Response to the Request for Information for the Freedom of Information Act Technology Showcase

Progressive Technology Federal Systems, Inc. (PTFS) understands that the Chief FOIA Officers Council’s Technology Committee is planning a two-day NexGen FOIA Tech Showcase event in February 2022 to identify FOIA technology solutions for federal agencies. PTFS is fully experienced with the intelligence community and other federal agencies’ life cycle processes associated with document classification-declassification and associated records processing, and we are interested in presenting a video-demonstrations during the Tech Showcase for the following Topic Areas: Topic 3 - Redaction Tools

Our corporate information is as follows:

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**PROGRESSIVE TECHNOLOGY FEDERAL SYSTEMS, INC. OUTLINE FOR DAY #1 TOPIC AREA #3 REDACTION TOOLS**

1. **PTFS OVERVIEW**

PTFS specializes in the development and implementation of product and service solutions in the areas of enterprise content management, document classification-declassification and redaction, media digitization/conversion and associated records processing. We are the Original Equipment Manufacturer (OEM) of Knowvation™, a Commercial-Off-the-Shelf (COTS) enterprise content services platform (CSP) used by the Federal Government, state and local agencies and other organizations. PTFS has developed complementary capabilities for the core Knowvation product, including Knowvation DX™ which has workflow automation and redaction capabilities to support redaction, PII removal and declassification processing.

2. **KNOWVATION DX PRODUCT OVERVIEW**

PTFS has built the Knowvation DX application on top of our flagship Knowvation CSP software. Knowvation DX is an enterprise solution that provides workflow, case management and semi-automated redaction/highlighting functionality. Knowvation DX’s semi-automated redaction process reduces costs and improves accuracy. Core elements include the ability to search across documents electronically for sensitive words, concepts and character/numeric strings using a specially developed fuzzy (pattern) search capability that maintains low/no false negatives while minimizing false positives. Knowvation DX is integrated with the open-source workflow application Java Business Process Management (jBPM) which enables fast and cost-effective workflow configuration to support complex and evolving organizations. Knowvation’s flexible workflow supports case file management and enables system administrators to make workflow changes quickly without the use of expensive programmers. The application is 100% web based, cloud ready and requires no client-side software -- a feature that facilitates more efficient processing for both inter-agency and intra-agency reviews. The Knowvation web services platform supports future growth and rapid modifications Knowvation deployments using Top Secret and Secret cloud services allows for further flexibility and savings. The primary benefits are increased...
productivity resulting in lower costs, and improved accuracy reducing the chances of an inadvertent release.

2.1. **Knowvation DX Functions**

**Searching.** Knowvation DX provides powerful and effective search capabilities for words, phrases and numeric/character strings using a combination of search modes: concept, Boolean, fuzzy text and wild cards. These help to eliminate false negatives due to context, Optical Character Recognition (OCR) errors, misspellings, and typos.

**Optical Character Recognition (OCR)**

**Dirty Word Glossary.** Knowvation DX can ingest a dirty word list to be used in a query against the document. Dirty words are defined as words, phrases, concepts, acronyms numeric/charater strings and other text that might require highlighting, coding and redaction following FOIA rules. Users can store, retain and modify a list of targeted words or phrases which will be automatically highlighted on any viewed document, notifying the user for pending redaction processing. Multiple lists can be viewed, shared, distributed, or assigned between users or groups.

**Workflow.** Knowvation DX is integrated with a robust workflow engine based on jBPM, an open source tool which allows users to replicate the redaction business processes rapidly in the application without any programming requirements. This includes the ability for managers to assign documents to specific FOIA/declassification analysts, and analysts to accept or reject documents. Other staff can initiate reassignments, automated document assignment based on sensitive content analysis, and automatic forwarding of documents to managers who perform Quality Control and Quality Assurance (QC/QA) on the validation decision of the redaction analysts.

**Audits and Reports**

**Vision with the Cloud**

**Hit Highlighting and Redaction.** Knowvation DX highlights sensitive content along with a code for the analyst to review. The analyst can highlight additional areas, including text, charts/tables/figures, handwriting in the margin, and other sensitive content. The highlights can be converted to redactions which permanently remove any targeted text along with its associated metadata, including both image text as well as hidden text. This ensures against any possibility of identifying or extracting the original word or phrase. At the end of the process, the original file is maintained and instruction sets are generated to recreate highlighted and redacted documents.

**Machine Learning Add-On.** While artificial intelligence systems are the panacea for a FOIA solution, machine learning is a real-world capability that will enhance Knowvation DX’s sensitive content library. Information provided by the analyst will enhance the system’s ability to assist the reviewer. This capability is planned in the Knowvation DX roadmap and will provide a method for the system to become smarter as highly knowledgeable and trained FOIA analysts perform their job. This add-on Knowvation DX capability was proposed for research and development for the product under a US Air Force Small Business Innovative Research Grant which was recently awarded to PTFS.

**Cloud Based SaaS Offering.** Knowvation DX is available on the Amazon Web Services commercial EC2 Marketplace as a SaaS offering. The product is also available on the Government’s secure C2S Commercial Cloud Services contract from the Marketplace or via a BYOL mechanism.