U.S. Department of Commerce
U.S. Patent and Trademark Office

Privacy Threshold Analysis
for the
Patent Search System – Specialized Search (PSS-SS) System

U.S. Department of Commerce Privacy Threshold Analysis

USPTO Patent Search System – Specialized Search (PSS-SS)

Unique Project Identifier: PTOP-007-00

Introduction: This Privacy Threshold Analysis (PTA) is a questionnaire to assist with determining if a Privacy Impact Assessment (PIA) is necessary for this IT system. This PTA is primarily based from the Office of Management and Budget (OMB) privacy guidance and the Department of Commerce (DOC) IT security/privacy policy. If questions arise or further guidance is needed in order to complete this PTA, please contact your Bureau Chief Privacy Officer (BCPO).

Description of the information system and its purpose: *Provide a general description (in a way that a non-technical person can understand) of the information system that addresses the following elements:*

The E-Government Act of 2002 defines "information system" by reference to the definition section of Title 44 of the United States Code. The following is a summary of the definition: "Information system" means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information. See: 44. U.S.C. § 3502(8).

Patent Search System-Specialized Search (PSS-SS) is a Major Application that provides support to the Patent Cost Center. It is considered a mission critical system. PSS-SS provides access to highly specialized data that may include annual submissions of nucleic and amino acid sequence or prior-art searching of polynucleotide and polypeptide sequences, and other types of information that may be more scientific or the technology-based, Patent Linguistic Utility Service (a query by example search system), Chemical Drawing ability, and Foreign Patent Data. The PSS-SS system is made up of multiple applications that allow patent examiners and applicants to effectively search the USPTO Patent data repositories.

Requests are submitted to align a bio-sequence against all available bio sequences in a system and returns the top 50 bio sequences. The system produces a listing of high-scoring alignments with an alphanumeric identifier.

The PSS-SS system is made up of the following applications that allow patents examiners and applicants to effectively search the USPTO Patent data repositories:

Automated Biotechnology Sequence Search system (ABSS)

The purpose of the ABSS system is to sustain the PTO's business function of performing prior-art searching of molecular sequences claimed in patent applications examined by Technology Center 1600 (Biotechnology). The ABSS is an in-house PTO system designed to search electronic sequence listing data submitted by applicants, and support searching of molecular sequences using data stored from both applicant submissions and public/commercial databases of published sequence information.

Catalogue Application Migration and Upgrade (CAMU)

The CAMU Application Information System (AIS) is an Information Library System used to support document tracking by the Scientific and Technical Information Center (STIC).

Electronic Chemical Drawing System (ECDS)

The primary objective of ECDS is to provide a robust chemical drawing and naming program that can be made available to Patent Business Employees as a part of the Patent Examiner's Toolkit (PET). PET is installed on the patent examiner desktop baseline.

Foreign Image and Data Load/ Foreign Image Search Capability (FIDL/FISC)

The purpose of the FIDL/FISC subsystem is to allow Production Services Branch (PSB) personnel to load foreign patent image, header, bibliographic, and classification data from tape, CD and DVD media. FIDL supports the Cooperative Patent Collaboration (CPC) Backend. The front-end search clients (EAST/WEST) retrieve all available images from FIDL.

Publication Site for Issued and Published Sequences (PSIPS)

PSIPS system is an application that provides a Web-based interface access to patent grants and publications. All PSIPS data is publicly available. The application's goal is to update the currently available repository system of Biotech Sequences, mega tables, and mega data.

a) *Whether it is a general support system, major application, or other type of system*

   PSS-SS is a major application information system.

b) *System location*

   Madison Building, 600 Dulany Street Alexandria, VA 2231

c) *Whether it is a standalone system or interconnects with other systems (identifying and describing any other systems to which it interconnects)*

   PSS-SS interconnects with the following:

   - **PE2E (Patent End to End):** PE2E is a master system portfolio consisting of next generation Patents AIS. The goal of PE2E is to make the interaction of USPTO's users as simple and efficient as possible in order to accomplish user goals. PE2E is a single web-based examination tool providing users with a unified and robust set of tools.

   - **Patent Search System Primary Search (PSS-PS):** PSS-PS is a master system that processes, transmits, and stores data and images to support the data-capture and conversion requirements of the USPTO to support the USPTO patent application process.

   - **Patent Capture and Application Processing System – Examination Support (PCAPS-ES)**: PCAPS-ES is a master system that provides a comprehensive prior art search capability and the retrieval of patent and related information, which comprise text and images of United States (US), European Patent Office (EPO) and Japan

Patent Office (JPO patents), US pre-grant publications, Derwent data, and IBM Technical Disclosure Bulletins.

- **Patent Capture and Application Processing System – Initial Processing (PCAPS-IP):** PCAPS-IP is an AIS that provides support to the USPTO for the purposes of capturing patent applications and related metadata in electronic form; processing applications electronically; reporting patent application processing and prosecution status; and retrieving and displaying patent applications. PCAPS-IP is comprised of multiple AISes (components) that perform specific functions, including submissions, categorization, metadata capture, and patent examiner assignment of patent applications.

- **Enterprise Desktop Platform (EDP):** EDP is an infrastructure information system that provides a standard enterprise-wide environment to manage desktops and laptops running on the Windows operating system (OS), providing United States Government Configuration Baseline (USGCB) compliant workstations.

- **Service Oriented Infrastructure (SOI):** SOI provides a feature-rich and stable platform to deploy USPTO applications.

- **Enterprise Software System (ESS):** ESS provides Enterprise Directory Services, Role-Based Access Control System, Email as a Service, PTO Exchange Services, Symantec Endpoint Protection, Enterprise SharePoint Services, etc.

- **Enterprise Monitoring and Security Operations (EMSO):** EMSO provides Security Incident and Event Management, Enterprise Forensic, Enterprise Management System, Security and Defense, Enterprise Scanner, Enterprise Cybersecurity Monitoring Operations, Performance Monitoring Tools, Dynamic Operational Support Plan, and Situational Awareness and Incident Response.

- **Database Services (DBS):** DBS is an infrastructure information system that provides a Database Infrastructure to support USPTO database needs.

- **Enterprise Windows Services (EWS):** EWS is an Infrastructure information system that provides a hosting platform for major applications for USPTO.

- **Enterprise UNIX Services (EUS):** The EUS system consists of assorted UNIX operating system variants (OS), each comprised of many utilities along with the master control program, the kernel.

- **Network and Security Infrastructure System (NSI):** The NSI is an infrastructure information system, which provides an aggregate of subsystems that facilitates the communications, secure access, protective services, and network infrastructure support for all USPTO IT applications.

- **Data Storage Management System (DSMS):** DSMS is an infrastructure system that provides archival and storage capabilities securely to the USPTO. The information system is considered an essential component of USPTO's Business Continuity and Disaster Recovery program. DSMS consists of the following subsystems: Boyers Data Capture System, Enterprise Tape Backup System, and Storage Infrastructure System.

d) *The purpose that the system is designed to serve*

PSS-SS provides support to the Patent Cost Center. The system is made up of multiple applications that allow Patent examiners and applicants to effectively search the USPTO Patent data repositories.

e) *The way the system operates to achieve the purpose*

The PSS-SS is an AIS that provides support to the Patent Cost Center. It is considered a mission critical "system". PSS-SS provides access to highly specialized data that may include annual submissions of nucleic and amino acid sequence or prior-art searching of polynucleotide and polypeptide sequences, and other types of information that may be more scientific or the technology-based, Patent Linguistic Utility Service (a query by example search system), Chemical Drawing ability, and Foreign Patent Data. The PSS-SS system is made up of multiple applications that allow Patents examiners and applicants to effectively search the USPTO Patent data repositories.

f) *A general description of the type of information collected, maintained, used, or disseminated by the system*

PSS-SS supports the legal determination of prior art relevant to patent applications where such art is as of unusual form or size, including RNA/DNA sequences, jumbo applications, chemical structures, and computer program listings. It provides specialized search databases, which are necessary for particular technologies. For example, Biosequences are searched using ABSS, and foreign documents are loaded and searched through FIDL/FISC and EPOQUE. This area also supports the user interface that is available on USPTO.gov for the public to search full text of patents and full text of published applications.

g) *Identify individuals who have access to information on the system*

The following are users of the system: Scientific and Technical Information Center (STIC) users, Reference Library users, Digital Resources Division, Patent Business Employees, Platform Services Branch (PSB) users, Office of Patent Information Management (OPIM) users, Patent Examiners, Information Library System (ILS) users, United States Patent and Trademark office (USPTO) Patents users, Publication Site for Issued and Published

Sequence (PSIPS) Operators, Trademark Examiners, Search and Information Resources Administration (SIRA), Office of the Chief Information Officer (OCIO), and Public users.

h) *How information in the system is retrieved by the user*

Users retrieve information through web interfaces connecting various sub-systems of the PSS-SS Master system.

i) *How information is transmitted to and from the system*

For external connections to the DMZ, Contractor Access Zone (CAZ), and/or external networks, device management connections use SSH, PKI, and Secure ID VPN-based connections. User data connections use PKI and Secure ID VPN and SSL/TLS and only authorized USPTO systems may access the internal PTONet.

Questionnaire:

1. Status of the Information System

1a. What is the status of this information system?

☐   This is a new information system. *Continue to answer questions and complete certification.*

☐   This is an existing information system with changes that create new privacy risks.
Complete chart below, continue to answer questions, and complete certification.

Changes That Create New Privacy Risks (CTCNPR)					
a. Conversions	☐	d. Significant Merging	☐	g. New Interagency Uses	☐
b. Anonymous to Non-Anonymous	☐	e. New Public Access	☐	h. Internal Flow or Collection	☐
c. Significant System Management Changes	☐	f. Commercial Sources	☐	i. Alteration in Character of Data	☐
j. Other changes that create new privacy risks (specify):					

☒   This is an existing information system in which changes do not create new privacy risks, and there is not a SAOP approved Privacy Impact Assessment. *Continue to answer questions and complete certification.*

☐   This is an existing information system in which changes do not create new privacy risks, and there is a SAOP approved Privacy Impact Assessment (version 01-2015 or 01-2017). *Continue to answer questions and complete certification.*

☐   This is an existing information system in which changes do not create new privacy risks, and there is a SAOP approved Privacy Impact Assessment (version 01-2019 or later). *Skip questions and complete certification.*

1b. Has an IT Compliance in Acquisitions Checklist been completed with the appropriate signatures?

☐   Yes. This is a new information system.

☐   Yes. This is an existing information system for which an amended contract is needed.

☐   No. The IT Compliance in Acquisitions Checklist is not required for the acquisition of equipment for specialized Research and Development or scientific purposes that are not a National Security System.

☒   No. This is not a new information system.

2. Is the IT system or its information used to support any activity which may raise privacy concerns?

   NIST Special Publication 800-53 Revision 4, Appendix J, states "Organizations may also engage in activities that do not involve the collection and use of PII, but may nevertheless raise privacy concerns and associated risk. The privacy controls are equally applicable to those activities and can be used to analyze the privacy risk and mitigate such risk when necessary." Examples include, but are not limited to, audio recordings, video surveillance, building entry readers, and electronic purchase transactions.

   ☐   Yes. *(Check all that apply.)*

Activities			
Audio recordings	☐	Building entry readers	☐
Video surveillance	☐	Electronic purchase transactions	☐
Other (specify):			

   ☒   No.

3. Does the IT system collect, maintain, or disseminate business identifiable information (BII)?

   As per DOC Privacy Policy: "For the purpose of this policy, business identifiable information consists of (a) information that is defined in the Freedom of Information Act (FOIA) as "trade secrets and commercial or financial information obtained from a person [that is] privileged or confidential." (5 U.S.C.552(b)(4)). This information is exempt from automatic release under the (b)(4) FOIA exemption. "Commercial" is not confined to records that reveal basic commercial operations" but includes any records [or information] in which the submitter has a commercial interest" and can include information submitted by a nonprofit entity, or (b) commercial or other information that, although it may not be exempt from release under FOIA, is exempt from disclosure by law (e.g., 13 U.S.C.)."

   ☒   Yes, the IT system collects, maintains, or disseminates BII.

   ☐   No, this IT system does not collect any BII.

4. Personally Identifiable Information (PII)

4a. Does the IT system collect, maintain, or disseminate PII?

   As per OMB 17-12: "The term PII refers to information that can be used to distinguish or trace an individual's identity either alone or when combined with other information that is linked or linkable to a specific individual."

   ☒   Yes, the IT system collects, maintains, or disseminates PII about: *(Check all that apply.)*

☐   DOC employees

☐   Contractors working on behalf of DOC

☐   Other Federal Government personnel

☒   Members of the public

☐ No, this IT system does not collect any PII.

If the answer is "yes" to question 4a, please respond to the following questions.

4b. Does the IT system collect, maintain, or disseminate Social Security numbers (SSNs), including truncated form?

☐   Yes, the IT system collects, maintains, or disseminates SSNs, including truncated form.

Provide an explanation for the business need requiring the collection of SSNs, including truncated form.
Provide the legal authority which permits the collection of SSNs, including truncated form.

☒   No, the IT system does not collect, maintain, or disseminate SSNs, including truncated form.

4c. Does the IT system collect, maintain, or disseminate PII other than user ID?

☒   Yes, the IT system collects, maintains, or disseminates PII other than user ID.

☐   No, the user ID is the only PII collected, maintained, or disseminated by the IT system.

4d. Will the purpose for which the PII is collected, stored, used, processed, disclosed, or disseminated (context of use) cause the assignment of a higher PII confidentiality impact level?

Examples of context of use include, but are not limited to, law enforcement investigations, administration of benefits, contagious disease treatments, etc.

☐   Yes, the context of use will cause the assignment of a higher PII confidentiality impact level.

☒   No, the context of use will not cause the assignment of a higher PII confidentiality impact level.

If any of the answers to questions 2, 3, 4b, 4c, and/or 4d are "Yes," a Privacy Impact Assessment (PIA) must be completed for the IT system. This PTA and the SAOP approved PIA must be a part of the IT system's Assessment and Authorization Package.

CERTIFICATION

☒ I certify the criteria implied by one or more of the questions above **apply** to the Patent Search System-Specialized Search (PSS-SS) and as a consequence of this applicability, I will perform and document a PIA for this IT system.

☐ I certify the criteria implied by the questions above **do not apply** to the Patent Search System-Specialized Search (PSS-SS) and as a consequence of this non-applicability, a PIA for this IT system is not necessary.

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<td>

System Owner
Name: Nelson Yang
Office: Office of Patent Information Management (OPIM)
Phone: (571) 272-0826
Email: Nelson.Yang@uspto.gov

Signature: Users, Yang, Nelson
Digitally signed by Users, Yang, Nelson
Date: 2021.06.29 11:08:03 -04'00'

Date signed: _____
</td>
<td>

Chief Information Security Officer
Name: Don Watson
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Signature: DON R Watson
Digitally signed by DON R Watson
Date: 2021.06.30 07:23:57 -04'00'

Date signed: _____
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Privacy Act Officer
Name: John Heaton
Office: Office of General Law (O/GL)
Phone: (571) 270-7420
Email: Ricou.Heaton@upsto.gov

Signature: Users, Heaton, John (Ricou)
Digitally signed by Users, Heaton, John (Ricou)
Date: 2021.06.28 17:27:32 -04'00'

Date signed: _____
</td>
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Bureau Chief Privacy Officer and Co-Authorizing Official
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Signature: Users, Holcombe, Henry
Digitally signed by Users, Holcombe, Henry
Date: 2021.07.01 13:49:10 -07'00'

Date signed: _____
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Date: 2021.07.02 18:19:50 -04'00'

Date signed: _____
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