AEDC's Test Data Aggregation and Analytical System

Making data discovery, access and analysis faster

Test Data Aggregation and Analytical System (TDAAS) addresses the need for data integration and knowledge discovery of Department of Defense (DoD) weapons system, engine, and flight test data at AEDC.
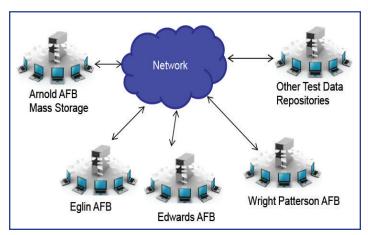
TDAAS is a sophisticated software tool that reduces test data discovery, access and analysis from a matter of days to merely seconds. It uses the power of open source software, such as Hadoop and Solr, to index all file content and metadata allowing for quick and powerful searches across large numbers of disparate file types. The search results are then available for in-depth analysis.

AEDC currently stores 50-plus years of test data on multiple unconnected systems. Approximately 1 petabytes (PB) of critical test data is stored on the Complex's mass storage system and approximately 4 PB of disparate test data in over 300 other locations. Access to historical data is time-consuming and cumbersome, and the lack of connectivity among test data repositories prevents data access, aggregation and analysis.

The expected benefits of TDAAS include increasing AEDC's ability to provide insightful analysis at all stages of an engine and flight acquisition program thus reducing risk while eliminating waste and unnecessary costs that contribute to the US Air Force and DoD's longer-term goal to generate greater efficiencies and capabilities.

TDAAS Highlights:

- ✓ **Organizations can retain control of their data**
- ✓ **Provides Google like search capability**
- ✓ **Find more data in seconds rather than days**
- ✓ **Frontend to data stored on organizations choice of storage**
- ✓ **Provides fast access and single interface from AF Standard Desktop**
- ✓ **Index and metadata stored locally**
- ✓ **Sharing of data sets with authorized users**
- ✓ **Standardizes data formats**
- ✓ **Finds data in all types of files and correlates**
- ✓ **Makes legacy data accessible via web browser**
- ✓ **Enables new analysis for acquisition cost reduction**