

DHS Science and Technology Directorate

Joint Enforcement and Data Intelligence Program

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The Joint Enforcement and Data Intelligence Program (JEDI) expands on the capabilities of the Border Enforcement Analytics Program (BEAP), a collaborative engagement between the Department of Homeland Security Science and Technology Directorate (S&T) and the U.S. Immigration and Customs Enforcement's (ICE) Homeland Security Investigations (HSI) Directorate. BEAP enabled ICE investigators to leverage multiple, disparate data sets to generate investigative leads related to export enforcement and counter proliferation. The BEAP program produced new Big Data analytic solutions, under appropriate privacy and civil liberties controls, that gained insight from data to significantly improving the efficiency of ICE's investigative capability. BEAP transitioned to ICE in September 2016.

Partnerships Supporting Departmental Missions

S&T is partnering with ICE HSI, the Customs and Border Protection's Trade Analytics, and the Countering Weapons of Mass Destruction Office (CWMDO). The potential use cases to be examined include money laundering, customs fraud and loss of revenue, adversarial modeling (e.g., counter-criminal networks), and loss of control of nuclear materials.



Approach

JEDI officially began in December 2017, after completing necessary privacy and IT security assessments.

Plans within the JEDI program include:

- Scoping and understanding various use cases and applications via partner workshops.
- Conducting data characterization of trade data.
- Analysis phase, hands-on testing of various tools on the data.
- Understanding risks as it pertains to specific applications, such as lost of nuclear material.
- Applying more advanced analytics, such as machine learning if appropriate.
- Defining a path forward for implementation based on findings.



Homeland Security

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About the Data Analytics Engine (DA E) Work Program

Located at the DHS S&T location, DA E is a state of the art data analytics laboratory. It is a crosscutting resource available to DHS components that need technical expertise and subject matter support in data storage, security, computation, analysis, and visualization. The lab engages and partners with national laboratories, industry, and academic labs to enrich DHS cutting edge research.

For questions, please contact SandTBigData@hq.dhs.gov