Common Services Platform (CSP)

NTIS, in conjunction with our Joint Venture Partner HRWorX, is offering an enterprise level platform for rapid data collection, export, and form population. We specialize in data collection, population, and deployment. We offer online solutions for any agency that is in need of a more modular data collection system with the intent of moving from paper based processes to paperless, data-centric processes. CSP Online was designed with our client's brand and UI in mind. From this robust online platform clients can access an array of tools such as: process management, general workflow, form rendering, task management. The entire system is tailored to integrate with our clients new and existing systems.

We offer the most progressive data collection and population system available. Our proprietary Rapid Interview Process Designer (RIPD) makes this CSP the fastest and most efficient, interview based, data collection system available. Its robust infrastructure streamlines data collection, population and deployment.

NTIS and HRWorX have been able to take the data collection process to the next level. Our CSP allows an agency to collect data for applications developed in CSP, or for third party applications, within a single platform. This platform provides for a Common User Interface, for seamless data collection, regardless of what application needs the information. **More importantly**, this platform builds its unique workflows, **on the fly**, for each data collection process.

Our proprietary 'Interview Sessions on the Fly' data collection platform allows an agency to collect data for single or multiple processes in the same interview session just by selecting (on the fly) the: Forms, Tasks, Approvals, and any associated Processes. Our unique and proprietary *RIPD* enables us to easily and quickly add forms or data collection requirements at any time in the process.

Our CSP is an integrated platform for collecting information as data to eliminate the need for paper, while keeping the original paper document as an optional output. The platform works with the latest in Open Source Technologies such as Java, Apache, Hibernate, Struts and other current open source development technologies. Our database of choice is Oracle 9i and above, but currently working with MS SQL server and open source PostgreSQL. Our system is browser and web server agnostic and has been tested on all the major web servers and browsers in the market.

Workflow is based on JBPM within our RIPD. We have developed a unique implementation of workflow specifically for the detailed and granular functionality of collecting large amounts of data using hundreds of forms and thousands of interview wizard pages. The workflows are dynamically created for each separate user experience based on the selected documents, tasks, actors, and individual processes required for the entire selected process….regardless of what process is selected at any given time. Our system utilizes both business rules workflow for approvals and task management and our own unique dynamic workflow for the very detailed interview wizard that can deliver an interview session with unlimited questions for unlimited concurrent documents (or other data collection screens) in the proper logical flow. The interview

process will only ask the questions necessary based on the requirements of the user completing the session, the answers provided, and the documents selected. The submitted results are the original approved documents, if needed, as well as the data collected and exported in any format that is required by the agency or system; XML, database views, direct integration, etc.

The features of CSP are:

A common platform with a single user interface for all users

- Login, password protection, and data collection meet strict government C&A standards.
    - Current C&A in two government hosting facilities and several other agencies.
- Master enterprise library of forms with multiple local libraries at each organizational entity
- Ability to create unlimited document sets from the available library.
    - Create standard document sets for each process
    - Create document sets that are unique to a user, location, or interview session
    - Document sets cascade to sub organizational entities to better control standard and custom sets
    - All documents and data collection screens remain updated throughout the enterprise
    - All data collection is done through an interactive interview process regardless of the type or number of documents selected.
- The common UI gives each user the same look and feel each time they login regardless of the information being collected or presented. Whether using a HRWorX developed application or as a platform being used to collect information for other applications, the end user experience is the same.
- Captures and retains data from completed interviews for future sessions
- Ability to access data from external applications to pre-populate interview sessions.
- Supports all enterprise documents and associated processes
- Supports multiple configurable processes which dynamically develop (on the fly) the workflows, each with multiple tasks, multiple forms, and multiple actors (as opposed to standard workflows that are pre-defined)
- Create users, roles, and permissions with a comprehensive organizational entity structure
    - Control user rights to administer, edit, and view down to a specific form or data set
- Perform Quality Assurance on data prior to export
    - Validate data against a standard data set
    - View completed documents and submitted data for completeness and accuracy.

Easy to use web services that tie the whole process together with other systems

- CSP provides a standalone capability or can operate as the data collection framework for third party applications such as workflow, database, or content management applications.
- The web services interface provides for real time interconnection with these applications.

- Eliminates re-keying of data
- Accepts and provides status updates

Comprehensive auditing for compliance and reporting

- CSP captures and tracks all the activities within the system and makes them available for end to end reporting.
- Captures the appropriate information for compliance and non-repudiation.

Approval creation and routing

- Documents can have multiple actors, approvals, and signature types.
- The task management module gives the administrator the ability to establish the approval workflow if used independently of other applications.
- CSP can provide validated information to third party workflow products for further processing, approvals, and other business workflow activities.
- Can appropriately deal with rejected status by appropriately capturing this status and continuing or re-routing back to a previous step in the process.

Digital signatures

- CSP allows for review of final documents and digital signatures prior to submission
- CSP can work with LDAP, ID cards, OpenID and others
- CSP has the ability for multi-part documents to be completed, signed, and routed to multiple actors. Each participant in the process is notified and provided access to the system to complete their portion of the form, linearly or in parallel, and digitally sign or print and hand sign each document.

Dashboards

- CSP can provide multiple management dashboards for each user and their associated tasks
- CSP provides a user dashboard to track the tasks of a person providing the information being collected.
- CSP provides automated reminders, pre and post event tasks, and Quality Assurance tracking.
- Dashboards provide simple, comprehensive views into the status of each task or process. The system has unlimited number of organizational levels with roll-up capabilities from child to parent entities. This allows for metric and analytical reports from each sub-organization or successive higher-level entities.
- The system allows for attached documents and additional comments

Technology

- CSP is developed using the following technologies:
  - Java version 6 (keep updated to current versions)
  - Oracle version 9i through 11g
  - SQL server
  - Apache Tomcat Version 6 (keep updated to current versions)

HRWorx
pioneering the future.

- o Compatible with major web servers
- o Hibernate and Struts
- o All major web browsers, including Mac versions
- CSP has a metadata driven development engine (process roles, actor type, tasks)
- CSP has incorporated workflow using JBPM
- CSP runs on Linux, UNIX, and MS Windows server systems
- CSP and associated applications are completely web based with Adobe Reader as the only required client
- CSP can be hosted and supported in our client environments
- Highly scalable and compatible with load balancing, able to handle several thousand concurrent transactions
- Full Web services for interconnections with other systems
- Currently integrated with several government external systems; Oracle, PeopleSoft, HR Connect, eOPF, E-Verify, MS SQL server, .net environments, NGA.net, USA Staffing, third party digital signature systems (as well as our own), and other workflow applications
- Section 508 compatible

Benefits

- Common User Interface for all data collection requirements
- Common forms library for ease of maintenance, upgrades, and compliance
- Significant reduction in errors, lost data, incomplete data, and incorrect data with simple interview sessions collecting only required information.
- Complete context sensitive help on each page
- COTS development platform with the ability to get started immediately and in small projects without the cost of a major enterprise overhaul. Fits where needed and doesn't interrupt current operations.