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



# Privacy Impact Assessment for the OKTA Identity as a Service (IdaaS)

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08/25/2021

# U.S. Department of Commerce Privacy Impact Assessment USPTO OKTA IDaaS

**Unique Project Identifier: PTOC-043-00** 

**Introduction:** System Description

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

The response must be written in plain language and be as comprehensive as necessary to describe the system.

USPTO is leveraging OKTA IDaaS hosted within FedRAMP Certified Cloud to provide the enterprise services for the Identity and Access Management (IAM). The supporting components for the USPTO IAM services are located at the United States Patent and Trademark Office (USPTO), 600 Dulany St, Alexandria. The system provides Identity Management (including user provisioning for the public), Authentication and coarse grained Authorization to the USPTO systems. This allows the USPTO user community, systems, and its employees to access the resources provided by the organization while protecting those services from unauthorized access and/or individuals and systems. OKTA IDaaS FedRAMP'd system has placed security controls in place or planned, as derived from National Institute of Standards and Technology (NIST) Special Publication (SP) 800-53, Revision 4. The supporting components that are part of the OKTA IDaaS Identity Management System that is deployed within the USPTO on-prem data center also has placed security controls as derived from the NIST SP 800-53 Revision 4. The system is designed and configured to protect all communications between systems within USPTO and all transactions from USPTO to OKTA IDaaS.

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

#### (b) System location

System will be deployed in a hybrid deployment architecture where the core components of the systems will be deployed and supported by the SaaS vendor (OKTA IDaaS) and the supporting components will be deployed in USPTO datacenter located in USPTO facilities at, 600 Dulany St, Alexandria, VA.

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

The system will be leveraged by other USPTO applications. The system is currently integrated with over 50 applications and the goal of the organization is to integrate all the applications that are deployed within the USPTO Network.

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

The purpose of the system is to protect USPTO services by authenticating and authorizing users and systems. The system disambiguates the user and provides the integrated partner/system with user's identity and ability to make fine grained authorization decision.

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

Administrators retrieve the information in the system for the purpose of making profile specific changes and for supporting users and/or the system during troubleshooting. All information in the system is encrypted in transit and at rest while access is restricted using user specific role policies. The information can be accessed by logging into the administrator consoles via a web browser and/or through a user interface.

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

There is not information sharing between systems. The internal USPTO users are accessed via active directory agents and there is a one way synchronization between Active Directory (AD) and OKTA IDaaS identity store.

#### (g) Any information sharing conducted by the system

The system does not share PII with any other systems. USPTO employees and contractors will have their information retrieved from Active Directory through a one way synchronization between AD and OKTA IDaaS identity store.

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

5 U.S.C. 301; 35 U.S.C. 2; Public Law 106-229; 28 U.S.C. 533-535; 44 U.S.C. 1301; Homeland Security Presidential Directive 12 and IRS Publication-1075., 15 U.S.C. 1051 et seq.

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

The system is categorized as "moderate."

### **Section 1:** Status of the Information System

1.1 Indicate whether the	information	n system is a new or e	xisting	g system.					
☐ This is a new info	☐ This is a new information system.								
☐ This is an existing	☐ This is an existing information system with changes that create new privacy risks.								
(Check all that a		,							
(	FF V V								
<b>Changes That Create Ne</b>	w Privacy R	isks (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		f. Commercial Sources		i. Alteration in Character					
Management Changes j. Other changes that crea	ate new nriva	cyrisks (specify):		of Data					
j. Sther changes that cree	ace new priva	ey risks (speeny).							
risks, and there is 01-2017).  This is an existing risks, and there is later).  Section 2: Information in 2.1 Indicate what person	s a SAOP a g informati s a SAOP a the System	approved Privacy Impa on system in which chapproved Privacy Impa	ct As nanges ct As	s do not create new privace sessment (version 01-201 s do not create new privace sessment (version 01-201 sessment (versi	5 or ey 9 or				
a. Social Security*	☐ f. I	Driver's License		j. Financial Account	Ιп				
b. Taxpayer ID	g. F	Passport		k. Financial Transaction	$+\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline{\overline}}}}}}$				
c. Employer ID	—   -   h. A	Alien Registration	$\frac{-}{\Box}$	l. Vehicle Identifier	$\frac{1}{\Box}$				
d. Employee ID	_	Credit Card		m. Medical Record					
e. File/Case ID									
n. Other identifying numbers (	specify):								
, ,		4.	.1 ~	. 10					
*Explanation for the business i truncated form:	need to colled	ct, maintain, or disseminate	the So	ociai Security number, includii	ng				

General Personal Data (GPI	<u>))</u>				
a. Name		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	$\boxtimes$	r. Criminal Record	
e. Age		l. Email Address	$\boxtimes$	s. Physical Characteristics	
f. Race/Ethnicity		m. Education		t. Mother's Maiden Name	
g. Citizenship		n. Religion			
u. Other general personal da	ta (spec	eify):			
Work-Related Data (WRD)					
a. Occupation		e. Work Email Address		i. Business Associates	
b. Job Title		f. Salary		j. Proprietary or Business Information	
c. Work Address		g. Work History		k. Procurement/contracting records	
d. WorkTelephone Number		h. Employment Performance Ratings or other Performance Information			
l. Other work-related data (s	specify	):			
Distinguishing Features/Bio	metric	s (DFR)			
a. Fingerprints		f. Scars, Marks, Tattoos	Τп	k. Signatures	П
b. Palm Prints		g. Hair Color		Vascular Scans	
c. Voice/Audio Recording		h. Eye Color	$\frac{1}{1}$	m. DNA Sample or Profile	
d. Video Recording		i. Height	$\frac{1}{\Box}$	n. Retina/Iris Scans	
e. Photographs		j. Weight		o. Dental Profile	
p. Other distinguishing featu	ures/bio	ometrics (specify):	<u>                                     </u>		
System Administration/Aud a. User ID	T	c. Date/Time of Access		e. ID Files Accessed	
b. IP Address	<u> </u>	f. Queries Run		f. Contents of Files	
g. Other system administrat	ion/auc	iit data (specify):			
Other Information (specify)					

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

In Person	out Wf	nom the Information Pertain	15	Online	IC .
		Hard Copy: Mail/Fax		Online	$\boxtimes$
Telephone	$\boxtimes$	Email	$\boxtimes$		
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		Private Sector		Commercial Data Brokers	
Third Party Website or Appl	ication	1 Hvate Sector	$\perp$	Commercial Data Brokers	L
Other (specify):					
nternal users are update	d via U	of the information in the USPTO Active Directory dress. All communication	records	and external users are	
Internal users are update verified through their en communications. Access are governed by AC, AU well-controlled interface Information is secured u accordance with the Fed role-based restrictions, a suitability screening. The	d via Unail adds mana J, and J sand J sing ap RAMF and indice USP	JSPTO Active Directory dress. All communication gement follows least acc IA policies. The access process flows. The non-sepropriate administrative, P software as a service (Sividuals with access priv TO maintains an audit tra	records ns are co ess privil to user pr ensitive physica baaS) Au ileges ha ail and po	and external users are onducted over secure lege policies. User account of iles and information is valued in the properties of the control of	ia in
Internal users are update verified through their encommunications. Access are governed by AC, AU well-controlled interface Information is secured u accordance with the Fed role-based restrictions, a suitability screening. The reviews to identify unautous accordance with the Fed role-based restrictions, a suitability screening. The reviews to identify unautous accordance with the Fed role-based restrictions, a suitability screening. The reviews to identify unautous accordance with the Fed role-based restrictions.	d via Unail adds mana J, and J sing ap RAMF and indige USP thorized vered l	JSPTO Active Directory dress. All communication gement follows least acc IA policies. The access process flows. The non-sepropriate administrative, P software as a service (Sividuals with access priv TO maintains an audit tra	records are co ress privil to user presitive physica BaaS) Au ileges ha ail and presition Act on Act. or the coll	and external users are onducted over secure lege policies. User account rofiles and information is valued and technical safeguards thorization. All access has ave undergone vetting and terforms random periodic rerifying the integrity of date.	ia in

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 Prev	viously	Deployed (TUCPBNPD)	
Smart Cards		Biometrics	
Caller-ID		Personal Identity Verification (PIV) Cards	$\boxtimes$
Other (specify): System will integrate with PIV or		· · · · · · · · · · · · · · · · · · ·	lining
of the authentication process for internal employe	ees and	contractors.	
There are not any technologies used that co	ntaın P	II/BII in ways that have not been previously deplo	yed.
S4:2. S4 S41 A-4:-:4:			
Section 3: System Supported Activities			
3.1 Indicate IT system supported activities	whic	th raise privacy risks/concerns. (Check al.	l that
apply.)	***************************************	in table privacy librar concerns: (Cheen an	iiiiii
"FF V V			
Activities			
Audio recordings		Building entry readers	
Video surveillance		Electronic purchase transactions	
Other (specify):			
There are not any IT system supported activ	vities w	hich rais e privacy risks/concerns.	
Section 4: Purpose of the System			
various state of the system			
.1 Indicate why the PII/BII in the IT syst	em is	being collected, maintained, or disseminat	ed.
(Check all that apply.)		,	
(encen an man approxi)			
Purpose			
For a Computer Matching Program		For administering human resources programs	Ιп
For administrative matters	$\boxtimes$	To promote information sharing initiatives	
Forlitigation		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		For web measurement and customization	
technologies (single-session)		technologies (multi-session)	
Other (specify): PII/BII Information is captured to au	thentica	ate user and make/access (authorization) decisions.	

#### **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).

USPTO employees and contractors, who are the internal users, PII/BII is collected via Active Directory synchronization of required traits. External users, who are the members of the public, PII/BII is collected via web forms that are populated when the user requests access to USPTO services.

PII/BII Information is capture to authenticate user and make/access (authorization) decisions.

Data from public (1) is used to authenticate and authorize system access, (2) is used at various service desks to assist users, (3) is shared with the Electronic Data Warehouse to assess and report for financial purposes, and (4) is used to assess system performance

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.)

Insider threats and foreign governments are the potential threats to the system. USPTO has employed several controls to mitigate these threats.

Account activity monitoring:

- Access to privileged operations/resources
- Inactivity is monitored, e.g., accounts not accessed in last 90 days are flagged for deactivation
- Least access policies are in place
- Auditing is in place for non-repudiation
- Auditing logs are reviewed based on policies

All Internal users are required to take privacy and security awareness training.

#### 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.)

Desirient	Но	w Information will be S	Shared
Recipient	Case-by-Case	Bulk Transfer	Direct Access
Within the bureau			$\boxtimes$
DOC bureaus			
Federalagencies			
State, local, tribal gov't agencies			
Public			
Private sector			
Foreign governments			
Foreign entities			
Other(specify):			
☐ The PII/BII in the system will not be			
2 Does the DOC bureau/operating shared with external agencies/e	entities?		
Yes, the external agency/entity is redissemination of PII/BII.			
No, the external agency/entity is no dissemination of PII/BII.	ot required to verify with the	ne DOC bureau/operatu	ng unit before re-
No, the bureau/operating unit does	not share PII/BII with exte	rnal agencies/entities.	
3 Indicate whether the IT system systems authorized to process I		vives information from	om any other IT
Yes, this IT system connects with a process PII and/or BII. Provide the name of the IT system  USPTO Active Directory for interr	and describe the technical	controls which prevent	t PII/BII leakage:
system. Technical controls are in p controls are in place. All informati administrator are required to take s periodically reviewed. Identity go related to AC, AU, and IA.	place to address security co on is encrypted during tra- security awareness training	oncerns. Least privileg nsmission and at rest, u g. Audit records are cap	e access policies an sers and otured and
No, this IT system does not connec	et with or receive in format	ion from another IT sys	stem(s) authorized to

	s of Users eral Public		Government Employees			
	tractors		Government Employees			
	er (specify):	$\boxtimes$				
	(					
Section	on 7: Notice and Consent					
Section	1117. Notice and Consent					
			I if their PII/BII is collected, maintained,	or		
	disseminated by the system. (Chec	ek all the	t apply.)			
$\boxtimes$	Yes, notice is provided pursuant to a sys discussed in Section 9.	stemofred	ords notice published in the Federal Register an	d		
$\boxtimes$		tstatemen	tand/or privacy policy. The Privacy Act stateme	ent		
	and/or privacy policy can be found at: h	ttps://wwv	v.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 individua	ls have	an opportunity to decline to provide PII/	BII.		
$\boxtimes$	Yes, individuals have an opportunity to decline to provide PII/BII.	Specify	how: abers of the public, the service is voluntary, bu	t it		
	decime to provider in Bir.		y be provided if they are registered.	t It		
$\boxtimes$	No, individuals do not have an opportunity to decline to provide		why not: USPTO Employees and Contractors			
	PII/BII.	consent	e opportunity to decline to provide their PII. To providing their name (which is then used for			
			dress) and phone number as part of accepting ment at USPTO.			
		Chipioy	ikin at OSI 10.			

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: For members of the public, the service is voluntary, but it can only be provided if they are registered.
No, individuals do not have an opportunity to consent to particular uses of their PII/BII.	Specify why not: The information is not shared/used for any other purposes other than identification and authentication within OKTA. For USPTO Employees and Contractors, they do not have the ability to consent to particular uses of their PII. They consent to providing their name (which is then used for the email address) and phone number as part of accepting employment at USPTO. That information is then used for the primary purpose of acquiring access to applications and the network during on boarding.

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: External users have an opportunity update their profile through My USPTO but their information cannot be updated by OKTA. PTO employees and contractors can update their profiles through Human resources and active directory administrators.

#### **Section 8:** Administrative and Technological Controls

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

$\boxtimes$	All users signed a confidentiality agreement or non-disclosure agreement.
$\boxtimes$	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.
$\boxtimes$	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):
	☐ This is a new system. The A&A date will be provided when the A&A package is approved.
$\boxtimes$	The Federal Information Processing Standard (FIPS) 199 security impact category for this system is a
	moderate or higher. (Moderate)
$\boxtimes$	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.
<u> </u>	Acceptance of liability for exposure of PII/BII is clearly defined in agreements with customers.
H	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).
	<ul> <li>Transport layer encryption</li> <li>Data encryption at rest and in flight</li> <li>Elevated privileges for administrators, higher auditing and least privilege policies</li> <li>Review of access/operation through policies based on NIST AC and AU controls</li> <li>Access protection through polices enforcement for services through (API Gateways and User entitlements)</li> <li>Certificates used for system authentication/authorization, message encryption, message signature</li> <li>Network protected through NOS security infrastructure (FW, IPS, IDS, Virus Scanners)</li> </ul>
<b>Secti</b> 9.1	Is the PII/BII searchable by a personal identifier (e.g., name or Social Security number)?
	⊠ 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 systemis covered by an existing system of records notice (SORN).  Provide the SORN name, number, and link. (list all that apply):  SORN will be created for the systemand this section will be updated once SORN information is available.  • DOC/DEPT-25, Access Control and Identity Management System  • GSA/GOV-7: HSPD-12 USAccess
	Yes, a SORN has been submitted to the Department for approval on (date).
	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 monitored for compliance. (Chec	•	y an approved records control schedule a pply.)	ınd				
$\boxtimes$	There is an approved record control schedule. Provide the name of the record control schedule:							
	GRS 3.2:030: Systemaccess records. S	Systems not r	equiring special accountability for access.					
		is in developi	ing and submitting a records control schedule:					
$\boxtimes$	Yes, retention is monitored for complia							
	No, retention is not monitored for com	pliance to the	eschedule. Provide explanation:					
10.2 <b>Dis</b>	Indicate the disposal method of the	e PII/BII.	(Check all that apply.)					
	edding		Overwriting	$\boxtimes$				
Deg	aussing		Deleting	$\boxtimes$				
Oth	er(specify):	•						
11.1	organization if PII were inappropried Confidentiality Impact Level is not Federal Information Processing States	iately acce of the same, Standards (	and does not have to be the same, as the FIPS) 199 security impact category.)					
	effect on organizational operations, organizational	ganizationala		se				
	adverse effect on organizational operation	tions, organiz						
			ability could be expected to have a severe or ions, organizational assets, or individuals.					
11.2	Indicate which factors were used t (Check all that apply.)	o determin	e the above PII confidentiality impact les	vel.				
	Identifiability		anation: User name, phone number, email addre information could be used to identify a user.	ess,				
$\boxtimes$	Quantity of PII		anation: The quantity of PII in the system is large used for every USPTO employee and some the public.	<u>ge</u>				

$\boxtimes$	Data Field Sensitivity	Provide explanation: The combination of the different types of PII collected from Active Directory can cause the data to become more sensitive.
$\boxtimes$	Context of Use	Provide explanation: The information is used to authenticate users for access to USPTO resources.
	Obligation to Protect Confidentiality	Provide explanation: In accordance with NIST 800-53 Rev. 4, USC implements both AR-2 (Privacy Impact and Risk Assessment) and AR-7 (Privacy-Enhanced System Design and Development) security controls to ensure the confidentiality of all users is protected. Based on the data fields and in accordance with the Privacy Act of 1974, PII must be protected due to requirements.
	Access to and Location of PII	Provide explanation: The Personally Identifiable Information in OKTA IDaaS is secured using appropriate administrative, physical and technical safeguards in accordance with the FedRAMP Moderate-SaaS Authorization. Authorized USPTO staff and contractors have access to the data stored on the OKTA IDaaS System. OKTA IDaaS does not disseminate PII information to any other systems.
	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.)

USPTO has identified and evaluated potential threats to privacy and determined they are insider threats and foreign entities. There is a need to protect the confidentiality and integrity of the PII that is collected since it could be requested during a criminal investigation. Based upon USPTO's threat assessment and the fact that the PII for employees is only used for identification and authentication and the PII for members of the public is voluntary if they want the service, the Agency has implemented a baseline of security controls to mitigate the risk to sensitive information to an acceptable level.

Account activity monitoring:

- 1. Access to privileged operations/resources
- 2. Inactivity is monitored, accounts not accessed in the last 90 days are flagged for deactivation
- 3. Least access policies are place
- 4. Auditing is in place for non-repudiation
- 5. Auditing logs are reviewed based on policies

All Internal users are required to take privacy and security awareness training.

The system collects only the required attributes to make authentication/authorization decision for the USPTO resources access.

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