SPART-N: The Future of Criminal Intelligence Analysis
Texas Government Data Forum
June 21, 2018

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Agenda

- TX DPS Mission, Key Functions & Structure
- TX DPS Vision, Problem Statement & Solution
- SPART-N Empowers Discovery & Decision
- Advancements in Data Technologies
- Solution Scope & Timeline
- Solution Design
- TX DPS Inputs & SPART-N Outputs
- ICT Analysts’ Initial Impressions
- SPART-N Demo
- Questions & Answers

The Future of Criminal Intelligence Analysis
TX DPS Mission: Protect and serve Texas

Key Functions:
- Combat crime and terrorism
- Enhance highway and public safety
- Enhance statewide emergency management
- Enhance public safety licensing and regulatory services

Structure:
- Public Safety Commission
  - Director McCraw
    - Homeland Security
    - Law Enforcement Operations
    - Administration and Services
      - Intelligence and Counterterrorism Division

The Future of Criminal Intelligence Analysis
TX DPS Vision:
Empower Intelligence and Counterterrorism (ICT) Analysts to perform valuable sophisticated network analysis within a single workspace.

Problem Statement:
ICT Analysts spend a significant amount of time on manual processes to aggregate and resolve disparate and complex data sets. Analysts can dedicate more time to focus on their mission via sophisticated network analysis.

Solution:
SPART-N will provide ICT Analysts a modern data platform with sophisticated data visualization capabilities that will enable them to obtain results from a number of large data sets in a user-friendly, proficient, accurate, and expedient manner on a continuous (24 hour/7 day a week) basis.
SPART-N Empowers Discovery & Decision

We have enabled ICT Analysts to detect and deter threats that may have otherwise gone unnoticed by creating a self-service platform that resolves and persists relationships across data. SPART-N utilizes advancements in data technologies to exploit networks of bad actors with six key capabilities:

- Explore and Analyze
- Visualize Sophisticated Networks
- Enrich Analysis with Public Data
- Link Unstructured Relationships
- Exploit Machine Learning
- Proactively Manage Risk as a Network
Advancements in Data Technologies

- Scale to billions of records through cloud & distributive storage capabilities
- Gather new insights using advanced analytics & machine learning
- Use agile processes to get to MVP and in your analysts’ hands faster
- Enhance your existing data with structured & unstructured open source data
- Tailor solution-user interfaces to your specific workflow using user-centric design
- Reduce overall costs by incorporating open source technologies in solution architecture
TX DPS’s ICT Division engaged Deloitte to create SPART-N, an Analytical Data Mart (ADM) Solution that will:

- Federate over **12 terabytes of data** organized in 11 internal and external databases **across five phases**
- Be hosted in the **Amazon Web Services GovCloud** in compliance with the FBI Criminal Justice Information Services security policy
- Consolidate and **resolve entities** stored across these 11 disparate data sources in real time
- Construct entity **graph relationships** from resolved data sets and grow the network as new data sources are added
Solution Design

The Future of Criminal Intelligence Analysis

- Extract Source Data
- Denormalized and Standardized Data
- Source Entity Matches
- Store Networked Data
- Visualize Data

All vendors are able to be deployed on-prem or in the cloud, and are scalable.
TX DPS Inputs & SPART-N Outputs

TX DPS Inputs:

- 11 Databases
- Extract, Transform and Load Data

SPART-N Outputs:

- Search Results via UI
- Graph Visualization
- ICT Work-up Template

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ICT Analysts’ Initial Impressions of SPART-N

“Wow! When can we start using this?”

“I was able to find the subject more quickly in SPART-N than in DLS (with a misspelled, hyphenated name, and age as the only provided identifiers).”

“Very detailed link chart looked easy to read and navigate.”
Thank You!

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