

Business Case: Capital Asset Summary

Part I: Summary Information and Justification (All Capital Assets)

Section A: Overview & General Information

Date Investment First Submitted: 2020-09-27
Date of Last Change to Activities: 2021-07-01
Investment Auto Submission Date:
Date of Last Investment Detail Update: 2021-04-27
Date of Last Business Case Update: 2021-07-06
Date of Last Revision: 2021-07-06

Agency: 006 - Department of Commerce **Bureau:** 07 - Bureau of the Census

1. Name of this Investment: Census - Enterprise Data Lake (EDL)

2. Unique Investment Identifier (UII): 006-000000136

Section B: Investment Detail

- Provide at least one Agency Strategic objective code ([A-11 Section 230](#)) and/or Agency Priority Goal code ([A-11 Section 250](#)) that this investment aligns to on performance.gov. If this investment aligns to more than one Agency strategic objective code and/or Agency Priority goal code list all that apply. If your agency does not report to performance.gov please use "0". This is required for Agency IT Portfolio Summary Part 1 and Part 2 Investments, not for Part 3 Investments.**

Agency Strategic Objective(s):

006SO18034: Provide Accurate Data to Support Economic Activity

006SO18036: Accelerate Information Technology Modernization

Agency Priority Goal(s):

006APG200119: Conduct a Complete and Accurate 2020 Decennial Census

- Briefly describe the investment's return on investment, including benefits internal and external to the government and outcomes achieved or planned.**
The EDL investment will support the Census's data and analytical needs in a secure, scalable, high performance storage and computing cloud environment with appropriate backups to Census data center. This platform will increase the Bureau's capability to ingest the ever increasing volume of administrative records, improve the quality of data produces and apply disclosure avoidance to protect PII data as required by Title 13, Title 26, and he other data protection laws.
- If this investment will result in the elimination or the reduction of another major or non-major investment(s), please complete the following:**

Table I.B.1 Affected Investment Information

Investment UII	To Be Status
NONE	

4. Does the Investment currently include an intra- or inter-Agency shared service (common, shared, or centralized solution)?:
NO
5. Does the Investment plan to include an Intra- or Inter-Agency shared service that it does not currently include (common, shared, or centralized solution)?:
NO
6. If systems contained in this Investment collect data from the public, please identify the OMB Control Numbers which authorize that data collection as per the Paperwork Reduction Act. Use [Reginfo](#) at the following link to identify information collection requests and OMB control numbers. Agencies can work with their Records Officers to determine the applicability.
7. Provide the name of the Investment-level project manager:
Tracy Stewart
8. Select the qualification/experience level of the Investment-level project manager (select one):
1 - FAC-P/PM(DAWIA-3)- Senior

Section C: Life Cycle Costs

1. Provide the total estimated life cycle costs for the investment in millions. Note: Do not enter information in the grey cells as these will be calculated.

Table I.C.1 Life Cycle Costs				
	PY-1 & Prior	PY 2021	CY 2022	BY 2023
Planning Costs:	0	0	0	0
DME (Excluding Planning) Costs:	0	0	\$6.054565	\$9.411482
DME (Including Planning) Govt. FTEs:	0	0	\$4.607634	\$5.241974
Sub-Total DME (including Internal Labor (Govt. FTE)):	0	0	\$10.662199	\$14.653456
O & M Costs:	0	0	\$3.950644	\$5.429518
O & M Internal Labor (Govt. FTE):	0	0	\$0.337925	\$0.464423
Sub-Total O & M Costs (Including Internal Labor (Govt. FTE)):	0	0	\$4.288569	\$5.893941
Total Cost (Including Internal Labor (Govt. FTE)):	0	0	\$14.950768	\$20.547397
Total Cost Internal Labor (Govt. FTE) costs:	0	0	\$4.945559	\$5.706397
# of FTE rep by costs:	0	0	9	16
Total change from prior year final President's Budget (\$)		0	\$14.950768	
Total change from prior year final President's Budget		0.00%	0.00%	

Table I.C.1 Life Cycle Costs

	PY-1 & Prior	PY 2021	CY 2022	BY 2023
(%)				

2.
 - a. In which year did or will this investment begin? (specify year - e.g., PY-1= 2019)
2021
 - b. In which year will this investment reach the end of its estimated useful life? (specify year - e.g., FY+5 = 2027)
2024
3. Compare the funding levels for PY and CY to the final FY 2022 President's Budget for those same years. Briefly explain any significant changes. When making comparisons, ensure that you compare same-year-to-same-year (e.g., the FY20 level for 2020 versus the FY21 level for 2020):

Business Case Detail: Performance Measurement Report

Section A1: General Information

1. **Name of this Investment:** CENSUS - ENTERPRISE DATA LAKE (EDL)
2. **Unique Investment Identifier (UII):** 006-000000136

Section C1: Projects Table

Projects Table C.1

Unique Project ID	Project Name	Project Goal	Project Start Date	Project Completion Date	Project Lifecycle Cost (\$M)	Software Project?
0001D21002	Enterprise Data Lake Phase 2	To build a high performance, secure and scalable, multi-tenant computing platform to centrally locate data from various sources for the purpose of performing big data analytics, machine learning and artificial intelligence.	03/01/2021	01/19/2022	\$11.1	Yes

Section C2: Project Activities

1. Provide all non-agile project activities for projects in Table C.1 that started in a previous FY (PY and earlier) and that have not been completed by the beginning of the CY, as well as activities that are scheduled to start in the current FY and BY.

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
0001D21002	HDP to CDP	Complete the upgrade/migration from Hortonworks Data Platform (HDP) to the Cloudera Data Platform (CDP)	0001D21002.1	2021-03-08	2021-03-08		2021-09-01	2021-09-01		3.871570	5.232769	
0001D21002	Production Environment	Build the EDL production environment	0001D21002.2	2021-03-08	2021-03-08		2021-10-01	2021-10-01		3.318489	4.485230	
0001D21002	Data Governance and Frameworks	Create the foundational data governance and data ingestion/processing	0001D21002.3	2021-03-08	2021-03-08		2021-12-06	2021-12-06		2.212326	2.990154	

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
frameworks												
0001D21002	Program Management Plan	Finalize program management plan and obtain IT Investment Authority for the full scope of EDL	0001D21002.4	2021-03-08	2021-03-08		2021-12-30	2021-12-30		1.659245	2.242615	

Section D: Operational Data

1. Provide the date and results of the last Operational Analysis (for operational and mixed life cycle systems/Investments):

1. Date of Analysis:

2. Analysis Results:

3. Analysis Conclusion: continue as is

2. Report a minimum of 5 metrics using the following table to provide metrics and actual results for each individual metric:

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
30104	Information is highly available on-demand for analysis.	Percentage	2 - Strategic and Business Results	99.000000		99.000000	Over target	Quarterly	006SO18036 : Accelerate Information Technology Modernization	No

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment	
NONE										
30103	Integrating data from multiple data source systems in to a single data platform.	Percentage	2 - Strategic and Business Results	95.000000		95.000000	Over target	Monthly		No
					Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment	
NONE										
30102	Program data was disseminated on time.	Percentage	1 - Customer Satisfaction (Process Results)	100.000000		100.000000	Over target	Monthly		No
					Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment	
NONE										
30101	Percent variance of actual costs from planned costs.	Percentage	3 - Financial Performance	8.000000		8.000000	Under target	Monthly		No
					Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment	
NONE										
30100	Number of Features completed and deployed	Number	2 - Strategic and Business Results	10.000000		10.000000	Over target	Quarterly		No
					Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
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NONE