

Immigration and Customs Enforcement (ICE) Data Modernization Strategy

FY23-FY26



U.S. Immigration
and Customs
Enforcement

Letter from the Chief Data Officer (CDO)



Every day, the people of ICE work hard to advance the agency's mission of protecting national security, public safety, and the integrity of US Immigration and Customs Enforcement (ICE). The tremendous efforts of ICE's Information Technology (IT) and Data Communities enable ICE personnel's execution of the mission. On behalf of the ICE Office of the Chief Information Officer (OCIO), I am pleased to present this four-year Data Modernization Strategy to drive IT data modernization across the agency. This strategy outlines how ICE will work to promote transparency and improve data security, quality, and standardization. Most importantly, we will hold ourselves accountable and measure our success against the fulfillment of the Mission Outcomes presented throughout this document.

We developed this strategy with strong collaboration and communication across the agency. The guiding principles outlined in this document will remain essential during implementation over the next four years. I would like to thank the various leaders of ICE, including members of the Data Modernization Action Council (DMAC), who reviewed and contributed to the development of the Data Modernization Strategy. Additionally, we designed this strategy to align with and advance the Department of Homeland Security (DHS) Evidence-Based Data Strategy.

ICE's mission is critical in protecting America from cross-border crime, human-trafficking, and terrorism that threaten the Nation's security. Our vision is to support ICE's mission execution through informed decisions using secure, connected, accessible and reliable data. This strategy serves as a guide to drive data empowerment across the agency and execute our mission in the next four years.

Sincerely,

A handwritten signature in black ink that reads "Carin Quiroga".

Carin Quiroga
Chief Data Officer
U.S. Immigration and Customs Enforcement



Purpose & Principles

Purpose

America faces an evolving global threat landscape, and the country must adapt to address changing national security and public safety trends. The ability to make informed, accurate decisions enables ICE to protect America through criminal investigations and enforcing immigration laws to preserve national security and public safety. ICE must provide agents, officers, and supporting staff with the data they need to make timely, reliable, and mission-critical decisions.

The ICE Data Modernization Strategy provides a framework that will accelerate IT Data Modernization across the agency, increase transparency, and produce data-based tools and services while enhancing the quality, security, and integrity of ICE's data. The ICE Data Modernization Strategy builds on existing DHS policies and aligns with the DHS Evidence Based Data Strategy (EDS), and the 2019 Office of Management Budget (OMB) M-19-18 Federal Data Strategy—A Framework for Consistency to support DHS's effort to comply with the 2018 Open Government Data Act while protecting individual privacy in accordance with the Privacy Act of 1974 and other applicable privacy laws and policies.



Guiding Principles

ICE will use four core principles to serve as guideposts for addressing data challenges, creating a uniform response, and ensuring progress towards:

- 1 Quality Driven:** Improve data standardization and accessibility across the agency.
- 2 Mission-Focused:** Prioritize mission needs and aim to proactively address data issues before they arise.
- 3 Interconnected:** Normalize data sharing to support continuity of operations across the mission space and reduce duplication.
- 4 Forward Leaning:** Promote agency-wide collaboration and innovation to advance productivity and mission success.



Executive Summary



MISSION | To drive data modernization across the agency that enables ICE to make informed decisions using secure, connected, accessible and reliable data.



VISION | Operate as a data driven organization with ICE collecting the right data at the right time, driving automation, and using data to increase transparency.

The strategy will be executed across 4 goals and 12 objectives.

GOAL 1: SECURE

Users know that ICE protects its data from unauthorized use.

- 1.1: Enhance enforcement of the Least Privileged Access (LPA) principle to control data access.
- 1.2: Improve ICE technologies and processes to continue preventing the release of proprietary data.
- 1.3: Use Comprehensive Security Monitoring (CSM) to prevent unapproved data access.

GOAL 2: CONNECTED

Users across the agency connect and integrate with data communities.

- 2.1: Establish partnerships and engage internally within ICE, DHS, and across the federal government.
- 2.2: Enable strong communication between ICE mission and operations to understand data needs.
- 2.3: Improve ICE and external user data experiences.

GOAL 3: ACCESSIBLE

Users can locate and quickly retrieve data using tools and services.

- 3.1: Maintain data sources through the ICE data inventory to account for data assets.
- 3.2: Provide digitized ICE assets.
- 3.3: Enable open data practices and increase data sharing.

GOAL 4: RELIABLE

Users trust data for decision-making.

- 4.1: Collect and share data in a timely manner.
- 4.2: Maintain complete and accurate data from trustworthy data sources.
- 4.3: Standardize data across all management systems.



Goals and Objectives



1. Secure:

Users know that ICE protects data from unauthorized use.

Using a disciplined approach to data protection, such as identity-based access control across the agency, enables ICE to maximize the use of data while employing stringent security standards to protect the Nation and its interests.

Objective 1.1: Enhance enforcement of the Least Privileged Access (LPA) principle to control data access.

ICE will initiate clear guidelines that define user roles and their needs to access specific data. Secure and interconnected data usage relies on controlled access management. ICE will continue to incorporate a Zero Trust Architecture to improve the enforcement of LPA across the agency. ICE will initiate clear guidelines that define user communities and roles based on their access needs to specific ICE data.

Objective 1.2: Improve ICE technologies and processes to prevent the unapproved release of data.

In accordance with regulatory and governing bodies, ICE will use data security technologies to protect the longevity and stability of the ICE data environment. The use of data leak prevention technologies will fortify ICE in the event of system error and protect the agency's data from malicious attacks.

Objective 1.3: Use Comprehensive Security Monitoring (CSM) to prevent unapproved data access.

ICE will conduct regular audits across the data environment to establish trustworthy, linked, and accessible mission critical data. Consistent execution of audits will decrease the likelihood of data breaches, enabling ICE to identify and patch vulnerabilities as quickly as possible.



Key Mission Outcomes

- 1a.)** ICE has a dynamic and strong security foundation to keep it's data secure.
- 1b.)** ICE has tools in place to prevent malicious attacks and data leaks.



Goals and Objectives



2. Connected:

Users across the agency connect and integrate with data communities.

Data-driven decision-making requires linked data and data sources the agency can easily use. ICE will formalize its data relationships and will enable operators, mission support, and external partners to perform their duties.

Objective 2.1: Establish partnerships and engage internally within ICE, DHS, and across the federal government.

The CDO will engage internally within ICE, across DHS, and externally through partnerships. The CDO office will serve as both the connective tissue that provides personnel with solutions to records and data challenges as well as the ICE data community leader that promotes best practices.

Objective 2.2: Enable communication between ICE mission and operations to understand data needs.

To become an action-oriented data steward, the ICE CDO will remain connected to DHS cross-component and cross-government peers. ICE will use a community of data experts, including CDO counterparts across the government, to understand and anticipate requirements, promote best practices, and create mission alignment.



Objective 2.3: Improve ICE and external user data experiences.

ICE will continue to use future-focused practices, like automation and responsible AI, to improve data experiences. Efforts towards future-focused analytics will aid ICE in how it illustrates its mission efforts through communications and visualizations.

Key Mission Outcomes

2a.) ICE enhances transparency and improves inquiry response time and accuracy through the consistent use of data with clear communications.

2b.) ICE enhances cross-component collaboration through established partnerships and standardization.



Goals and Objectives



3. Accessible:

Users can locate and quickly retrieve data using tools and services.

Making data available will streamline data collection and increase data exchange and sharing to support the ICE mission. ICE will implement processes so that personnel can quickly access systems and easily use data in everyday operation.

Objective 3.1: Maintain data sources through the ICE data inventory to account for data assets.

Users must be aware of available data to use it as a strategic asset. ICE will implement data governance methods and best practices to maintain data's reliability and accessibility.

Objective 3.2: Provide digitized ICE assets.

The ability to automate ICE's data resources and improve the agency's overall functionality requires digitized machine-readable data. ICE will improve the speed that end users can access data by simplifying back-end processes. Standardized machine-readable data will improve transparency, enhance interagency data sharing capabilities, and bolster workflows.

Objective 3.3: Enable open data practices and increase data sharing.

People will access and interact with data faster. ICE will continue to standardize the integration of data to make information more readily accessible while aligning to open data policies and regulations.



Key Mission Outcomes

3a.) ICE uses data more effectively to combat threats including human trafficking, drug smuggling, financial fraud, and terrorism.

3b.) ICE uses digitized records to improve data availability and operational efficiencies.





4. Reliable:

Users trust data for decision-making.

For stakeholders to effectively use ICE data, it must be timely and trustworthy. The ability to collect, compare, and understand data enables ICE and its stakeholders to react quickly and respond confidently.

Objective 4.1: Collect and share data in a timely manner.

ICE will improve the timeliness of data collection to enhance the data standardization process. Implementing a common format for different data types will shorten the time it takes to ingest and use data, enabling stakeholders to easily understand relevant data.

Objective 4.2: Maintain complete and accurate data from trustworthy data sources.

ICE must improve its understanding of authoritative sources of data. Establishing systems of record and data ownership will improve ICE's data architecture and enable data validation for accuracy and trustworthiness. ICE will verify data by improving data exchange and sharing practices.



Objective 4.3: Standardize the data management systems.

Through a comprehensive data inventory and dictionary, ICE will enhance users' ability to understand and adopt new data and data assets. These efforts will complement the standardization of data.

Key Mission Outcomes

4a.) ICE improves data collection and sharing to enhance the decision making process and increase transparency.

4b.) ICE digitally interacts with stakeholders to simplify immigration actions.

