

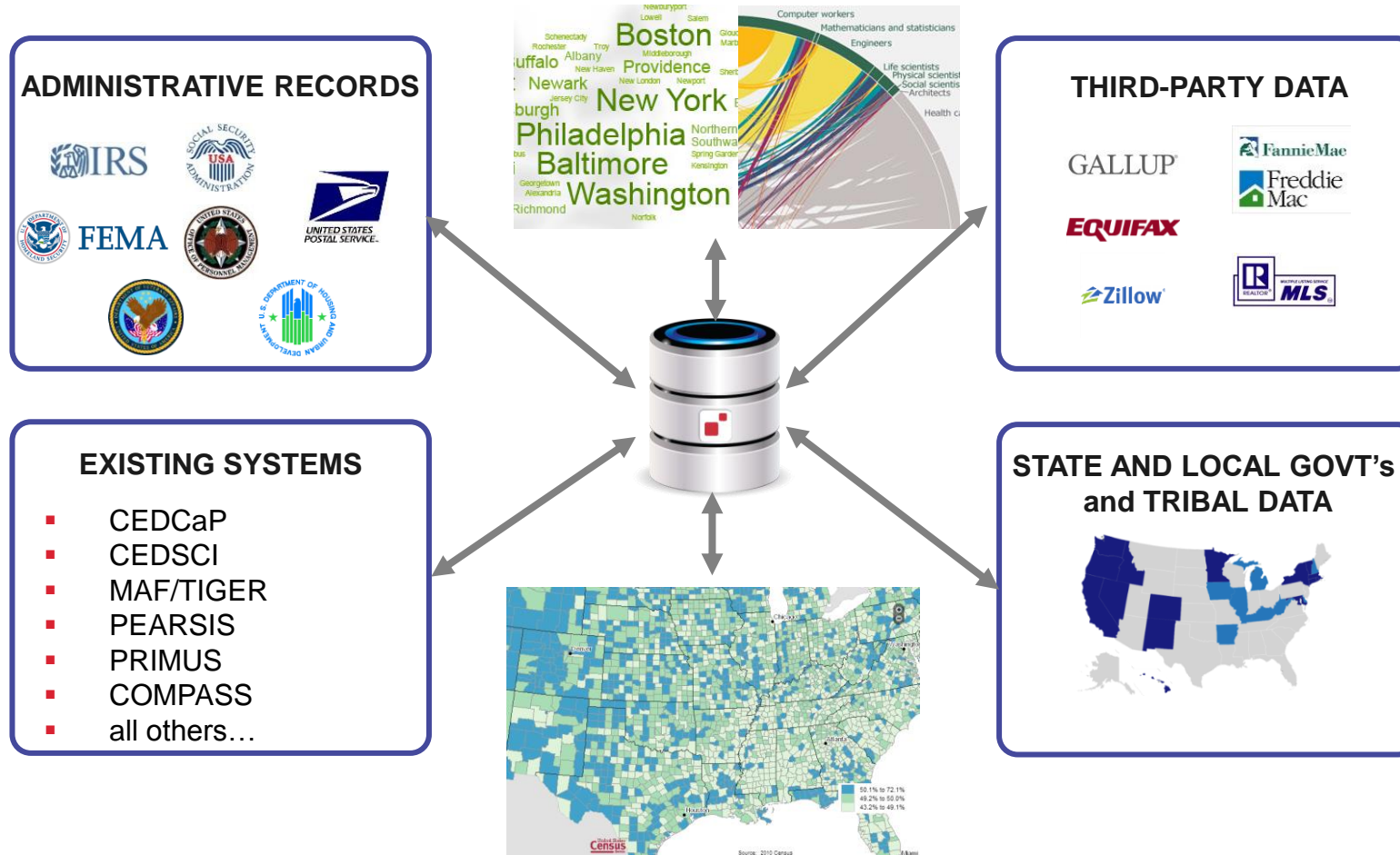
The Federal Data Hub – A Vision for Connecting Administrative Records and Third-Party Data

May 2016



U.S. Census 2020 Decennial – Operational Data Hub

Count Everyone Once, Only Once, And In The Right Place – with Data! Our vision for the Census

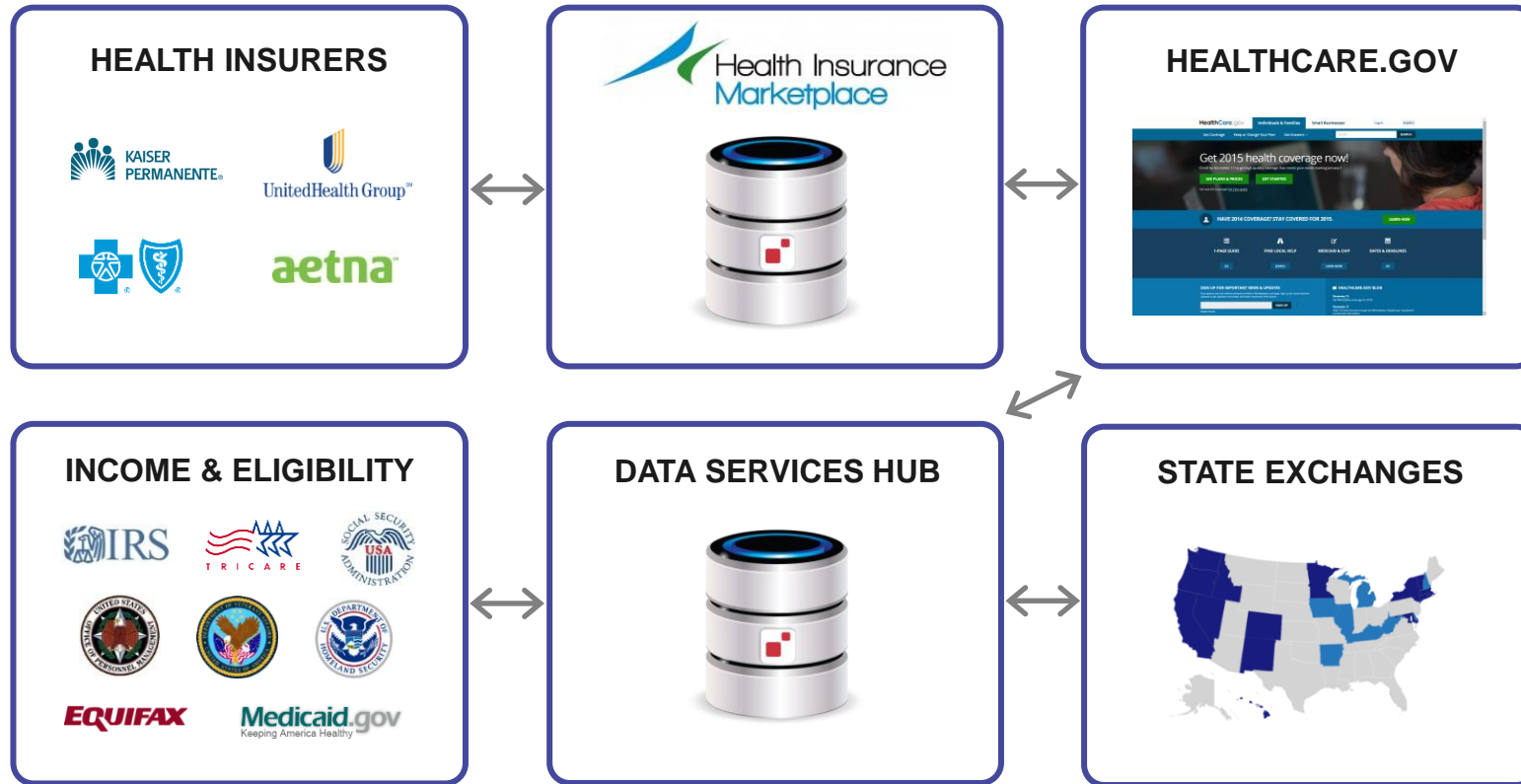


WITH MARKLOGIC

- Leverage existing systems
- Receive more data – in any format!
- Perform *Address Canvassing In-Office* – and continuously...
- Reduce Non-response Follow-up with *Administrative Records*
- Empowers *mobile Apps* (e.g. SNL; BBC/Olympics; Fairfax Co., VA)
- Enables disconnected processing
- Exceeds security requirements
- *Cloud-ready*

HealthCare.gov – Marketplace & Data Services Hub

Integrated Data, Integrated Marketplace – We’ve done it before!



WHY MARKLOGIC?

- Oracle data model too rigid
- ETL taking too much time
- Structured and unstructured data
- Scalability with 100% data integrity
- Flexibility to support changing data
- IRS mandated security requirements

HealthCare.gov – Marketplace & Data Services Hub

Integrated Data Integrated Marketplace



The Results

- **Timely** – Met congressional deadline for delivery
- **Scalable** – 280,000 concurrent users
- **Fast** – 6,500 transactions per second
- **Secure** – No data loss or security breaches
- **Success** – 12.7 million citizens enrolled for 2016

HEALTH INSURER



INCOME & ELIGIBILITY



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nstructured data

00% data integrity

port changing data

ecurity requirements

“A New Design for 21st Century”*



ESTABLISH WHERE TO COUNT

Identify all addresses
where people could live

- ✓ Multiple Data Source
- ✓ 360^o View of Address
- ✓ Search & Discovery



MOTIVATE PEOPLE TO RESPOND

Conduct a nation-wide
communications and
partnership campaign

- ✓ Language Support
- ✓ Multi-media Support
- ✓ Content Publishing



COUNT THE POPULATION

Collect data from all
households, including
group and unique living
arrangements

- ✓ Document Data Model
- ✓ Semantic for Complex
Relationship Modeling
- ✓ Bi-Temporal



RELEASE CENSUS RESULTS

Process and provide Census data

- ✓ In-Built Analytics
- ✓ Semantic Publishing
- ✓ BI and ESRI tool
integration

*source: <http://www2.census.gov/programs-surveys/decennial/2020/program-management/planning-docs/2020-oper-plan-exe-sum.pdf>

An “Integrated Design”* Platform

Better, Faster, Cheaper

POWER

- Manage All Your Data
- Enterprise Grade Security
- Real-time Alerting
- Workflow Processing

TIME

- Easy to get Data-In (“as-is”)
- Easy to get Data-Out (“universal Index”)

COST

- Scale-Out Commodity HW or Cloud
- Tiered Storage
- Minimal Resources

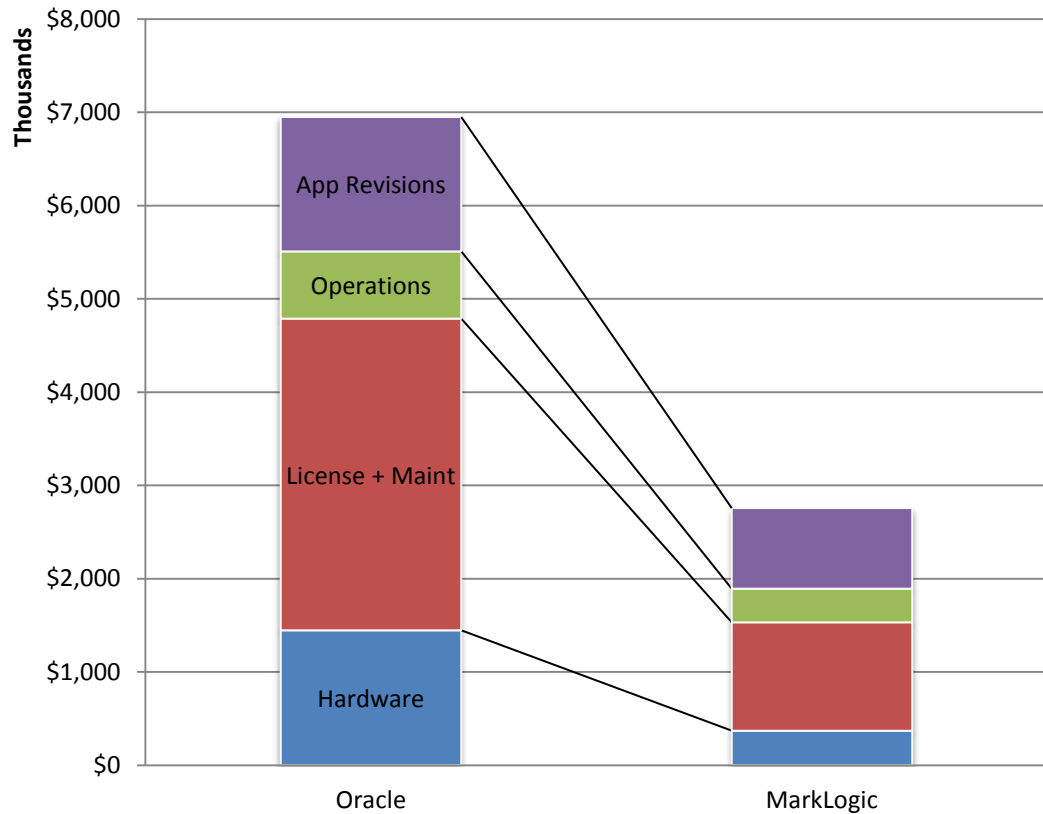
*source: <http://www2.census.gov/programs-surveys/decennial/2020/program-management/planning-docs/2020-oper-plan-exe-sum.pdf>



Appendix



MarkLogic 60% Lower Cost to Operate than Oracle



Commodity hardware

Smaller operational footprint

Straightforward licensing

Lower cost for revisions

DBA Resources reduced from 20 FTE to 1.5 FTE by moving to MarkLogic.

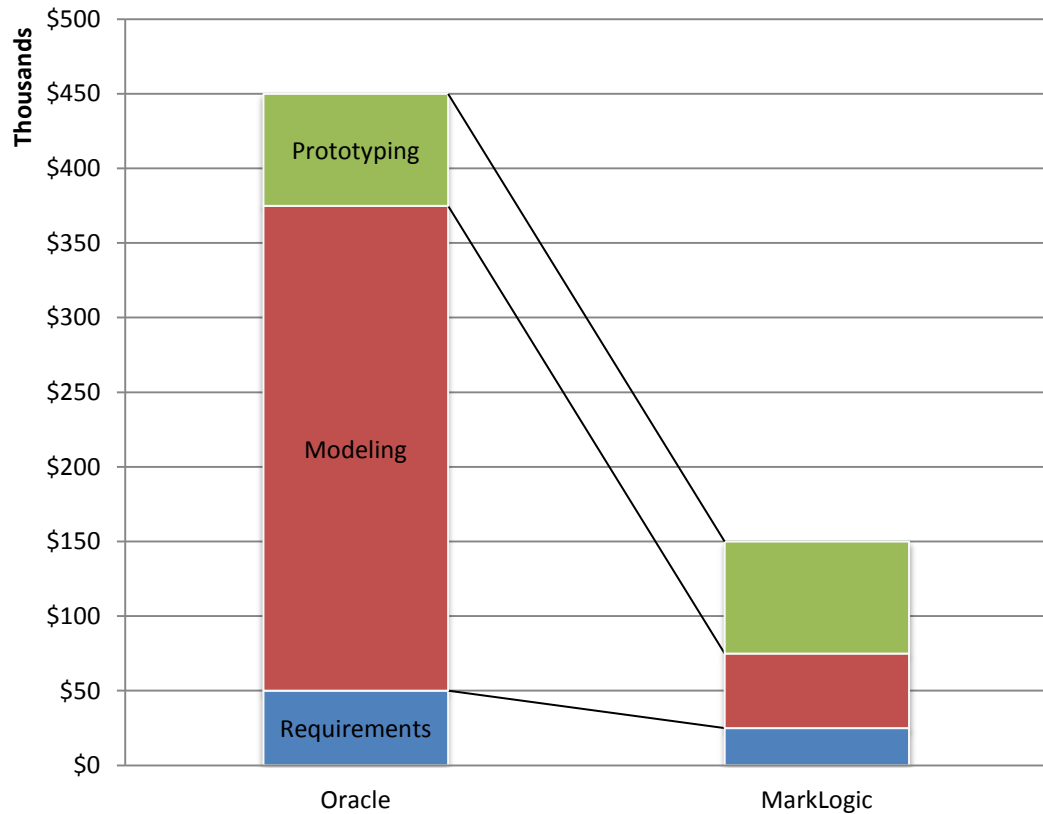


Investment Bank

MarkLogic was 59 times faster than Oracle.

Raytheon

MarkLogic Accelerates Design Phase – 66% Savings



Dramatically reduced modeling

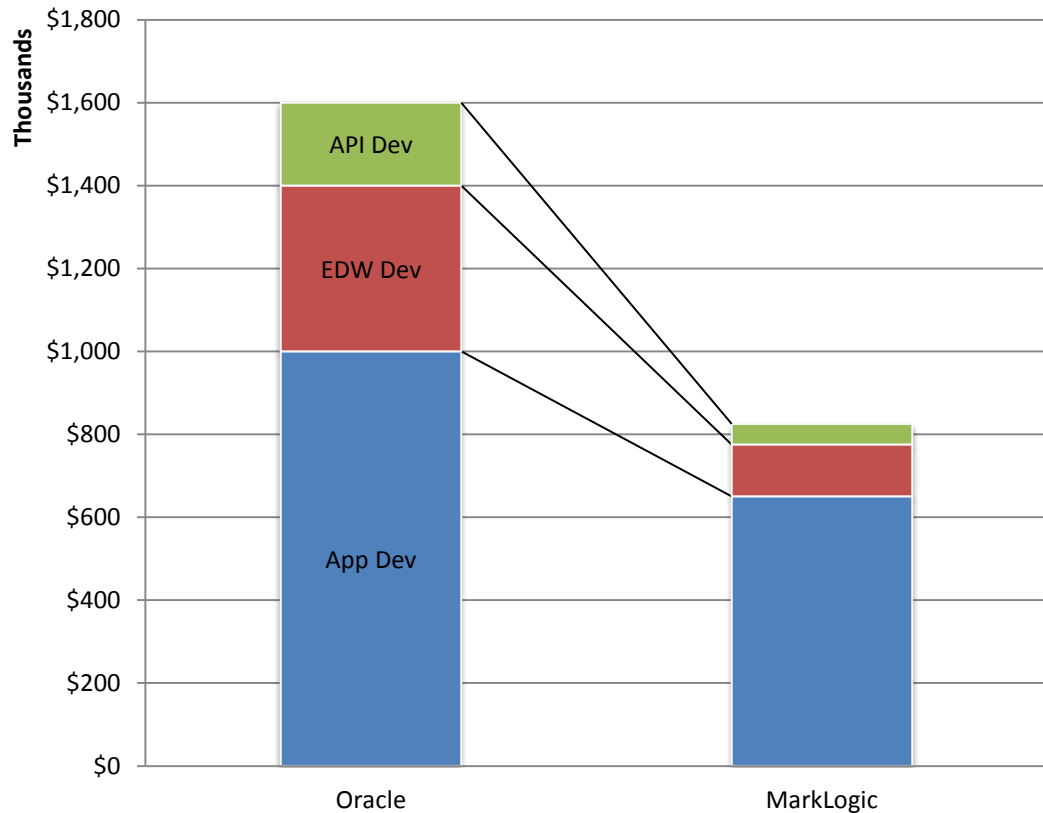
Less time spent on requirements

Better prototypes

“The first MarkLogic project took 60 days. It was estimated to take 3,000 days with existing technology.”



MarkLogic Accelerates Build Phase – 50% Savings



- More efficient development
- Much faster data integration
- More architectural agility

From three releases each year on the old platform to now weekly releases, Springer is able to take new features to market as soon as a business need is identified.



Let's connect...
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LinkedIn[®]

