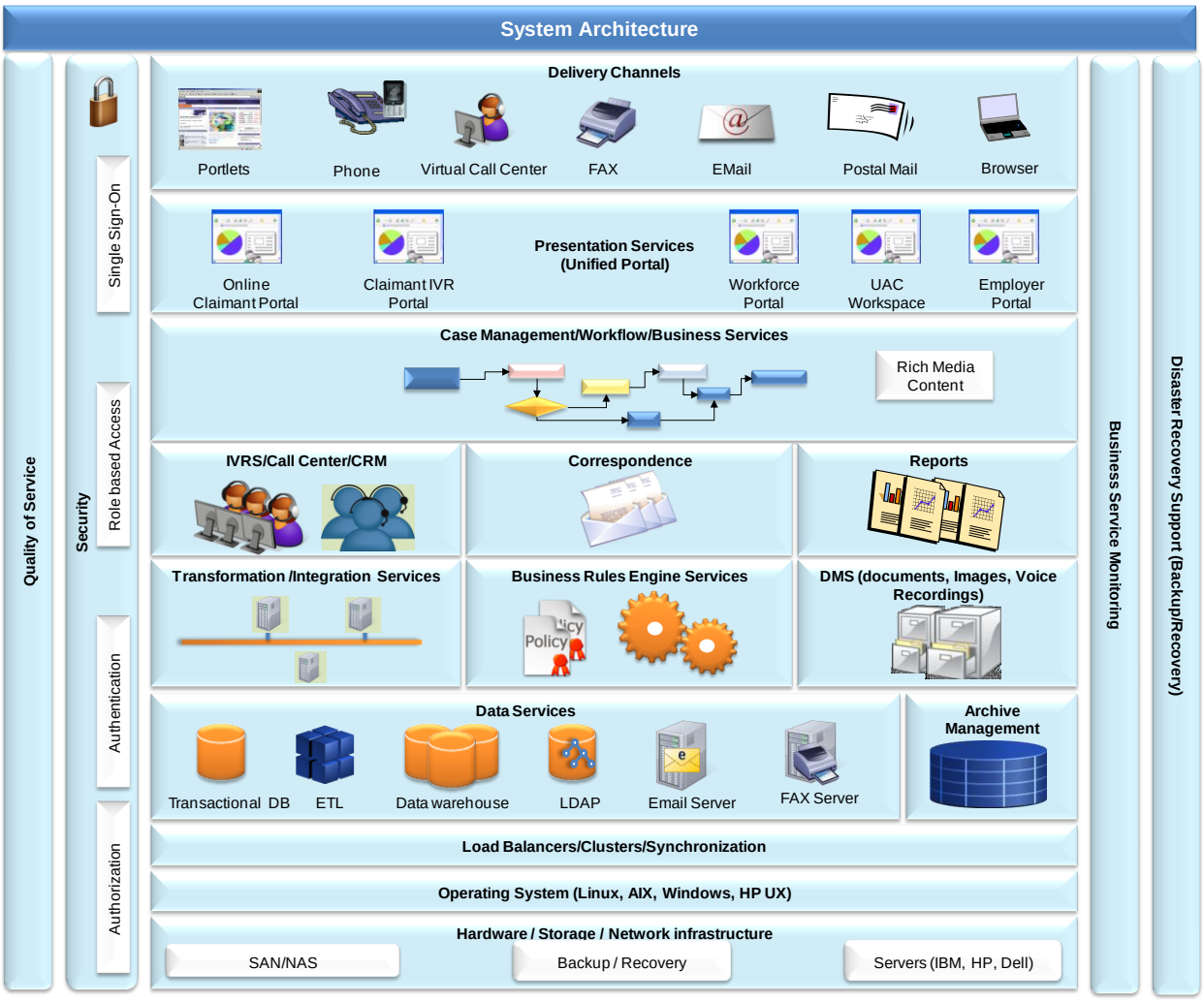

Exhibit 5-66 UC System - General System Architecture

5.3.2 Proposed Solution - Technical Architecture

b. Provide a detailed description of the Technical Architecture for the proposed solution. Describe the benefits of this Technical Architecture and how it supports the objectives of the proposed UC solution.

Team TCS understands the need to modernize AWI's 38 year old legacy system and automate costly, inefficient manual processes. Team TCS' UI Solution to the requirements stated in the Request for Proposal (RFP) will implement the most effective and efficient use of existing and modern technology. Team TCS proposes the technical architecture for the AWI UC system after taking into consideration of the business and technical requirements.

Team TCS' proposed technology solution will provide improved self service and case management; business process automation and reengineering; integration with workforce activities; interfacing with internal and external systems; document management and imaging; business rules engine; reporting and so on. It will also provide improved information security, data accuracy, data integrity, data availability, and data maintainability while providing a scalable architecture that accommodates growing demands for the AWI UC System. It will comply with all requirements established in federal and state law. The following exhibit provides the detailed technical capabilities of Team TCS Solution for the AWI UC System.

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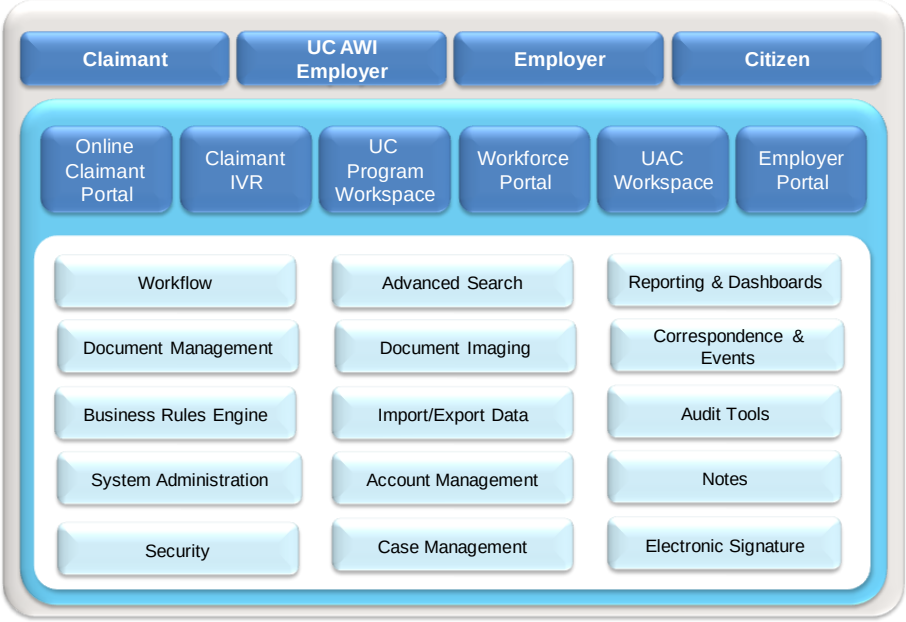

Exhibit 5-67 AWI UC System Technical Capabilities

TCS UI Transfer System is built on industry leading open standards JEE (Java Enterprise Edition) and SOA (Service Oriented Architecture) platforms to provide a modular, efficient and extendable design and segregation of code by process and business function. It eliminates the risks of rigid design, and lack of documentation. It is running on IBM WebSphere product stack such WebSphere application server, WebSphere Process Server, DB2 database and IBM Tivoli Identity management system. Team TCS will enhance the TCS UI Transfer System with proven and industry leading IBM InfoSphere Warehouse, Cognos Reporting, Genesys Interactive Voice Response (IVR), CTI and Contact Center, HP Exstream Correspondence system, IBM iLOG Business Rules Engine, Perceptive Document Management System (DMS) and Perceptive ImageNow imaging solution and so on.

Team TCS solution will bring in the benefits of robust pre-built functionality from TCS UI Transfer System and built-in best practices. The solution will enable AWI to consolidate data and business processes into a single, secure and accessible environment.

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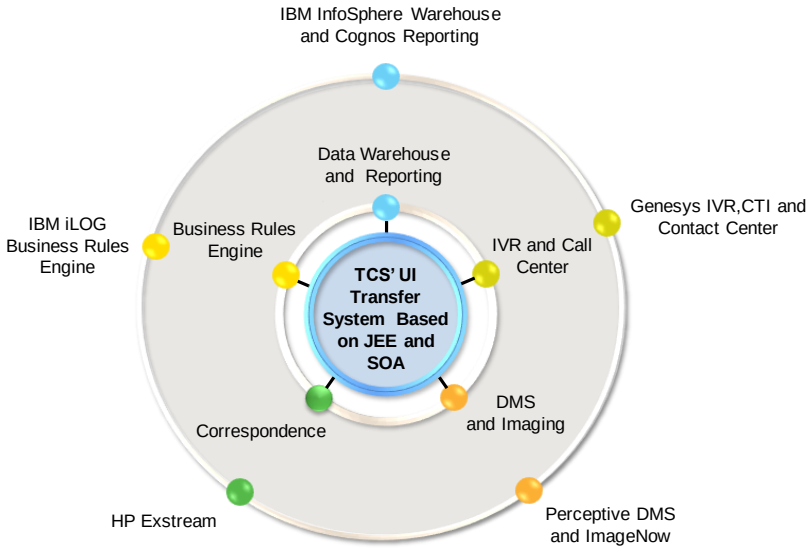

Exhibit 5-68 TCS' UI Transfer System Enhanced With Additional Capabilities

Team TCS will utilize its expertise in implementing similar large Unemployment Compensation projects to plan, assist in UAT and fix the defects early during the UAT of AWI UC System.

Team TCS' solution will meet or exceed all the technical capabilities of AWI UC System. The following Exhibit depicts how the Team TCS' solution will meet these technical capabilities

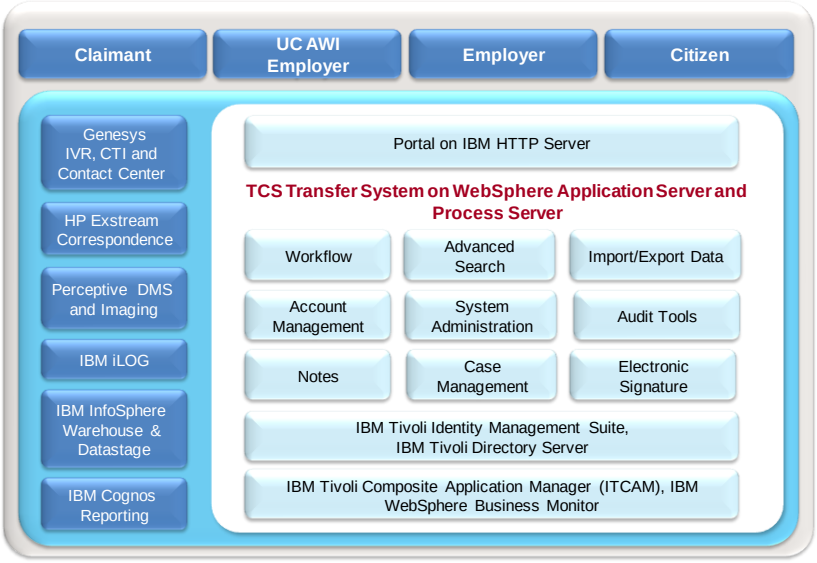

Exhibit 5-69 Mapping of Team TCS' Solution with AWI UC System Technical Capabilities

The technology stack exhibit maps the each technical capability to technical product stack. The following exhibit depicts the AWI UC System technical architecture diagram.

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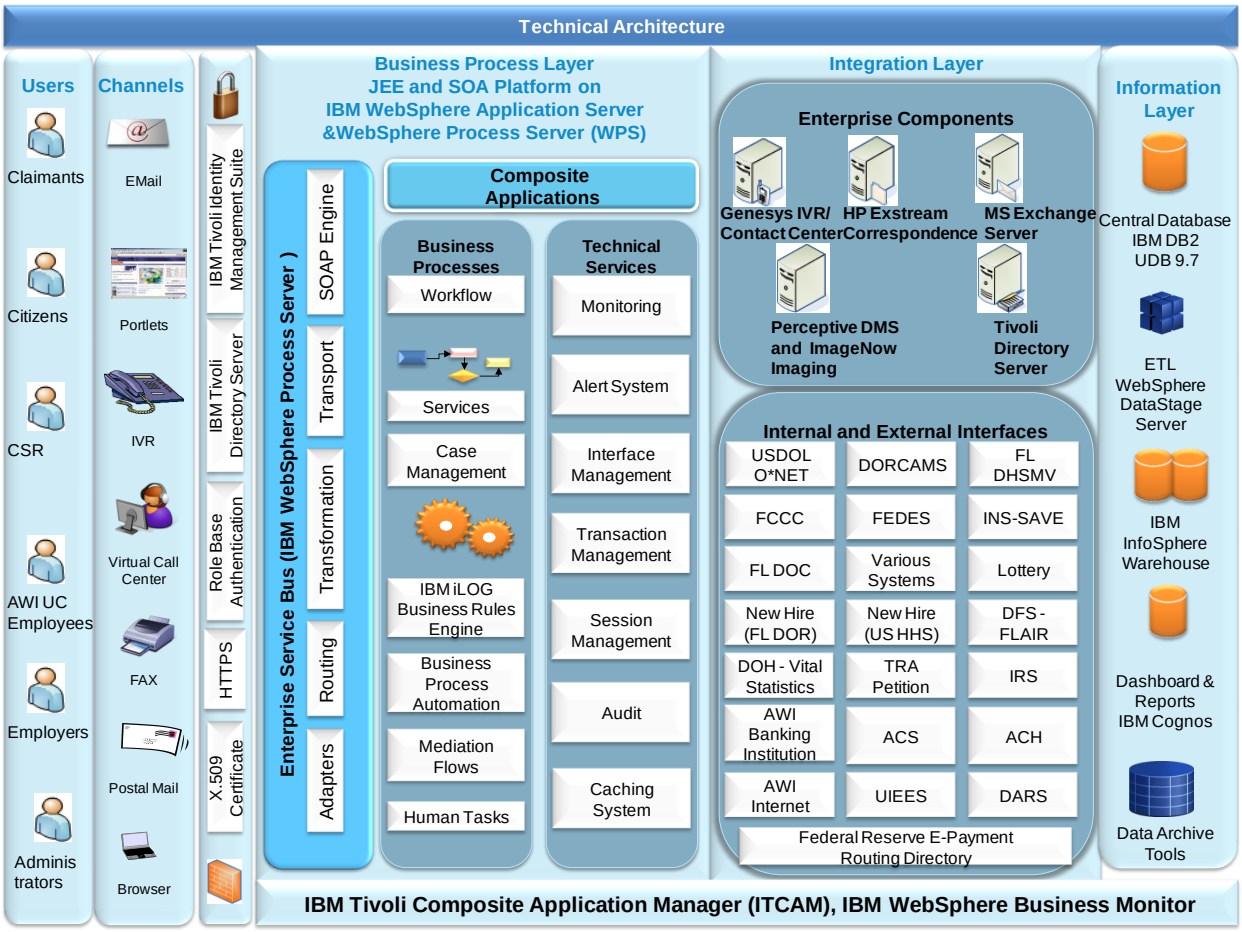

Exhibit 5-70 AWI UC System - Technical Architecture

The following exhibit provides the detailed technical product stack proposed in the technical architecture. It provides the details of the Web Frameworks, Enterprise Scheduler, Address Validation software, Mail Sorting, Spell Check, WYSIWYG and Menu and so on. These are all part of proven and successful TCS Transfer System

Exhibit 5-71 AWI UC System - Technology Stack

Functionality	Technology Stack	AWI UC System Technical Capability
IBM Application Server	IBM HTTP Server	Online Claimant Portal, UC Program Workspace, Workforce Portal, UAC Workspace, Employer Portal, Advanced Search
IVR/CTI/Call Center	Genesys IVR, iWD and Contact Center	Claimant IVR
Single Sign On and Identity Management	IBM Tivoli Identity Management Suite	Security
LDAP Capability	IBM Tivoli Directory Server	Security
Core Business Functionality	IBM WebSphere Application Server	Online Claimant Portal, UC Program Workspace, Workforce Portal, UAC Workspace, Employer Portal, Advanced

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Functionality	Technology Stack	AWI UC System Technical Capability
		Search, Account Management, Case Management, Notes, Electronic Signature
UI Processes Automation, Workflow, Interface with Internal/External Systems	IBM WebSphere Process Server (WPS)	Workflow, Import/Export Data, Account Management, Case Management
Business Rule Engine	IBM iLOG	Business Rule Engine
Customer Relationship Management (CRM)	TCS Transfer System	
Centralized Database	IBM DB2 Universal Database	
ETL	IBM InfoSphere Datastage	
Data Warehousing	IBM InfoSphere Warehouse	
Reporting	Cognos	Reporting and Dashboards
Correspondence & Form Management	HP Exstream	Correspondence and Events
Document & Content Management System (DMS)	Perceptive DMS	Document Management
Imaging Solution	Perceptive ImageNow	Document Imaging
FAX capability	Open Text Fax Server	
Application and System Monitoring	IBM Tivoli Composite Application Manager (ITCAM), IBM WebSphere Business Monitor	Security
Digital Certificates	Verisign	Security
Web Frameworks	Struts, Spring & Hibernate Frameworks	
Scheduler	Quartz Enterprise Scheduler	
Address Validation	Universal Coder	
Mail Sorting	Mailstream Plus	
Spell check	Rapid Spell	
WYSIWYG HTML editor	pinEdit	
Menu	Ultimate Drop Down Menu (UDM)	

TCS Core UI Transfer system The users for this system will be Claimants, Employers, Customer Service Representatives (CSR), AWI Employees, Administrators, and Citizens.

The channels for this system are Web, Voice, Mail or Fax and these are delivered by web browser, IVR (Interactive Voice Response), Call Center, Email, FAX, respectively. The established and authorized users of the application will perform Claims Intake, Tracking and other functions of the UC Application through these channels.

The architecture uses Web server (IBM WebSphere HTTP Web Server) which handles the request and response of the system from multiple channels. This also hosts the static files like images, HTML, JS, CSS, etc to provide

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responses with faster performance. The web server also has security agents/ plug-ins to handle the security tokens and re-direct to appropriate security component for the security services.

The application framework for the presentation layer which is used in the architecture is Struts framework to provide benefits like inbuilt support for quick user interface development, navigation, session and object management, validation and error management, internationalization, etc.

Once the user places a request for a web page it interacts with the presentation layer after successfully passing through the security layer. The Presentation Layer consists of various GUI components (including JSP, WML, XML, XSL, HTML, JS, Images, CSS, FLEX, etc) which will be responsible for data/ content display, data entry and validations. Depending upon the nature of the transaction and the functionality, the request will interact with the business component layer.

The Web server will interact with Application server (IBM WebSphere Application Server) which will provide the necessary JEE environment and services to support layers and components of the system. Access to the application and its functionality is driven by the security layer and services like authentication, authorization, custom SSO, session management, etc. The application sever security framework along with the custom code like login modules, etc will be used and leveraged to provide security to the application.

The Business Layer will be implemented by EJBs, POJOs, Spring Managed Beans, Java Beans, JTS, etc which will be responsible for completing a business process and handling business logic including validations, computations, decisions and so on.

If a request needs business data for its decision/ calculation then it invokes the integration layer. The integration layer consists of various components including DAOs, DTOs, JDBC, etc which will be responsible for database connection, maintenance, querying or any object relational mapping. The data access layer interacts with the database layer where all the databases/ schemas reside to provide the business data to the application and to update the same appropriately.

Enterprise Service Bus using IBM WebSphere Process Server (WPS) provides Business services and transaction services. These services are classified as case management services, business process automation, workflow . It provides complete automation of the current UC processes that span people, workflows, applications, systems, platforms, and architectures. It also benefits the AWI UC System with standard based interfacing with internal and external interfaces. The Business process execution language will be used to define work flows.

If the user request needs more functionality from any of the interfaces then accordingly the integration system will be invoked through their own integration mechanism. The architecture also provides common services like logging, exception handling, session management, and so on.

Security

Team TCS' solution will provide a comprehensive security system to implement the security to the system, its business data and functionality. It will provide encryption and security at all layers of the architecture, application, data, and communication stacks. At the physical level, AWI US System will work with firewalls and reverse proxy servers as required. All the communication will be encrypted using HTTP over SSL (HTTPS) when the user access the AWI UC System through the Internet. Team TCS' approach for AWI UC System security is depicted in the following exhibit.

Team TCS solution security architecture is highlighted as follows:

- Layered protection of application - "bank vault" model – no single point of failure;
- Strict adherence to industry standards across all layers and technologies;
- Authentication and Authorization;
- Secure processes -hardening guides, vulnerability testing, secure coding practices; and
- Role Based Access Control (RBAC) model.

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Functional Security

Functional Security is provided through the Role Based Access Control model. Team TCS' solution will provide the capability for system administrator to create, manage function(s), role(s), and user. System admin can assign or revoke roles to users based on the business requirement.

Single Sign On

Single Sign On (SSO) capability will be provided by using the IBM Tivoli Directory server. SSO capability is provided only for the web-based systems. This would ensure the integrated access to all applications. IBM Tivoli directory server is LDAP V3 compliant and it uses DB2 database as the underlying data store. IBM Tivoli Directory Server will contain users identities and credentials, users profiles, users preferences and applications authorization policies. All the data inside the LDAP is encrypted. Also the key information related to claimant like SSN, credit card number which is stored in database is encrypted.

Infrastructure Security

The application server, database server and sub system servers will be protected by an inner firewall. The WebSphere Edge Components load balancer will be placed in the De-militarized zone (DMZ), which is a layer between the outer firewall and the inner firewall.

Information Encryption

For information encryption across the web, SSL protocol. SSL accelerators from Cisco will be used for the encryption and decryption of the transactions between the users and the system. The proposed solution will be using X.509 certificate technique as the security mechanism for communicating with web services. The URL for the web service will be HTTPS URL which secures any data transmission by encrypting it.

Business Data Encryption

The sensitive data that is required to be encrypted, as per the business requirements will be making use of the Java Cryptography encryption/decryption method to store these values in the database.

Auditing

Audit trails will be maintained in the system using the industry leading Log4j logging framework. For all the transaction records in the database the following information will be maintained irrespective of any other auditing facility:

- Created By
- Date of Creation
- Last Modified By
- Date of Last Modification

Language Support

Team TCS' solution for AWI UC System will present all screens to external customers in their preferred language i.e., English, Spanish, Creole. The customer can select any of the languages in these 3 languages in IVR. Correspondence will also be available in English, Spanish, Creole.

American Disabilities Act (ADA) Compliance

Team TCS' solution's user interface and correspondence will be ADA compliant and follow Section 508 standards and the W3C's web content accessibility guidelines.

Printing

Team TCS' solution for AWI UC System with HP Exstream correspondence & forms management system, will produce bulk correspondence, forms and other documents suitable for printing, folding, stuffing and mailing. The TCS solution will produce outbound documents that meet established State mailroom standard formats and mailing regulations.

Faxing

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TCS proposes Perspective Faxing feature for Fax capability in AWI UC System. Perspective Faxing server integrates with HP Exstream correspondence & form management system and Perceptive DMS using Java APIs. With this integrated Fax capability, AWI UC System will accept documents and images directly through Fax and also distribute form or correspondence information through Fax.

E- Mailing

Team TCS' solution for AWI UC System will use HP Exstream and Java Mail API for interfacing with AWI's MS Exchange Server for sending/receiving the documents via e-mail.

Menu & Editing

Team TCS' solution for AWI UC System will be integrated with UDM software for providing better menu view and easy scrolling capabilities . It will be integrated with PinEdit software to provide easy screen editing functionality. The built in style editor in PinEdit will help for inline styles and provide a word processor view in the screen for bigger text areas.

Caching Solution

Team TCS' solution for AWI UC System will use caching solution OSCache from OpenSymphony. It is a widely used, high performance J2EE caching framework.

Messaging and Alert System

Team TCS' solution will have an event monitor. As soon as a business function registered with messaging service is executed, a message queue will be updated storing details of business function and context in which the message was executed. Team TCS' solution will use the Java Message Service (JMS) provided by the J2EE container of the IBM WebSphere application server.

Transaction Management

Team TCS' solution for AWI UC System will make use of the transaction management services provided by IBM WebSphere application server.

Exception Handling

Team TCS' solution for AWI UC System will use the exception handling mechanism of the TCS Transfer System

IVR, CTI and Call Center

Team TCS will use Genesys solution to manage IVR, CTI and Call Center requirements.

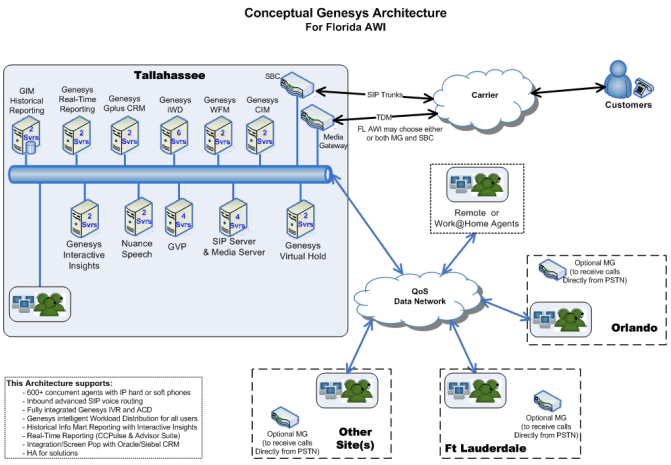

Exhibit 5-72 Call center Architecture

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Correspondence Management

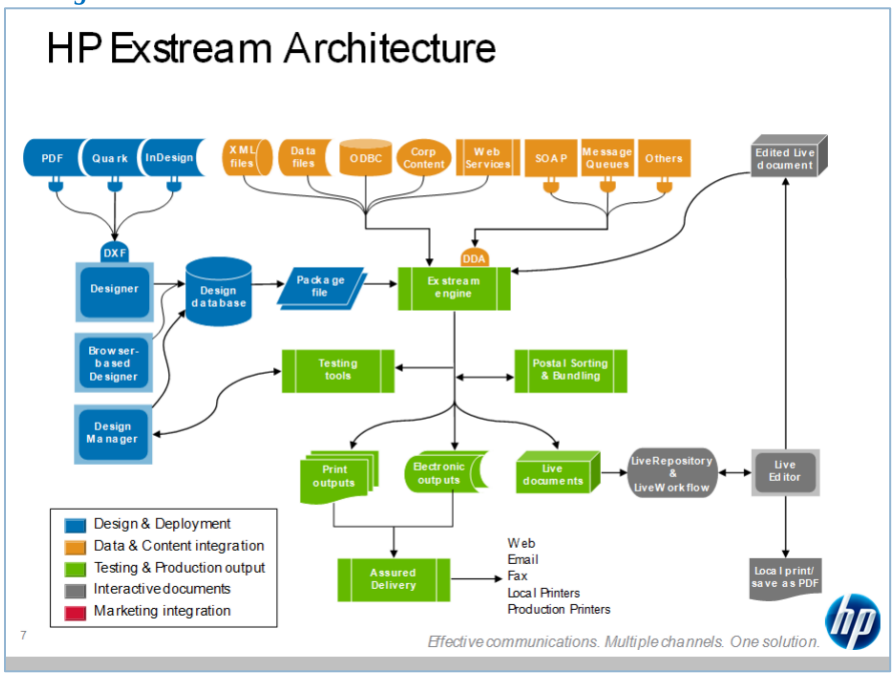

Exhibit 5-73 HP Exstream Architecture

HP Exstream Architecture above provides a bird's eye view of the entire HP Exstream solution offering. All users interact with HP Exstream through the Designer and the Design Manager, which are connected to the Design database. After being designed, document applications are packaged for production and processed by the HP Exstream engine.

The next step is to move from the design environment to the production environment for processing by the HP Exstream engine. With the engine, various capabilities are available for high-volume, on-demand, and interactive delivery. Sorting and bundling capabilities let s organizations group document applications to reduce print/mail costs. Testing tools lets organizations easily review documents to ensure changes are made and that documents will output correctly. HP Exstream has capabilities to deliver to virtually any output channel, and the assured delivery and output management capabilities provide advanced delivery options and enable organizations to confirm delivery to nearly any destination.

HP Exstream can pull content from virtually any data source, including legacy systems and web services, as well as ECM, CRM, and other applications, and it can receive data through web systems to create on-demand or interactive documents. HP Exstream interactive documents provide users with a controlled, interactive editing experience. Live document applications are created in the same design environment as other standard HP Exstream document applications, and leverage all HP Exstream content integration and delivery capabilities

Document Management System (DMS) and Imaging

Team TCS will use Perceptive solution to manage document management and imaging requirements.

Benefits of Team TCS' Technical Architecture

Exhibit 5-74 – Benefits of System

AWI UC System Objective	Team TCS' Solution	Team TCS Technical Architecture's Advantages
Eliminate or automate existing paper processes	TCS' solution proposes WebSphere Process Server for business process	♦ Proven TCS Transfer System automates

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AWI UC System Objective	Team TCS' Solution	Team TCS Technical Architecture's Advantages
and enhance any existing automated workflows	automation.	most of the AWI UC System's business processes. ♦ Reduces the UC staff time on UC activities. ♦ Provides better productivity, claimant satisfaction and replaces the expensive manual processes. ♦ Ensures that UC System easily adapts business processes to reflect changing circumstances, such as changes in law or program policy. ♦ Ensures timely resolution of disputed claim payments resulting in higher employer tax rates. ♦ Avoids knowledge progression crisis. ♦ Makes the resource assignments and re-assignments for required work based on the process flow.
Modernize aging and inflexible 38-year old UC system	Team TCS' solution proposes the state of the art cutting edge technologies based on industry leading JEE, SOA (WebSphere) platform and other industry leading technologies.	♦ Avoids one-off solutions, ♦ Supports staff with the tools they need to do their jobs. ♦ Reduces the risk of aging and retiring work force. ♦ Avoids knowledge progression crisis. ♦ Antiquated technologies that are inherently rigid, will be modernized with latest cutting edge technologies. This makes the maintenance of the UC System is hassle free. ♦ Reduces the cost of doing business for AWI. ♦ Avoids manual work-arounds to get the job done. ♦ Mitigates the risks associated with operating and supporting outdated technology
Provide one centralized system	Team TCS' solution is a centralized system with a centralized database. It integrates with all the required internal and external systems using WebSphere Process Server.	♦ Ensures that the UC staff access one single centralized integrated system. ♦ Avoids the pain of accessing as many as 16 applications to complete UC staff job.
Better integration with	Team TCS' solution proposes WebSphere Process Server for	Ensures that the UC staff access one single

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AWI UC System Objective	Team TCS' Solution	Team TCS Technical Architecture's Advantages
workforce activities	integration with internal and external systems.	centralized integrated system.
Scalable to ever increasing unemployment claim volumes	Team TCS has carefully chosen all solution components in such a way that there are no hard limits for any of the components. All software components support scalability either by adding more hardware resources to the existing servers (vertical scalability) or by adding more servers to the solution (horizontal scalability).	Ensures that UC System scales up to the requirement.
Better infrastructure	Team TCS' proposed infrastructure offers better scalability, maintainability features and also provides green features such as less power consumption, less heat.	Avoids the ever increasing risk of infrastructure failure.
100% Internet Claims	Team TCS' solution's comprehensive Genesys IVR and JEE based self service portal with better usability, will ensure that AWI UC System meet this objective.	♦ Reduced call volume. ♦ Reduced number of phone lines.
Increase No Touch Claims	Team TCS' solution's comprehensive Genesys IVR provide improved IVR. JEE based self service portal with better usability, business process automation and interface connectivity through IBM WebSphere Process Server will provide improved Internet claims interface and business logic. It will also provide improved filtering of non-claims and improved accuracy of initial claims.	♦ Reduced time spent fact finding. ♦ Reduced $ amount and number of overpayments. ♦ Reduced number of adjudicated claims. ♦ Reduced number of appeals. ♦ Reduced postage and handling costs.
Reduce Non-Fraud Overpayment	Team TCS' solution will provide reduced adjudication & appelas cycles through the use of industry leading Perceptive ImageNow & Document Management System and IBM WebSphere Process Server. It will also provide online overpayment collections through the online interfacing functionality of WebSphere Process Server. It will also provide improved data accuracy and improved electronic cross-matching.	♦ Reduced $ amount of overpayments. ♦ Increased interest revenue due to reduced trust fund disbursements. ♦ Decreased time spent on adjudication activities. ♦ Decreased time spent on appeals activities. ♦ Reduced time and money spent on collections activities. ♦
Focus on Re-	Team TCS' solution will provide better workforce integration through	♦ Reduced average claim duration.

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AWI UC System Objective	Team TCS' Solution	Team TCS Technical Architecture's Advantages
Employment	WebSphere Process Server.	♦ Reduced trust fund disbursement.
Utilize Electronic Communication	Team TCS' solution will provide improved electronic interfaces through WebSphere Process Server. It will provide use of imaging workflow through Perceptive ImageNow & Document Management System. It will also provide increased use of e-mail through HP Exstream Correspondence system integration with AWI's MS Exchange server. It will also make Internet portal primary means of communication by providing JEE based self service portal with better usability. It will provide the improved case management capabilities using TCS Transfer System's inbuilt functionality.	♦ Reduced rework. ♦ Reduced process cycle time. ♦ Reduced postage, handling and printing costs.
Enable online, self-service access	Team TCS' solution proposes HTTP and WebSphere Application Servers to provide self service to all Internet and Intranet users	This reduces the dependency on AWI staff for filing claims, tracking and so on. This also ensures timely resolution of disputed claim payments resulting in higher employer tax rates.
Integrate benefit payment control with the adjudication program and collection system	Team TCS' solution proposes WebSphere Process Server for integration with internal and external systems	Improves the detection of fraud.
Comply with all requirements established in federal and state law	Team TCS' solution proposes WebSphere, HP Exstream, Cognos reporting solutions.	Ensures the compliance of UC System with federal and state laws thus avoiding any penalties.
Provide better design and documentation	Team TCS' solution follows well known standard JEE, SOA design patterns which helps to design a cohesive and low coupled system. It also proposes to use Rational Unified Process and follows AWI' phase gate methodology. It provides better documentation to maintain the UC System.	♦ Avoids rigid design, and lack of documentation. ♦ UC System can be expanded without impacting existing components.
Integrate with the Department of Revenue's state wide unified tax system	Team TCS' solution proposes WebSphere Process Server for integration with internal and external systems.	Ensures collection of unemployment compensation taxes.
Create flexible,	Team TCS' solution is a centralized and	♦ Ensures that the UC staff access one

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AWI UC System Objective	Team TCS' Solution	Team TCS Technical Architecture's Advantages
integrated UC applications, information, and business processes	integrated system with a centralized database. It integrates with all the required internal and external systems using WebSphere Process Server.	single centralized integrated system. ♦ Avoids the pain of accessing as many as 16 applications to complete UC staff job.
Implement a case management system	Team TCS' solution has the proven and mature case management solution inbuilt in TCS Transfer System.	Provides one-stop shop for all UC information and reduce the staff time spent on each UC process.
Provide an alert system	Team TCS' solution has the proven and mature alert system based on Quartz Scheduler and JMS inbuilt in TCS Transfer System.	♦ Alerts on system or application faults or outages. ♦ Brings important items to the worker's attention.
Provide an integrated imaging system	Team TCS' solution proposes industry leading Perceptive ImageNow for integrated imaging system.	Allows all areas of the organization to share information quickly and effectively while providing the technical capabilities to identify and remove duplicative information
Allow staff to monitor their assigned work and allow management to monitor assigned work to their workers	Team TCS' solution proposes industry leading Genesys platform for IVR,ACD,CTI and Call Center.	Ensures the monitoring of staff and activities.
Eliminate duplicative data entry between disparate systems or within the same system	Team TCS' solution proposes SOA based centralized system.	♦ Avoids duplicate data. ♦ Enhances the productivity.
Provide staff training	Team TCS' solution proposes sufficient training as required by AWI.	Avoids knowledge progression crisis.
Provide a consolidated system	Team TCS' solution is a centralized and integrated system. Both Internet/Intranet and IVR users access the same information from a consolidated system.	♦ Provides user-friendly search criteria. ♦ Allows customers access to information through the Internet and IVR system.
Provide immediate access to data and provide access to comprehensive data	Team TCS' solution proposes industry leading DB2 database, Infosphere Warehouse, ETL Datastage and IBM Cognos reporting solutions.	♦ Supports decision-making processes ♦ Provides complete and accurate trend analysis and statistical reporting.
Provide report customization capabilities	Team TCS' solution proposes industry leading IBM Cognos for reporting.	Provides report customization.
Provide a browser-based interface conforming to industry web development standards	Team TCS' solution proposes to use proven industry leading JEE technologies for user interface.	Conforms to industry web development standards.
Provide automated data population and	Team TCS' solution proposes to use proven industry leading JEE	Improves productivity and reduce data entry

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AWI UC System Objective	Team TCS' Solution	Team TCS Technical Architecture's Advantages
cascading of data between input screens	technologies.	errors.
Provide simultaneous access to data among various users	Team TCS' solution proposes industry leading DB2 database. Uses Transaction Management of WebSphere Application Server.	Ensures simultaneous access to data among various users.
Improve security	Team TCS' solution proposes IBM Tivoli Directory Server, Tivoli Identity Management, HTTPS, X.509 Certificates, firewalls, Java Cryptography and 256 bit encryption.	Ensures security at all levels.
Increase audit trail capabilities	Team TCS' solution has inbuilt audit capabilities based on Log4J, WebSphere Process Server.	Provide better audit functionality.
Utilize an accessible and flexible business rules engine	Team TCS' solution proposes industry leading IBM iLOG Business Rules Engine.	Provides accessible and flexible business rules engine.
Integrate IVR and Internet applications	Team TCS' solution is a centralized and integrated system. Both Internet/Intranet and IVR users access the same information from a consolidated system.	♦ Allows customers access to information through the Internet and IVR system. ♦ Ensures IVR and Call Center use the UC integrated database DB2 and the business objects. ♦ Eliminate duplication of technology.
Provide integrated Customer Relationship Management (CRM) functionality	Team TCS' solution has inbuilt CRM functionality. This will be integrated with IVR and Call Center.	♦ Manages customer information requests thru CRM which is integrated with IVR and Call Center. ♦ Uses the UC integrated database DB2 to manage customer information requests.
Provide a scalable platform with an open architecture	Team TCS' solution is based on industry open technologies JEE and SOA.	♦ Supports process improvements and system integration requirements. ♦ Provides Web Based Architecture.

With the above mentioned benefits, Team TCS' solution will provide better AWI UC System eliminating the current challenges and meeting AWI's objectives resulting in cost savings and better customer satisfaction for AWI.

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5.3.2.1 Deployment Architecture

The proposed deployment architecture is built on the green datacenter concept which consolidates the servers into few boxes reducing the overall power consumption, cooling requirements and also the data center space while reducing the associated infrastructure management costs.

Team TCS has carefully chosen the server models in order to achieve the above objectives. The solution is built around IBM's latest Power 7 processor based p-Series servers and IBM's x-Series Intel Servers (mix of standard and blade servers).

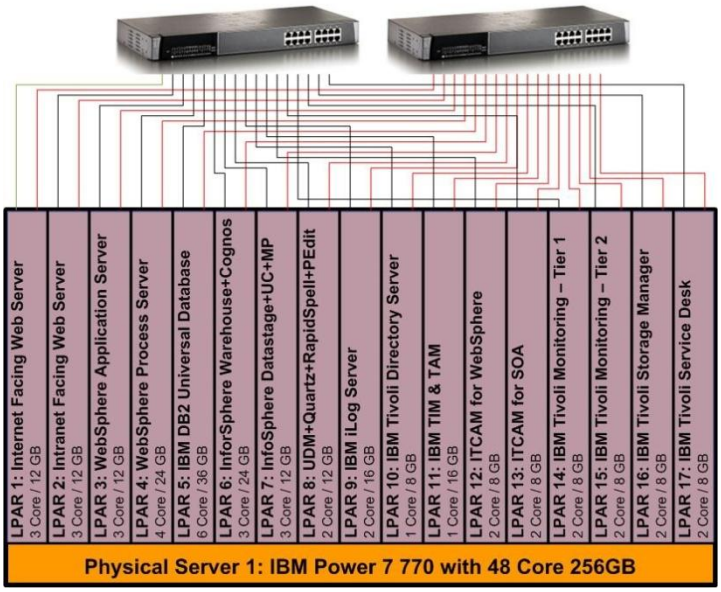

Exhibit 5-75 Indicative organization of the proposed blade servers

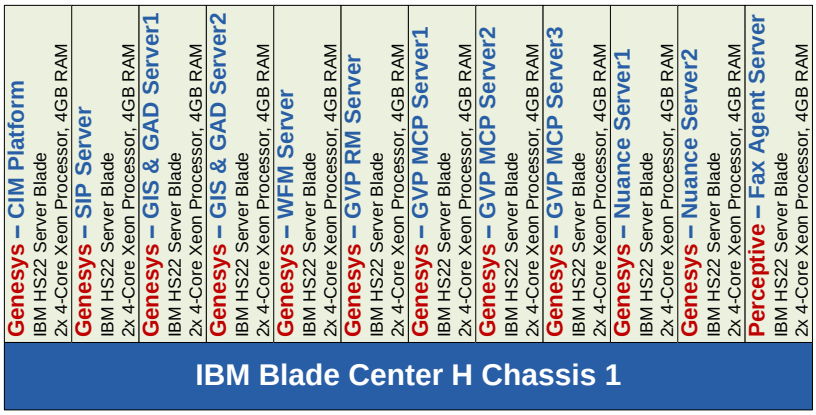

Exhibit 5-76 IBM Blade Server Configuration

Exhibit 5-75 Indicative organization of the proposed blade servers represents the indicative logical partition (LPAR) organization in the proposed IBM P770 server. The physical server is divided logically into 17 LPARs, each hosting a specific solution software component. The LPARs are fully isolated from other LPARs in the physical server and acts as if it is a unique physical server. Each LPAR is connected to two network switches to provide redundancy. High availability is achieved by having a second P-770 server with similar LPAR configuration.

Exhibit 5-75 Indicative organization of the proposed blade servers represents the indicative organization of the proposed blade servers. IBM Blade Center H Chassis is a 9U rack-optimized chassis and can accommodate up to 14 server blades such as IBM HS22 server blades proposed in the solution.

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Production Environment

Error! Reference source not found. represents indicative deployment architecture for the production nvironment infrastructure.

The proposed production environment consists of IBM servers running both UNIX (IBM AIX & Redhat Linux) and Windows operating systems.

The TCS transfer system software components that run on IBM AIX operating system are consolidated into two IBM p-770 servers. The two servers will provide the required high availability for the new UC solution.

The solution components which are part of Genesys Call Center solution, HP Exstream correspondence management solution and Perspective's document management system run on Windows Server operating system with an exception to Genesys Call Recording server which runs on Redhat Linux operating system.

Isolation of web servers from the remaining servers running application components and database improves the security. As all traffic coming from both Internet and Intranet is passed through the perimeter and internal firewalls, all unwanted traffic can be filtered at the firewalls.

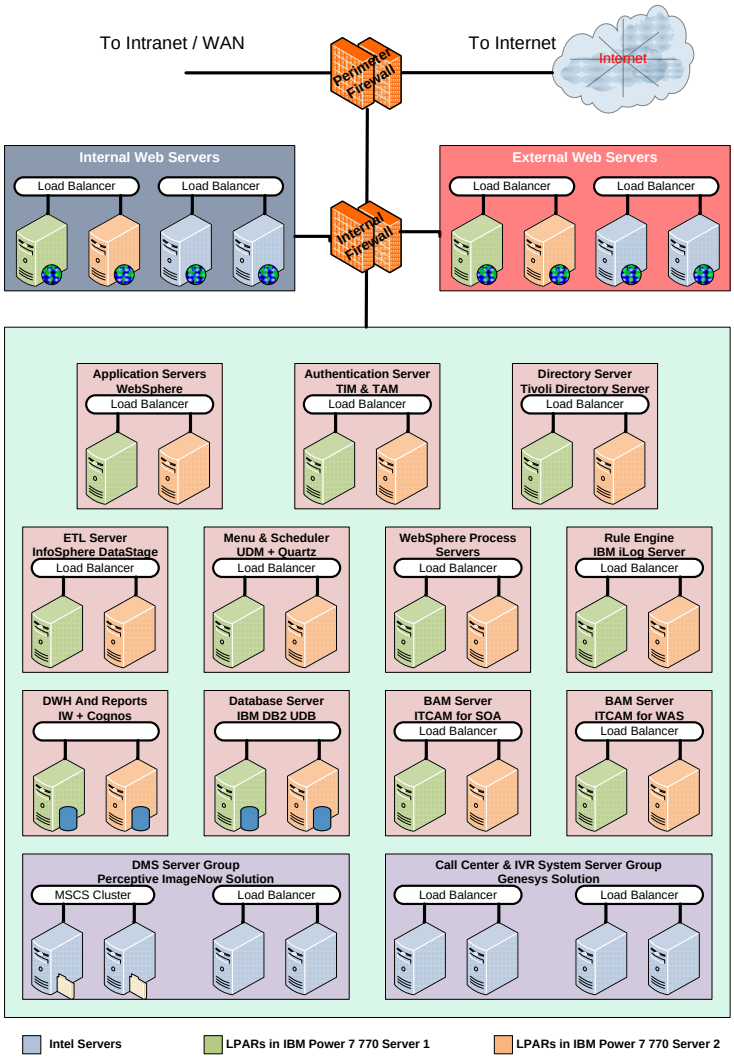

Exhibit 5-77 – AWI UC Deployment Diagram

Non-production Environments

In addition to the production environment, Team TCS proposes the following non-production environments:

Exhibit 5-78 – Non-Production Environments

Sl. No.	Environment	Purpose	Location
1	Staging	Staging environment is a scaled-down version of the production environment and will be configured similar to production environment including high availability.	SSRC Data Centre

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Sl. No.	Environment	Purpose	Location
		• Staging environment will be used to test the new UC solution and any further changes before being deployed on the production environment. • This environment will also be used for simulating the production problems during maintenance period. • This environment will also be used for performance/stress testing	
2	Testing	This is a scaled down version of the production environment without high availability. This environment will be used for testing the new UC solution during – • Integration testing • User acceptance testing	SSRC Data Centre
3	Development + Training	This environment will be used for system testing and also for training purposes.	SSRC Data Centre
4	Development	This will be used by Team TCS for developing the new UC solution.	TCS Development Centre

5.3.3 Functional Requirement Mapping With Proposed Solution

c. From a technical perspective, describe how the proposed solution will satisfy the functional requirements of the proposed UC solution as specified in the System Requirements Matrix (Refer to Attachment Q). As stated before, in order to facilitate the evaluation of responses, responses shall be organized to align with the following major business functions and the related sub-functions as identified in 1.a above: Claims, Appeals, Benefit Payment Control, and Adjudication.

Sr#	Business Process	Technology Stack	Usage
1	File Claim (initial, reopen, additional)	Workflow Services and Rules Engine -IBM WebSphere Process Server and IBM iLOG Business Rules Engine	For Workflow Automation for creating a item for Adjudicator
		Correspondence - HP Exstream	To design and generate the correspondence like separation letter to employer, benefits right information to claimant (BRI).
		Mail Sorting - MailStream Plus	For sorting the correspondence in batch generation.
		Document Management System (DMS) - Perceptive DMS	For storing the generated correspondence in claim filing process in system.
		Claimant Record Validation - SSA Webservice	To access the claimant record for validation while filing claim.
		Case Management – TCS UI Transfer System & WebSphere Process Server	For creating a case once claim is filed in system.
		Address Validation-Pitney Bowes Address Validation Solution	To validate the claimant address during claim filing.
		Scheduling - Quartz Enterprise	To schedule the batches to generate the claimant

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Sr#	Business Process	Technology Stack	Usage
		Scheduler	related correspondence and other related batches.
	File Claim (IVR)	Claim Thru IVR - Genesys IVR System	For filing a claim using IVR system.
	File Weekly Certification (IVR)	Weekly Certification thru IVR - Genesys IVR system	For filing a claim weekly certification using IVR system.
	Process Claim	Workflow Services and Rules Engine -IBM WebSphere Process Server and IBM iLOG Business Rules Engine	To handle the workflow during the process of a claim.
		Correspondence - HP Exstream	To design and generate the correspondence like decision letters or letter for requesting the wages from claimant/employer.
		Mail Sorting - MailStream Plus	For sorting the correspondence in batch generation.
		Document Management System (DMS) - Perceptive DMS	For storing the generated correspondence in claim filing process in system.
		Case Management – TCS UI Transfer System and WebSphere Process Server	For creating a case once claim is filed in system
		Scheduling - Quartz Enterprise Scheduler	To schedule the batches to generate the claimant related correspondence and other related batches.
2	Adjudication	Workflow Services and Rules Engine -IBM WebSphere Process Server and IBM iLOG Business Rules Engine	Work item will be created if any issue is created while filing a claim. This work item will be then processed by the adjudicator.
		Correspondence - HP Exstream	To design and generate the correspondence like decision letters once adjudicator finalize the decision.
		Mail Sorting - MailStream Plus	For sorting the correspondence in batch generation.
		Document Management System (DMS) - Perceptive DMS	For storing the generated correspondence in claim filing process in system.
		Case Management – TCS UI Transfer System and WebSphere Process Server	To update the details of case which has been created while claim filing.
		Scheduling - Quartz Enterprise Scheduler	To schedule the batches to generate the claimant related correspondence and other related batches.
3	File Appeal	Correspondence - HP Exstream	To design and generate the correspondence like acknowledgement letter to claimant etc.
		Mail Sorting - MailStream Plus	For sorting the correspondence in batch generation.

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Sr#	Business Process	Technology Stack	Usage
		Document Management System (DMS) - Perceptive DMS	For storing the generated correspondence in appeal filing process in system.
		Case Management – TCS UI Transfer System & WebSphere Process Server	For creating a case once claim is filed in system
		Scheduling - Quartz Enterprise Scheduler	To schedule the batches to generate the claimant related correspondence and other related batches.
	File Appeal (IVR)	File Appeal Thru IVR - Genesys IVR System	For filing an appeal using IVR system.
	Review and Schedule Appeal	TCS UI Transfer System	Automatic and Manual scheduling of an appeal.
		TCS UI Transfer System	UC Referee Leave Maintenance.
		Correspondence - HP Exstream	To design and generate the correspondence like notice to claimant and associated parties pertaining to a particular claimant/employer.
		Case Management – TCS UI Transfer System & WebSphere Process Server	For updating the case information.
		Mail Sorting - MailStream Plus	For sorting the correspondence in batch generation.
		Document Management System (DMS) - Perceptive DMS	For storing the generated correspondence in appeal scheduling process in system.
		TCS UI Transfer System	Appeal Maintenance such as: • Consolidate Appeal • Withdraw Appeal • Add Party • Delete Party • Delete Appeal • Add Documentation • UC Referee Work Time management
	Issue Decision	TCS UI Transfer System	Different Type of decision handled by TCS UI Transfer System such as: • Dismiss Appeal • Timely Decision • Not Timely Decision • Modify Decision • Affirm Decision • Reverse Decision • Remand for Information • Remand for Decision
		Correspondence - HP Exstream	To design and generate the correspondence for different appeal sub processes such as: • Dismissal Letter

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Sr#	Business Process	Technology Stack	Usage
			• Withdrawal Letter • Decision Letter • Remand Letter
		Case Management – TCS UI Transfer System & WebSphere Process Server	For updating the case information.
		Mail Sorting - MailStream Plus	For sorting the correspondence in batch generation.
		Document Management System (DMS) - Perceptive DMS	For storing the generated correspondence in appeal decision process in system.
		Scheduling - Quartz Enterprise Scheduler	To schedule the batches to generate the claimant related correspondence and other related batches.
4	Benefits Payment Control (Identify Overpayment)	TCS UI Transfer System	Different Types of cross matches to identify the overpayment handled by TCS UI Transfer System such as NDNH Cross match, Wage Cross match and so on.
		Correspondence - HP Exstream	To design and generate the correspondence for different sub processes such Wage Request Letter, Audit Letter and so on.
		Case Management – TCS UI Transfer System & WebSphere Process Server	For updating the case information for a claimant.
		Mail Sorting - MailStream Plus	For sorting the correspondence in batch generation.
		Document Management System (DMS) - Perceptive DMS	For storing the generated correspondence in identify overpayment process in system.
		Scheduling - Quartz Enterprise Scheduler	To schedule the batches to generate the claimant related correspondence and other related batches.
	Benefits Payment Control (Manage Overpayment)	TCS UI Transfer System	TCS UI Transfer System enables user to handle different activities such as: • Automatic Establishment of Overpayment • Manual Establishment of Overpayment • Modification of Overpayment • Apply Payment • Maintain IRORA overpayment
		Case Management – TCS UI Transfer System & WebSphere Process Server	For updating the case information for a claimant.
		Scheduling - Quartz Enterprise Scheduler	To schedule the batches related to overpayment establishment.
	Benefits Payment Control	TCS UI Transfer System	TCS UI Transfer System enables user to handle different activities such as:

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Sr#	Business Process	Technology Stack	Usage
	(Collect Overpayment)		• Enter Payment • Refund Payment • Generate Warrant Manually • Generate Warrant Automatically • Maintain Bankruptcy • Maintain warrant • Maintain Garnishment and Process Cost
		Correspondence - HP Exstream	To design and generate the correspondence for different sub processes such as: • Warrant • Garnishment for Employers • Bankruptcy letter etc...
		Case Management – TCS UI Transfer System & WebSphere Process Server	For updating the case information for a claimant.
		Mail Sorting - MailStream Plus	For sorting the correspondence in batch generation.
		Document Management System (DMS) - Perceptive DMS	For storing the generated correspondence in appeal decision process in system.
		Scheduling - Quartz Enterprise Scheduler	To schedule the batches to generate the claimant related correspondence and other related batches for collecting the overpayment.
	Common	IBM Websphere Application Server	Core JEE platform.
		IBM Cognos	For reports generation.
		Rapid Spell Check	To check the spelling mistake entered by the end user.
		Ultimate Drop Down Menu	To show the menu to system end users.

5.3.4 Non-Functional Requirements Mapping With Proposed Solution

d. From a technical perspective, describe how the proposed solution will satisfy the non-functional requirements of the proposed UC solution as specified in the System Requirements Matrix (Refer to Attachment Q).

Team TCS' solution will be based on JEE/SOA architecture and will provide the functionality for all non-functional requirements. Major portion of these requirements are already inbuilt in the proven and mature TCS Transfer System. The following table provides the description of how the Team TCS' solution will satisfy the non-functional requirements.

Exhibit 5-79 Non-Functional Requirements Mapping With Team TCS' Solution

Core Process	Team TCS' Solution	NFR Mapping with Team TCS' Solution
Account Management	This is part of the proven and mature TCS Transfer System. Wherever required, TCS Transfer System will be	Account creation, category based functionality, capturing customer specific information, maintaining user account information and password management

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Core Process	Team TCS' Solution	NFR Mapping with Team TCS' Solution
	modified/enhanced to meet AWI requirements.	and so on are already available in TCS Transfer System. For Creole language, End User Agreement related activities, integration with HP Exstream Correspondence, the TCS Transfer System will be enhanced to meet AWI requirements.
Correspondence	Team TCS' solution proposes HP Extream for Correspondence management. Wherever required, TCS Transfer System will be modified/enhanced to meet AWI requirements.	Team TCS' solution with HP Extsream will provide the correspondence requirements of AWI UC System. It includes but not limited to templates; batch, interactive and adhoc correspondence; American Disabilities Act (ADA) compliant correspondence; encrypt correspondence with a minimum of 256-bit encryption; language support for English, Spanish and Creole; multi channel capability like e-mail, Fax; event scheduling, customized messages, WYSIWYG editor and so on.
Database Architecture	Team TCS' solution proposes industry leading DB2 database. Database management is a core part of the TCS Transfer System. Database configuration related changes will be done to meet AWI specific requirements.	Team TCS' solution with IBM DB2 will meet all the database architecture non functional requirements. For most of these requirements, TCS Transfer System will provide the required functionality.
Development And Support Services	Team TCS' solution is modular and based on JEE/SOA architecture and comes with all necessary tools required for carrying out activities such as monitoring.	Team TCS' solution enables smooth handling of development and support services such as data backup, external interface processing, batch processing, adding functionality, modifying existing functionality, modifying configuration settings and so on. The solution will meet all the development and support services non-functional requirements.
Disaster Recovery	Team TCS' solution includes various tools and also defined procedures to meet the requirements of the Disaster Recovery non-functional requirements.	The tools enable full and incremental data backup and recovery capabilities. Team TCS' solution is designed to have RTO of less than 72 hours and RPO of less than 24 hours. Daily backups are proposed to facilitate this functionality.
Events And Scheduling	Team TCS' solution with TCS Transfer System, will provide this functionality using Quartz enterprise scheduler. Wherever required, TCS Transfer System will be modified/enhanced to meet AWI requirements.	Team TCS' solution will provide the ability to schedule events, schedule an appointment ,associate comments with scheduled events, associate the scheduled event with a system record and attach documentation to the scheduled appointment and so on. It will also provide the ability to notify a user of a scheduled event based on user-defined criteria, modify existing scheduled events, suspend/cancel a scheduled event, maintain historical information related to scheduled events, and all other events and scheduling non functional requirements functionality.

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Core Process	Team TCS' Solution	NFR Mapping with Team TCS' Solution
Imaging	Team TCS' solution proposes industry leading Perceptive ImageNow for integrated imaging system. TCS Transfer System configuration related changes will be done to meet AWI specific requirements.	Team TCS' solution will provide the ability to accept direct fax-to-image, direct email-to-image, administration activities, capture/update metadata (indexing) information for documents, manage individual document pages, manipulate document images. The imaging solution will be integrated with HP Exstream correspondence solution to meet all the imaging-correspondence non-functional requirements.
Interfaces And Interoperability	Team TCS' solution proposes WebSphere Process Server for integration with internal and external systems.	Most of the Interfaces And Interoperability non-functional requirements are met by TCS Transfer System. These include but not limited to multiple formats support, maintain external system information for interfaces, generate and execute scripts to import and export data, present a result list for data imports and exports and so on. Through Enterprise Service Bus (ESB), which is part of WebSphere Process Server, Team TCS' solution will provide the ability to transmit/receive imported/exported data through multiple methods. Team TCS' solution will meet all the Interfaces And Interoperability requirements.
Notes	TCS Transfer System has the inbuilt Notes and Case Management functionality. Team TCS's solution will be customized to meet AWI UC System's requirements.	Team TCS' solution will provide the ability to enter and display notes; maintain user-defined note types; sort notes; modify/delete notes; ability for "threading" notes; word wrap, spell check, font control; automatically populate case notes in associated records with details of generated notifications and so on.
Policies And Standards	TCS' Transfer System is built on mature processes and standards. This enables Team TCS' solution to meet the AWI UC System's Policies And Standards requirements.	Team TCS' solution will comply with NIST Special Publication 800-53 - Recommended Security Controls for Federal Information Systems and Organizations, Americans with Disabilities Act (Section 508 Standards), Florida Accessible Electronic and Information Technology Act and Health Insurance Portability and Accountability Act (HIPAA) regulations. Team TCS' solution will ensure that all automated interfaces with external partners shall adhere to the privacy and security policies established between the external partner and UC for the exchange of data.
Record Management And Audit	Team TCS' solution includes various tools and also defined procedures to meet the requirements of the Record Management And Audit non-functional requirements. TCS Transfer System will be modified/enhanced to meet AWI requirements.	Team TCS' solution will provide all the functionality for Record Management And Audit non-functional requirements.

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Core Process	Team TCS' Solution	NFR Mapping with Team TCS' Solution
Reporting	Team TCS' solution proposes industry leading IBM Cognos for reporting.	Team TCS' solution will provide batch reports; ad-hoc reports; on-demand reports generation and execution; ability to report on any data element in the system; generate reports based on report specific user defined parameters; graphical report layout tools; scheduling reports. It also supports saving report results in various formats such as Microsoft Word, ASCII files, Microsoft Excel, Text files , PDF format, HTML, XML. It will provide all the functionality for Reporting non-functional requirements.
Search and Navigation	TCS Transfer System has the inbuilt Search and Navigation functionality. Team TCS's solution will be customized to meet AWI UC System's requirements.	Team TCS' solution will provide the ability to open multiple screens/windows; access the menu structure or a navigation path while executing business functionality; support user defined short-cut keys. It will also support full text searches, keyword searches, search a range of data values, advanced search functionality, multiple search criteria, filter search results and so on.
Security	Team TCS' solution proposes IBM Tivoli Directory server, soft and hard firewalls, HTTP over SSL (HTTPS), IBM Tivoli Identity Management Suite, IBM Tivoli Composite Application Manager (ITCAM), X.509 certificate, 256 bit encryption and Role Based Access Control (RBAC) model.	Team TCS' solution will enforce display, entry, modification, deletion, and exchange of information using the Principle of Least Privilege. It will also support Role Based Access Control (RBAC) model, Single Sign On (SSO), Secure Shell (SSH), IPSec, 256-bit cryptography, encrypt sensitive data on the data layer. It will provide functional, message, application, data, network layer security. It will also provide the system monitoring and antivirus software.
Usability	Team TCS' solution proposes the state of the art cutting edge technologies based on industry leading JEE, SOA (WebSphere) platform and other industry leading technologies.	TCS Transfer System has the inbuilt Usability functionality. Team TCS's solution will be customized to meet AWI UC System's requirements. It will support English, Spanish, Creole languages. It will also provide case management functionality, the ability for a user to upload and attach electronic documents to a record, meaningful customized error message, the ability to associate forms, documentation, and reports to specific types of notifications, automated business rules based notifications and so on.
Workflow	Team TCS' solution proposes WebSphere Process Server for workflow functionality.	TCS Transfer System has the inbuilt Workflow functionality and most of this functionality is already available in TCS Transfer System. Team TCS's solution will be customized to meet AWI UC System's requirements. It will provide all the functionality for workflow non-functional requirements.
Customer	Team TCS' solution proposes to use	Team TCS's solution will provide the integration of

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Core Process	Team TCS' Solution	NFR Mapping with Team TCS' Solution
Relationship Management (CRM)	TCS Transfer System's inbuilt CRM functionality. Team TCS's solution will be customized to meet AWI UC System's requirements.	IVR with CRM. It will provide the call record management, status tracking, customization and monitoring and so on.
Call Center / ACD	Team TCS' solution proposes Genesys ACD/Call Center and it will be configured with TCS Transfer System.	Genesys ACD/Call Center solution will provide the ACD capability for the existing Agency Unemployment Compensation call centers including skills based routing. It will also provide the speech recognition, manage multiple call centers as one virtual call center, integrate with outsourced call center, outbound calls, real time call monitoring and all other non functional requirements.
Call Center / Voice Messaging	Team TCS' solution proposes Genesys Call Center solution and it will be configured with TCS Transfer System.	Team TCS' solution will provide the ability for a caller to leave a voice message.
Call Center / Workforce Management	Team TCS' solution proposes Genesys Call Center solution and it will be configured with TCS Transfer System.	Team TCS' solution will provide a workforce management application for the forecasting of call volume and scheduling of call center agents.
Call Center / Quality	Team TCS' solution proposes Genesys Call Center solution and it will be configured with TCS Transfer System.	Team TCS' solution will provide a call center quality application for the scoring of agent activities against quality standards.
Call Center / Call Recording	Team TCS' solution will interface with AWI's Digital Audio Recording System (DARS) using Genesys IVR/ACD/Call Center solution.	Team TCS' solution will provide the capability to record calls for later playback, ability to search and retrieve recorded calls. It will also provide the ability to export recorded calls to portable media devices.
Call Center / CTI	Team TCS' solution proposes Genesys CTI/Call Center solution and it will be configured with TCS Transfer System.	Team TCS' solution will provide the capability to provide screen pops on the agent desktop to the appropriate customer record based on CTI. It will also provide the capability to transfer the context of a call, including application screens, along with a transferred call and will integrate the CRM application with CTI-delivered information.
Call Center / E-mail	Team TCS' solution proposes Genesys Call Center solution and it will be configured with TCS Transfer System. Genesys Call Center solution will interface with AWI's MS Exchange Server for E-Mail functionality.	Team TCS' solution will provide the ability to manage large volumes of inbound and outbound e-mails with supporting agent desktop tools.
Call Center / Facsimile	Team TCS' solution proposes Genesys Call Center solution and Perspective Fax server.	Team TCS' solution will provide the ability to handle large volumes of inbound and outbound facsimiles from the agent desktop.

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Core Process	Team TCS' Solution	NFR Mapping with Team TCS' Solution
Call Center / IVR	Team TCS' solution proposes Genesys IVR/Call Center solution and it will be configured with TCS Transfer System.	Team TCS' solution will provide IVR capabilities included natural speech automated speech recognition and text to speech in all mandatory languages (English, Spanish and Creole). It will also provide a full featured and easy to use graphical IVR scripting application. It will also support VoiceXML and provide the ability to easily record and update messages and prompts in all call center systems.
Call Center / Knowledgebase	Team TCS' solution proposes Genesys Call Center solution.	Team TCS' solution will provide an easy to use knowledgebase for the storage and retrieval of customer service related information.
Call Center / Virtual Call Center	Team TCS' solution proposes Genesys Call Center solution.	Team TCS' solution will provide the ability to route calls directly to staff or agents at different sites, without any additional on-site equipment.

In addition to the above non-functional requirements mentioned in the Attachment Q and next section 5.3.5 Reliability, Availability, and Disaster Recovery capabilities of the proposed solution, Team TCS' Solution will provide the functionality for the following non-functional requirements.

Exhibit 5-80 Additional Non-Functional Capabilities of Team TCS' Solution

Goal	Description	Technical components	Proven and Mature TCS Transfer System
Capacity and Scalability	The architecture should take care of high volume critical applications and should be scalable. It should be possible to deploy the services of each layer (or a group of related layers) on multiple servers, or in a multi-threaded environment (possibly with automated routing or load-balancing)	Proven IBM WebSphere software components and IBM AIX servers.	TCS Transfer System is a proven solution as the requirements for the number of users (concurrent) is easily met with the current capacity. As and when needed, the software/hardware components capacity can be scaled either by doing horizontal or vertical scalability.
Portability	The application components at each layer must be portable and run-time environments with minimal effort	JEE complaint application server	TCS Transfer System is a proven solution for this as the development was done on the JBoss application server while the System Integration Testing/UAT and Production is on the WebSphere application server. The change in application server didn't require change of codebase. Only the created build files were different.
Expandability	It should be easy to extend the services provided at each layer or component level with minimal changes to other components	Component & standard based development	TCS Transfer System follows well known standard JEE design patterns which helped to design a cohesive and low coupled system. The design

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Goal	Description	Technical components	Proven and Mature TCS Transfer System
	– that is allowing easier development of new applications based on the existing components and layers		patterns along with object oriented methodology helped to design components which can be extended/expanded without any issues.
Administrative & Management capability	The services provided at each layer must be easy to manage (with a clear interface for administration). Also, the component must be able to interface with the standard monitoring tools available	Component based architecture using JEE platform offsets a significant number of manageability problems caused by a multi-tier system. The AWI UC system will be built on the JEE specification. The AWI UC system will be built based on the WebSphere Application Server & Process Server that has inbuilt JMX and administrative support	TCS Transfer System is built on standard JEE technology and follows component based design. The TCS Transfer System is deployed on the WebSphere Application Server that has inbuilt JMX support for its various software components.
Network Load Balance and Cluster Support	Various hardware and software at each layer should be configured in a clustered environment to balance the load.	Proven IBM WebSphere software components with clustering features and WebSphere Edge Components load balancer.	TCS Transfer System is deployed on the infrastructure where WebSphere Edge Components provide the load balancing through IP spraying and also provides additional benefit of caching static files. All the key hardware/software infrastructure components are in cluster and if one server goes down the other member of the cluster will pick up the additional load and in the meantime tech personnel can work on to bring up the down server/component.

In addition to the non-functional requirements described above and mentioned in the Attachment Q, Team TCS' Solution will also provide the functionality for the following non-functional requirements.

5.3.5 Capabilities Of The Proposed Solution

e. Describe the reliability, availability, and disaster recovery capabilities of the proposed solution.

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5.3.5.1 Reliability

Our proposed solution have following capabilities that will ensure better reliability:

Application Reliability:

- Team TCS' solution for AWI UC System is based on resilient and multi layered systems. Our solution will use the necessary mechanisms to handle interactions between the UC system and its internal or external systems/components in an efficient manner. Our solution is intelligent enough to re-establish the communication with the other systems/components whenever there is a communication breakage through the inbuilt, configurable auto-retry components which retries the broken communication in a periodic manner
- Our solution is capable of providing notifications to the UC System's support team when the UC system or any of the components is operating in an unexpected manner
- Team TCS solution implements IBM ITCAM (Tivoli Composite Application Manager) to manage and monitor the UC System
- Our solution is designed in such way that the average operation of the UC Systems utilizes less than 60% of the hardware's processor/memory capacity
- In addition to the inbuilt capabilities of Team TCS' UC Solution, scalability can be achieved by techniques, such as clustering and load balancing

Data Reliability:

Ensure that System transaction will not leave various systems under its context in uncommitted state

- System transaction will not leave various systems under its context in an uncommitted state
- Failed real-time operations/transactions on the UC system will bring the systems affected by it to the state that existed before the beginning of the transactions
- Transactions originated from the UC system will maintain referential integrity of the database
- UC System will avoid duplicate transactions on interface, function or business transaction.
- UC system will ensure isolation of uncommitted transactions from any other transaction.
- , UC system will abort the operation and log the errors if transactions take long time due to a faulty condition in logic
- Batch transactions will not create deadlock and data integrity issues. Auto detection of long running batch jobs taking time more than SLA will be logged
- UC System batch jobs will be able to detect data changes made by the real-time system between a batch fetch and write operation and react appropriately when data integrity issues are possible

5.3.5.2 Availability

Team TCS's technical solution will meet the availability and scalability requirements of the Florida AWI UC System Project. The layered architecture will simplify the process of making changes to the specific layer by not affecting other layers of the application.

Availability of the Application when a Component Fails: When a server in the primary data center is unavailable due to a failure, the application will still be made available to users. Our proposed architecture supports high availability for each layer/component using either of the following as applicable to individual components.

- Load Balancing Cluster –Load balancing enables two or more servers/nodes to be configured to serve for the same purpose. All servers in the load balancing cluster will be configured identically so that each server can carry out the defined activity for the specific layer/component independently
- When one of the nodes in the load balancing cluster fails, the other nodes will still be available for the application to function without any disruption. However, some of the transactions that are handled by the failing node may need to be reapplied

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- The degradation in the performance can be complemented by configuring "n+1" nodes in the cluster. This means that if "n" number of nodes are required to meet the performance SLA, one additional node will be added to the cluster. This will enable the application to meet the SLA even if one of the nodes fails.
- When the failed node is restored, it will join the cluster seamlessly and start serving the application. The "Load Balancing Cluster" is suitable only for application components such as web servers that do not store any data within the server.
- Failover Clusters – Failover clustering is suitable for the application components that update the databases and other applications. To maintain consistency, write access will be given to only one node in the cluster. Typically, the failover cluster consists of two identical servers configured as primary node and secondary/stand-by node. Failover cluster requires a shared storage that is accessible to both primary and secondary nodes:
- Under normal operation, all requests will be handled by the node designated as "primary," and the node designated as "secondary" will be idle.

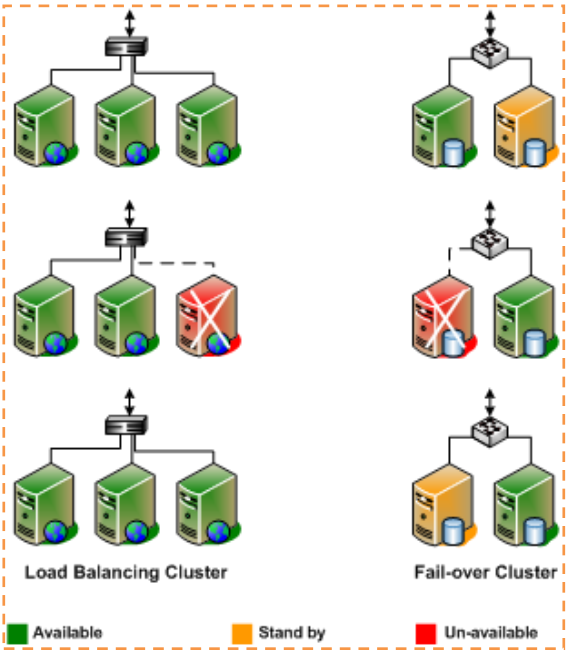

Exhibit 5-81 Failover approach

- When the "primary" node fails, the services will be unavailable for a short period of time. If the automatic failover is configured, then the failover cluster brings up the services on the "secondary" or "stand-by" node, and the application continues to run.
- When the primary node is restored, depending on the fall-back configuration, either the services are moved to the primary node or retained by the stand-by node.
- Failover clustering is suitable for application components such as database servers.

Team TCS recommends an Internet link from two different ISPs to ensure application availability in case of link failure. Team TCS also supports AWI in identifying network components such as firewalls and switches that will have redundancy architecture.

5.3.5.3 Disaster Recovery

Team TCS within thirty (30) calendar days of the execution of the contract will submit to the AWI an "Disaster Preparedness Plan" which includes provisions for pre-disaster records protection, and an disaster recovery plan that will allow the Team TCS to continue functioning in compliance with the mutually agreed contract in the event of an actual emergency.

Our proposed solution is designed to be redundant and fault-tolerant. In the event of a business disruption or disaster, our solution is capable of providing continuity of information resources. Depending on the extent of the problem or disaster, it may be necessary to operate in a diminished capacity for a limited timeframe. If the disaster is severe enough to cause major disruption to o hardware failure, network link failure, IVR failure, application failure, interface application/ link failure, batch job failure, bulk printing failure, external failures such as Natural calamities, war, it may be necessary to use a disaster recovery site to continue operation of the system. Team TCS will closely work with AWI to smooth recovery of the system with compliance Disaster Recovery Plan.

When the primary data centre itself fails, none of the servers in the primary data center will be accessible making the UC System un-available to users. This situation may arise due to a power failure for an extended period or destruction caused by natural calamities such as severe storms, tornadoes, and flooding etc. In this scenario, the

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high availability features configured in the production environments will fail to make the application available to users as the data center itself is down.

To counter this scenarios, Team TCS recommends AWI to configure a Disaster Recovery site at a reasonably distant place from the primary data center. Depending on the criticality and the infrastructure components available at the DR site, the complete application may be brought up from the DR site at full capacity or only a part of the application services may be made available at a lower capacity.

5.3.6 Commercial Off-the-Shelf (COTS) products Modification

f. If proposing Commercial Off-the-Shelf (COTS) products within the proposed solution, describe the proposed approach and strategy of handling necessary customizations to the COTS products to support the requirements without compromising the architecture or maintenance of the products. Respondent(s) proposing a solution without COTS product(s) shall respond to this requirement as —Not Applicable

Not Applicable.

Team TCS is proposed UI transfer system that is build at other State as base system to build the AWI UC System.

5.3.7 External Interface Strategy

g. Describe the external interface strategy for the proposed solution.

The Interface Layer of the architecture will consist of various application subsystems with access mechanism to interfaces to other systems from the TCS Solution. This interface layer will use the APIs available for the middleware (on the interfacing side) in consideration. All the middleware connection management, data marshalling and message formatting will be carried out by the components of this layer. Components in this layer separate business logic and various underlying mechanisms in handling various procedures related to any of internal or external interfaces. This layer ensures that change in interface will not expect application logic to be changed. This layer provides high level interfaces as per the business requirements by hiding all internal complexities within in the sub system. This layer makes use of configured attributes of the business process to act specifically.

Interface access layer will have various internal sub-systems (Security, Workflow, Report, Document Management, Fax, Print, and E-mail) and APIs which interact with internal systems. These subsystems and APIs are implemented as EJBs (for transaction oriented) and pure Java classes.

Infrastructure services layer will provide Event and Error logging, session cleaning, Factory helper, Batch, Daemon, XML parser and basic utility services implemented as pure Java Classes.

External Interfaces will be implemented using IBM WebSphere Process server Workflow manager to provide the integrated access to the different external interfaces and systems. Depending upon the requirement of the integration with the different systems, various technical methodologies or approaches are used like FTP, Single Sign On, connector architecture using adaptors, Batch/Real Time Updates, Flat file transfer, Online integration, etc.

The interface implementation for these external interfaces will be provided using custom/out-of-the box external interface services including Web Services, using EJBs, APIs and XML (where possible). The Interface to ICON is typically accomplished through the mainframe using CICS or TCP/IP network protocol.

Mainframe Connectivity

The TCS UI Transfer system and the legacy system need to exchange data on a regular basis before decommissioning of the legacy systems. Data files (with pre defined format) will be transferred at regular intervals with FTP. If the current mainframe operating system supports secure FTP (SFTP), it will be used for maintaining the security of the data transmission.

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These interfaces are designed in such a way that the system is scalable for current and future needs. Some of the interfaces to the TCS Transfer System are depicted in the Exhibit 5-82 External Interfaces.

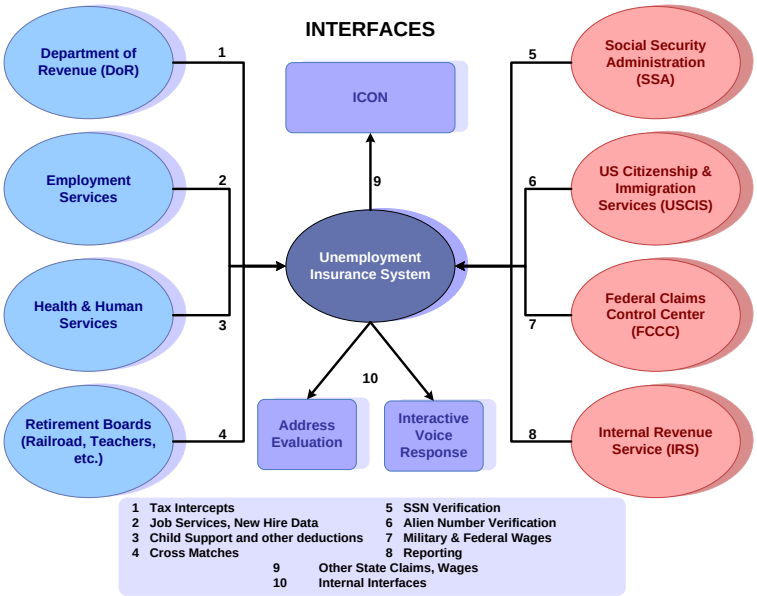

Exhibit 5-82 External Interfaces

Solution

Team TCS proposes solution for interface development categorization of the interfaces based on the communication mode and an XML based design to implement the interfaces.

Interfaces are categorized based on various communication mode as follows:

- Interfaces using Web Services (e.g. Alien Status Verification with INS)
- Interfaces using incoming fixed format file via FTP
- Interfaces using incoming fixed format file via magnetic media (disk, tape etc)
- Interfaces using outgoing fixed format file via FTP
- Interfaces using outgoing fixed format file via magnetic media (disk, tape etc)
- Interfaces using both incoming and outgoing fixed format files via FTP
- Interfaces using both incoming and outgoing fixed format file via magnetic media (disk, tape etc)

An XML based configuration file implements the interfacing requirements. A sample XML configuration file for an interface (extracts data from a database and creates a file containing header Exhibit 5-83 Sample Configuration Files.

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```
<filelayout flName="nationalWageCrossmatch" flFile="nationalWageCrossmatch">
        <filelayoutpart>
                <sql>
                        <query>
                                <name>QUERY</name>
                                        <text><![CDATA[SELECT ……]]>
                                        </text>
                        </query>
                        <queryparameters>
                        </queryparameters>
                </sql>
        <parameters>
                <parameter parName="submitteridentifer" sqlName="submitteridentifer" conKey="2" conPadLength="3"/>
                <parameter parName="recordindentifier" sqlName="recordindentifier" conKey="2" conPadLength="3"/>
        </parameters>
        </filelayoutpart>
…….
```

Exhibit 5-83 Sample Configuration Files

This interface configuration file can be maintained by a business user using a maintenance screen.

Tools and Best Practices
♦ Team TCS would like to have Extensive participation from agency IT staff and Business users for Finalization of Requirement of Interfaces. ♦ Use of Non Functional Fully Navigated prototype building in early stage. ♦ Finalization of Interface rules strategy

5.3.8 Hardware Requirement

h. Provide a detailed list of hardware required for the proposed UC solution. If the hardware listed is COTS or Proprietary, the item must be identified as such. The response, at a minimum, must include descriptions and configurations for the following (if proposed):
Servers,
Workstations,
Storage,
UPS,
Printers and Peripheral Equipment,
Network, and
Other Required Hardware for the proposed UC Solution.

Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
1	IBM Power 770 48-	Hosts the following software on	Power 770	2	IBM

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Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
	Core 3.1GHz 256GB	diffrent virtual servers or LPARs • IBM WebSphere HTTP Server (Part of WAS) • IBM WebSphere HTTP Server (Part of WAS) • IBM WebSphere Application Server • IBM WebSphere Process Server • IBM DB2 Universal Database • IBM InfoSphere Warehouse + Cognos • IBM InfoSphere Datastage + Universal Coder • Mailstream Plus • Ultimate Drop Down Menu (UDM) + Quartz Enterprise Scheduler + Rapid Spell + pinEdit • IBM iLOG • IBM Tivoli Directory Server • IBM Tivoli Identity Manager + IBM Tivoli Access Manager • IBM ITCAM for WebSphere • IBM ITCAM for SOA • IBM Tivoli Monitoring • IBM TSM • IBM Tivoli Service Desk	48Core(3.1GHz), 256GB memory, 300GB SAS Drives, AIX v6.1, PowerVM Standard, PowerHA Standard		
2	HMC & Display	For managing P-Series Servers		2	IBM
3	Server Racks			4	
4	IBM Blade Center H Chassis	Chassis for the Server Blades		2	IBM
5	CIM Platform	T-Server, Management Framework, Routing	IBM HS22 Server Blade with 2 - Quad Core Xeon Processors 4GB RAM 2 - 73 GB HDD 2 - 100/1000 NIC Windows Server 2008 32 bit	2	IBM
6	SIP Server	SIP Server and Interaction Server (Email interactions) for Agents	IBM HS22 Server Blade with 2 - Quad Core Xeon Processors 4GB RAM 2 - 73 GB HDD with RAID	2	IBM

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Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
			3 - 100/1000 NIC Windows Server 2008 32 bit		
7	SIP Server	Media Server (for hold queues and ACD treatments) – 815 ports per server	IBM x3650 Server with 2 - Quad Core Xeon Processors 4GB RAM 5 - 600 GB HDD with RAID 3 - 100/1000 NIC Windows Server 2008 32 bit	3	IBM
8	Real-Time Reporting	Stat Server, CC Pulse+, CCA Reporting servers, Datamart, ETL	IBM x3650 Server with 2 - Quad Core Xeon Processors 16GB RAM 5*300 GB HDD with RAID 2 - 100/1000 NIC Windows Server 2008 32 bit	3	IBM
9	Genesys Integration Server (GIS) & GAD	Integration Servers – supporting Agent desktop application intégration – 224 Agents per server (GIS) – and 17 GAD per server - load balanced	IBM HS22 Server Blade with 2 - Quad Core Xeon Processors 4GB RAM 2 - 73 GB HDD with RAID 2 - 100/1000 NIC Windows Server 2008 32 bit	4	IBM
10	Genesys WFM	WFM servers	IBM HS22 Server Blade with 2 - Quad Core Xeon Processors 4GB RAM 2 - 73 GB HDD with RAID 2 - 100/1000 NIC Windows Server 2008 32 bit	2	IBM
11	GVP	GVP Resource Manager and SIP Server	IBM HS22 Server Blade with 2 - Quad Core Xeon Processors 4GB RAM	2	IBM

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Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
			2 - 73 GB HDD with RAID 3 - 100/1000 NIC Windows Server 2008 32 bit		
12	GVP	Genesys GVP MCP's – 275 ports per MCP - total of 1100 ports of production and 275 N+1	IBM HS22 Server Blade with 2 - Quad Core Xeon Processors 4GB RAM 2 - 73 GB HDD with RAID 2 - 100/1000 NIC Windows Server 2008 32 bit	5	IBM
13	Nuance	Nuance ASR and TTS – 275 ports ASR/69 TTS per server – Total 1100 ASR and 275 TTS	IBM HS22 Server Blade with 2 - Quad Core Xeon Processors 4GB RAM 2 - 73 GB HDD with RAID 2 - 100/1000 NIC Windows Server 2008 32 bit	5	IBM
14	Genesys Call Recording – Quality Monitoring	Call Recording, Screen Capture, QM, Score carding, and reporting for QM – RED HAT Linux servers	IBM x3650 Server with 2 - Quad Core Xeon Processors 4GB RAM 5 * 300 GB HDD 2 - 100/1000 NIC Linux RedHat Enterprise 4	3	IBM
15					
16	ImageNow Server	Main ImageNow server. Handles client connectivity and core application processing. Installed Components: - ImageNow Server - User Replication Agent - Mail Agent	IBM x3850 Server with 4 * 6 Core Xeon Processors 48 GB RAM 2 * 300GB HDD Windows 2008 SP2	2	IBM
17	Database Server	Responsible for serving the ImageNow database.	IBM x3850 Server with 4 * 6 Core Xeon Processors	2	IBM

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Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
			48 GB RAM 2 * 300GB HDD Windows 2008 SP2		
18	WebServices	Web Services hosts the Web Service suite products from Perceptive Software Installed Components: - WebServices	IBM x3850 Server with 4 * 4 Core Xeon Processors 24 GB RAM 2 * 300GB HDD Windows 2008 SP2	2	IBM
19	Fax Agent Server	The Remote Agent Server will host any additional ImageNow Agents. Installed Components: - Fax Agent - Recognition Agent (2K pages per hour) - Output Agent (750 to 1250 pages per hour)	IBM HS22 Server Blade with 1 - Quad Core Xeon Processor 4GB RAM 2 * 73 GB HDD 2 - 100/1000 NIC Windows Server 2008	2	IBM
20	ImageNow Client	The ImageNow client is a desktop interface that provides access to all ImageNow functions including document capture, indexing, viewing, and document control functionality.	CPU: 2.0 GHz or faster (Dual Core recommended for best performance) RAM: 1GB Available OS: Windows XP SP2, Vista	5	
21	Scan Station Client	The Scan Station Client is a desktop machine that has scanner installed and the ImageNow client with a Capture Now license. This client will have the ability to scan documents into the system	CPU: 2.0 GHz or faster (Dual Core recommended for best performance) RAM: 1GB Available (2 GB recommended) OS: Windows XP SP2, Vista	5	
22	Storage	35TB Usable space with RAID 5 (with 70% utilization, space available for data ~ 24TB)		1	IBM
23	SAN Switches	SAN Switches for connecting Servers to Storage		1	IBM
24	Tape Library	Backup Solution		1	IBM

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Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
25					
26	Scanner – Fujitsu fi 6240c	11 Scanners		11	Perceptive
27	Brooktrout Digital Fax Board	2 Units		2	Perceptive

5.3.9 Software Requirement

i. Provide a detailed list of the software required for the proposed UC solution. If the software listed is COTS or Proprietary, the item must be identified as such. The response, at a minimum, must include descriptions for the following (if proposed):
Proposed Application Software,
Operating System Software (for both Servers and Workstations),
Network Software,
Network Management Software,
Data Management Software,
System Software Tools,
Development Tools,
Security And Controls Software,
Version Control Software,
Business Rule Management Software, and
Other Required Software for the Proposed Solution.

Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
1	IBM WebSphere HTTP Server (Part of WAS)	Web Servers (Internet Facing)	Part of WebSphere Application Server	0	IBM
2	IBM WebSphere HTTP Server (Part of WAS)	web Servers (Intranet Facing)	Part of WebSphere Application Server	0	IBM
3	IBM WebSphere Application Server	J2EE Platform	Processor Value Unit	720	IBM
4	IBM WebSphere Process Server	SOA Platform	Processor Value Unit	960	IBM
5	IBM DB2 Universal Database	Database Server	Processor Value Unit	1440	IBM
6	IBM InfoSphere Warehouse	Data Warehouse	Processor Value Unit	720	IBM
7	Cognos	Reporting Server	BI Administrator Authorized User	5	IBM
8	Cognos	Reporting Server	BI Advanced Business Author	25	IBM

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Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
			Authorized User		
9	Cognos	Reporting Server	BI Professional Author Authorized User	20	IBM
10	Cognos	Reporting Server	BI Consumer Authorized User	400	IBM
11	IBM InfoSphere Datastage	ETL Tool	Processor Value Unit	720	IBM
12	IBM iLOG	Rule Engine	Processor Value Unit	480	IBM
13	IBM Tivoli Directory Server	LDAP Compatible Directory Server	Processor Value Unit	240	IBM
14	IBM Tivoli Identity Manager IBM Tivoli Access Manager	Single Sign-on Server	Processor Value Unit	240	IBM
15	IBM ITCAM for Application Diagnostics	Application Monitoring	Processor Value Unit	480	IBM
16	IBM ITCAM for SOA	Application Monitoring	Processor Value Unit	480	IBM
17	IBM Tivoli Monitoring Tier 1	Infrastructure Monitoring	Processor Value Unit	480	IBM
18	IBM TSM	Backup Software	Processor Value Unit	480	IBM
19	IBM Tivoli Service Desk	Helpdesk Software	Authorized Users	50	IBM
20	IBM Tivoli Service Desk	Helpdesk Software	Concurrent Users	20	IBM
21	Ultimate Drop-down Menu v4.5 (UDM for Menu), Universal Coder (Address Validation), PinEdit 7.2 (Editor), RapiSpell Web (Spell check) and Mailstream Plus (Pre-sorting)			2	
22	Quartz Enterprise Scheduler		Free download	0	

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Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
23	MS SQL Server 2008 Enterprise Edition	Database for Perceptive Software	CPU	8	Microsoft
24	ms SQL Server 2008 Enterprise Edition CALs		User	5	Microsoft
25	ImageNow Client - Combo Licenses	Access Products	Client combo licenses	20 License(s)	Perceptive
26	Business Insight Server	Business Process Products		1 License(s)	Perceptive
27	Retention Policy Manager	Business Process Products		1 License(s)	Perceptive
28	CaptureNow for Adrenaline	Capture and Export Products		11 Scanner(s)	Perceptive
29	Fax – Barcode/Image Processing	Capture and Export Products		1 Server(s)	Perceptive
30	Fax Agent	Capture and Export Products		24 Port(s)	Perceptive
31	ImageNow Conversion Module	Capture and Export Products		1 License(s)	Perceptive
32	Mail Agent	Capture and Export Products		1 Server(s)	Perceptive
33	Output Agent	Capture and Export Products		3 Server(s)	Perceptive
34	Envoy	Platform Products		1 License(s)	Perceptive
35	ImageNow Enterprise Server	Platform Products	Seat and concurrent-use	1 License(s)	Perceptive
36	Message Agent Server	Platform Products		1 Server(s)	Perceptive
37	Message Agent Transaction License	Platform Products		30 License(s)	Perceptive
38					
39	v8.0 - Genesys CIM Platform - MS	Platforms	seat	670	Genesys
40	v8.0 - HA - CIM Platform	Platforms	seat	670	Genesys
41	v8.0 - SNMP	Platforms	site	1	Genesys
42	v8.0 - SIP Server	Interactions	seat	670	Genesys
43	v8.0 - Genesys E-mail	Interactions	seat	50	Genesys
44	v7.6 - Genesys Workforce	Performance Management	seat	670	Genesys

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Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
	Management				
45	v7.6 - Genesys Agent Desktop	Desktop & Gplus Adapters	seat	50	Genesys
46	v8.0 - Genesys Universal SDK	Genesys Developer Materials	customer	1	Genesys
47	v8.0 - Agent Connector	Genesys Developer Materials	seat	670	Genesys
48	v7.1 - Virtual Hold Concierge v6	3rd Party Products - Virtual Hold	port	60	Genesys
49	v8.1 - Genesys Voice Platform	Voice Self Service	port	1100	Genesys
50	v8.1 - HA - Genesys Voice Platform	Voice Self Service	port	275	Genesys
51	v8.1 - AIModule for ASR	Voice Self Service	port	1100	Genesys
52	v8.1 - HA - AIModule for ASR	Voice Self Service	port	275	Genesys
53	v8.1 - AIModule for TTS	Voice Self Service	port	275	Genesys
54	v8.1 - HA - AIModule for TTS	Voice Self Service	port	69	Genesys
55	Nuance Recognizer 9.0 - Tier 3	Supplement	port	1100	Genesys
56	HA - Nuance Recognizer 9.0 - Tier 3	Supplement	port	275	Genesys
57	Nuance Recognizer 9.0- Tier 3 - 2nd Lng	Supplement	port	1100	Genesys
58	HA - Nuance Recognizer 9.0- Tier3-2nd Lng	Supplement	port	275	Genesys
59	Nuance Realspeak TTS v4.5	Supplement	port	275	Genesys
60	HA - Nuance RealSpeak TTS v4.5	Supplement	port	69	Genesys
61	Nuance Realspeak TTS v4.5 - Lng	Supplement	port	275	Genesys
62	HA - Nuance RealSpeak Lng TTS	Supplement	port	69	Genesys

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Sl. No.	Description	Purpose	Licensing Mode	Quantity with HA	Vendor
	v4.5				
63	Nuance Recognizer 9.0 - Tier 3 - Lab	Supplement	lab	0	Genesys
64	Nuance Realspeak TTS v4.5 - Lab	Supplement	lab	0	Genesys
65	Media Server Ports	Supplement	seat	960	Genesys
66	Voice & Screen Record + Live Monitor, Scorecard	Supplement	seat	670	Genesys
67	HA - Voice&Screen Record+Live Monitor,SC (bgt)	Supplement	seat	670	Genesys
68	Quality Management lab for voice record	Supplement		3	Genesys
69	HP Exstream	Correspondence		1	HP

5.4 Warranty, Maintenance and Operations

a. Describe the proposed approach for providing warranty, maintenance and operations services in support of the system. Refer to Section D, Exhibit 1, 12.0, System Support Services.
b. Describe the warranty support and maintenance that will be provided for the proposed solution. Refer to Section D, Exhibit 1, 12.1, Maintenance and Operations, and Section D, Exhibit 1, 12.2, Warranty Support.
c. Describe the skill sets, training, and technologies needed to for Agency staff to maintain the proposed UC solution.
d. Detail the proposed approach for transferring the solution to the Agency. Refer to Section D, Exhibit 1, 12.3, Operations Transition.
e. Describe the proposed approach to handling version upgrades during implementation.

Team TCS understands that providing warranty, maintenance and operations services for a complex application similar to new AWI UC program requires the right approach and methodology which combines and brings together people, processes, technology and tools in an efficient manner.

5.4.1 Proposed Approach for System Support Services

In the past 40 years, Team TCS has been successfully executing large projects with varying timelines and challenges for its wide range of customers. TCS has successfully established processes and methodologies, which are compared to the best in the world to achieve total customer satisfaction. The processes and methodologies are defined as part of TCS's Integrated Quality Management System(iQMS). TCS' iQMS has defined processes combining its experience gained in the past 40 years and the industry best practices such as ITIL, CoBIT and ItSMF.

The approach that Team TCS has implemented in many projects resulting in benefits to both Team TCS and its client, reflects in the TCS SDF Framework for the warranty and maintenance support period. This is shown in the picture below

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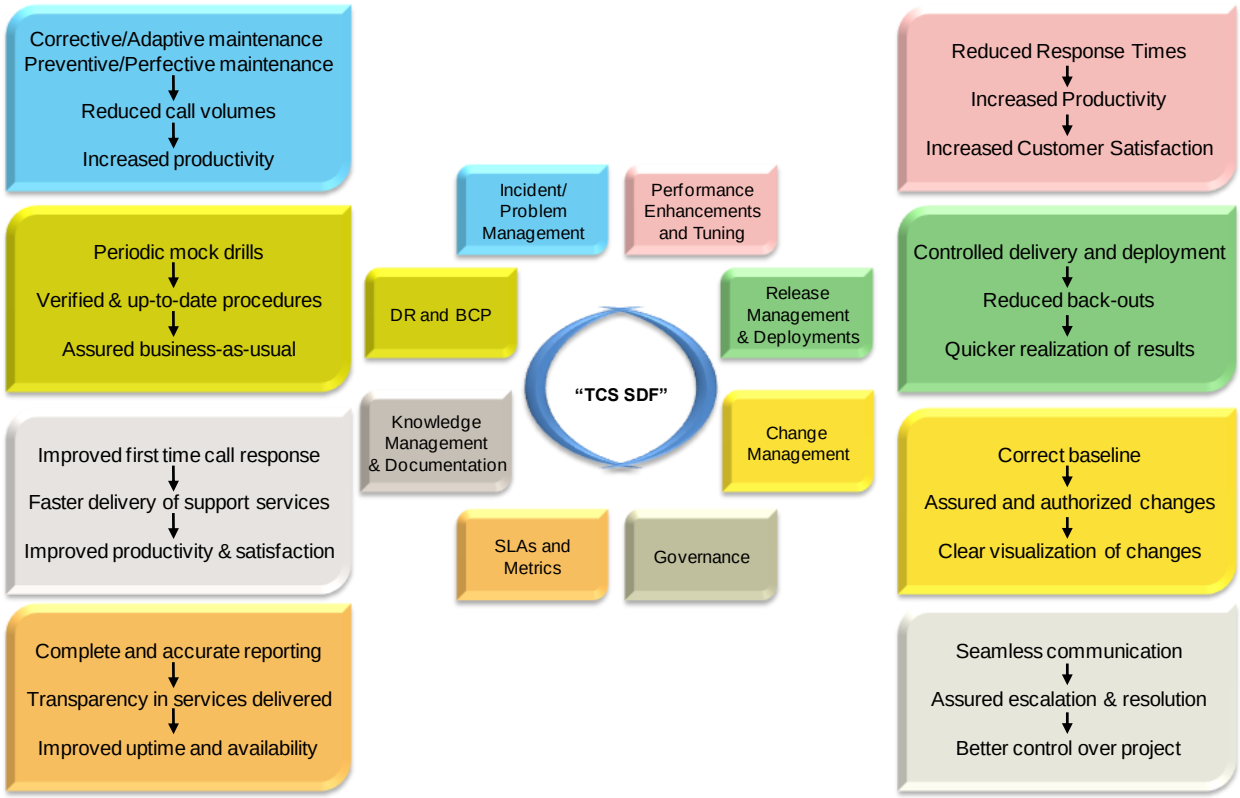

Exhibit 5-84 Team TCS Service Delivery Framework (TCS SDF)

As part of the customized framework, TCS will use various industry standard methodologies, standards, best practices, templates and TCS matured processes shown in the table below

Exhibit 5-85 Team TCS Process mapping to AWI Requirements

Area	Industry standard / TCS Process	AWI Benefit
Service Support Activities including service desk, incident / problem management, change / release management and configuration management **Service Delivery** Activities including service level management, capacity / availability management and IT service continuity management) **ICT Infrastructure Management** Activities including design & planning, deployment / operations management and technical support	TCS iQMS Maintenance and Support Hand Book TCS has tailored it's iQMS processes based on ITIL best practices and governance model based on CoBIT	TCS' matured processes based on Industry standard practices result in quality service and cost optimization which in turn help AWI deliver better services to citizens.

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Area	Industry standard / TCS Process	**AWI Benefit**
Software Development	TCS iQMS and CMMI Level 5	AWI is assured of on-time and on-budget delivery of services with unmatched quality. Also enables receiving services as per agreed timelines.
Project Governance	PMBOK and TCS iQMS	Industry standard and TCS' optimized processes result in smooth running of the project in better and predictable manner
Knowledge Management	TCS iQMS	All knowledge acquired in developing the new UC saluting will be preserved and made available for easy and quick reference.
DR and BCP	TCS iQMS	Enable AWI to get ready to face the un-expected disasters in an efficient and planned manner thus proving improved services to citizens.

The Key major activities carried out by Team TCS to deliver the services requested in this requirement are depicted in the Exhibit 5-86. Team TCS will elaborate each activity which becomes part of the proposed TCS SDF for AWI during the project execution. Team TCS will also prepare the necessary documentation detailing processes and procedures for each activity. This helps both Team TCS and AWI provide efficient and consistent services to Florida citizens seamlessly.

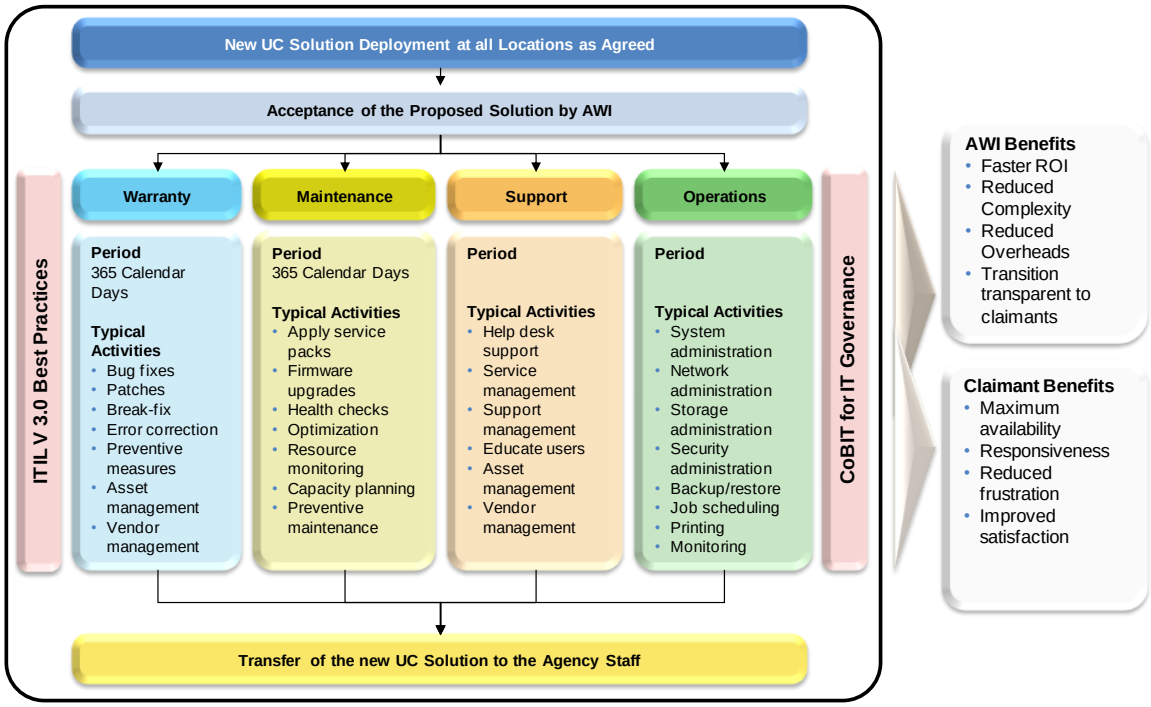

Exhibit 5-86 TCS SDF Framework Process

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As there are multiple parties and many stake holders involved in providing services for the new UC end-to-end solution, it is required to have a service delivery organization which includes participation from all parties and stake holders involved in the solution. The parties and stake holders include various teams internal to AWI, Team TCS, SSRC and also vendors and sub-contractor representatives.

Team TCS proposes the organization structure shown in Exhibit 5-87 as part of TCS' SDF for AWI. The organization structure shown in the picture will be updated, finalized during the project execution and submitted to AWI for review and approval. Once approved by AWI, the organization structure will be published along with other essential mechanisms such as communications plan..

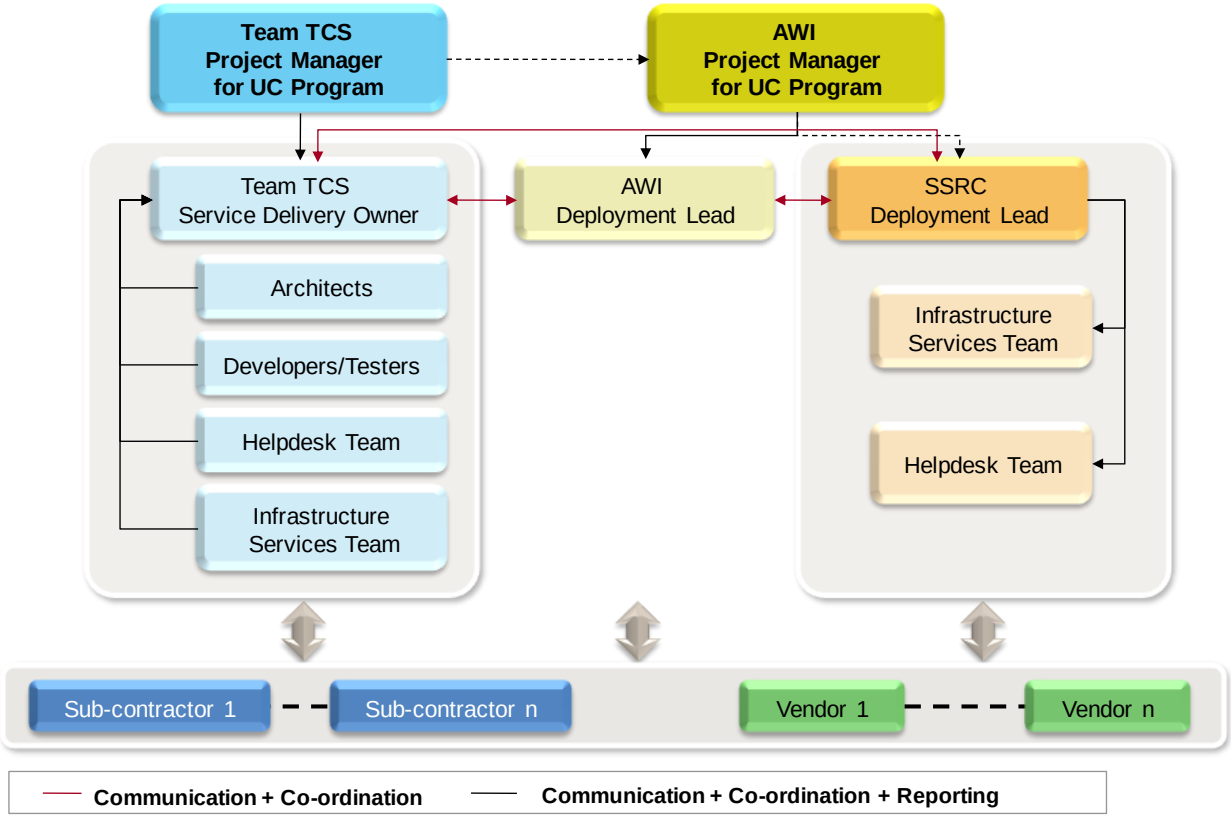

Exhibit 5-87 Service Delivery Organization

The following sub sections explain in detail about Team TCS SDF approach for warranty, maintenance, support and operations, services provided and activities carried out against each requirement.

5.4.2 Warranty

TCS' SDF customized approach makes sure that all the elements delivered by TCS are covered under the warranty and an approved documentation is maintained detailing the warranty process for each element. Similarly, new enhancement requests received as part of maintenance and support will be tracked and these will become added warranty items once they are delivered. The new enhancements will be covered under the existing warranty services. This approach will also help smooth transferring of assets/ elements from Team TCS to the AWI at the end of the contract.

Team TCS approach will have various activities, processes and approved procedures. In addition, TCS will also define the communication mechanism, escalation mechanism and resolution mechanism to ensure seamless delivery of services in case of any issue.

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Team TCS will maintain all documentation required to deliver the warranty for the items delivered. At the end of the contract, Team TCS will transfer all remaining warranties to AWI as applicable and as per the respective OEM vendor terms and conditions. This will enable AWI to receive same level of warranty services from the principal vendors after the contract reaches to an end. Team TCS approach for managing and delivering warranty services are shown in the picture and detailed below.

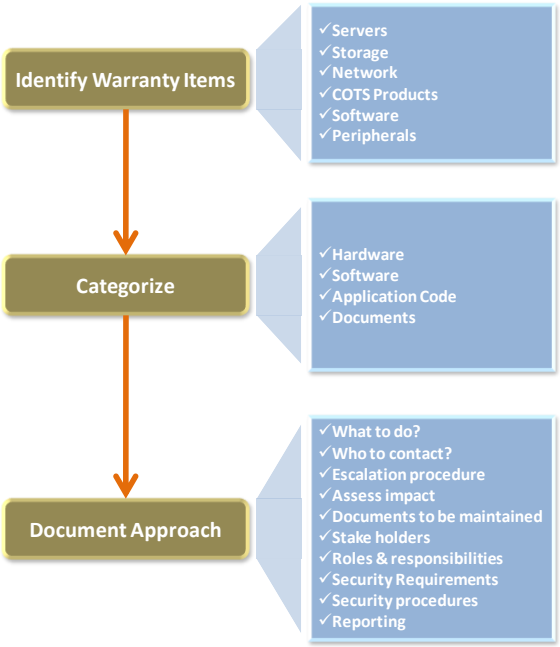

Exhibit 5-88 – TCS Support Framework

Identification of warranty items

Team TCS project manager will identify warranty items throughout the UI application development and implementation period. Each deliverable will be marked if it is covered by warranty based on the mutual agreement with AWI. At the end of the final acceptance, the consolidated list containing all items covered under warranty will be presented to AWI for sign-off.

Categorization

As the warranty process may differ for each item covered under warranty, it is important to categorize the warranty items to simplify the procedures for providing services. For example, providing warranty services for hardware components involves various OEM vendors, State departments and 3rd party contractors. A clear and approved mechanism will be required to manage such multi-vendor activity. However, providing warranty support for items such as source code, documents and production support procedures will not require complex processes as the will be handled by Team TCS staff.

Exhibit 5-89 provides the proposed categorization or classification of the warranty items. The same will be finalized during the project delivery and AWI approval is sought.

Exhibit 5-89 - Classification of The Warranty Items

Category	Warranty items	Stake holders	Key procedures
	♦ Servers ♦ Storage ♦ Network components	♦ Team TCS ♦ 3rd party vendors ♦ AWI / SSRC staff	♦ Entry into Data Center ♦ Material movement
Software	♦ COTS products ♦ Tools ♦ Operating systems	♦ Team TCS ♦ 3rd party vendors	♦ Duplicate copies ♦ Media vault ♦ Issuance management
Application	♦ Source code ♦ Executable code	♦ Team TCS ♦ 3rd party staff ♦ AWI staff	♦ Version control
Documents	♦ Design documents ♦ Operations related	♦ Team TCS ♦ AWI operations team	♦ Version control ♦ Document handling and disposal

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Development of Warranty Plan

Team TCS will prepare approach documents for each of the above categories. For example, when there is a hardware component failure, it is important to understand whom to contact, how to log call with OEM vendors and other AWI formalities required for material movement and so on. Similarly, each OEM vendor will have their own approach for call handling. Team TCS will document the exact procedure for delivering warranty support services for each item / category of items covered under warranty. All such documents will be published as controlled documents and kept up-to-date as per the approved document control process.

5.4.3 Maintenance and Support

d. Detail the proposed approach for transferring the solution to the Agency. Refer to Section D, Exhibit 1, 12.3,Operations Transition.

For the AWI UC project, following key TCS process hand books will be used . and tailored to for AWI UC project

- Maintenance Process Handbook
- Development Process Handbook
- Infrastructure Services (IS) Procedures Handbook

TCS iQMS Development Process Handbook will be used for enhancement requests and fixes that require code changes.

The fitment of the above process handbooks during maintenance support is shown in the picture.

The key activities specific to maintenance and support of TCS SDF are –

- Reporting, controlling and service improvement
- Request logging, tracking and closure
- Prioritization and demand management
- Ticket or request resolution

Above key activities are explained below. The same in turn make use of the ITIL V3.0 processes for delivering efficient services.

Request logging and tracking

Team TCS approach enables delivering the services taking the advantage of experiences gained in similar projects. Team TCS will setup a service desk to manage the deficiencies reported as part of the warranty and non-warranty enhancements and modifications requested by the state. A high level flow of the requests received under warranty as well as maintenance and support is shown in the picture below. Team TCS will take the responsibility of managing any third party(s) employed by Team TCS in delivering the agreed services within in this engagement.

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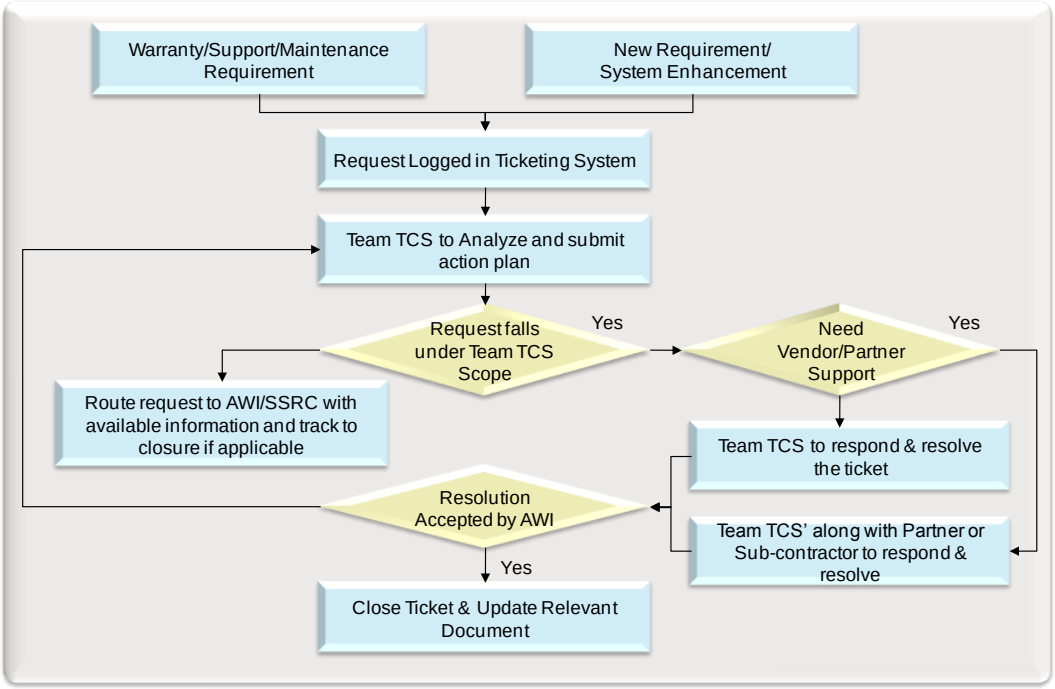

Exhibit 5-90 Ticket Logging workflow

Ticket / request resolution

Team TCS approach for ticket logging and resolution is depicted at high level in the picture below. The same will be customized during the project execution with the help from AWI and SSRC staff as applicable.

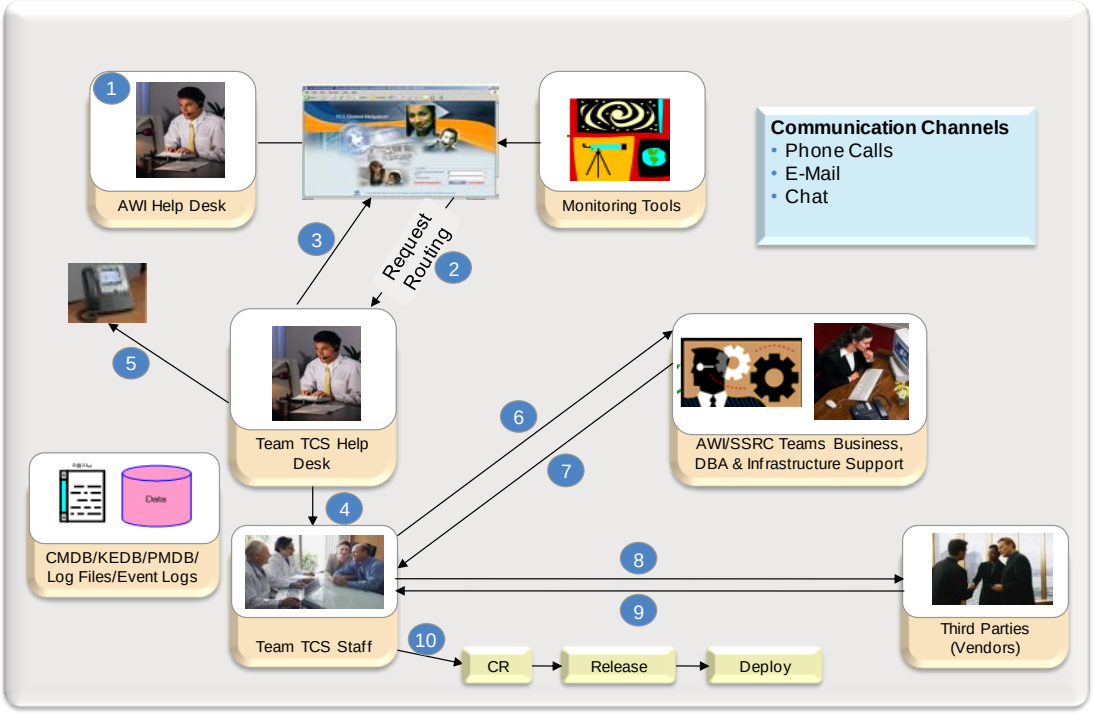

Exhibit 5-91 Team TCS Ticket Management Workflow

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Team TCS assumes that AWI already has or will have a centralized helpdesk which will act as point of contact to AWI staff and other users of the new UC solution.

- AWI helpdesk receives calls from users of the new UC system and logs into the helpdesk system. Tickets will also be logged automatically by the monitoring system.
- AWI helpdesk will categorize the tickets and routes the tickets to Team TCS helpdesk which fall under Team TCS scope.
- Team TCS helpdesk take control of all tickets routed to Team TCS and tries to resolve the ticket based on the information available in resources such as KEDB.
- If the ticket cannot be closed within the specified time, Team TCS helpdesk will route the tickets to Team TCS resource pool providing L2 and L3 services.
- Team TCS resource pool will further investigate the ticket by contacting the user if logger by users and by looking at the monitoring system if logged automatically.
- If Team TCS identifies that the ticket falls under the scope of AWI / SSRC, Team TCS will transfer the call to respective teams.
- If only support is required from AWI / SSRC teams, Team TCS will co-ordinate and track the ticket to closure with the help of AWI / SSRC staff.
- If the ticket resolution requires involvement of 3rd party vendors or sub-contractors employed by Team TCS, Team TCS will complete the formalities required for enabling 3rd party vendors and / or sub-contractors to complete the job.
- Team TCS with the support from 3rd party vendors and / or sub-contractors will find the resolution and close the ticket.
- Team TCS will complete the formalities such as change request, release management and deployment of the solution based on the requirement.

Once the ticket is resolved, Team TCS will contact the concerned user who logged the ticket, take feedback and closes the ticket on user's confirmation.

Team TCS will also update all documents and / or knowledge repositories such as KEDB and CMDB as applicable.

Prioritization of tickets and demand management

When multiple defect reports and/or enhancements of same level of importance are received, it is required to prioritize the requests enabling AWI business requirements are met in an efficient and timely manner. Sometimes, it is also required to identify the deployment sequence of the resolutions.

Team TCS will customize the process shown in the picture for working on the tickets.

In few exceptional cases, it may be required to take up new ticket even if there are chances of SLA breach for WIP ticket. In such cases Team TCS will sought AWI and seek approval to exclude such request from SLA calculation.

Similarly, when too many tickets of same level are logged together, Team TCS will seek AWI support for prioritizing the tickets and seek AWI written approval for relaxing the maximum fix time for some of the tickets.

Team TCS project manager will also prepare a similar process for assigning TCS staff for the tickets. Team TCS project manager will submit the same for AWI review and approval. Team TCS will consider the recommendations given by AWI and refine the process as applicable.

As there will be limited number of staff delivering services during the warranty, maintenance and support, a clearly defined demand management process is required. Some parameters that Team TCS considers for demand management are given below.

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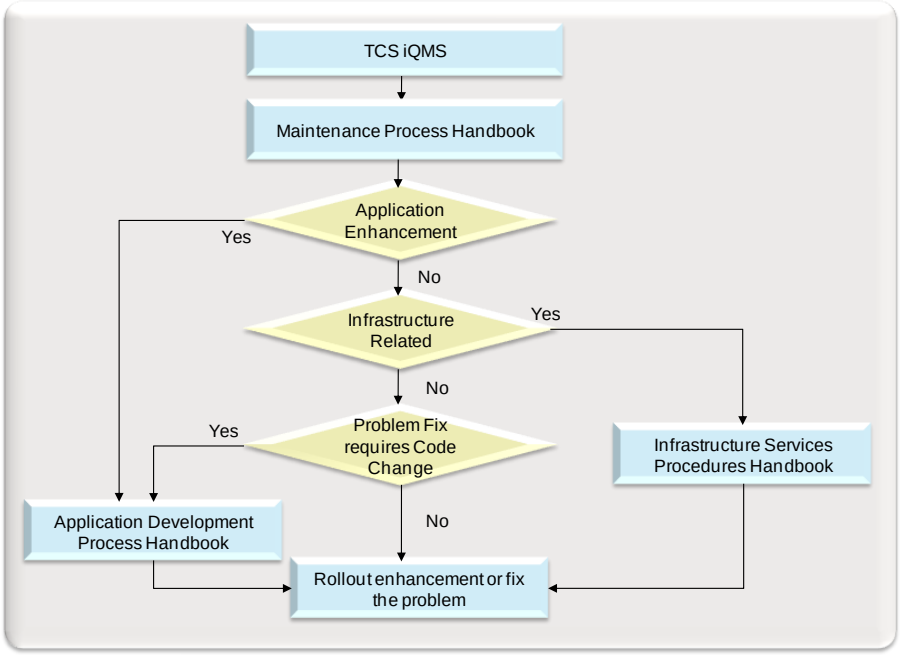

Exhibit 5-92 Prioritization of tickets and demand management

Team TCS project manager may choose some or all of the parameters given below to setup processes for delivering warranty and maintenance support services.

- Delivery location or availability of local resources
- Onsite / offsite activities
- SLAs / OLAs with various stake holders including AWI, SSRC, OEM vendors and sub-contractors
- Time of the tickets logged (e.g. if many tickets are logged towards close of business hours, not all calls can be closed before close of business the same day)
- Complexity of the problem and business criticality

Reporting, Controlling and Service Improvement

As part of project monitoring, reporting and controlling, Team TCS will create and submit / publish the reports periodically i.e. daily, weekly, and monthly and so on. The reports include service and support related reports such as

- Incident management report
- Problem management report
- Availability
- Change Management report

Team TCS project manager in consultation with AWI will identify the reports to be provided, period and the template for each report during the project execution before the final acceptance.

Operations

The proposed UC solution is complex application and involves many operations to deliver the intended services to Florida citizens. As part of TCS SDF, Team TCS has identified various operations activities that need to be carried out on a regular basis. The key operations / activities are depicted in the picture below.

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Team TCS will document detailed process and procedures required for each of the operations and maintenance activities. All documentation prepared will be submitted to AWI for review and sign-off. Once sign-off is received, the documents will be treated as controlled documents and managed as per the agreed document control process.

5.4.4 Agency Skills Requirement

c. Describe the skill sets, training, and technologies needed to for Agency staff to maintain the proposed UC solution.

In the AWI UC System implementation journey, Team TCS will work hand-in-hand with AWI to build required skill sets, training, and technologies needed for Agency staff to maintain the proposed UC solution. Team TCS will leverage the training and knowledge transfer best practices from its rich expertise in implementing Unemployment Compensation systems in Mississippi, Nebraska and New Mexico in preparing AWI staff for a successful maintenance of the UC System.

We have had outstanding success at readying our clients to maintain their systems. Our proven, mature and successful knowledge transfer approach is aimed at creating AWI UC System maintenance self-sufficiency for AWI. Team TCS collaborate with AWI staff with a focused effort on transferring knowledge throughout all the phases of AWI UC System's Software Development Life Cycle (SDLC).

Few of the larger pain points of UC System maintenance are unstable system architecture; improper knowledge transfer, functional, non-functional, technical training and skill set development; lack of proper documentation; non-existence of risk and defect registries and so on. Team TCS' SDLC processes will be planned very effectively and will address the pain areas early in the AWI UC System project life cycle. Some of the business drivers for skill set, training and technologies development include:

- Stable System Architecture;
- Improved planning and communication;
- Knowledge Management System;
- Strategic alignment between business strategy & operations;
- Internally consistent policies, standards, work procedures, best practices; and
- Improved collaboration.

All these business drivers are part of TCS best practices and Team TCS will address them in all the phases of AWI UC System's Software Development Life Cycle (SDLC) and more predominantly in training, and project close-out phases.

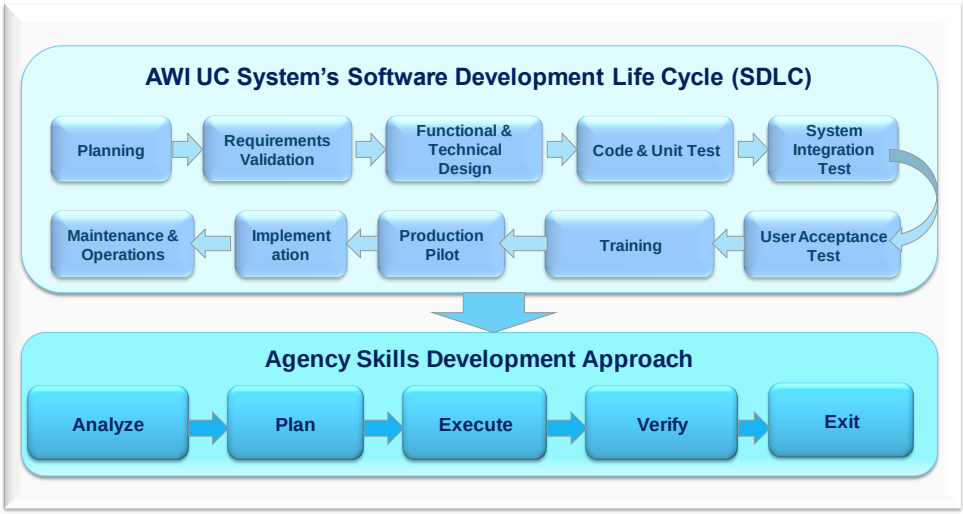

Exhibit 5-93 Agency Skills Development Approach

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Team TCS Knowledge Transfer Processes will ensure that AWI staff has the required skill sets, training and technologies to successfully maintain AWI UC System

Team TCS believes that knowledge transfer is a continuous process and not a one-time activity. This belief comes from the fact that knowledge is created on an on-going basis in the project team. This knowledge will be documented in real-time during all the SDLC phases to prevent leakage of knowledge. Team TCS also believes that the best way to ensure knowledge transfer among teams is to ensure that the teams work in collaboration. To fulfill the twin requirements of continuous knowledge transfer and collaboration amongst all stakeholders, Team TCS proposes a collaboration methodology that will be an amalgamation of the AWI's work culture and the TCS "way of working". In addition to this, we propose a formal transition process towards the engagement to ensure that agency personnel are able to properly, effectively and independently operate and maintain the UC System.

The transition process for Agency Skills Development will include the following phases:

Analyze: During the Planning and Requirement Validation phases, Team TCS will analyze and assess the skill sets, training, and technologies needed to maintain the AWI UC System.

Plan: During this phase, the Team TCS and AWI managers will work on the following points:

- Skill sets, training, and technologies required by the team member to be productive and contributive during AWI UC System maintenance;
- Functional skill sets required;
- Technology (programming languages, database, platforms and so on) skill sets required;
- Process/Methodology skill sets required for application development, support, and enhancements;
- Individual owners for each functional and technological area will be identified from both the TCS and the agency teams;
- Timing of when each of the skills and competencies is required;
- Reporting and monitoring to determine whether the knowledge transfer has been successful; and
- Appropriate milestones to test and measure progress.

Execute: During this phase, Team TCS will start conducting knowledge transfer sessions for the agency staff. This will include

- Conducting sessions on the functional flows, application source code, processes and database structures;
- Providing basic information about the solution such as high-level architecture, list of components, hardware and software configurations and so on;
- Application support training covering at least
- Application knowledge
- Emphasis on special situations, including foreseeable errors, exceptions and emergency conditions
- Solving tickets from ticket history log, known error database
- Process, standards and checklists that need to be followed for each fix
- Documenting the UC System specific technology environment, security environment, support process, tools, and methodology;
- Documenting the installation, operation and maintenance of applications and data, defect/special situations history; and
- Formally handing over all project related documentation to the agency staff.

Verify: During this phase, Team TCS will monitor the comfort level of the agency personnel with the solution.

Exit: During this phase, the agency personnel will take over complete ownership of the support. The TCS team will exit the engagement.

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The Exhibit 5-94 AWI Staff Skill Sets, Training and Technologies Required contains a preliminary list of required technologies and skill sets. The final list will be developed during the project execution time after approval from AWI.

Exhibit 5-94 AWI Staff Skill Sets, Training and Technologies Required

Technologies And Skill Sets Required	Description
Functional Skill set Required	
Claims	Functional knowledge of Claims in AWI UC System. This includes: Initial and Continuing Claims, Wage Determination, Short Time Compensation (STC), Trade Readjustment Act (TRA), Disaster Unemployment Assistance (DUA), Special Payments, Customer Information Requests, Audit, Federal Reporting and Workforce;
Appeals	Functional knowledge of Appeals in AWI UC System
Benefit Payment Control	Functional knowledge of Benefits in AWI UC System
Adjudication	Functional knowledge of Adjudication, which includes Adjudication and Employer Chargeability in AWI UC System
Document Imaging and Management	Functional knowledge of Document Imaging and Management
Interactive Voice Response (IVR) System	Functional knowledge of IVR System
Workflow Management	Functional knowledge of Workflow Management System
Case Management	Functional knowledge of Case Management System
Customer Relationship Management (CRM)	Functional knowledge of CRM System
Automated System Interfaces	Functional knowledge of Interfacing System, including internal and external systems
Account Management	Functional knowledge of UC System Account Management
Business Rules Engine	Functional knowledge of Business Rules Engine
Reengineering	Functional knowledge of Business Process Reengineering
Project Management Skill Sets Required	
Knowledge of PMP	Project Management
Technology Skill Sets Required	
Microsoft Project	Project Management
Java/J2EE	Programming language and platform
Genesys IVR, ACD, CTI and Contact Center Platform	Interactive Voice Response System, CTI, ACD and call center technologies
IBM WebSphere Product Stack HTTP Server WebSphere Application Server WebSphere Process Server	Middleware software

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Technologies And Skill Sets Required	Description
IBM iLOG	Business Rules Engine
DB2	Centralized database
IBM InfoSphere Warehouse	Data warehouse solution
IBM InfoSphere Datastage	ETL System
Cognos	Reporting System
IBM Tivoli Directory Server, IBM Tivoli Composite Application Managers, WebSphere Business Monitor, IBM Tivoli Identity Management Suite	Security and System Monitoring Tools
Perceptive DMS	Document Management System (DMS)
Perceptive ImageNow	Document Imaging System
HP Exstream	Correspondence System
Universal Coder & Mailstream Plus	Address Validation System
Rational Tools Rational Application Developer Rational Software Architect Rational RequisitePro Rational Clearcase Rational Test Manager Rational Performance Tester	Development and Testing tools
Process/Methodology Skill Sets Required	
Rational Unified Process	Software Development Life Cycle (SDLC)
Knowledge of CMMi, PCMMi, ISO	Software Engineering and Quality Processes

Please refer to the sections "5.2.2 Proposed End User Training Approach And Methodology" and "5.2.3 Proposed Approach And Methodology For The Development Of User Documentation" for more details on end user training and user documentation.

Team TCS' proven, mature Knowledge Transfer Processes will ensure that AWI staff have the required skill sets, training and technologies to successfully maintain AWI UC System

5.4.5 Proposed Approach To Handling Version Upgrades

e. Describe the proposed approach to handling version upgrades during implementation.

Currently, team TCS does not envisage any version upgrades during the implementation phase. The latest version of the proposed software component available at the time of contract signing will be standardized till the final acceptance. However TCS is open for upgrading to a newer version based on AWI's specific requirements on a case-to-case basis. The same will be taken up through the agreed change management process.

Team TCS will use TCS' comprehensive set of processes and methodologies defined in TCS' iQMS for providing efficient warranty, maintenance and support services to AWI. TCS' processes and approaches are evolved based on the experience gained in various large projects. TCS has taken the best practices from industry standards such as

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ITIL and CoBIT and refined its iQMS processes. Team TCS' approach will help in providing efficient and seamless services to AWI. In addition, the approach will also lead to simplified and easier transition of services at the end of the contract.

5.5 Value Added Services - Innovative Ideas

Value added services are services beyond those services previously outlined that you may provide to offer additional benefits to AWI. Describe and clearly label any value added services offered to the Agency. Although the Agency has provided a statement of need and mandatory requirements for Respondents, these are not intended to limit Respondent's innovations or creativity in preparing a response to accomplish these goals. Innovative ideas, new concepts and partnership arrangements other than those presented in this Invitation to Negotiate, will be considered.
For example, these might include unique business features, special services, offer costs or shared savings, discounts or terms and conditions specific to each Respondent.
Additional costs or shared savings associated with value added services or innovative ideas should not be included in Attachment S, Cost Response but should be included as an appendix to the Cost Response.

5.5.1 Overpayment Prevention Algorithm

The TCS Transfer System implements several overpayment prevention mechanisms to reduce the overpayment burden from the agency's trust fund.

Benefits:

Reduced burden on agency's trust fund

- The system prevents the fraud upfront by the following means:
- SSN validation with Social Security Administration
- Alien verification with Immigration and Naturalization Services
- If the claimant has reported excessive earnings in two consecutive weeks, the third week the claimant is forced to file an Additional Initial claim if the earnings are not reported.
- Automatic detection of issues based on the claimant's responses.
- Name mismatch issue if the name on the wage file is not matching with the claimant's name.
- Carrying over previous disqualifications.
- Algorithm based profiling of potential fraudulent claimant

The unique algorithm based profiling of claimants provides a heads on to the agency and helps identify issues before any payment is made to the claimant.

- Key points of the algorithm are:
- Configurable parameters
- Input from Core BPC Processes
- Implemented using business rules
- Profiling and ranking of potential fraud claimants

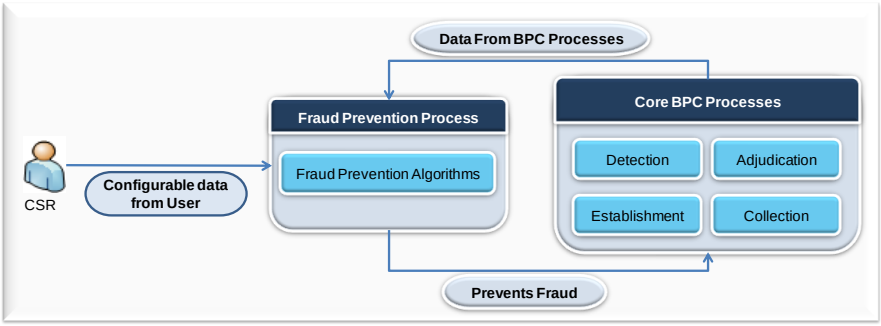

Exhibit 5-95 Figure 2 Fraud Prevention Algorithm Process

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5.5.2 Customer Quick Response

There are several questionnaires sent to employers and claimants through mail (correspondence). Customer Quick Response capability is provided by printing an access code and an Internet URL in each of these correspondence documents – giving users the choice to either respond to correspondence by filling in the paper questionnaire OR by visiting the URL and entering the access code, which will pull up as much information as possible, in a pre-populated electronic questionnaire.

Benefits:

Reduced cycle time of response requested

5.5.3 Call Center Implementation

Team TCS proposes to implement our call center solution in the first year of the UC Project execution and replace the existing call center with the new state-of-art call center facilities. Our call center solution will be able to meet huge call volumes efficiently with high availability and disaster recovery mechanism. Team TCS will build temporary interface programs to interact with the current legacy system and partially modernized UC System.

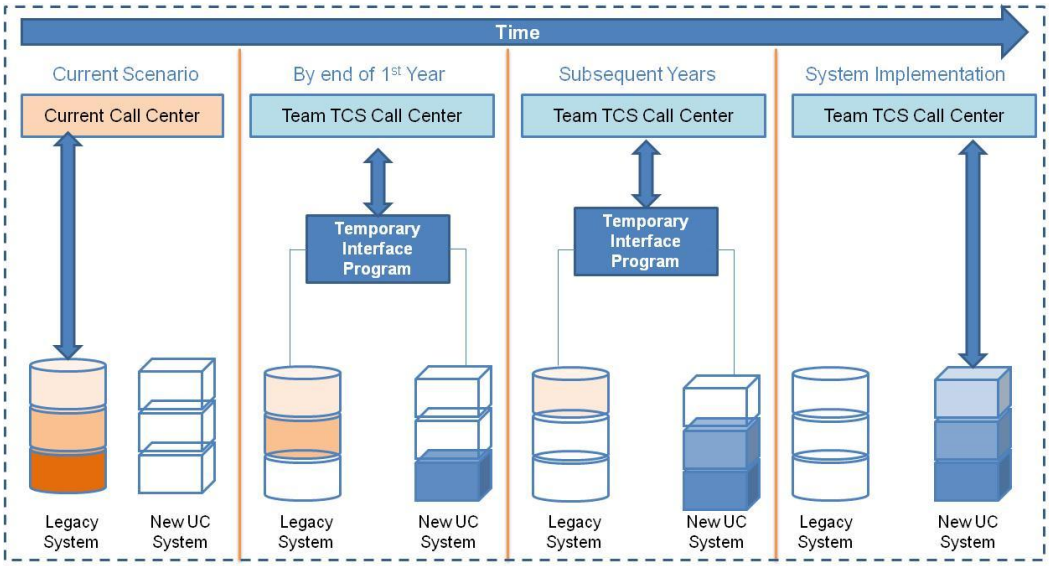

Exhibit 5-96 Alternative approach for Call center Implementation

Benefits of this initiative:

- AWI can serve the claimants in a better manner than earlier as our solution is capable of meeting high volumes of user requests which results in high customer satisfaction
- Claimants can have the flexibility to place their claims through Interactive Voice Response (IVR) system either by Speech or touch-tone
- Helps AWI to analyze the future work load on call center including IVR Systems early before final deployment of UC Systems and better equipped to meet the customer expectations
- Helps AWI in optimized utilization, tracking and scheduling of the contact center workforce
- Ease of upgrade to enable future enhancements to the solution as per the business needs

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