DMC Recommendations for moving the Data Cache forward

Priority recommendations for the Data Cache

- Support development of the Data Quality and Control Team (DQCT) (QA/QC)
 - a. The DQCT would consolidate services currently provided by USGS (GeoMac), ROSS Clearinghouse and multiple others as additional duties.
 - b. The DQCT would utilize technical capabilities to identify potential data quality issues. For example IRWIN can identify potential duplicate records for incidents and resources or the ETL processes for the ODS and DW. Once identified, the DQCT would work with the appropriate business contacts to resolve the issues in the Interagency Authoritative Data Source.
 - c. In addition, the DQCT would document QA/QC issues. This documentation combined with IT Help Desk tickets (Tier 3) would be used to identify trends and implement preventative actions.
 - i. Initially, the DMC would use this team to document processes like consolidating the WFDSS, GeoMAC and EGP QA/QC processes for perimeters.
 - d. Works with the DMC and Program Board to identify preventative actions, i.e. standards, business rules, etc.
 - i. Recommend using contract resources and/or fire resources like GISSs so support can be scaled for fire season and reduced overall as the enterprise matures.

Complete components required for full INFORM deployment

- a. INFORM is a DMC priority and the components necessary for full deployment and the deprecation of WFMI-FR, FireStat and FMIS are defined more clearly after the Data Cache requirements analysis.
- b. Technical components
 - i. Transactional database layer: Currently IRWIN is acting as the transactional database for INFORM. This role should be independent of the integration layer.
 - ii. Data Warehouse (DW): INFORM (and IRWIN) need a place to store nonoperational data so that it can be used for reporting and analysis.
 - 1. Options include: FS EDW, DOI GeoPlatform, a complete refresh of FAMWEB DW or something entirely new.
 - a. DMC concerns about timelines and cost.
 - iii. Reference Data Store (RDS): Significant efficiencies and improved accuracy can be gained for INFORM (and many other applications) with the implementation of the RDS. The expectation is that many applications will be using this data operationally so it must have a high rate of availability.
 - 1. Options include:
 - a. NIFC AGOL:
 - i. Currently available and paid for with approximately 6K users in the wildland fire community.
 - ii. Testing shows it is easy to use for spatial data layers
 - iii. Because AGOL is not backed up, need to develop a strong, document process to restore authoritative data should the data on AGOL get corrupted.

- b. DOI GeoPlatform:
 - i. DOI CDO wants to provide this service for us.
 - ii. DMC concerns about ease of access to Wildland Fire data with all the other data on GeoPlatform.
 - iii. DMC concerns about timelines and responsiveness from the department to get this capability in place ASAP.
- 2. Organizational Data
 - a. The WFMI Unit ID repository and the Organization Information System (OIS) are both nearing the end of lifecycle.
 - b. DMC with the IROC team have determined that OIS should be the enterprise solution until a replacement is developed.
 - i. OIS now offers an API to access organizational data.
 - ii. OIS will be deprecated with ROSS
 - c. The DMC has utilized an Organizational Data Task group which has identified and defined terms related to organizations and their roles in wildland fire.
 - i. Submitted to DSTS and will be out for review in three weeks.
 - d. Because the DMC wants to transition to a structure focused on organizational data with Unit IDs as an attribute, we believe a light requirements analysis should be completed to better define both business and technical requirements and alternatives.
- iv. Fuels treatment module development
 - 1. A requirement from FMB is to increase usability by providing a common tool for wildfire and fuels treatment reporting.
 - 2. This module of INFORM would be expected to replace NFPORS.
 - 3. INFORM is not currently funded for the development of the Fuels Treatment module.
- v. Wildand Fire Trespass module development
 - 1. Requirements have been defined and the bare minimum is included in the Wildfire module of INFORM.
 - 2. A separate module for collecting and managing information about trespass is required but INFORM is not currently funded for this development.
- c. Business Components
 - i. The FRSC will finalize the data elements required for a final fire occurrence data set for federal, state and local incidents.
 - 1. This will be the minimum required data for the DW solution.
 - ii. The FMC needs to define the requirements for fuels treatment reporting.
 - 1. Previous work by the FMC needs to be assessed to determine if it is sufficient to for application/module development.

Key DMC decisions:

- Utilize an active data management approach to "own" interagency data
 - a. Respects agency authority within their enterprise but recognizes data within the national, interagency data set has to be managed independently
 - b. Identifies Interagency Authoritative Data Sources and Interagency Systems of Record for the collection, editing, and finalization of interagency data
 - c. Enables one "record of truth" at an interagency level
- Use the current NWCG tasking to the Incident Planning Subcommittee (IPSC) to develop the requirements for the Document Management System
 - a. DMC to IPSC for coordination

Other recommendations for full implementation of the Data Cache

- Complete an assessment of key current investments/capabilities to act in the roles identified in the Data Cache Requirements Analysis
 - a. Assessment would identify short and long term opportunities, gaps and potential impact to the application functions currently provided
 - i. EGP is a viable candidate for the Operational Data Store but is also acting in other roles
 - 1. Decide to continue or offload
 - ii. IRWIN is the Integration Service but is also acting in other roles
 - 1. Decide to continue or offload
 - iii. Business Intelligence tools for use as the "supported" BI for WFIT
 - 1. The tool to publish interagency dashboard and reports
 - 2. Options include: Tableau, Cognos, Esri Insights, or others
 - 3. DMC to assist with identification of users and capabilities
 - 4. Define requirements for interagency reporting via the Data Cache vs application level reporting