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March 2008

Oracle Spatial User Conference



Oracle Spatial User Conference

March 13, 2008

Sheraton Seattle Hotel

Seattle, Washington USA

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Robert Murray

RL Polk

Steven Pierce

Johnston McLamb

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Unobtrusive Spatial Enablement of the Oracle BI Suite R.L. Polk

Location Intelligence

- **RL Polk**
 - Automotive and Advertising Market Analytics
 - Toyota, Ford, BMW
 - Time Warner Cable, Comcast
- **Business**
 - Data Collection and Dissemination
 - Collection efforts span US DMVs and many countries
- **PolkInsight**
 - Origins – 2003, Discoverer
 - Competitive Edge

Location Intelligence

- Customers looking for patterns
 - Brand, Vehicle Class, Revenue Market Share
- Patterns
 - Temporal and Demographic
 - **Location**



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Location Intelligence

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Location Intelligence

- People can easily identify spatial patterns

Location Intelligence

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- For many problems, location is the most relevant dimension

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- For many problems, location is the most relevant dimension
- Example: Hybrid vehicle sales
 - Where should I increase hybrid vehicle inventory?

Location Intelligence

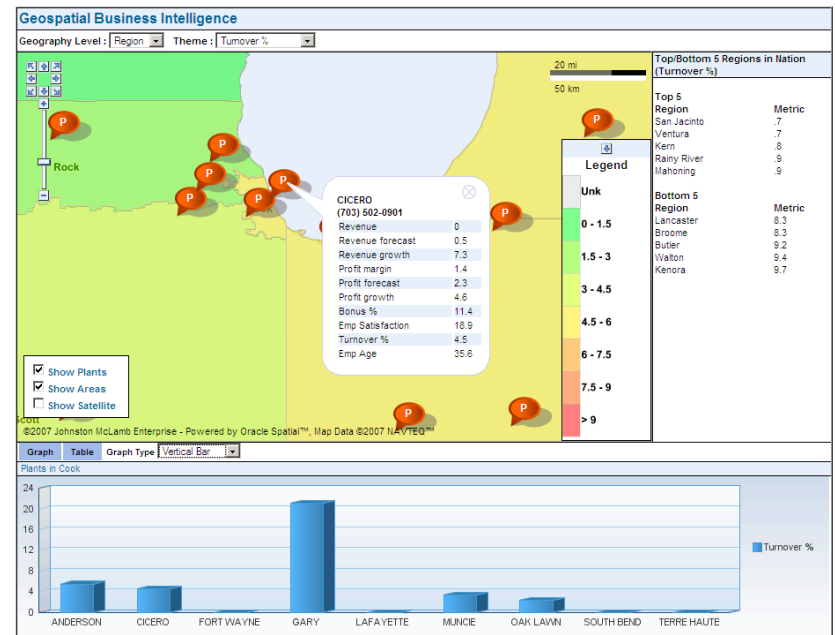
- People can easily identify spatial patterns
- For many problems, location is the most relevant dimension
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Location Intelligence

- People can easily identify spatial patterns
- For many problems, location is the most relevant dimension
- Example: Hybrid vehicle sales
 - Where should I increase hybrid vehicle inventory?
- For Polk's customers, BI mapping isn't a nice to have, it's a must have

Location Intelligence

- Why is adoption low?
 - Technically difficult
 - Most customers try GIS solution
 - GIS environments
 - Desktop centric
 - Difficult to use
 - Not very extensible
- These challenges have been overcome by Oracle MapViewer



Polk Requirements

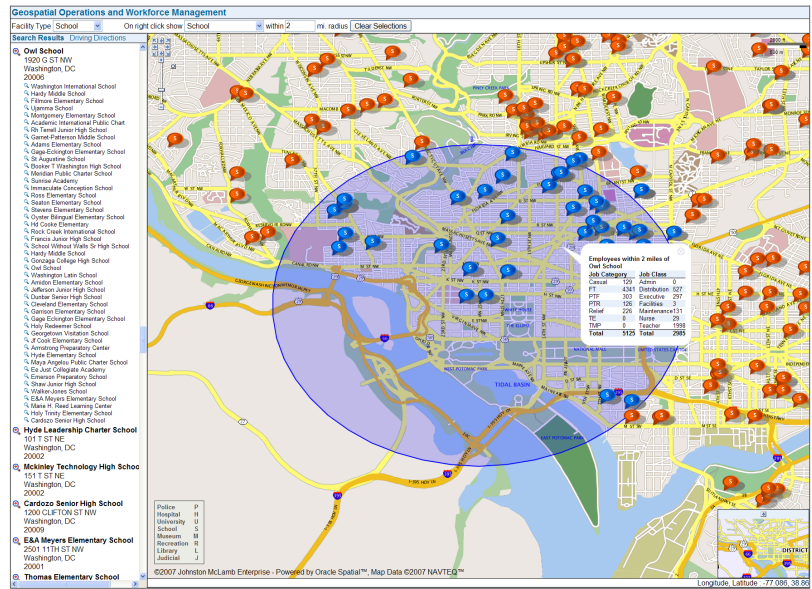
- Thematic map available for any report
- Rich client AJAX interface
- No connectivity to reporting database
- Thousands of users
- Thousands of existing reports
- Hundreds of geography tables
- Dense geographies

Polk Challenges

- Volume Scalable
 - Thousands of users
 - Thousands of reports and new reports regularly
- Spatially Scalable
 - Dense interactive geometries rendered over the web
- Extensible
 - Many geography tables
 - Attribute data not stored in DB

Oracle MapViewer

- High Performance J2EE
 - 100's of users per server
- Extensible
 - Framework driven development
- Rich client
 - AJAX APIs
- External attribute data interface
 - NSDP



Advantages of NSDP

- No more adding attribute columns to spatial tables
- No more adding spatial columns to attribute tables
- No more views to join attribute data
- There's no reason attribute data needs to be in the database at all

Non-Spatial Data Provider

- Think **External Attribute** to Spatial Data Joiner

XML

```
<state>
  <name> Washington </name>
  <pop> 6,395,798 </pop>
</state>
<state>
  <name> Virginia </name>
  <pop> 7,642,884 </pop>
</state>
```

Non-Spatial Data Provider

- Think External Attribute to **Spatial Data Joiner**

STATE_NAME	GEOM
Washington	SDO_GEOMETRY(2007, 8265, NULL, SDO_ELEM_INFO_ARRAY
Virginia	SDO_GEOMETRY(2007, 8265, NULL, SDO_ELEM_INFO_ARRAY

Non-Spatial Data Provider

- Think **External Attribute to Spatial Data Joiner**

STATE_NAME	GEOM	POP
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Process Overview

Process Overview



BI
Server

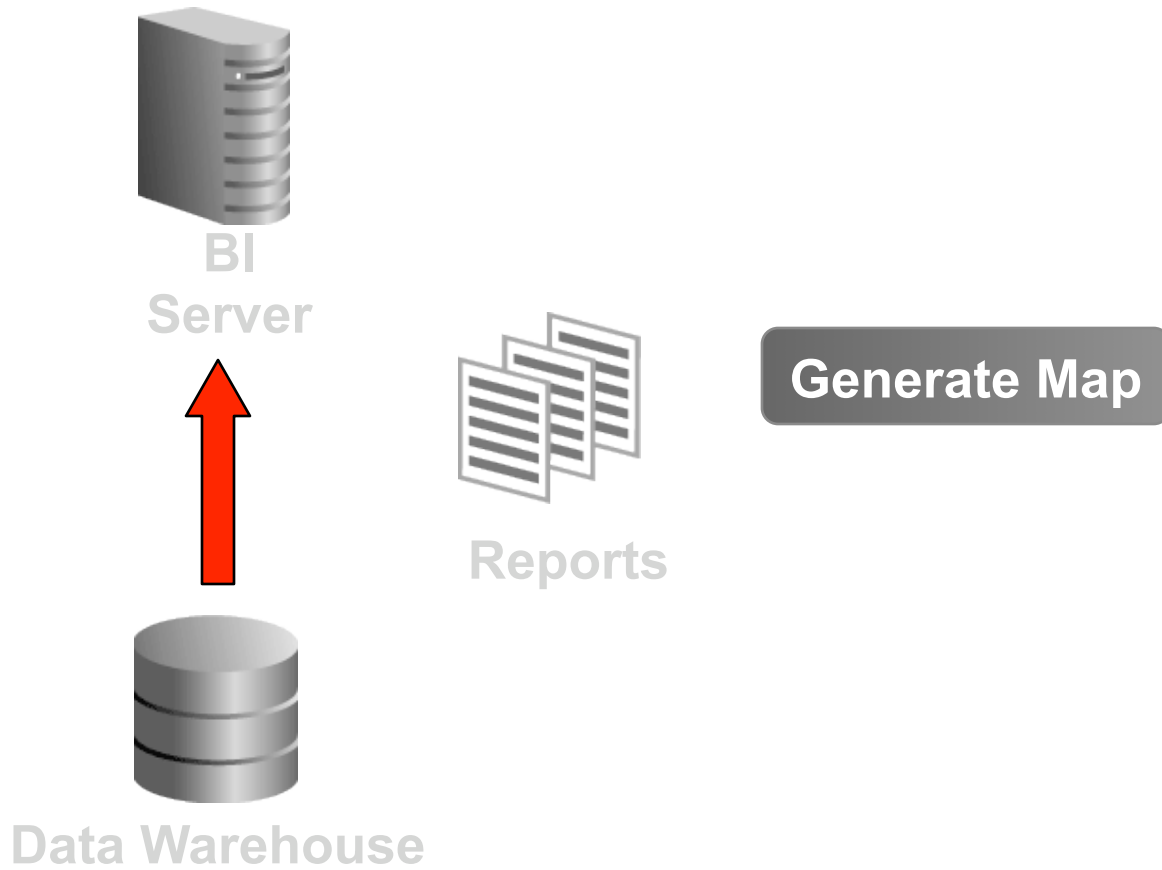


Data Warehouse



Reports

Process Overview



Process Overview



Process Overview

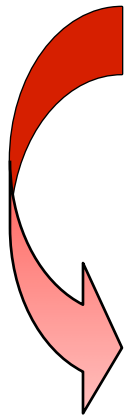


Oracle App
Server

Process Overview



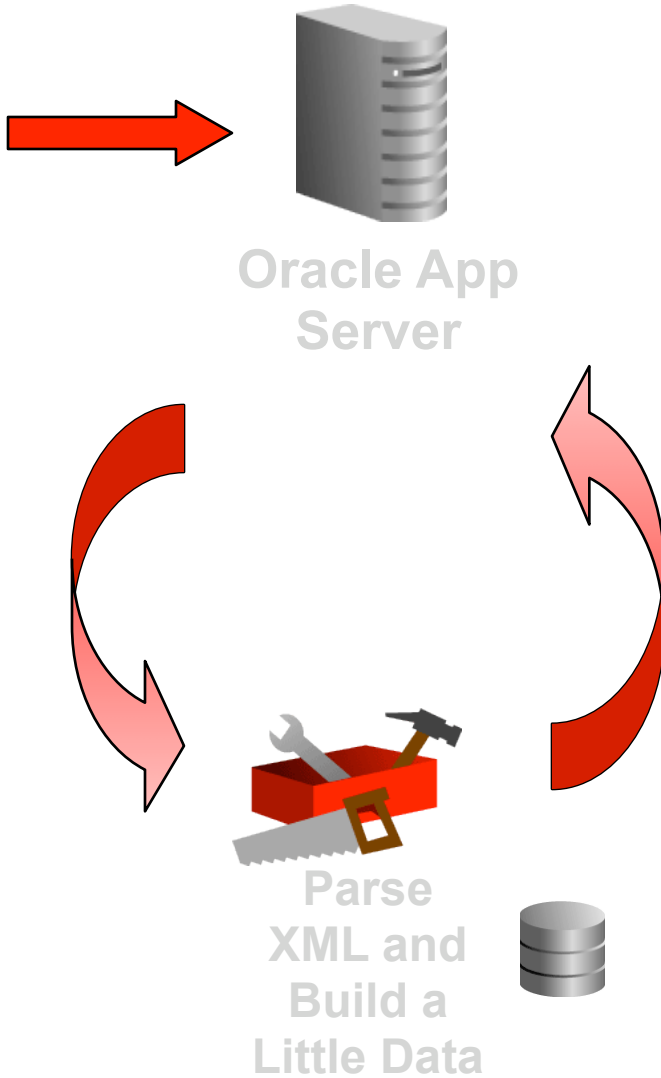
Oracle App
Server



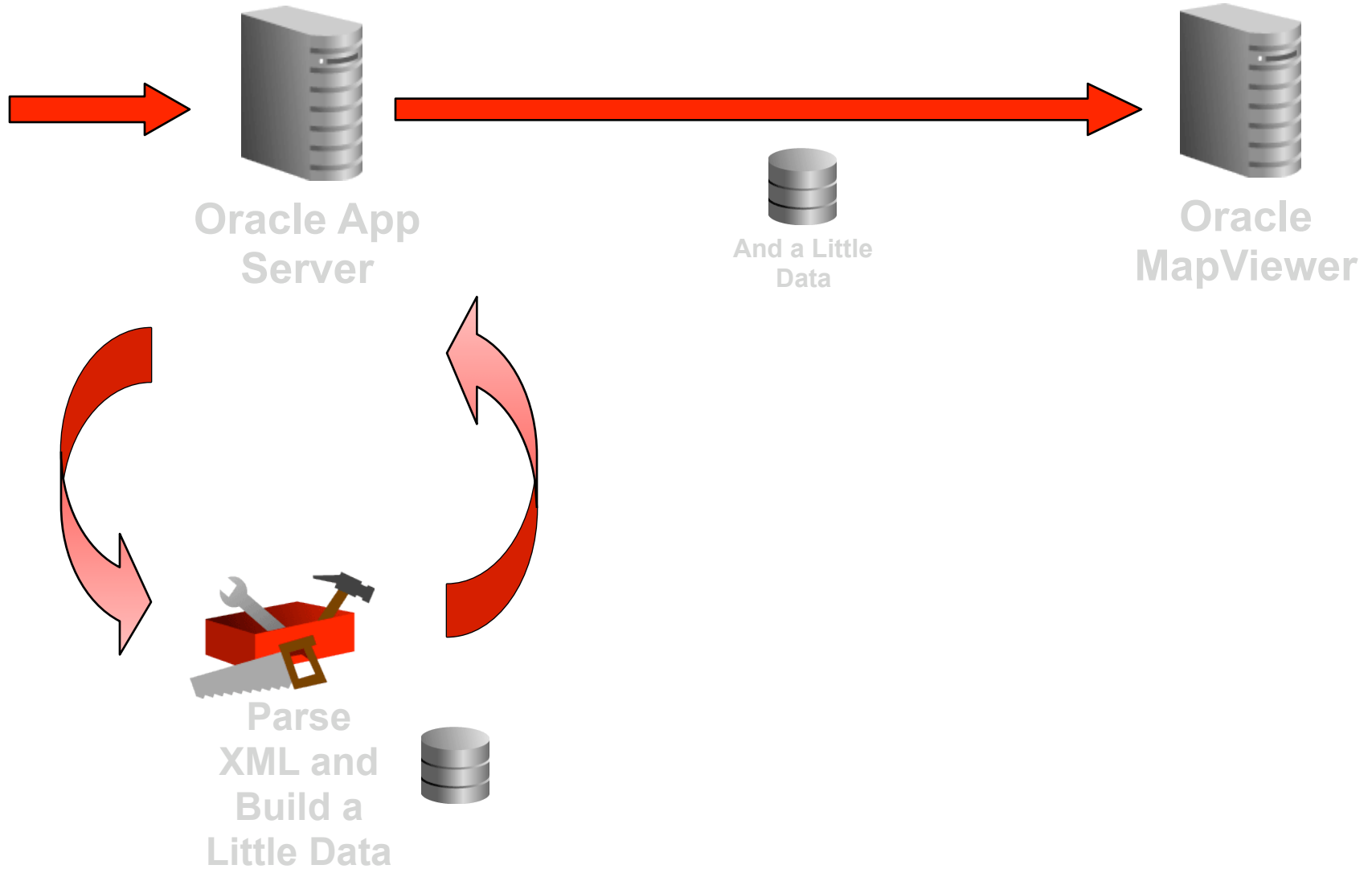
Parse
XML and
Build a
Little Data



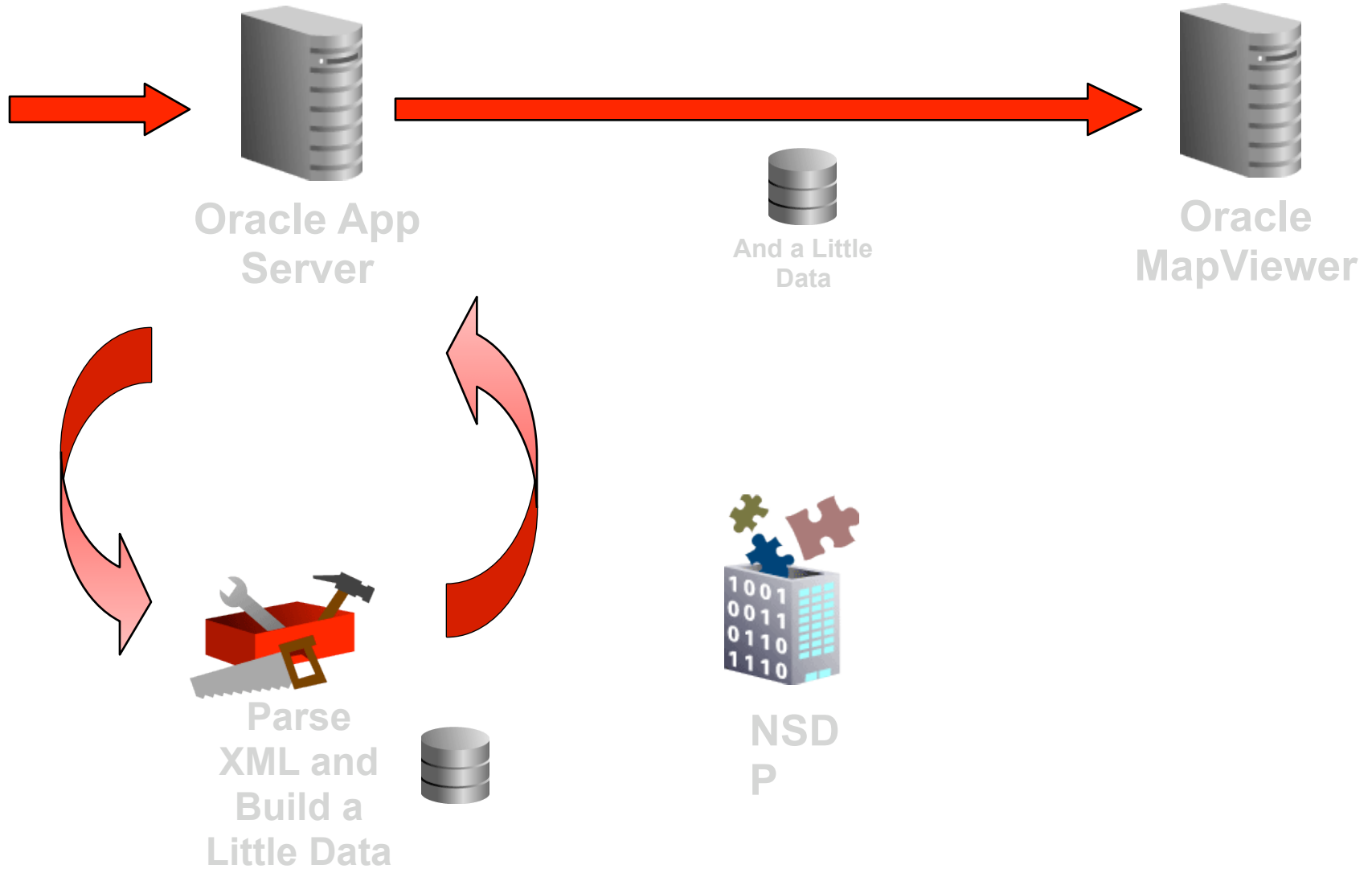
Process Overview



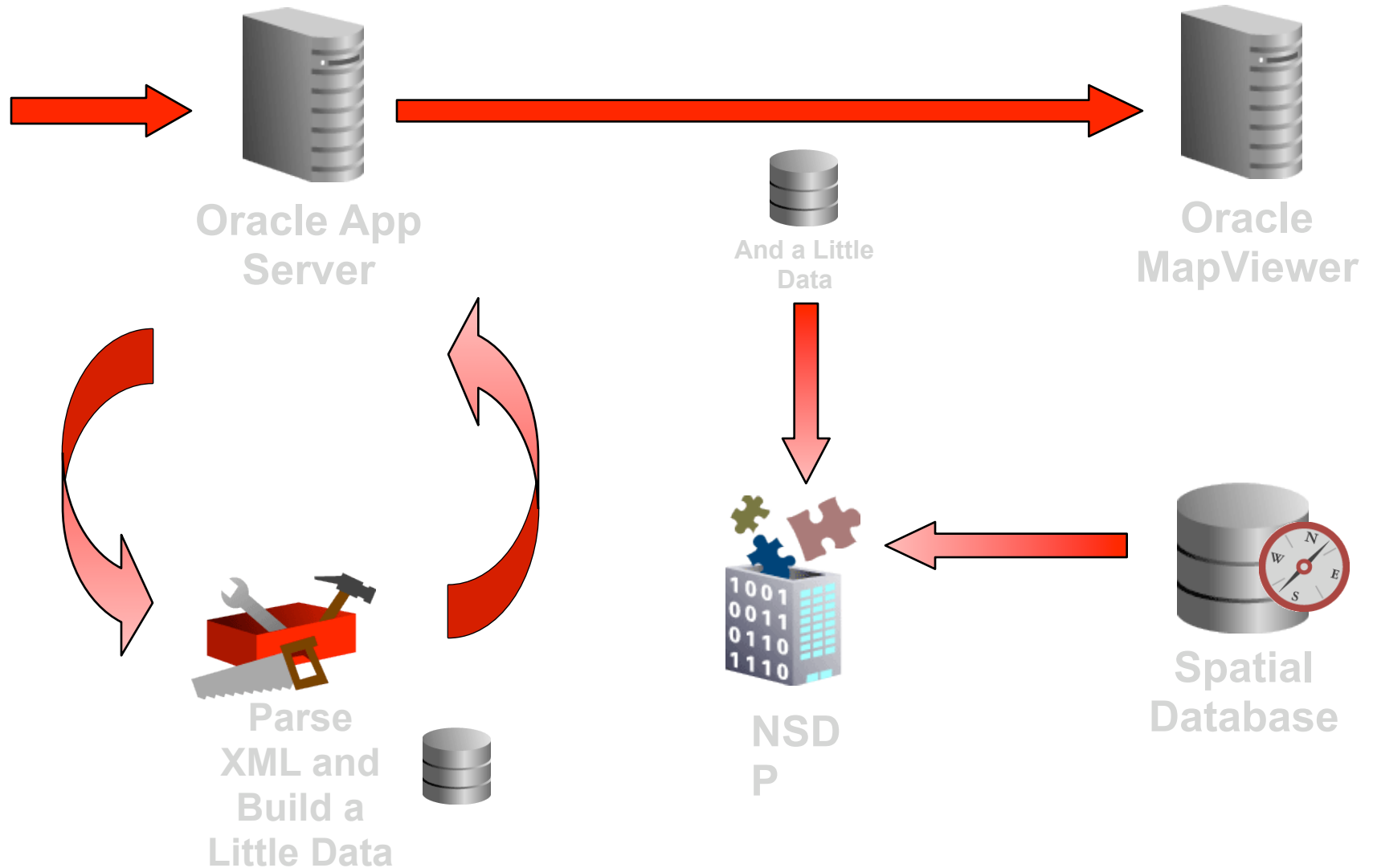
Process Overview



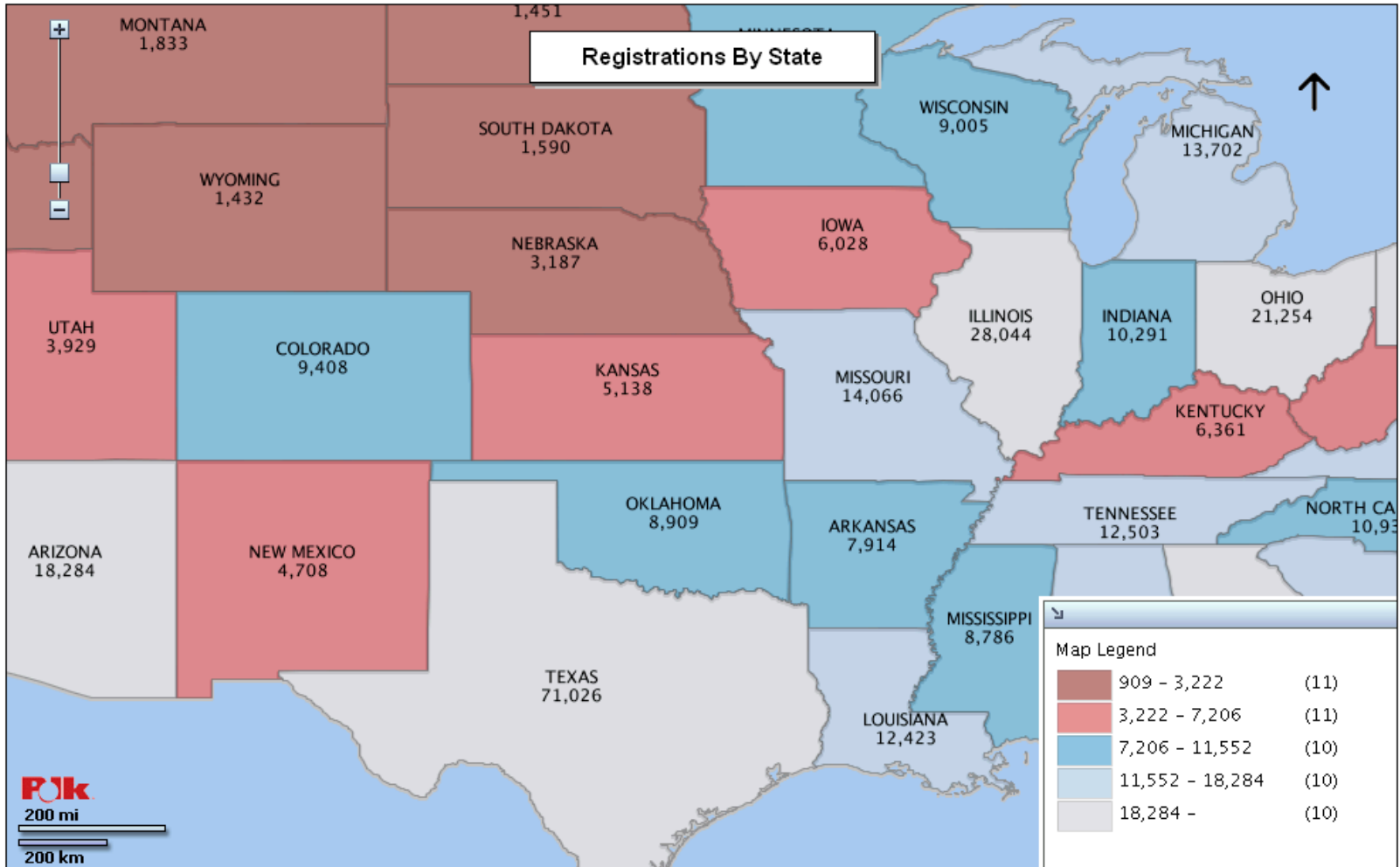
Process Overview



Process Overview



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Q & A

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