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



Privacy Impact Assessment for the International Data Exchange Cloud (PPL-IDE-C-01-00)

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

Takina Murphyon behalf of Jennifer GoodeSignature of Senior Agency Official for Privacy/DOC Chief Privacy Officer 6/23/2022 Date

U.S. Department of Commerce Privacy Impact Assessment USPTO International Data Exchange Cloud (PPL-IDE-C-01-00)

Unique Project Identifier: PPL-IDE-C-01-00

Introduction: System Description

Provide a brief description of the information system.

International Data Exchange (IDE) is a system developed by USPTO that helps exchange published application data with international stakeholders, including foreign intellectual property offices (IPOs) and the World Intellectual Property Organization (WIPO). International Data Exchange will be used by all applicants, public stakeholders, and IPOs (including examiners at the USPTO) who wish to view, monitor and exchange application data on related applications (including work sharing, priority document exchanges, and other bulk/service exchanges).

IDE is a major online system located in the cloud. IDE interconnects with multiple systems throughout PTO, including Case Management System (CMS (the central data repository for Patent-related data). The system retrieves data from the CMS system and provides the information to users. The information contains patent application related information and PII and Business Identifiable Information (BII) to make published application file wrappers available to the public. USPTO employees will administer the system and the public have access to the information presented by the system through a web interface. The system will retrieve the data for users through application programming interfaces (APIs) to the interconnected systems.

Address the following elements:

(a) Whether it is a general support system, major application, or other type of system IDE is a general support system.

(b) System location

IDE is a general support system located in the Amazon Web Services (AWS) East cloud.

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

IDE interconnects with the systems listed below:

• Patent Search System-Specialized Search (PSS-SS): 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.

• Patents End-to-End (PE2E): PE2E is a master system portfolio consisting of next generation Patents Information Systems. PE2E is a single web-based examination tool providing users with a unified and robust set of tools with a simple, unified interface that supports new and improved IT advances.

(d) The way the system operates to achieve the purpose(s) identified in Section 4

The system helps exchange published application data with international stakeholders, including foreign intellectual property offices (IPOs) and the World Intellectual Property Organization (WIPO). IDE interconnects with multiple systems throughout PTO, including CMS (the central data repository for Patent-related data). Users search for and request public data from the IDE system elements (web applications).

Public users and web service calls access the system through the web application via the Hyper Text Transfer Protocol Secure (HTTPS) protocol. The web application retrieves the data from interconnected USPTO systems, responds to the user request, and delivers the public data to the user via the https protocol.

(e) How information in the system is retrieved by the user

- Public users access the system through the web application. The web application retrieves the data from interconnected USPTO systems, responds to the user request, and delivers the public data to the user.
- Web services retrieve data for integrating systems.

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

Information is transmitted via Hyper Text Transfer Protocol Secure (HTTPS) protocol.

(g) Any information sharing

- The system shares published patent information with public users through a uniform resource locator (URL).
- Information is also shared with foreign IP offices securely via Secure Sockets Layer (SSL) certificates.

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

Leahy-Smith America Invents Act, Patent Law Treaties Implementation Act of 2021, and Patent Patent Cooperation Treaty (PCT), which is implemented by the United States in Part IV of Title

35 of the U.S. Code (Chapters 35-37) and Subpart C of Title 37 of the Code of Federal Regulations (37 CFR 1.401-1.499), and Open Government Data Act.

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

Low.

Section 1: Status of the Information System

- 1.1 Indicate whether the information system is a new or existing system.
 - \boxtimes 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- 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	vpriva	cyrisks (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	\boxtimes	i. Credit Card		m. Medical Record			
e. File/Case ID							
n. Other identifying numbers (specify):							
*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		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 data (specify):							

Work-Related Data (WRD)							
a. Occupation	\boxtimes	e.	Work Email Address	\times	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. WorkTelephone Number	\boxtimes	h.	Employment Performance Ratings or other Performance Information				
l. Other work-related data (s	pecify):					

Distinguishing Features/Biometrics (DFB)								
a. Fingerprints		f.	Scars, Marks, Tattoos		k. Signatures	\boxtimes		
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 features/biometrics (specify):								

System Administration/Audit Data (SAAD)							
a. UserID	\boxtimes	c. Date/Time of Access	\boxtimes	e. ID Files Accessed			
b. IP Address	\boxtimes	f. 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	\boxtimes	Other DOC Bureaus		Other Federal Agencies	
State, Local, Tribal		Foreign	\boxtimes		
Other (specify):					

Non-government Sources							
Public Organizations		Private Sector		Commercial Data Brokers			
Third Party Website or Applic	ation						
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?

\boxtimes	Yes, the information is covered by the Paperwork Reduction Act. Provide the OMB control number and the agency number for the collection.
	0651-0021, 0651-0031, and 0651-0032
	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

 \boxtimes

 \times

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			
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 PII in the system is in reference to members of the public, PTO employees, contractors and foreign nationals. The information within the system promotes information sharing initiatives, improves federal services online and helps improve administrative matters by retrieving information from CMS and other interconnected systems within PTO to provide data to the public including international IP offices, WICO and foreign nationals.

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.)

The threats to the system are foreign adversaries, insider threats and adversarial entities. 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.

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		\boxtimes	\boxtimes	
DOC bureaus				
Federal agencies				
State, local, tribal gov't agencies				
Public			\boxtimes	
Private sector			\boxtimes	
Foreign governments			\boxtimes	
Foreign entities			\boxtimes	
Other(specify):				

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

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.

Provide the name of the IT system and describe the technical controls which prevent PII/BII leakage:
Provide the name of the IT system and describe the technical controls which prevent PII/BII leakage: PSS-SS and PE2E interconnect with the system.
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 a wareness 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): Access is available worldwide.			

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 syst discussed in Section 9.	temof records notice published in the Federal Register and
\boxtimes	Yes, notice is provided by a Privacy Act and/or privacy policy can be found at: _]	statement and/or privacy policy. The Privacy Act statement https://www.uspto.gov/privacy-policy
	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.

Yes, individuals have an opportunity to decline to provide PII/BII.	Specify how: Applicants are provided the opportunity to decline to have their patent information published. (PTO/SB/35 Request for Non Publication form.) Individuals who submit an application have the ability to decline to provide PII/BII by not submitting their information for application retrieval and access.
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: Individuals have the opportunity to consent to particular uses of the PII/BII by limiting the type of information they provide when retrieving application status and also during initial application submission.
	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.

\square	Yes, individuals have an opportunity to review/update PII/BII pertaining to them.	Specify how: Individuals have the opportunity to review/update PII/BII pertaining to them by contacting the respective IP office and/or the USPTO to update their initial application data. The update to the initial application data will be fed to this system.
	No, individuals do not have an opportunity to review/update PII/BII pertaining to them.	Specify why not:

<u>Section 8</u>: Administrative and Technological Controls

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

	All search a confidentiality a gran and a new of disclaring a gran and
	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):
	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 AppendixJ 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 systemare subject to information security provisions in their contracts required by DOC policy.
	Contracts with customers establish DOC owners hip 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 systemmaintains 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."

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> : <u>COMMERCE/PAT-TM-7, Patent Application Files</u>
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: • Nonrecord-113, Foreign Patent Documents • 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.*)

Dis pos al		
Shredding	Overwriting	\boxtimes
Degaussing	Deleting	
Other (specify):		

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.*)

\boxtimes	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 as sets, 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.)*

	Identifiability	Provide explanation: The systemuses employee identification, name, occupation, job title, work address, work telephone number, work email address, and employment performance ratings or other performance information. The combination of the fields collected can together identify a particular individual.
\boxtimes	Quantity of PII	Provide explanation: The quantity to PII and /or BII in the system can vary based on the number of applications tendered. The quantity in in the thousands.
\boxtimes	Data Field Sensitivity	Provide explanation: The IDE system contains PII/BII data that is individually traceable. The combination of the data in the fields identified in section 2.1 could together make the data fields more sensitive.
\boxtimes	Context of Use	Provide explanation: IDE helps exchange published application data with international stakeholders, including foreign IPOs and WIPO, to view, monitor and exchange application data on related applications (including work sharing, priority document exchanges, and other bulk/service exchanges).
\boxtimes	Obligation to Protect Confidentiality	Provide explanation: USPTO Privacy Policy requires the PII information collected within the system to be protected accordance to NIST SP 800-122, Guide to Protecting the Confidentiality of Personally Identifiable Information. In accordance with the Privacy Act of 1974, PII must be protected.
\boxtimes	Access to and Location of PII	Provide explanation: The data is stored in the AWS cloud and is protected by FedRAMP privacy and security controls.
	Other:	Provide explanation:

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.