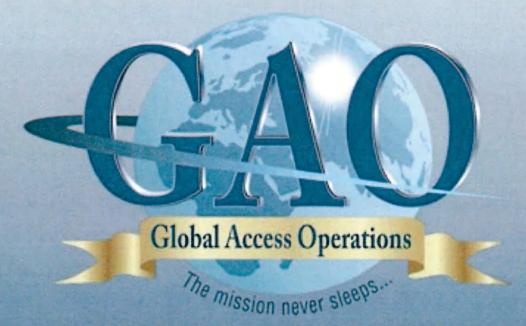
TOP SECRET//SI//NOFORN



BOUNDLESSINFORMANT

Describing Mission Capabilities from Metadata Records

13 July 2012



THE OLD WAY

(U//FOUO) Typical SIGINT Data Calls/Questions

- How many sites do we have in the region? How many records are they producing?
- 2. What type of coverage do we have on country X?
- What type of collection and volume do we get out of site A? How do these types/volumes compare against site B? Against site C?

(U//FOUO) Ways to Get Answers

- 1. Map out the physical location of SIGINT assets
- 2. Send out a data call based on best guesses for who can answer the question
- 3. Review static reports/spreadsheets from previous data calls
- 4. Ask a 30-vear SIGINTer



THE NEW WAY

BOUNDLESSINFORMANT

(U//FOUO) Use Big Data technology to query SIGINT collection in the cloud to produce near real-time business intelligence describing the agency's available SIGINT infrastructure and coverage.

(U//FOUO) Key Questions

- 1. How many records are collected for an organizational unit (e.g. FORNSAT) or country?
- 2. Are there any visible trends?
- What assets collect against a specific country? What type of collection?
- What is the field of view for a specific site? What type of collection?

(U//FOUO) Potential Users

- 1. Strategic decision makers (leadership team)
- 2. Tactical users (mission and collection managers)



- 1) (U//FOUO) Current focus is on SIGINT/COMINT
- 2) (U//FOUO) Review every valid DNI and DNR metadata record passing through the NSA SIGINT infrastructure
 - a) (U//FOUO) For the Map View, only display aggregated counts of records with a normalized number or an administrative region populated.
 - b) (U//FOUO) For the Org View, display aggregated counts of every valid record.
- 3) (U//FOUO) Raw data, analytics, and back-end database are all conducted in the cloud (HDFS, MapReduce, Cloudbase).

(U//FOUO) BOUNDLESSINFORMANT is hosted entirely on corporate services and leverages FOSS technology (i.e. available to all NSA developers).