

2020 Census Program Management Review

2020 Census Use of Enterprise Shared Services Harry A. Lee, Senior Computer Scientist for Infrastructure, IT Directorate

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2020 Census – Importance of Shared Services

- The 2020 Census Program plans to leverage enterprise IT shared services in planning, preparing and conducting the 2020 Decennial Census
- Enterprise IT shared services are technology-based, enterprise-wide business, data and/or technical services using standard tools, streamlined processes, and consolidated support resources
 - Usually deployed, operated, and maintained by one business unit/organization, but shared by an entire organization
- Benefits to the 2020 Census Program include:
 - Reduce complexity (using/building modular, re-usable solution components)
 - Improve agility (ability to easily scale using both internal and external cloud-based resources)
 - Minimize new developments and new procurements
 - Positive impact on timing of decision making (faster provisioning of needed capability)
 - Reduce risk
 - Reduce costs

2020 Census – Leveraging IT Shared Services

- Planning to leverage enterprise IT Infrastructure Roadmap enabling shared services platforms:
 - Cloud Computing (servers & storage, communications, software services, platform services, business process services)
 - Mobile Computing (mobile application development & testing, BYOD, mobile APIs)
 - Collaboration & Unified Communications (e-mail, content management, knowledge management)
 - Data Management (internet data capture, data analytics, data dissemination, research)
 - Security Infrastructure (network, servers, storage, end-user device, data, applications, interfaces)
 - Service Management (monitoring, service desk, incident management, problem resolution)
- Utilizing and aligning with existing enterprise IT Shared Services:
 - Enterprise Content Management & Collaboration Service (MS SharePoint)
 - Virtual Desktop Infrastructure Service (VDI)
 - Portfolio, Program & Project Management Service (MS Project)
 - Internet Data Collection Service (Centurion)
 - Service Oriented Architecture (SOA) and Enterprise Service Bus (ESB)
- Active involvement in IT and Enterprise Architecture (EA) Governance processes:
 - Architecture Review Board (ARB)
 - Standards Working Group (SWG)
 - Census IT Project Review Board (CIPR)
 - Systems Development Lifecycle (SDLC)
 - Enterprise Change Management (EChM)
 - Census IT Policies



Census Enterprise IT Shared Services Program

- An Enterprise IT Shared Service is a “standard technology-based capability provided by one organization for use by other organizations needing that capability.”
 - User organizations do not have to worry about owning the technology, people or processes required to deliver the capability to their users
 - User organizations share the costs of delivering the service based on “service units” used and associated “unit costs”
- Candidate services are being identified and evaluated within each of the following categories:
 - Commodity IT (e.g., e-mail, content management, collaboration, help desk, websites, infrastructure)
 - Support IT (e.g., human resources, finance, records management)
 - Mission IT (e.g., surveys, censuses, research)
- Organizational benefits (better, faster, cheaper) include:
 - **Streamlined organizational efficiencies** by centralizing needed operational infrastructure (technology, process and people) required to deliver the service;
 - **Efficient resource allocation** allowing business areas to focus on delivering their core mission(s);
 - **Improved operational effectiveness** using best practices and innovative solutions; and
 - **Improved cost-efficiencies** by reducing costs associated with redundant IT resources.
- Program Guiding Principles include:
 - Service identification and prioritization based on business “value” in support of Survey Lifecycle (SLC) and Mission-Enabling & Support (MES) functions
 - Transition, maturation, monitoring and evaluation plans will be developed for each service
 - Costing model and funding models will be established for each service based on “service units” and “service unit costs”
 - Enterprise IT Shared Service providers will be identified and evaluated both internally and externally

Census Existing & Candidate IT Shared Services

- Existing Enterprise IT Shared Services being matured include:
 - **Enterprise Content Management and Collaboration Service** - a collaborative work environment for storing and accessing shared documents and automating workflows (MS SharePoint)
 - **Virtual Desktop Infrastructure (VDI) Service** - secure remote access to Census IT resources by work at home users, teleworkers, and research partners (Citrix)
 - **Enterprise Data Backup Service (EDBS)** – U.S. Census Bureau’s enterprise data backup and recovery service. EDBS backs up customer servers nightly and restores data as necessary. (Symantec NetBackup)
 - **Enterprise Portfolio Management Service** – Microsoft Project Server infrastructure and support services in support of Enterprise Portfolio Management as well as integrated program and project management (MS Project Server)
 - **Microsoft SQL Support Service** – Microsoft SQL Server infrastructure and MS SQL development and technical support services (MS SQL)
 - **Data Management Service** – easy access to locate, retrieve and manage access to Census data sets needed for analysis and/or research (Data Management System)
 - **Enterprise Service Desk Service** – a variety of help desk support using a ticketing and tracking system (BMC Remedy w/ Service Request Manager)
 - **Internet Data Collection Service** – templated approach for designing, developing and conducting surveys (Centurion)
 - **Enterprise Development and Integration Testing Service** – standard development, integration and testing environments and tools in alignment with the Systems Development Life Cycle (SDLC) (HP Application Lifecycle Management)
 - **Identity and Access Management Service** – standard and secure logical access to employee workstations and applications (MS Active Directory, HSPD-12)
 - **Secure Shared Data Center** – secure hosting and cloud services to other government agencies in alignment with the Federal Data Center Consolidation Initiative (FDCCI)

Census Existing & Candidate IT Shared Services

- Candidate Enterprise IT Shared Services (**Commodity IT, Support IT, Mission IT**) being evaluated include:
 - Service Oriented Architecture (SOA) & Enterprise Service Bus (ESB) Framework
 - Business Application Services – Multi-Mode Operational Control System (MOCS), Unified Tracking System (UTS)
 - DataWeb Service - Metadata Transformation Engine/API
 - Geospatial Data Service – Use a service framework for accessing/updating MAF/TIGER
 - Business Process Modeling & Intelligence Service – Leveraging Oracle Tool Suite
 - Statistical Analysis Service – Leveraging use of SAS in a High Performance Computing (HPC) environment
 - Platform as a Service – Part of Hybrid Cloud offering
 - Systems Development Lifecycle (SDLC) Service – to include tools, templates and technical support
 - Requirements Development & Management Service – Use of HP Applications Lifecycle Management (ALM)
 - Testing Traceability Service – Use of HP Applications Lifecycle Management (ALM)
 - Modeling & Simulation Service – Use of LoadRunner
 - Infrastructure as a Service – Part of Private Cloud Offering, to include storage thin provisioning and right-sizing; also looking at government and public cloud offerings
 - E-Mail as a Service – Looking at NIST contract with MS Office 365 as a public cloud offering
 - Software as a Service – Part of Hybrid Cloud offering
 - Web Hosting & Content Management Service – Looking to evaluate Government Cloud and Public Cloud offerings
 - Applications Monitoring Service – leverage HP monitoring tool suite
 - Asset Management/Configuration Management Service – leverage BMC Remedy tool suite
 - Knowledge Management Service