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U.S. Patent and Trademark Office

Privacy Impact Assessment
for the
Patent Search System – Primary Search and Retrieval (PSS-PS) System

Reviewed by: Henry J. Holcombe, Bureau Chief Privacy Officer

☑ Concurrence of Senior Agency Official for Privacy/DOC Chief Privacy Officer
☐ Non-concurrence of Senior Agency Official for Privacy/DOC Chief Privacy Officer

for Dr. Catrina D. Purvis — 09/30/2019

Signature of Senior Agency Official for Privacy/DOC Chief Privacy Officer — Date

U.S. Department of Commerce Privacy Impact Assessment
USPTO Patent Search System – Primary Search and Retrieval (PSS-PS) System

Unique Project Identifier: PTOP-008-00

Introduction: System Description

Provide a description of the system that addresses the following elements:

(a) a general description of the information in the system

The PSS-PS master system has multiple Automated Information Systems with search and retrieval automation tools that support the USPTO Patent examiners legal determination of prior art of patent applications.

(b) a description of a typical transaction conducted on the system

Application Image Retrieval System (AIRS)

The purpose of AIRS is to provide patent application images and metadata to the following subsystems: Examiners Automated Search Tool (EAST), Hypertext Transfer Protocol Print Service (HPS), Order Entry Management System (OEMS) and the Web Examiner's Search Tool (WEST).

Application Images on the Web (AIW)

AIW is an internet application that runs outside the USPTO firewall and provides an access point for public users to retrieve domestic patent application images. The purpose of AIW is to provide images and metadata to the Application Full-Text (AppFT) subsystem.

The Patent Image Retrieval System (PIRS)

The purpose of PIRS is to provide Patent images and metadata to the following subsystems: EAST, HPS, OEMS, and WEST.

Patent Images on the Web (PIW)

PIW is an internet application that runs outside the USPTO firewall and provides an access point for public users to retrieve domestic Patent images. The purpose of PIW is to provide images and metadata to the Patents Full-Text (PatFT) subsystem.

Web-based Examiner's Search Tool (WEST)

WEST is a Web browser-based client interface, which utilizes HTTP as a front end to the Bibliographic Retrieval System (BRS) database system. It operates over the USPTO Transmission Control Protocol/Internet Protocol (TCP/IP) Intranet (PTONet). This intranet tool also supports text search capabilities and retrieval functions of abstracts, images, and full-text patent documents from other domestic, international, and commercial databases.

PubWEST

PubWEST is the publicly-accessible version of WEST. PubWEST, similarly to WEST, provides search access to most USPTO patent text searchable databases.

Enterprise Text Search 1 (ETS1)

The ETS1 system is a continuation of the BRS Middle-tier Phase 1 and BRS Middle-tier Phase 2 systems. ETS1 is a multi-tiered application that improves the scalability and the performance of the BRS search system while using fewer system resources.

Examiners Automated Search Tool (EAST)

A single user interface that can be used to search for prior art of any type, this application integrates with other activities performed by patent examiners to reduce the time required to examine applications. EAST provides full text and abstract text data search and retrieval of domestic and international, commercial and government databases using the BRS search engine.

Public Examiners Automated Search Tool (PubEAST)

This application is the publicly-available version of EAST. It provides search request capability for most USPTO patent text searchable databases to public users. It has full text search capabilities from the following databases: USPAT, USOCR, EPO, and JPO text/image databases.

Patent Linguistic Utility Search (PLUS)

PLUS uses the BRS query by example technology to compare keywords in a patent application to keywords in published patent applications and granted patents. Search results include

matching patent and/or patent application numbers, and classification and sub-classification for patents matched, along with relevance ranking for the match.

European Patent Office Query System (EPOQUE)

EPOQUE connects to the Trilateral Secure Virtual Private Network (TSVPN), part of the USPTO Trilateral Network (TriNet), to access and allow queries from US Patent Examiners and other users to the European Patent Office (EPO) at The Hague, Netherlands.

HTTP Print Service (HPS)

HPS allows USPTO internal users and users in the public search rooms to print patent/publication application images to designated group printers.

Applications Full-Text (AppFT)

A standalone internet application that runs outside of the USPTO firewall and provides general public access to Pre-Grant, published patent applications. It connects to the PGPub/CSS application and AIW for images.

Patent Full Text on the Web (PATFT)

A stand-alone Internet application, which allows the general public to search and retrieve granted US patents. It runs outside the USPTO firewall with a copy of the USPTO BRS database that is provided to USPTO examiners.

Classification Data System (CDS)

CDS is a collection of applications and processes which support the capture and maintenance of patent and PGPub classification data of US documents as well as the maintenance of the USPC. CDS also supports the maintenance of the US-to-IPC Concordance and Limited Family data and is the data source of several classification publications.

Computer Search Systems (CSS)

CSS is a set of databases, conversion and load software, data administration tools, and procedures to maintain and keep available a number of internal, external, government, and commercial databases for text search and retrieval via other USPTO applications.

Electronic Patent Reference (EPR)

This is a single-user, client application that is downloaded on-demand from a Patent Application Information Retrieval (PAIR) server and installed on public personal computers. It provides patent references from PIW and AIW to applicants via the Private PAIR system.

(c) any information sharing conducted by the system

Data repositories allow information to be shared with internal stakeholders (e.g. patent examiners), and to the public.

(d) a citation of the legal authority to collect PII and/or BII

35 U.S.C. 1 and 115; 5 U.S.C. 301; 5 U.S.C. 301 and 35 U.S.C. 6, 42(c)

(e) the Federal Information Processing Standard (FIPS) 199 security impact category for the system

Moderate

Section 1: Status of the Information System

1.1 Indicate whether the information system is a new or existing system.

☐ This is a new information system.

☐ This is an existing information system with changes that create new privacy risks. *(Check all that apply.)*

☒ This is an existing information system in which changes do not create new privacy risks. *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):					

Section 2: Information in the System

2.1 Indicate what personally identifiable information (PII)/business identifiable information (BII) is collected, maintained, or disseminated. *(Check all that apply.)*

Identifying Numbers (IN)					
a. Social Security*	☐	e. File/Case ID	☐	i. Credit Card	☐
b. Taxpayer ID	☐	f. Driver's License	☐	j. Financial Account	☐
c. Employer ID	☐	g. Passport	☐	k. Financial Transaction	☐
d. Employee ID	☐	h. Alien Registration	☐	l. Vehicle Identifier	☐
m. Other identifying numbers (specify):					
*Explanation for the need to collect, maintain, or disseminate the Social Security number, including truncated form:					
*If SSNs are collected, stored, or processed by the system, please explain if there is a way to avoid such collection in the future and how this could be accomplished:					

General Personal Data (GPD)					
a. Name	☒	g. Date of Birth	☐	m. Religion	☐
b. Maiden Name	☐	h. Place of Birth	☐	n. Financial Information	☐
c. Alias	☐	i. Home Address	☒	o. Medical Information	☐
d. Gender	☐	j. Telephone Number	☒	p. Military Service	☐
e. Age	☐	k. Email Address	☐	q. Physical Characteristics	☐
f. Race/Ethnicity	☐	l. Education	☐	r. Mother's Maiden Name	☐
s. Other general personal data (specify):					

Work-Related Data (WRD)					
a. Occupation	☐	d. Telephone Number	☒	g. Salary	☐
b. Job Title	☐	e. Email Address	☒	h. Work History	☐
c. Work Address	☒	f. Business Associates	☐		
i. Other work-related data (specify):					

Distinguishing Features/Biometrics (DFB)					
a. Fingerprints	☐	d. Photographs	☐	g. DNA Profiles	☐
b. Palm Prints	☐	e. Scars, Marks, Tattoos	☐	h. Retina/Iris Scans	☐
c. Voice Recording/Signatures	☐	f. Vascular Scan	☐	i. Dental Profile	☐
j. Other distinguishing features/biometrics (specify):					

System Administration/Audit Data (SAAD)					
a. User ID	☒	c. Date/Time of Access	☒	e. ID Files Accessed	☒
b. IP Address	☒	d. Queries Run	☒	f. Contents of Files	☒
g. Other system administration/audit data (specify):					

Other Information (specify)

2.2 Indicate sources of the PII/BII in the system. *(Check all that apply.)*

Directly from Individual about Whom the Information Pertains					
In Person	☐	Hard Copy: Mail/Fax	☐	Online	☐
Telephone	☐	Email	☐		
Other (specify):					

Government Sources					
Within the Bureau	☒	Other DOC Bureaus	☐	Other Federal Agencies	☐
State, Local, Tribal	☐	Foreign	☐		
Other (specify):					

Non-government Sources					
Public Organizations	☐	Private Sector	☒	Commercial Data Brokers	☐
Third Party Website or Application			☐		
Other (specify):					

2.3 Indicate the technologies used that contain PII/BII in ways that have not been previously deployed. *(Check all that apply.)*

Technologies Used Containing PII/BII Not Previously Deployed (TUCPBNPD)			
Smart Cards	☐	Biometrics	☐
Caller-ID	☐	Personal Identity Verification (PIV) Cards	☐
Other (specify):			

☒	There are not any technologies used that contain PII/BII in ways that have not been previously deployed.

Section 3: System Supported Activities

3.1 Indicate IT system supported activities which raise privacy risks/concerns. *(Check all that apply.)*

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

☒	There are not any IT system supported activities which raise privacy risks/concerns.

Section 4: Purpose of the System

4.1 Indicate why the PII/BII in the IT system is being collected, maintained, or disseminated. *(Check all that apply.)*

Purpose			
To determine eligibility	☐	For administering human resources programs	☐
For administrative matters	☐	To promote information sharing initiatives	☐
For litigation	☐	For criminal law enforcement activities	☐
For civil enforcement activities	☐	For intelligence activities	☐
To improve Federal services online	☐	For employee or customer satisfaction	☐
For web measurement and customization technologies (single-session)	☐	For web measurement and customization technologies (multi-session)	☐
Other (specify): To provide a comprehensive prior art search capability and the retrieval of patent and related information for dissemination to public based on requirements stated in USC statutory code 35 U.S.C. Section 122.			

Section 5: Use of the Information

5.1 In the context of functional areas (business processes, missions, operations, etc.) supported by the IT system, describe how the PII/BII that is collected, maintained, or disseminated will be used. Indicate if the PII/BII identified in Section 2.1 of this document is in reference to a federal employee/contractor, member of the public, foreign national, visitor or other (specify).

The data collected facilitates public users with access to search the USPTO Patent data repositories, which allows

- the general public to search and retrieve domestic application images
- Patents examiners and applicants to identify individuals and organizations with intellectual property, pre- grant, and published applications.

Section 6: Information Sharing and Access

6.1 Indicate with whom the bureau intends to share the PII/BII in the IT system and how the PII/BII will be shared. *(Check all that apply.)*

Recipient	How Information will be Shared		
	Case-by-Case	Bulk Transfer	Direct Access
Within the bureau	☒	☐	☐
DOC bureaus	☐	☐	☐
Federal agencies	☐	☐	☐
State, local, tribal gov't agencies	☐	☐	☐
Public	☒	☐	☐
Private sector	☐	☐	☐
Foreign governments	☐	☐	☐
Foreign entities	☐	☐	☐
Other (specify):	☐	☐	☐

☐	The PII/BII in the system will not be shared.

6.2 Indicate whether the IT system connects with or receives information from any other IT systems authorized to process PII and/or BII.

☒	Yes, this IT system connects with or receives information from another IT system(s) authorized to process PII and/or BII. Provide the name of the IT system and describe the technical controls which prevent PII/BII leakage: System Name: PSS-SS — Organization: USPTO System Name: PCAPS-ES — Organization: USPTO System Name: PCAPS-IP — Organization: USPTO System Name: PE2E — Organization: USPTO By restricting access to the system via Active Directory, PSS-PS, PSS-PS, PCAPS-ES, PCAPS-IP, PE2E' protection of PII data is performed by the implemented AD automated system. Automatic quality control for data checks exist. VPN is used for developer access. There is a network connection to the Internet via the Network Perimeter for PSS-PS and PSS-PS users. PSS-PS, PSS-PS, PCAPS-ES, PCAPS-IP services are logically partitioned via a DMZ and an internal USPTO firewall is used as the boundary protection device that secures the communication between Internet users and the PSS-PS, PSS-PS, PCAPS-ES, PCAPS-IP. This connection is protected and controlled by the USPTO infrastructure.
☐	No, this IT system does not connect with or receive information from another IT system(s) authorized to process PII and/or BII.

6.3 Identify the class of users who will have access to the IT system and the PII/BII. *(Check all that apply.)*

Class of Users			
General Public	☒	Government Employees	☒
Contractors	☒		
Other (specify):			

Section 7: Notice and Consent

7.1 Indicate whether individuals will be notified if their PII/BII is collected, maintained, or disseminated by the system. *(Check all that apply.)*

☒	Yes, notice is provided pursuant to a system of records notice published in the Federal Register and discussed in Section 9.	
☐	Yes, notice is provided by a Privacy Act statement and/or privacy policy. The Privacy Act statement and/or privacy policy can be found at: _____.	
☐	Yes, notice is provided by other means.	Specify how:
☒	No, notice is not provided.	Specify why not: PSS-PS online applications (i.e. PatFT, AppFT, AIW, PIW) facilitates public online searches of granted patents. These public tools do not require users to provide any PII/BII. The non-sensitive PII (patent owner

		name, correspondence address, etc) that returns during granted patent searches are available for public record and patent owner(s) consent were previously obtained during initial patent filing.

7.2 Indicate whether and how individuals have an opportunity to decline to provide PII/BII.

☐	Yes, individuals have an opportunity to decline to provide PII/BII.	Specify how:
☒	No, individuals do not have an opportunity to decline to provide PII/BII.	Specify why not: PSS-PS online tools (i.e. PatFT, AppFT, AIW, PIW) facilitates public online searches of granted patents. These public tools do not require users to provide any PII/BII. The non-sensitive PII (patent owner name, correspondence address, etc) that returns during granted patent searches are available for public record and the patent owner(s) have had the opportunity to decline providing PII during initial patent filing.

7.3 Indicate whether and how individuals have an opportunity to consent to particular uses of their PII/BII.

☐	Yes, individuals have an opportunity to consent to particular uses of their PII/BII.	Specify how:
☒	No, individuals do not have an opportunity to consent to particular uses of their PII/BII.	Specify why not: :PSS-PS online tools (i.e. PatFT, AppFT, AIW, PIW) facilitates public online searches of granted patents. These public tools do not require users to provide any PII/BII. The non-sensitive PII (patent owner name, correspondence address, etc) that returns during granted patent searches are available for public record and patent owner(s) consent for use were previously obtained during initial patent filing.

7.4 Indicate whether and how individuals have an opportunity to review/update PII/BII pertaining to them.

☐	Yes, individuals have an opportunity to review/update PII/BII pertaining to them.	Specify how:
☒	No, individuals do not have an opportunity to review/update PII/BII pertaining to them.	Specify why not: : PSS-PS online tools (i.e. PatFT, AppFT, AIW, PIW) facilitates public online searches of granted patents. These public tools do not require users to provide any PII/BII. The non-sensitive PII (patent owner name, correspondence address, etc) that returns during granted patent searches are available for public record. Patent owner(s) have the opportunity to update non-sensitive PII (i.e., name, correspondence address, etc.,) during and after application filing via EFS-Web and Private PAIR, respectively.

Section 8: Administrative and Technological Controls

8.1 Indicate the administrative and technological controls for the system. *(Check all that apply.)*

☐	All users signed a confidentiality agreement or non-disclosure agreement.
☐	All users are subject to a Code of Conduct that includes the requirement for confidentiality.
☒	Staff (employees and contractors) received training on privacy and confidentiality policies and practices.
☒	Access to the PII/BII is restricted to authorized personnel only.
☒	Access to the PII/BII is being monitored, tracked, or recorded. Explanation: Audit logs
☒	The information is secured in accordance with FISMA requirements. Provide date of most recent Assessment and Authorization (A&A): ____9/17/2019____ ☐ This is a new system. The A&A date will be provided when the A&A package is approved.
☒	The Federal Information Processing Standard (FIPS) 199 security impact category for this system is a moderate or higher.
☒	NIST Special Publication (SP) 800-122 and NIST SP 800-53 Revision 4 Appendix J recommended security controls for protecting PII/BII are in place and functioning as intended; or have an approved Plan of Action and Milestones (POAM).
☐	Contractors that have access to the system are subject to information security provisions in their contracts required by DOC policy.
☐	Contracts with customers establish ownership rights over data including PII/BII.
☐	Acceptance of liability for exposure of PII/BII is clearly defined in agreements with customers.
☐	Other (specify):

8.2 Provide a general description of the technologies used to protect PII/BII on the IT system.

Information in USPTO information systems are protected with operational and technical controls that documented in the PSS-PS System Security Plan. A Security Categorization compliant with the FIPS 199 and NIST SP 800-60 requirements was conducted for PSS-PS. The overall FIPS 199 security impact level for PSS-PS was determined to be Moderate. This categorization influences the level of effort needed to protect the information managed and transmitted by the system.

A Operational controls include securing all hardware associated with the PSS-PS in the USPTO Data Center. The Data Center is controlled by access card entry and is manned by a uniformed guard service to restrict access to the servers, their operating systems, and databases.
B Backups are managed by the Enterprise Tape Backup System (ETBS) and are secured off-site by First Federal.
C Servers within PSS-PS are regularly updated with the latest security patches by the server support groups.

Section 9: Privacy Act

9.1 Indicate whether a system of records is being created under the Privacy Act, 5 U.S.C. § 552a. *(A new system of records notice (SORN) is required if the system is not covered by an existing SORN).*

As per the Privacy Act of 1974, "the term 'system of records' means a group of any records under the control of any agency from which information is retrieved by the name of the individual or by some identifying number, symbol, or other identifying particular assigned to the individual."

☒	Yes, this system is covered by an existing system of records notice (SORN). Provide the SORN name and number *(list all that apply)*: The USPTO Publishes their SORNS in the Federal Register and can be accessed in the following location: http://www.uspto.gov/uspto-systems-records-notices. These SORNs are subject to required oversight processes for systems containing PII. The USPTO SORNs are kept current (updated at least annually) and contains statements from the Privacy Act of 1974. USPTO PKI Registration and Maintenance System--Commerce/PAT–TM–16 (http://www.uspto.gov/sites/default/files/sorn/uspto-pasorn-16.pdf) USPTO Patent Application Files—Commerce/PAT-TM-7 (https://www.uspto.gov/sites/default/files/sorn/uspto-pasorn-07.pdf)
☐	Yes, a SORN has been submitted to the Department for approval on (date).
☐	No, a SORN is not being created.

Section 10: Retention of Information

10.1 Indicate whether these records are covered by an approved records control schedule and monitored for compliance. *(Check all that apply.)*

☒	There is an approved record control schedule. Provide the name of the record control schedule: United States Patent and Trademark Office Comprehensive Records Schedule FY2018 Edition See: http://ptoweb.uspto.gov/ptointranet/cisd/cio/records_mgmt/docs/Section%204-%20Office%20of%20the%20Commissioner%20for%20Patent.pdf
☐	No, there is not an approved record control schedule. Provide the stage in which the project is in developing and submitting a records control schedule:
☒	Yes, retention is monitored for compliance to the schedule.
☐	No, retention is not monitored for compliance to the schedule. Provide explanation:

10.2 Indicate the disposal method of the PII/BII. *(Check all that apply.)*

Disposal			
Shredding	☒	Overwriting	☒
Degaussing	☒	Deleting	☒
Other (specify):			

Section 11: NIST Special Publication 800-122 PII Confidentiality Impact Levels

11.1 Indicate the potential impact that could result to the subject individuals and/or the organization if PII were inappropriately accessed, used, or disclosed.

☒	Low – the loss of confidentiality, integrity, or availability could be expected to have a limited adverse effect on organizational operations, organizational assets, or individuals.
☐	Moderate – the loss of confidentiality, integrity, or availability could be expected to have a serious adverse effect on organizational operations, organizational assets, or individuals.
☐	High – the loss of confidentiality, integrity, or availability could be expected to have a severe or catastrophic adverse effect on organizational operations, organizational assets, or individuals.

11.2 Indicate which factors were used to determine the above PII confidentiality impact levels. *(Check all that apply.)*

☐	Identifiability	Provide explanation:
☐	Quantity of PII	Provide explanation:
☐	Data Field Sensitivity	Provide explanation:
☒	Context of Use	Provide explanation: Patent applicant and patent examiner's non-sensitive PII (name, mail address, email, phone#, etc.) are for official correspondences between the applicant and USPTO. Once a patent is granted the patent owner and patent examiner correspondence information is included as a matter for public record purposes. This public information will return whenever a public users use PSS-PS online public search tools (i.e., PatFT, AppFT, AIW, PIW).
☐	Obligation to Protect Confidentiality	Provide explanation:
☐	Access to and Location of PII	Provide explanation:
☐	Other:	Provide explanation:

Section 12: Analysis

12.1 Indicate whether the conduct of this PIA results in any required business process changes.

☐	Yes, the conduct of this PIA results in required business process changes. Explanation:
☒	No, the conduct of this PIA does not result in any required business process changes.

12.2 Indicate whether the conduct of this PIA results in any required technology changes.

☐	Yes, the conduct of this PIA results in required technology changes. Explanation:
☒	No, the conduct of this PIA does not result in any required technology changes.