



LexisNexis™



**LexisNexis® Special Services
Capabilities and Applications
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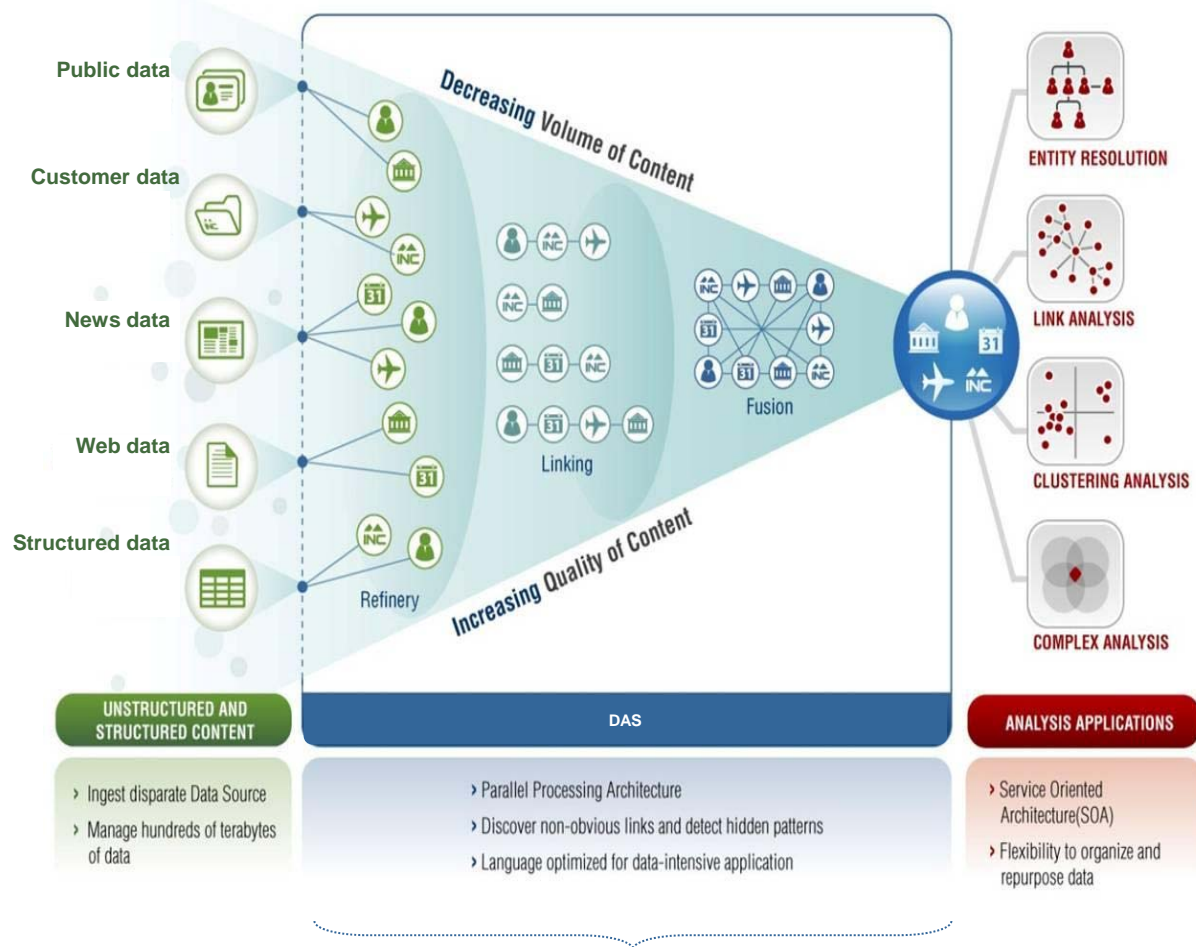


The LexisNexis DAS HPC Technology

The computing power that disambiguates and links terabytes of "loose" data

LexisNexis faced and solved these challenges with the DAS:

- **Data Fusion;** integrated and fused thousands of massive disparate silos of data to create a single, fully indexed and searchable system
- **Complex ETL processing;** Massive datasets, dirty data problems, various formats, Structured/semi-structured/unstructured data, etc.
- **Need for Flexibility:** Needed a platform that could be flexible to allow for the continuous integration of newly acquired data
- **Scalability;** Needed a platform that could easily scale up to keep with pace of data volume growth, increased performance needs, and growing user base.



Super computing processing power deployed as an appliance for **complex matching, scoring, analysis and processing** of data



Better – Faster – Cheaper.

Capabilities

Ingest, sort, link and query huge data sets

- Ingest, sort and link in hours
- Query in seconds

Enables complex multi-faceted queries

- i.e. Find all male persons aged 35 to 45 who lived in an apartment in Seattle from 2005 to 2007 and owned a car with the letters “O” and “H” in any position the license plate # and may go by (John or Jim or Joe or Jose) Smith.....
- i.e. Search Hundreds of Terabytes of Netflow Data and find all communications between any two computers that occur at regular intervals with relatively small standard deviation (real life problem for groups like IAD, NTOC, DHS Cert)

Support up to petabytes of data on massively parallel system

Outperforms 2008 published Terasort World Champion (Hadoop)

- Sorts 1 TB of data 14% faster with 44% of the hardware and 7% of the code

Better performance on smaller hardware footprint means...

- Lower hardware costs
- Lower Operating Costs (HVAC, maintenance, floor space, etc.)

Integrates with existing systems via SOA interfaces

Increase in programming efficiency by order of magnitude compared to SQL, Java or C++

Applications

Commercial Public Records Uses

Investigate crimes, locate debtors, identify fraud, support lending decisions, score transaction risk, etc.

International Data Enrichment

Identify and locate persons of interest.

Maritime Domain Awareness

Analyze the myriad of data sources gathered and resolve key entities (ships, containers, cargo, crew, etc.) to identify key patterns and threats.

Cyber Analytics Platform

In seconds, sort through months of network traffic to identify patterns and suspicious behavior, with drill down capabilities.



Example Solutions

We develop custom solutions for our government customers.

- **Massive fusion** of terabytes of data into one source – integration of multiple data sources into one.
- **Entity disambiguation** – know who you are targeting / find the right person
- **Entity linking** – who do they know, what do they own, who do they work for?
- **Advanced analytics**
- **Custom scoring**
- **Complete picture** of an entity – government data merged with public records

Applied to:

- International Entity Linking and Analytics
- Cyber
- Maritime Domain Awareness
- Graph Analytics
- Open Source Information Analysis



LexisNexis™

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