Date of Approval: **August 18, 2021**

PIA ID Number: **6187**

**SYSTEM DESCRIPTION**

Enter the full name and acronym for the system, project, application and/or database.

Customer Account Data Engine 2, CADE 2

*Is this a new system?*

No

*Is there a PCLIA for this system?*

Yes

*What is the full name, acronym, and milestone of the most recent PCLIA?*

Customer Account Data Engine 2 (CADE 2), O&M, PCLIA 4998

*What is the approval date of the most recent PCLIA?*

4/14/2020

*Changes that occurred to require this update:*

*Were there other system changes not listed above?*

Yes

*What were those changes?*

To support implementation of the Advance Child Tax Credit (ACTC) payments under the American Rescue Plan, the ACTC Taxpayer Portal will request and store taxpayer information from Customer Account Data Engine 2 (CADE 2).

*What governance board or Executive Steering Committee (ESC) does this system report to? Full name and acronym.*

Strategic Development ESC

*Current ELC (Enterprise Life Cycle) Milestones:*

Operations & Maintenance (i.e., system is currently operational)
Is this a Federal Information Security Management Act (FISMA) reportable system?

Yes

GENERAL BUSINESS PURPOSE

What is the general business purpose of this system? Provide a clear, concise description of the system, application or database, the reason for the system, and the benefits to the IRS to use the information, and how the information will be used.

The Customer Account Data Engine - 2 (CADE 2) established database(s) that house the individual taxpayer accounts, which provides IRS employees the ability to view updated account information on-line. The application performs daily maintenance to the database keeping the CADE 2 database data in sync with Individual Master File (IMF) Daily Processing (DP) of taxpayer account updates on the master file. CADE 2 balances the financials on the database to the IMF master file and includes regular data integrity checks. CADE 2 will eventually replace IMF as the Authoritative Data Source (ADS) for individual tax account processing, providing information feeds to other IRS internal systems to support business processes. To become the ADS, CADE 2 is continuing to evolve and improve its existing capabilities by taking on more IMF activities, like generating reports and data extracts. In addition, CADE 2 provides data and reports to other IRS databases, including the CADE 2 Operational Data Store (ODS) (part of the Integrated Production Model (IPM) within Big Data Analytics (BDA)) and other applications. To carry out the CARES Act provisions CADE 2 provides data downstream to Get My Payment (GMP) web application to inform taxpayers of their stimulus payment status. In addition, CADE 2 will support implementation of the Advance Child Tax Credit (ACTC) payments under the American Rescue Plan, A new CADE 2 Advanced Child Tax Database will be created to provide information on eligibility to the ACTC Taxpayer Portal.

PII DETAILS

Does the system use, collect, receive, display, store, maintain, or disseminate IR Code 6103 taxpayer information: or any other type of Sensitive but Unclassified (SBU) information or PII such as information about IRS employees or outside stakeholders?

Yes

Does the system use, collect, receive, display, store, maintain, or disseminate Social Security Numbers (SSN's) or tax identification numbers (i.e., last 4 digits, etc.)?

Yes

What types of tax identification numbers (TIN) apply to this system?

Social Security Number (SSN)
List the approved Treasury uses of the SSN:

Legal/statutory basis (e.g., where collection is expressly required by statute)

Delivery of governmental benefits, privileges, and services

Explain why the authorized use(s) above support the new or continued use of SSNs (or tax identification numbers).

The SSN is the primary means of updating or querying the database by other internal systems. It is the only unique identifier associated with taxpayers, spouses, and dependents that can be used to ensure the correct records are accessed by other IRS systems. This is important when updates are made based on submitted tax forms processed by upstream systems or when information is requested from downstream systems.

Describe the planned mitigation strategy and forecasted implementation date to mitigate or eliminate the use of SSN's (or tax identification numbers).

CADE 2 has mitigated and eliminated the SSN as an internal primary key used to link a taxpayer record thus reducing the number of times it appears in the database. CADE 2 continues to examine all system requests that state a need to access the SSN to ensure there is a specific requirement and an official IRS business need. Prior to any connections to downstream IRS systems the IRS shall examine alternative solutions and will work with the system owner to try and mitigate the need for the SSN. In addition, IRS will regularly review CADE 2 SSN uses and continue to find ways to replace, mask, or truncate the SSN. In addition, IRS is undertaking efforts to expand the use of a modified system identifier, Document Locator Number (DLN), or a truncation of the SSN. A plan is reviewed annually examining reports, system connections, and requests that use the SSN to determine if an alternative can be used.

Employer Identification Number

Other Taxpayer Identification Number

Does this system use, collect, receive, display, store, maintain or disseminate other (non-SSN) PII (i.e., names, addresses, etc.)?

Yes
Specify the PII Elements:

- Name
- Mailing address
- Phone Numbers
- Date of Birth
- Protection Personal Identification Numbers (IP PIN)
- Financial Account Numbers
- Tax Account Information

Does this system use, collect, receive, display, store, maintain, or disseminate SBU information that is not PII?

Yes

Specify the types of SBU from the SBU Types List:

- Agency Sensitive Information: Information which if improperly used or disclosed could adversely affect the ability of the agency to accomplish its mission.

- Protected Information: Information which if modified, destroyed, or disclosed in an unauthorized manner could cause loss of life, loss of property or funds by unlawful means, violation of personal privacy or civil rights, gaining of an unfair procurement advantage by contractors bidding on government contracts, or disclosure of proprietary information entrusted to the Government.

Are there other types of SBU/PII used in the system?

No

Cite the authority for collecting SBU/PII (including SSN if relevant).

PII for federal tax administration is generally Internal Revenue Code Sections 6001, 6011, & 6012e(a)

SSN for tax returns and return information is Internal Revenue Code Section 6109

Has the authority been verified with the system owner?

Yes
BUSINESS NEEDS AND ACCURACY

Explain the detailed business needs and uses for the SBU/PII, and how the SBU/PII is limited only to that which is relevant and necessary to meet the mission requirements of the system. If SSNs (or tax identification numbers) are used, explicitly explain why use of SSNs meets this criteria. Be specific.

The Personally Identifiable Information (PII) collected from the IRS forms 1040 and 1040X, and all supplemental documentation filed along with an individual's tax information, collected by upstream systems, and sent to CADE 2, is used to validate an individual's taxes. The only Sensitive But Unclassified (SBU)/PII data CADE 2 uses are those necessary to assess taxes. This includes the SSN since it is the one unique identifier that taxpayers have to identify themselves.

How is the SBU/PII verified for accuracy, timeliness, and completion?

CADE 2 runs daily updates with data coming from IMF. As this data is transferred and updated, it is also verified through balance and control measures. The database validates the data and ensures completeness by assessing the format and flagging errors that could affect a tax return assessment. During this processing, if any data elements are determined to be outside of the expected formatting parameters, the element is flagged for further analysis by the system. If the system is unable to correct the element, a ticket is created, and the element will be examined by appropriate personnel that can resolve the issue. In the future, CADE 2 will verify the accuracy of SSNs against Social Security records through another IRS application. Taxpayer information will continue to be processed by using IMF, with parallel validation, until CADE 2 is officially accepted by both the Chief Financial Officer and Government Accountability Office (GAO) as the authoritative data source for individual tax account data. In addition, when other internal systems that rely on CADE 2 data discover inaccurate or incomplete information due to their direct interaction with individual taxpayer, the information is resubmitted through appropriate processes and the taxpayer information is updated. In addition, the CADE 2 Database Conversion (DBC) process conducts an IMF Annual and Mid-Year Conversion and retains the CADE 2 historical data (changes to transactions, tax modules, balances, tax return records, taxpayer records, and pending events).
PRIVACY ACT AND SYSTEM OF RECORDS

The Privacy Act requires Federal agencies that maintain a system of records to publish systems of records notices (SORNs) in the Federal Register for records from which information is retrieved by any personal identifier for an individual who is a US citizen, or an alien lawfully admitted for permanent residence. The Privacy Act also provides for criminal penalties for intentional noncompliance.

Does your application or this PCLIA system pertain to a group of any record from which information is retrieved by any personal identifier for an individual who is a US citizen, or an alien lawfully admitted for permanent residence? An identifier may be a symbol, voiceprint, SEID, or other personal identifier that is used to retrieve information.

Yes

Identify the Privacy Act SORN(s) that cover these records.

- IRS 24.030  Customer Account Data Engine Individual Master File
- IRS 24.046  Customer Account Data Engine Business Master File
- IRS 34.037  Audit Trail and Security Records System

RESPONSIBLE PARTIES

Identify the individuals for the following system roles:

## Official Use Only

INCOMING PII INTERFACES

Does the system receive SBU/PII from other systems or agencies?

Yes

Does the system receive SBU/PII from IRS files and databases?

Yes

Enter the files and databases:

System Name: Return Transaction File
Current PCLIA: Yes
Approval Date: 4/6/2020
SA&A: Yes
ATO/IATO Date: 12/8/2019
System Name: Information Returns Processing System
Current PCLIA: Yes
Approval Date: 9/20/2018
SA&A: No

System Name: Dependent Database
Current PCLIA: Yes
Approval Date: 6/17/2020
SA&A: No

System Name: National Accounts Profile
Current PCLIA: Yes
Approval Date: 2/27/2020
SA&A: Yes
ATO/IATO Date: 2/27/2020

System Name: Individual Master File
Current PCLIA: Yes
Approval Date: 3/4/2020
SA&A: Yes
ATO/IATO Date: 9/22/2019

Does the system receive SBU/PII from other federal agency or agencies?

No

Does the system receive SBU/PII from State or local agency (-ies)?

No

Does the system receive SBU/PII from other sources?

No

Does the system receive SBU/PII from Taxpayer forms?

Yes

Please identify the form number and name:

Form Number: 1040
Form Name: U.S. Individual Income Tax Return

Form Number: 1040X
Form Name: Amended U.S. Individual Income Tax Return
Does the system receive SBU/PII from Employee forms (e.g., the I-9)?

No

DISSEMINATION OF PII

Does this system disseminate SBU/PII?

Yes

Does this system disseminate SBU/PII to other IRS Systems?

Yes

Identify the full name and acronym of the IRS system(s) that receive SBU/PII from this system.

System Name: Advance ACTC Portal
Current PCLIA: Yes
Approval Date: 6/10/2021
SA&A: Yes
ATO/IATO Date: 6/14/2021

System Name: Get My Payment
Current PCLIA: Yes
Approval Date: 4/14/2020
SA&A: Yes
ATO/IATO Date: 4/13/2020

System Name: Big Data Analytics (BDA)
Current PCLIA: Yes
Approval Date: 11/3/2017
SA&A: Yes
ATO/IATO Date: 5/4/2019

System Name: Integrated Production Model (IPM)
Current PCLIA: Yes
Approval Date: 6/16/2019
SA&A: No

System Name: Integrated Data Retrieval System (IDRS)
Current PCLIA: Yes
Approval Date: 10/1/2018
SA&A: Yes
ATO/IATO Date: 10/14/2018
Identify the authority

The authority for processing taxpayer information is 5 U.S.C. 301 and 26 U.S.C. 7801.

For what purpose?

The purpose for sharing taxpayer information received by other IRS systems and processed by CADE 2 is to assess and distribute tax returns. Information from CADE 2 is shared with IDRS to provide data for open cases and is shared with BDA and IPM for the purpose of providing data for a new data store that will address downstream system data requirements. CADE 2 is only a repository for taxpayer data, and it does not interact directly with taxpayers like other systems regarding return transactions and authorized taxpayer representatives.

Does this system disseminate SBU/PII to other Federal agencies?

No

Does this system disseminate SBU/PII to State and local agencies?

No

Does this system disseminate SBU/PII to IRS or Treasury contractors?

No

Does this system disseminate SBU/PII to other Sources?

Yes

Identify the other source(s) that receive SBU/PII from this system, and if there is an Inter-Agency Agreement (ISA) /Memorandum of Understanding (MOU).

Organization Name: Government Printing Office Vendors
Transmission Method: Secure EFTU
ISA/MOU: No

Identify the authority.

6103 (n) and CARES Act

Identify the Routine Use in the applicable SORN (or Privacy Act exception).

IRS 24.030 authorizes disclosure of 6103 information to a contractor, in this case 6103(n) for tax administration to carry out the CARES Act provisions.
For what purpose?

We are sharing information from the system with Government Printing Office vendors via secure methods for the purpose of notifying recipients of their Economic Impact Payment under the CARES Act. These vendors have a contract that includes clauses and Pub 4812 requirements for protection of PII, FTI, and SBU data, including IRC 6103(n), and their employees will be cleared, notified, and trained before receiving the data.

PRIVACY SENSITIVE TECHNOLOGY

Does this system use social media channels?

No

Does this system use privacy-sensitive technologies such as mobile, global position system (GPS), biometrics, RFID, etc.?

No

Does the system use cloud computing?

No

Does this system/application interact with the public?

No

INDIVIDUAL NOTICE AND CONSENT

Was/is notice provided to the individual prior to collection of information?

Yes

How is notice provided? Was the individual notified about the authority to collect the information, whether disclosure is mandatory or voluntary, the purpose for which the information will be used, with whom the information may be shared, and the effects on the individual, if any, if they decide not to provide all or any of the requested information?

Notice is provided to individuals by other IRS applications or through forms (e.g., 1040 forms) that interact directly with the taxpayer at the time of collection. Due Process is provided pursuant to 5 USC.

Do individuals have the opportunity to decline from providing information and/or from consenting to particular uses of the information?

Yes
Describe the mechanism by which individuals indicate their consent choice(s):

CADE 2 does not collect any information directly from taxpayers. All information that is maintained by CADE 2 comes from the submission of 1040 forms submitted directly to the IRS through other IRS systems. Information from the 1040 form is collected and stored in IMF and is then subsequently shared with CADE 2. In the future, when CADE 2 is accepted as the ADS data will be sent directly to the CADE 2 DB. The 1040 form provides taxpayers information regarding the opportunity to decline or consent to providing the information. Due Process is provided pursuant to 5 USC.

How does the system or business process ensure 'due process' regarding information access, correction, and redress?

CADE 2 is only a repository of taxpayer information submitted directly to the IRS through other IRS applications. CADE 2 does not interact with taxpayers directly and thus "due process" is addressed by other IRS applications that directly interact with taxpayers. Any issues that are identified by these other means will submit changes to CADE 2 through automated methods, so an auditable record may be maintained. Due Process is provided to 5 USC.

INFORMATION PROTECTION

Identify the owner and operator of the system (could be IRS owned and Operated; IRS owned, contractor operated; contractor owned and operated).

IRS Owned and Operated

The following people have access to the system with the specified rights:

IRS Employees

System Administrators: Administrator

Developers: Read Write

IRS Contractor Employees

Contractor System Administrators: Administrator

Contractor Developers: Read Write
How is access to SBU/PII determined and by whom?

All contractors and employees must go through the Public Trust Clearance process before access is considered. Once cleared, an IRS employee or contractor must complete the proper request forms before access to CADE 2 is obtained. All access must be approved, via the OnLine 5081 system, by the user's manager who reviews the access request at the time of submission and on an annual basis in order to verify the position request and if the user has a need-to-know. The system administrators/approvers will also verify group membership to ensure system rights are limited based on the employee or contractor's need-to-know in order to perform their official duties. For access to an environment where a new or modified system is being tested (i.e., a non-production supporting environment) users must complete the necessary SBU data training, complete an access request form, and in some cases as outlined by the requirements set forth within the Internal Revenue Manual (IRM), submit an elevated access letter that is approved by the Associate Chief Information Officer prior to granting access.

RECORDS RETENTION SCHEDULE

Are these records covered under a General Records Schedule (GRS, IRS Document 12829), or has the National Archives and Records Administration (NARA) approved a Records Control Schedule (RCS, IRS Document 12990) for the retention and destruction of official agency records stored in this system?

Yes

How long are the records required to be held under the corresponding GRS or RCS, and how are they disposed of? In your response, please provide the GRS or RCS chapter number, the specific item number, and records series title.

Records generated by the system will be managed according to requirements under IRM 1.15.1 and 1.15.6 and will be destroyed in accordance with approved disposition authorities. Records retention requirements for CADE are published under RCS 19 for the Enterprise Computing Center (ECC) - Martinsburg, item 77. Schedule updates for CADE 2 and associated records (that take into consideration CADE system enhancements, changes in functionality and/or creation of new recordkeeping requirements) will be coordinated with the IRS Records and Information Management (RIM) Office and submitted to the National Archives and Records Administration (NARA) for approval, as necessary. CADE 2 development records should be maintained in accordance with RCS 17 for Information Technology. The expectation is that ECC-Martinsburg will continue to follow IRM 2.7.9. Smaller files and documents that fall outside the schedule are addressed by the project and kept only as long as necessary in order to perform their task.
SA&A OR ASCA

Has the system been through SA&A (Security Assessment and Authorization) or ASCA (Annual Security Control Assessment)?

Yes

What date was it completed?

5/21/2021

Describe the system's audit trail.

The SA&A controls are assessed annually in accordance with the Annual Security Control Assessment (ASCA) to ensure system security and privacy compliance. Vulnerability scans and policy checkers are routinely run and if a vulnerability is detected efforts are made to address the concern upon discovery. In addition, CADE 2 development areas that utilize live data periodically review staff lists to ensure listed support personnel require the level of access requested.

PRIVACY TESTING

Does the system require a System Test Plan?

Yes

Is the test plan completed?

Yes

Where are the test results stored (or documentation that validation has occurred confirming that requirements have been met)?

Collaborative Lifecycle Management (CLM) and DocIT

Were all the Privacy Requirements successfully tested?

Yes

Are there any residual system privacy, civil liberties, and/or security risks identified that need to be resolved?

No
Describe what testing and validation activities have been conducted or are in progress to verify and validate that the applicable Privacy Requirements (listed in header) have been met?

The CADE 2 system is going through a continuous System Test Plan due to its ongoing enhancements. Each enhancement has a different set of design requirements which includes security and privacy requirements that are assessed. The overarching privacy requirements are further defined into testable requirements that are reviewed by the development team. The identified requirements will then be tested and documented. Any risks that are discovered are reviewed and addressed. All this is being coordinated by Requirements Engineering Program Office and Cybersecurity and tracked in the Rational Requirements Tool and developer security assessment testing.

SBU DATA USE

Does this system use, or plan to use SBU Data in Testing?

Yes

Was permission granted per the requirements of Form 14664, SBU Data Use Questionnaire or Form 14665, SBU Data Use Request?

Yes

Provide the date the permission was granted.

10/23/2020

Was testing performed in conformance with IRM 10.8.8 Information Technology (IT) Security, Sensitive But Unclassified (SBU) Data Policy?

Yes

NUMBER AND CATEGORY OF PII RECORDS

Identify the number of individual records in the system for each category:

IRS Employees: Not Applicable

Contractors: Not Applicable

Members of the Public: More than 1,000,000

Other: No
CIVIL LIBERTIES

Does the system maintain any information describing how any individual exercises their rights guaranteed by the First Amendment?

No

Is the system information used to conduct 'data-mining' as defined in the Implementing Recommendations of the 9/11 Commission Act of 2007, Public Law 110-53, Section 804?

No

Will this system have the capability to identify, locate, and monitor individuals or groups of people?

Yes

Describe the type of information derived from these efforts and the technical (e.g., audit trails) or other processes used to limit unauthorized monitoring.

With the CADE 2 database containing all individual taxpayer data the capability does potentially exist where it can be used to identify, locate, and monitor individuals and their financial information base on tax records. However, this is not the intent and audit controls are in place.

Does computer matching occur?

No

ACCOUNTING OF DISCLOSURES

Does the system include or require disclosure of tax or employee information to anyone other than IRS employees in the performance of their duties, or to the person to whom the information pertains or to a 3rd party pursuant to a Power of Attorney, tax, or Privacy Act consent?

Yes

Does the system have a process in place to account for such disclosures in compliance with IRC §6103(p) (3) (A) or Subsection (c) of the Privacy Act? Contact Disclosure to determine if an accounting is required.

Not Applicable