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



Privacy Impact Assessment for the Patent Public Search (PPUBS)

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

Users, Holcombe, Henry Digitally signed by Users, Holcombe, Henry Date: 2023.06.27 12:00:01 -04'00'

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

U.S. Department of Commerce Privacy Impact Assessment USPTO Patent Public Search (PPUBS)

Unique Project Identifier: PTOC-055-00

Introduction: System Description

Provide a brief description of the information system.

Patent Public Search (PPUBS) is a custom developed software application provided by the USPTO to allow the public to search U.S. patent documents in the USPTO databases. The PPUBS application is deployed in Amazon Web Services (AWS) and operates in an AWS virtual private cloud (VPC). It is a standalone application that does not interface with other USPTO or external information systems. The Patent text and image data provided to the public is a replica of examiner search collections used internally in USPTO.

Public access to PPUBS patent data is read-only. Access to PPUBS does not require user authentication. PPUBS inherits security groups from the USPTO AWS Cloud Services (UACS) authorization package and the Federal Risk and Authorization Management Program (FedRAMP) AWS US East/West Infrastructure as a Service (Iaas) and Platform as a Service (PaaS) packages.

Address the following elements:

(a) Whether it is a general support system, major application, or other type of system Patent Public Search System (PPUBS) is a Minor Application.

(b) System location

USPTO Amazon Web Services (AWS) US East/West, Herndon, Virginia.

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

PPUBS interconnects with one other system:

USPTO Amazon Cloud Services (UACS): The UACS Infrastructure-as-a-Service (IaaS) platform used to support USPTO Application Information Systems (AIS) hosted in the Amazon Web Services (AWS) East/West environment. UACS leverages AWS Infrastructure-as-a-Service (IaaS) mode that enables on-demand Internet access to a shared pool of configurable computing resources including servers, storage, network infrastructure and other web-based services. The AWS East/West environment is comprised of several sub-components including, Virtual Private Cloud (VPC), Elastic Cloud Computing (EC2), Identity and Authentication Management (IAM), and Simple Storage Service.

(d) The way the system operates to achieve the purpose(s) identified in Section 4PPUBS is a patent search system for public use that is deployed and operating in the cloud.

(e) How information in the system is retrieved by the user Users use a web browser to view publicly provided information.

(f) How information is transmitted to and from the system

PPUBS transmits information to and from the system via client-server communication, which is protected by SSL encryption. User sessions are terminated when a set amount of inactivity is detected by the system.

(g) Any information sharing

PPUBS is a searchable database that shares information with the public about patents.

(h) The specific programmatic authorities (statutes or Executive Orders) for collecting, maintaining, using, and disseminating the information

The specific programmatic authorities are Leahy-Smith America Invents Act, E-Government Act, Open Government Data Act; and 35 U.S.C. 41(i)(2).

(i) The Federal Information Processing Standards (FIPS) 199 security impact category for the system

PPUBS is a FIPS 199 Low system.

Section 1: Status of the Information System

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

 \Box This is a new information system.

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

Changes That Create New Privacy Risks (CTCNPR)						
a. Conversions		d. Significant Merging		g. New Interagency Uses		
b. Anonymous to Non-		e. New Public Access		h. Internal Flow or		
Anonymous				Collection		
c. Significant System		f. Commercial Sources		i. Alteration in Character		
ManagementChanges				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.

This is an existing information system in which changes do not create new privacy risks,

and there is a SAOP approved Privacy Impact Assessment.

<u>Section 2</u>: 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*		f. Driver's License		j. Financial Account		
b. Taxpayer ID		g. Passport		k. Financial Transaction		
c. Employer ID		h. Alien Registration		1. Vehicle Identifier		
d. Employee ID		i. Credit Card		m. Medical Record		
e. File/Case ID						
n. Other identifying numbers	(specif	ý):				
Names of inventor, examiner a	nd atto	orney are displayed as part of part	tent im	ages		
*Explanation for the business need to collect, maintain, or disseminate the Social Security number, including						
truncated form:				-		

General Personal Data (GPD								
a. Name	\boxtimes	h. Date of Birth		o. Financial Information				
b. Maiden Name		i. Place of Birth		p. Medical Information				
c. Alias		j. Home Address	\boxtimes	q. Military Service				
d. Gender		k. Telephone Number		r. Criminal Record				
e. Age		1. Email Address		s. Marital Status				
f. Race/Ethnicity		m. Education		t. Mother's Maiden Name				
g. Citizenship		n. Religion						
u. Other general personal dat	u. Other general personal data (specify):							

Work-Related Data (WRD)					
a. Occupation		e. Work Email Address	\boxtimes	i. Business Associates	\boxtimes
b. Job Title	\boxtimes	f. Salary		j. Proprietary or Business Information	\boxtimes
c. Work Address	\boxtimes	g. Work History		k. Procurement/contracting records	
d. Work Telephone Number		h. Employment Performance Ratings or other Performance Information			
I. Other work-related data (s City, State and Country of the			-	·	

Distinguishing Features/Biometrics (DFB)							
a. Fingerprints		f.	Scars, Marks, Tattoos		k.	Signatures	

b. Palm Prints		g. Hair Color	l. Vascular Scans	
c. Voice/Audio Recording		h. Eye Color	m. DNA Sample or Profile	
d. Video Recording		i. Height	n. Retina/Iris Scans	
e. Photographs		j. Weight	o. Dental Profile	
p. Other distinguishing featu	res/bic	ometrics (specify):		

System Administration/Audit Data (SAAD)						
a. UserID		c. Date/Time of Access	\boxtimes	e. ID Files Accessed		
b. IP Address	\boxtimes	f. Queries Run	\times	f. Contents of Files	\boxtimes	
g. Other system administrati	on/aud	it data (specify):				

Other Information (specify)

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

Directly from Individual abo	ut Wh	om the Information Pertains		
In Person		Hard Copy: Mail/Fax	Online	
Telephone		Email		
Other(specify):				

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

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

2.3 Describe how the accuracy of the information in the system is ensured.

The system is secured using appropriate administrative, physical, and technical safeguards in accordance with the National Institute of Standards and Technology (NIST) security controls (encryption, access control, and auditing). Mandatory IT awareness and role-based training is required for staff who have access to the system and address how to handle, retain, and dispose of data. All access has role-based restrictions and individuals with privileges have undergone vetting and suitability screen. The USPTO maintains an audit trail and performs random, periodic reviews (quarterly) to identify unauthorized access and changes as part of verifying the integrity of administrative account holder data and roles. Inactive accounts will be deleted from the application.

2.4 Is the information covered by the Paperwork Reduction Act?

	Yes, the information is covered by the Paperwork Reduction Act. Provide the OMB control number and the agency number for the collection.
\boxtimes	No, the information is not covered by the Paperwork Reduction Act.

2.5 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): Click or tap here to enter text.			

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			
For a Computer Matching Program		For administering human resources programs	
For administrative matters	\boxtimes	To promote information sharing initiatives	\boxtimes
Forlitigation		For criminal law enforcement activities	
For civil enforcement activities		For intelligence activities	
To improve Federal services online	\boxtimes	For employee or customer satisfaction	\boxtimes
For web measurement and customization technologies (single-session)		For web measurement and customization technologies (multi-session)	
Other(specify):			

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 system collects, maintains, or disseminates PII/BII about DOC employees, contractors working on behalf of DOC, and members of the public.

The inventory, examiner and attorney names are public information once a patent in granted. The granted patent images are displayed to anyone who searches for the patent. The same information can be obtained from other public patent search systems.

PPUBS was developed for administrative matters, to improve Federal services online, to promote information sharing, and for employee and customer satisfaction.

5.2 Describe any potential threats to privacy, such as insider threat, as a result of the bureau's/operating unit's use of the information, and controls that the bureau/operating unit has put into place to ensure that the information is handled, retained, and disposed appropriately. (For example: mandatory training for system users regarding appropriate

handling of information, automatic purging of information in accordance with the retention schedule, etc.)

In the event of computer failure, insider threats, or attack against the system by adversarial or foreign entities, any potential PII data stored within the system could be exposed. To avoid a breach, the system has certain security controls in place to ensure that information is handled, retained, and disposed of appropriately. Access to individual's PII is controlled through the application, and all personnel who access the data must first authenticate to the system at which time an audit trail is generated when the database is accessed. These audit trails are based on application server out-of-the-box logging reports reviewed by the Information System Security Officer (ISSO) and System Auditor and any suspicious indicators such as browsing will be immediately investigated and appropriate action taken. Also, system users undergo annual mandatory training regarding appropriate handing of information.

NIST security controls are in place to ensure that information is handled, retained, and disposed of appropriately. For example, advanced encryption is used to secure the data both during transmission and while stored at rest. Access to individual's PII is controlled through the application and all personnel who access the data must first authenticate to the system at which time an audit trail is generated when the database is accessed. USPTO requires annual security role-based training and annual mandatory security awareness procedure training for all employees. The following are current USPTO policies; Information Security Foreign Travel Policy (OCIO-POL-6), IT Privacy Policy (OCIO-POL-18), IT Security Education Awareness Training Policy (OCIO-POL-19), Personally Identifiable Data Removal Policy (OCIO-POL-23), USPTO Rules of the Road (OCIO-POL- 36). All offices of the USPTO adhere to the USPTO Records Management Office's Comprehensive Records Schedule that describes the types of USPTO records and their corresponding disposition authority or citation.

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			
Keepent	Case-by-Case	Bulk Transfer	Direct Access	
Within the bureau			\boxtimes	
DOC bureaus			\boxtimes	
Federalagencies			\boxtimes	
State, local, tribal gov't agencies			\boxtimes	
Public			\boxtimes	
Private sector			\boxtimes	
Foreign governments			\boxtimes	
Foreign entities			\boxtimes	

Other(specify):		

The PII/BII in the system will not be shared.
I HE FH/DH III LIE SYSTEM WIII HOLDE SHALEU.

6.2 Does the DOC bureau/operating unit place a limitation on re-dissemination of PII/BII shared with external agencies/entities?

	Yes, the external agency/entity is required to verify with the DOC bureau/operating unit before re- dissemination of PII/BII.
\boxtimes	No, the external agency/entity is not required to verify with the DOC bureau/operating unit before re- dissemination of PII/BII.
	No, the bureau/operating unit does not share PII/BII with external agencies/entities.

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

\boxtimes	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:
	UACS is the IaaS that hosts PPUBS.
	NIST security controls are in place to ensure that information is handled, retained, and
	disposed of appropriately. For example, advanced encryption is used to secure the data
	both during transmission and while stored at rest. Access to individual's PII is
	controlled through the application and all personnel who access the data must first
	authenticate to the system at which time an audit trail is generated when the database is
	accessed. USPTO requires annual security role-based training and annual mandatory
	security awareness procedure training for all employees. The following are current
	USPTO policies; Information Security Foreign Travel Policy (OCIO-POL-6), IT
	Privacy Policy (OCIO-POL-18), IT Security Education Awareness Training Policy
	(OCIO-POL-19), Personally Identifiable Data Removal Policy (OCIO-POL-23),
	USPTO Rules of the Road (OCIO-POL- 36). All offices of the USPTO adhere to the
	USPTO Records Management Office's Comprehensive Records Schedule that describes
	the types of USPTO records and their corresponding disposition authority or citation.
	No, this IT system does not connect with or receive information from another IT system(s) authorized to process PII and/or BII.

6.4 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	\boxtimes	Government Employees	\boxtimes
Contractors	\boxtimes		
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.)*

\boxtimes	Yes, notice is provided pursuant to a system of records notice published in the Federal Register and discussed in Section 9.		
\boxtimes	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: <u>https://www.uspto.gov/privacy-policy</u>		
	Yes, notice is provided by other means.	Specify how:	
	No, notice is not provided.	Specify why not:	

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

\boxtimes	Yes, individuals have an opportunity to decline to provide PII/BII.	Specify how: The information within this system is received from other front-end system, where the opportunity to decline is provided.
	No, individuals do not have an opportunity to decline to provide PII/BII.	Specify why not:

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

\boxtimes	Yes, individuals have an opportunity to consent to particular uses of their PII/BII.	Specify how: The information within this system is received from other front-end system, where the opportunity to consent is provided.
	No, individuals do not have an opportunity to consent to particular uses of their PII/BII.	Specify why not:

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

\boxtimes	Yes, individuals have an opportunity to review/update PII/BII pertaining to them.	Specify how: The information within this system is received from other front-end system, where the opportunity to update their information is provided.
	No, individuals do not have an opportunity to review/update PII/BII pertaining to them.	Specify why not:

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.
\boxtimes	Staff (employees and contractors) received training on privacy and confidentiality policies and practices.
	Access to the PII/BII is restricted to authorized personnel only.
\boxtimes	Access to the PII/BII is being monitored, tracked, or recorded. Explanation: Audit logs
\boxtimes	The information is secured in accordance with the Federal Information Security Modernization Act (FISMA) requirements. Provide date of most recent Assessment and Authorization (A&A): 4/19/2023
	\boxtimes 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.
\boxtimes	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 (POA&M).
\boxtimes	A security assessment report has been reviewed for the information system and it has been determined that there are no additional privacy risks.
\boxtimes	Contractors that have access to the system are subject to information security provisions in their contracts required by DOC policy.
	Contracts with customers establish DOC 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. *(Include data encryption in transit and/or at rest, if applicable).*

PII within the system is secured using appropriate management, operational, and technical safeguards in accordance with NIST requirements. Such management controls include the life cycle review process to ensure that management controls are in place and documented in the System Security Privacy Plan (SSPP). The SSPP specifically addresses the management, operational, and technical controls that are in place and planned during the operation of the system. Operational safeguards include restricting access to PII/BII data to a small subset of users. All access has role-based restrictions and individuals with access privileges have undergone vetting and suitability screening. Data is maintained in areas accessible only to authorize personnel. The system maintains an audit trail and the appropriate personnel is alerted when there is suspicious activity. Data is encrypted in transit and at rest.

Section 9: Privacy Act

9.1 Is the PII/BII searchable by a personal identifier (e.g, name or Social Security number)?

- \boxtimes Yes, the PII/BII is searchable by a personal identifier.
- □ No, the PII/BII is not searchable by a personal identifier.
- 9.2 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."

\boxtimes	Yes, this system is covered by an existing system of records notice (SORN). Provide the SORN name, number, and link. <i>(list all that apply)</i> :	
	COMMERCE/PAT-TM-7, Patent Application Files	
	Yes, a SORN has been submitted to the Department for approval on <u>(date)</u> .	
	No, this system is not a system of records and a SORN is not applicable.	

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.)*

\boxtimes	There is an approved record control schedule. Provide the name of the record control schedule: GRS 5.1, item 020, Non-Recordkeeping Copies of Electronic Records
	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:
\boxtimes	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): The information is public and not disposed of and remains searchable by the public using public patent search systems such as PPUBS, Google Patent, and IP.com				

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

- 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. *(The PII Confidentiality Impact Level is not the same, and does not have to be the same, as the Federal Information Processing Standards (FIPS) 199 security impact category.)*
- 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 level. *(Check all that apply.)*

\boxtimes	Identifiability	Provide explanation:
		Names, home address, home telephone number, and other information can be combined to identify an individual.
\boxtimes	Quantity of PII	Provide explanation:
		Patent information is in the millions.
\boxtimes	Data Field Sensitivity	Provide explanation:
		The data includes limited personal and work-related elements and
		does not included sensitive identifiable information since all the
		information is public record information.
\boxtimes	Context of Use	Provide explanation:
		PPUBS is required to provide access to patent information to the
		public.
\boxtimes	Obligation to Protect Confidentiality	Provide explanation: NIST Special Publication (SP) 800-122 and NIST SP 800-53 Revision 5 recommended security controls for
		protecting PII/BII are in place and functioning as intended; or
		have an approved Plan of Action and Milestones (POA&M);
		Privacy Act of 1974.
		1117a0y 110701 1777.
\boxtimes	Access to and Location of PII	Provide explanation: The PII within this system is available to the
		public. The system stores its data within the cloud and thus
		logical access is enforced for back end database maintenance.
	Other:	Provide explanation:
	Guiei.	

Section 12: Analysis

12.1 Identify and evaluate any potential threats to privacy that exist in light of the information collected or the sources from which the information is collected. Also, describe the choices that the bureau/operating unit made with regard to the type or quantity of information collected and the sources providing the information in order to prevent or mitigate threats to privacy. (For example: If a decision was made to collect less data,

include a discussion of this decision; if it is necessary to obtain information from sources other than the individual, explain why.)

System users undergo annual mandatory training regarding appropriate handling of information. Physical access to servers is restricted to only a few authorized individuals. The servers storing the potential PII are located in a highly sensitive zones within the cloud and logical access is segregated with network firewalls and switches through an Access Control list that limits access to only a few approved an authorized account. USPTO monitors, in real-time, all activities and events within the servers storing the potential PII data and personnel review audit logs received on a regular bases and alert the appropriate personnel when inappropriate or unusual activity is identified.

12.2 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:
\boxtimes	No, the conduct of this PIA does not result in any required business process changes.

12.3 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:
\boxtimes	No, the conduct of this PIA does not result in any required technology changes.