**2020 Census Business Architecture Domain View**

The [2020 Census Enterprise Architecture and Infrastructure Transition Plan] (CEAITP) helps to realize the desired Solution Architecture that can fulfill the business goals of achieving cost efficient Census via modern technology, and implementing innovative Census operations as laid out in the 2020 Census Operation Plan for:

•Reengineering Address Canvassing;

•Optimizing Self-Response;

•Utilizing Administrative Records and Third-Party Data; and

•Reengineering Field Operations.

The 2020 CEAITP is designed to support the 2020 Operational Plan. With a phased approach aligned with the Census Tests, the 2020 CEAITP aims to ensure that the 2020 Census Program is not at risk of having to integrate solutions too late in the planning cycle. The sequencing timeline in the 2020 CEAITP shows that by the start of the 2018 End-to-End test, the majority of the business capabilities and systems must be in place. In addition, the Solution Architecture with its systems and services must be designed to meet the requirements for scalability, reliability, and availability.

**2020 CEAITP Purpose Strategies:**

The 2020 CEAITP is developed according to three strategies:

•First, the transition process is incremental by nature, as the Solution evolves from the current to target state. The Census Tests will demonstrate the progress of the implementation of the Business operations, and the capabilities provided by the Applications, and the IT Infrastructure.

•Second, the sequencing of the 2020 CEAITP has timelines for the architecture domains Business, Application, Information, Technical, Security, and Quality-, and consists of evolving these domains from the current state to the target state. The technical quality attributes of scalability, availability, reliability, resilience, and security are factored in the evolution of the 2020 Solution and propagated down to the levels of IT systems, services, and infrastructure components.

•Third, the transition maximizes the utilization of Enterprise standards, patterns and Programs, including CEDCaP and CEDSCI, and aims at consolidating similar capabilities into a common service or system. The modernization of the 2020 Solution will be enabled by emerging technologies that are SOA, Cloud, Mobile, and Web, while adhering to Federal directives for Cloud First, API, and Shared Services.

Finally, the 2020 Census Enterprise Architecture and Infrastructure Transition Plan is a living document, that will drive the collaborative process and be refined or adjusted to minimize risk and maximize efficiency, yet meet the ultimate timelines of 2018 End-to-End Test and 2020 Census Day.

**Four Key Innovation Areas:**

As mentioned above, four key innovation areas that are the focus of the 2020 Census design:

•Reengineering Address Canvassing

•Optimizing Self-Response

•Utilizing Administrative Records and Third-Party Data

•Reengineering Field Operations

**Reengineering Address Canvassing** is designed to reduce the amount of in-field labor required to update the Master Address File (MAF) and associated technical products used for assessing where to count. In-office Address Canvassing (AdCan) will be completed nationwide using imagery and address files shared by local and tribal governments. In-office AdCan is less expensive than in-field AdCan, but infield AdCan will still be required in up to 25% of all addresses. The plans for reengineered address canvassing are expected to reduce field workload by up to 75% by adding new addresses to the Census Bureau's address frame using Geographic Information Systems (GIS) and aerial imagery instead of sending Census employees to walk and physically check all the census blocks.

**Optimizing Self-Response** is designed to maximize the degree to which the respondent pool can successfully self-respond, reducing the cost of paper data capture and in-person Nonresponse Follow-up (NRFU). By encouraging the population to respond to the 2020 Census using the Internet or the telephone, the need for more expensive options are reduced.

**Utilizing Administrative Records and Third-Party data** is designed to reduce field workload by improving the efficiency of NRFU operations. By using these alternative sources of data, NRFU operations can eliminate the need for multiple unproductive visits to housing units that are vacant, abandoned, or otherwise unoccupied. It is expected that some nonresponding housing units will be enumerated in the 2020 census by using administrative records. The 2020 Census will enumerate many Group Quarters (GQs) through reference to administrative-type, third-party data. By using data, the public has already provided to the government and data available from commercial sources, the Census Bureau can realize savings to focus additional visits in areas that have been traditionally hard to enumerate.

**Reengineering Field Operations** is designed to increase the efficiency of field operations, allowing managers and field workers to be more productive and effective. Combining new operational control software and case management tools with GPS-enabled devices will improve the efficiency of field workers and allow faster and more accurate management of field worker labor and travel expenses.

Using sophisticated operational control systems, Census employees can follow up with nonresponding housing units and keep better track of the daily progress of field workers.