ORACLE®

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Oracle Business Intelligence & Spatial Views

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Principal Product Manager

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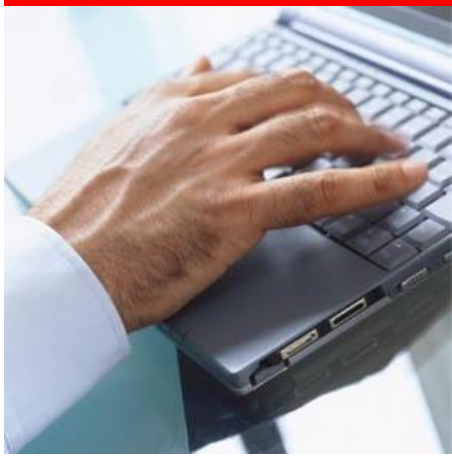
Technical Director

Mar 13 2008

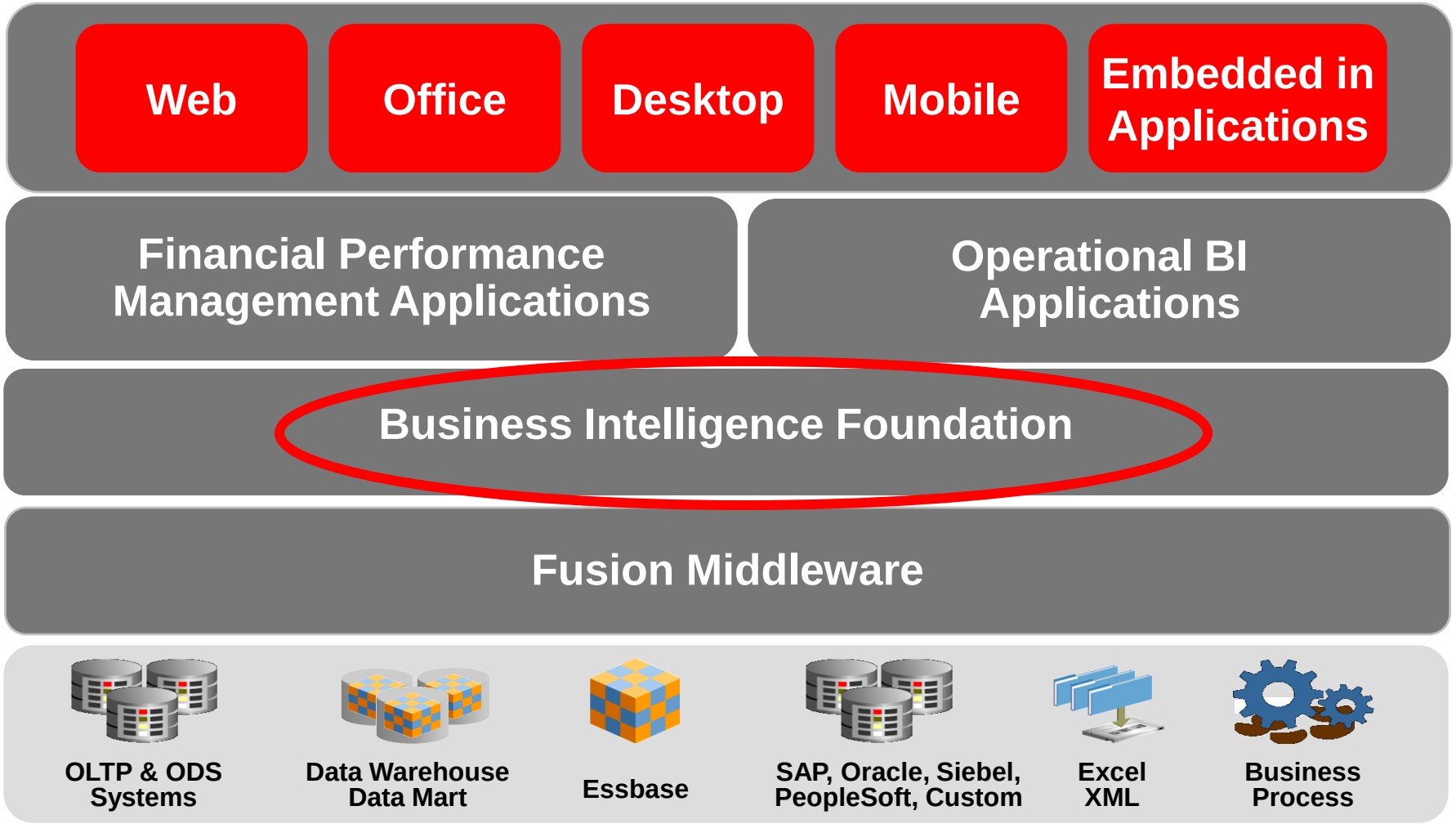
THE FOLLOWING IS INTENDED TO OUTLINE OUR GENERAL PRODUCT DIRECTION. IT IS INTENDED FOR INFORMATION PURPOSES ONLY, AND MAY NOT BE INCORPORATED INTO ANY CONTRACT. IT IS NOT A COMMITMENT TO DELIVER ANY MATERIAL, CODE, OR FUNCTIONALITY, AND SHOULD NOT BE RELIED UPON IN MAKING PURCHASING DECISION. THE DEVELOPMENT, RELEASE, AND TIMING OF ANY FEATURES OR FUNCTIONALITY DESCRIBED FOR ORACLE'S PRODUCTS REMAINS AT THE SOLE DISCRETION OF ORACLE

Program Agenda



- Introduction to Oracle BI
- Spatial Maps
- Demo
- Q & A

Oracle's Enterprise Performance Management System

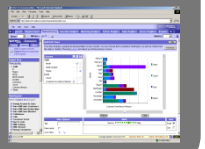


Oracle BI Suite Enterprise Edition

Unified Business Intelligence Infrastructure

Desktop Gadgets

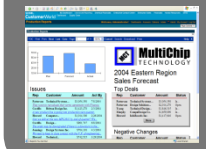
Ad-hoc Analysis



Interactive Dashboards

Search

Reporting & Publishing



Proactive Detection and Alerts

Disconnected & Mobile Analytics

MS Office & Outlook Integration

Microsoft Office

Common Enterprise Information Model

Integrated Security, User Management, Personalization

Multidimensional Calculation and Integration Engine

Intelligent Request Generation and Optimized Data Access Services

OLTP & ODS Systems

Data Warehouse Data Mart

Essbase

SAP, Oracle PeopleSoft, Siebel, Custom Apps

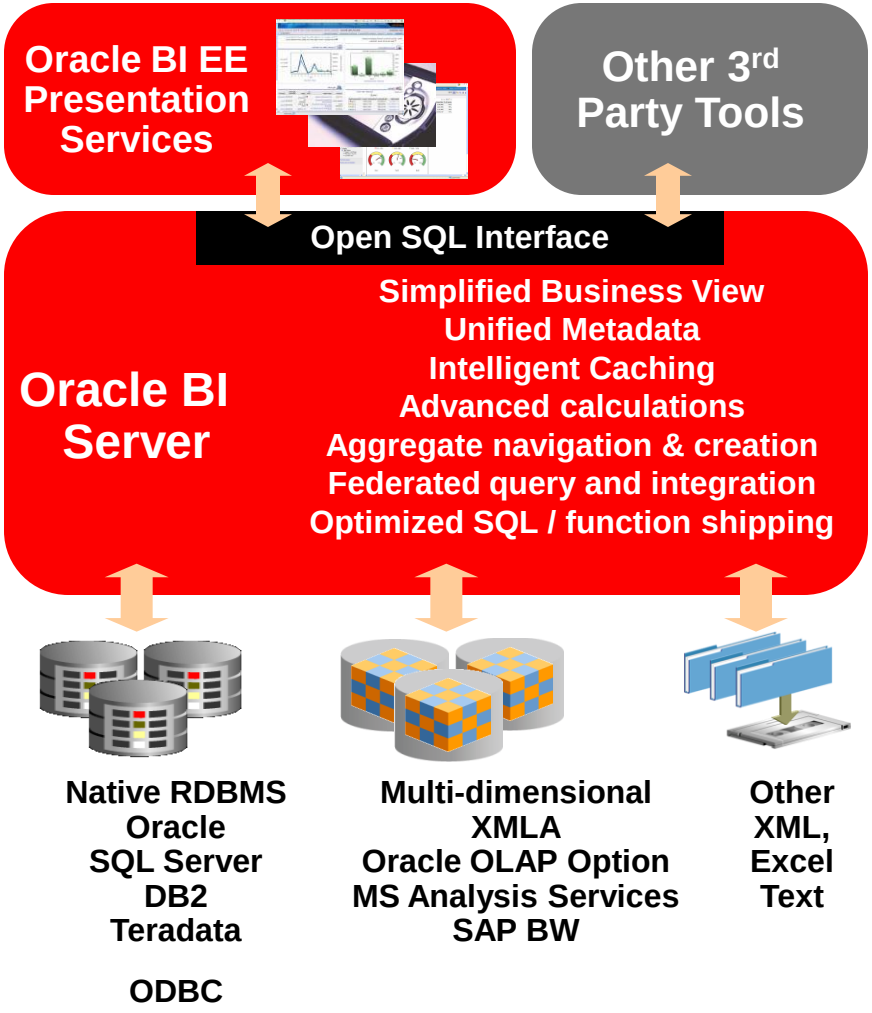
Files Excel XML

Business Process

Oracle BI Server

Simplified, Powerful, Scalable Intelligence Across Sources

- Simplified business model view
- Advanced calculation & integration engine
- Intelligent request generation and optimized, distributed data access
- Mission critical scalability and performance
- Foundation for all OBIEE presentation services

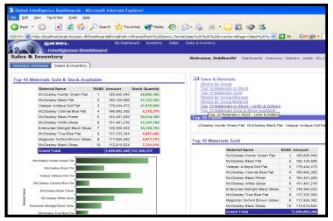


Hot-Pluggable With Existing IT Investments

Portals

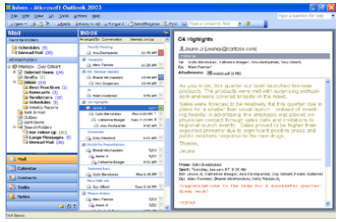
Any JSR 168 Portal

Data Mining



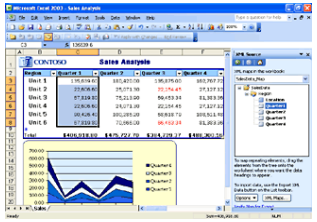
Oracle Data Mining, SPSS, SAS

Applications



Oracle EBS, Siebel, SAP, PeopleSoft, JD Edwards ..

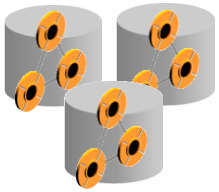
Desktop Tools



Excel, Outlook, Lotus Notes ..

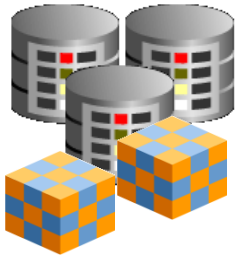
Oracle Enterprise Performance Management System
Oracle Business Intelligence Foundation

Security



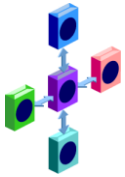
Oracle
Kerberos
iPlanet
MSFT AD
Novell
Custom
Others ..

Data Access



Oracle RDBMS
Oracle OLAP Option
Microsoft SQL Server & Analysis Services
IBM DB2
Teradata
Essbase
SAP BW
XML, Excel, Text

Data Integration



Oracle Data Integrator (Sunopsis)
Oracle Warehouse Builder
Informatica
Ascential
Others ..

Most Complete Suite of Operational BI Applications

Sales	Service & Contact Center	Marketing	Order Management & Fulfillment	Supply Chain	Financials	Human Resources
Pipeline Analysis	Churn Propensity	Campaign Scorecard	Order Linearity	Supplier Performance	A/R & A/P Analysis	Employee Productivity
Triangulated Forecasting	Customer Satisfaction	Response Rates	Orders vs. Available Inventory	Spend Analysis	GL / Balance Sheet Analysis	Compensation Analysis
Sales Team Effectiveness	Resolution Rates	Product Propensity	Cycle Time Analysis	Procurement Cycle Times	Customer & Product Profitability	HR Compliance Reporting
Up-sell / Cross-sell	Service Rep Effectiveness	Loyalty and Attrition	Backlog Analysis	Inventory Availability	P&L Analysis	Workforce Profile
Cycle Time Analysis	Service Cost Analysis	Market Basket Analysis	Fulfillment Status	Employee Expenses	Expense Management	Turnover Trends
Lead Conversion	Service Trends	Campaign ROI	Customer Receivables	BOM Analysis	Cash Flow Analysis	Return on Human Capital

Prebuilt adapters: ORACLE PeopleSoft SIEBEL SAP Other Operational & Analytic Sources

Oracle BI Suite Enterprise Edition

BI & SPATIAL INTEGRATION

BI & Spatial Integration

- BI 11g & Spatial Integration
  - What's coming
- BI and Spatial Integration
  - What is possible today
- Spatial Data
  - NAVTEQ
  - Digital Globe

BI & Spatial Integration

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BI & Spatial Views

Features At A Glance

- Maps as native BI views (like tables, charts, etc.)
- Info-windows displaying BI content with drilling
- Display multiple BI measures on maps
- Thematic, dot-density, bar, pie, or color shapes with intelligent binning and formatting options
- Schedule and distribute BI Map views via Delivers
- Print to HTML / PDF map views
- UI for mapping spatial themes to BI columns

BI & Spatial Integration

- BI 11g & Spatial Integration
  - What's coming
- BI and Spatial Integration
  - What is possible today
- Spatial Data
  - NAVTEQ
  - Digital Globe

BI & Spatial

What Is Possible Today

- Over analytical on a map
  - Display color coded regions
  - Show point-based information
- Provide interactivity with other Dashboard elements
  - Dashboard prompts drive mapped content
  - Drilling and Navigation drive mapped content
  - Interactions with maps update other Dashboard content
- Show additional contextual information as mouseovers
- Drill to map detail

BI SPATIAL VIEWS

CURRENT INTEGRATION DEMO

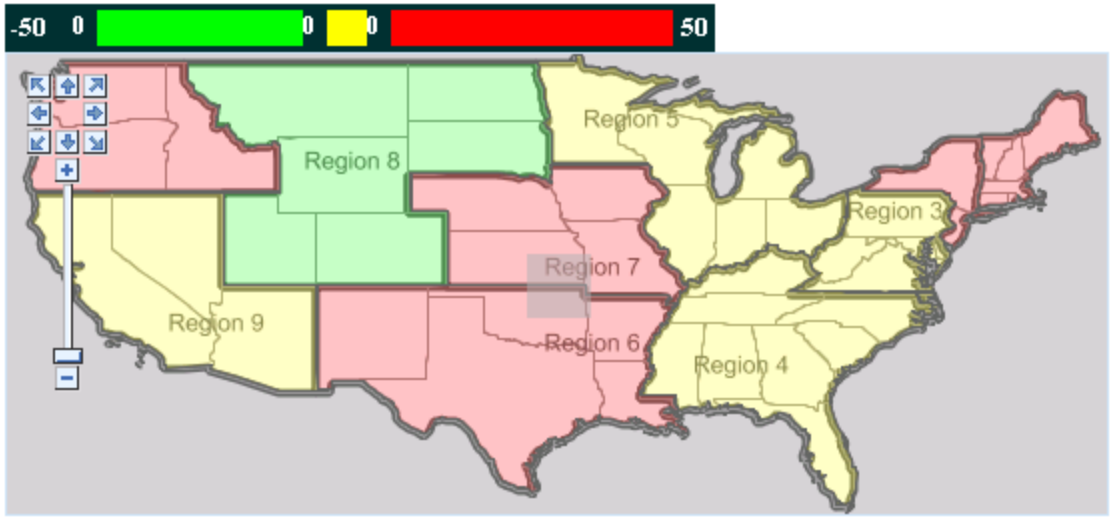
Please select a year to filter the entire dashboard.

Reporting Year: 2003 Go

All Total Releases by Year and Region

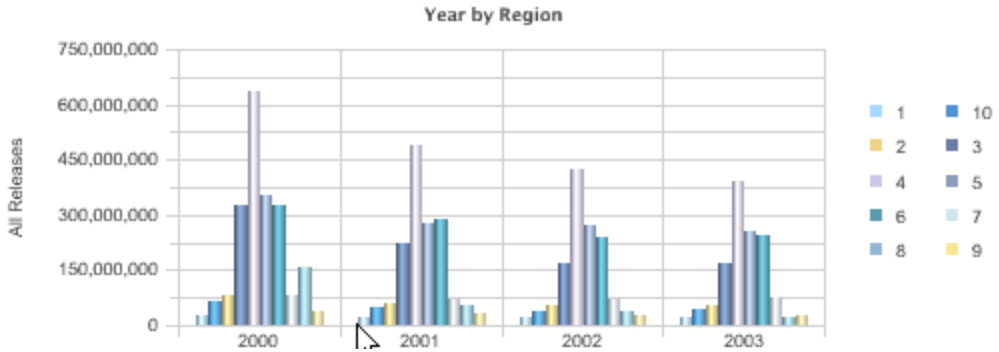
TRI Fac Region	Change from Prior Year
8	-33.79%
4	-8.13%
5	-6.51%
9	-5.32%
3	-1.37%
2	0.18%
6	0.85%
10	2.60%
7	6.47%
1	22.58%

Map of EPA Regions
For Reporting Year: 2003



All Total Releases by Year and Region Chart

Choose Chart Type: Year by Region



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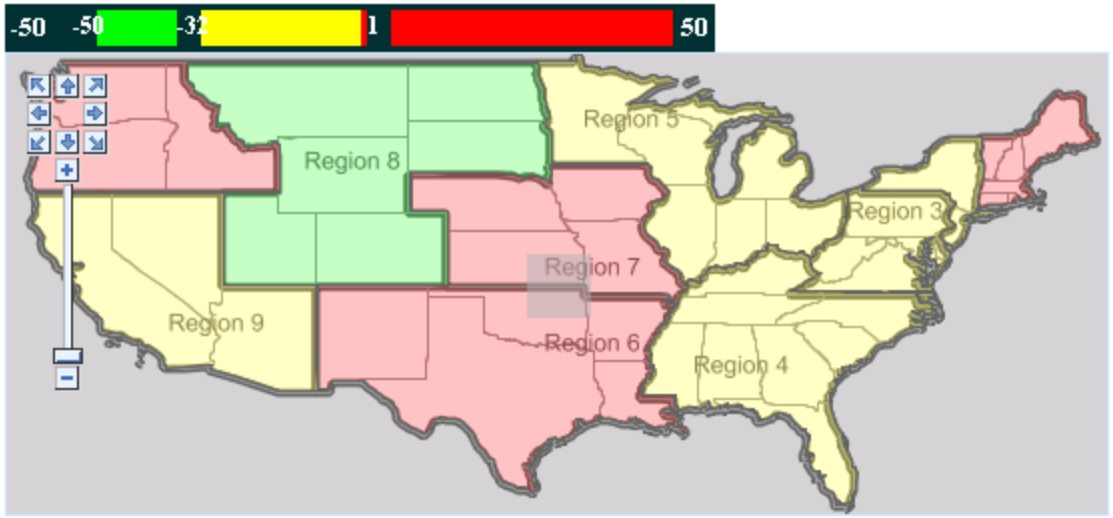

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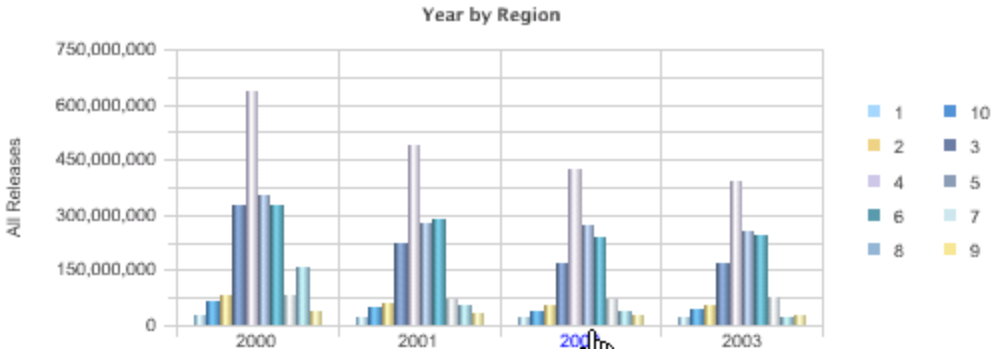

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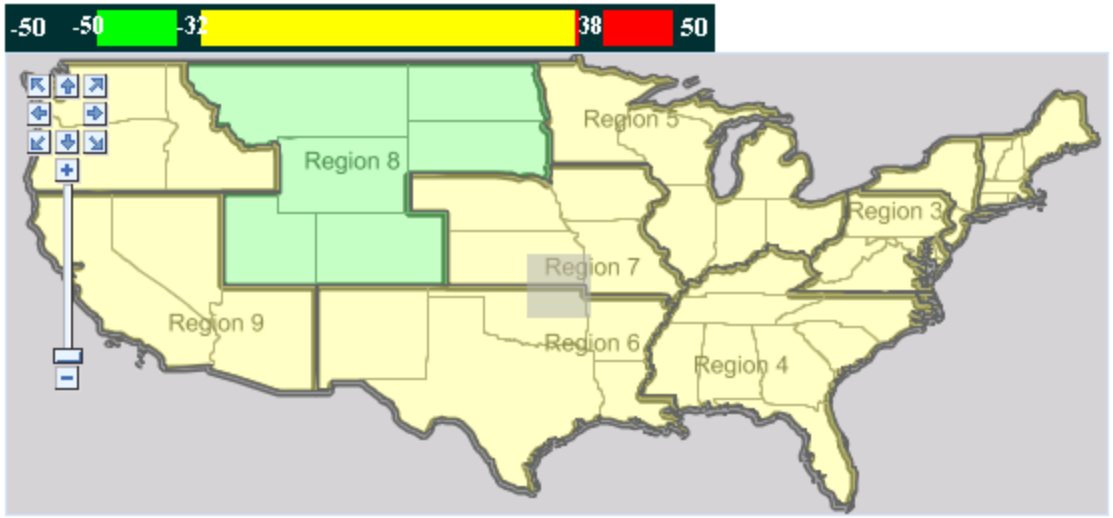

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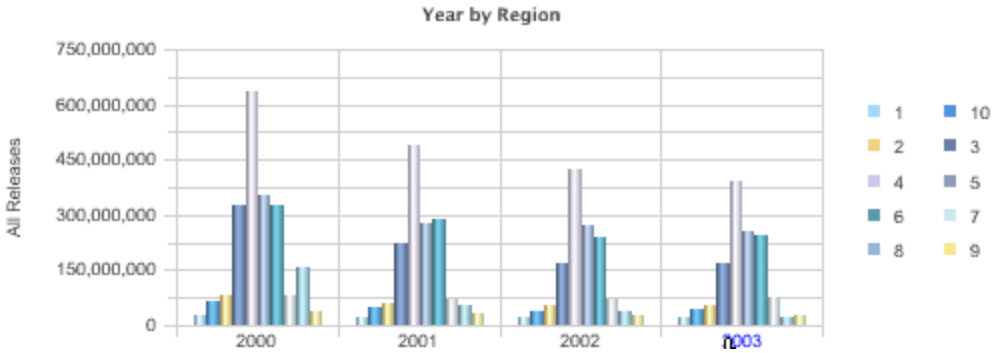
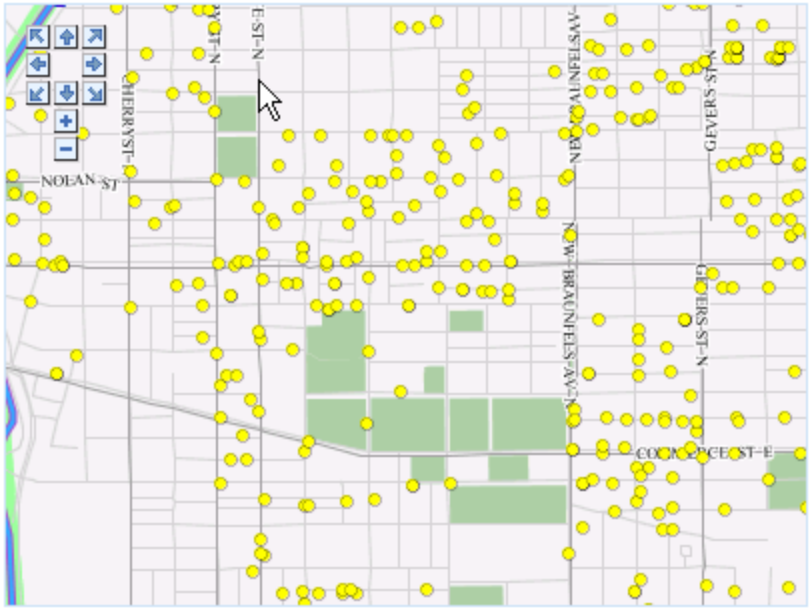


Public Safety Dashboard

Incidents within user defined box Go

Incidents within 0 ft of selected park Go Clear



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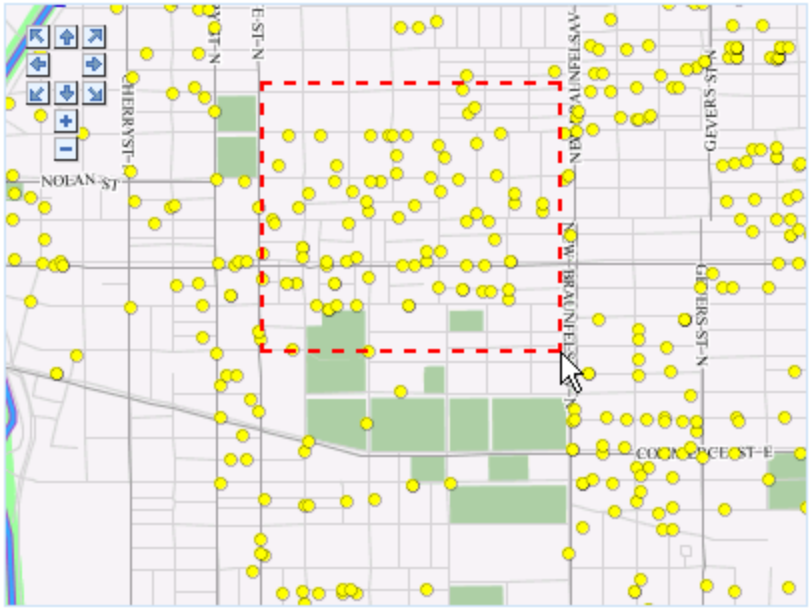

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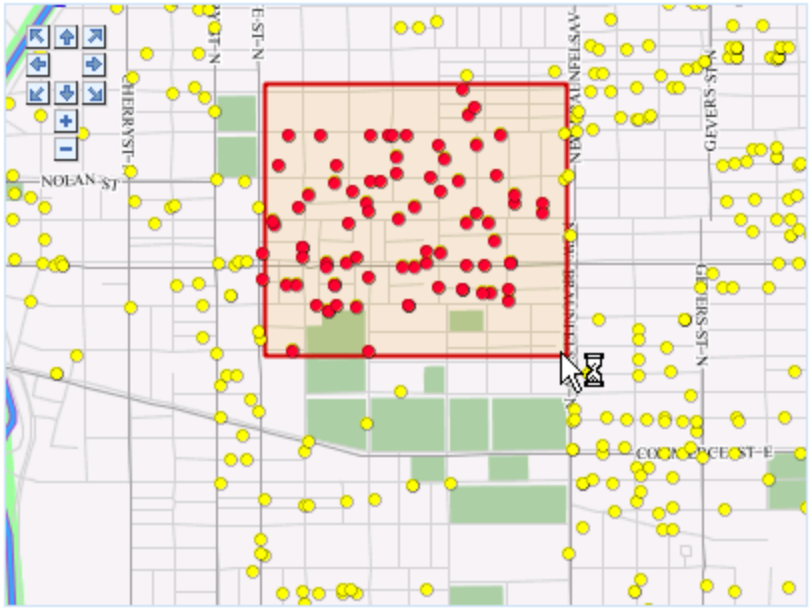

Searching... To cancel, click here.

Incidents within user defined box Go

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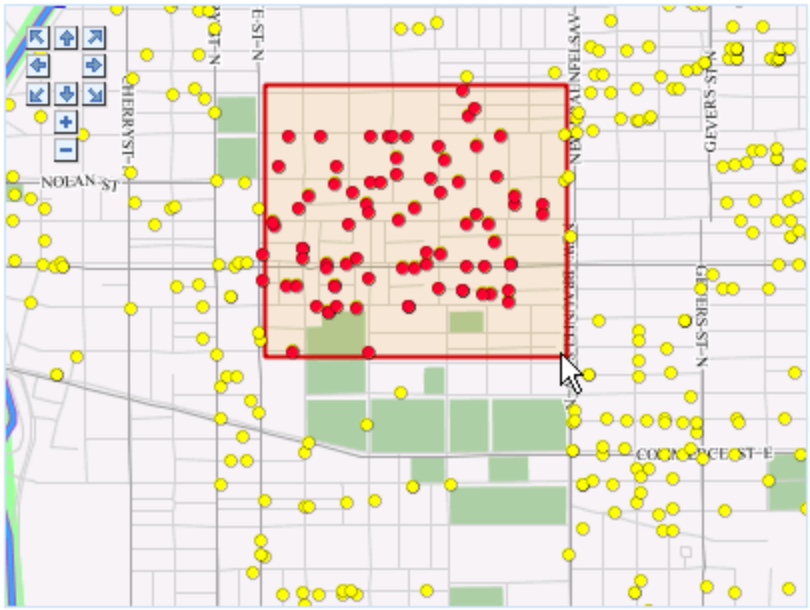

Complaint Detail

Offense Desc	PD Desc	Date Key	Complaint Key	Rol De
ASSAULT 3 & RELATED OFFENSES	ASSAULT 3	18-Aug-02	164	Rep
				Vic
		14-Mar-03	40138	Rep
				Vic
		09-Apr-03	10149	Vic
		28-Oct-03	1143	Per
		28-Dec-03	31143	Per
	MENACING,UNCLASSIFIED	27-Sep-03	1119	Vic
		23-Jan-04	2044	Rep
				Vic
		27-Jan-04	11119	Vic
		23-Mar-04	32044	Rep
				Vic
		23-May-04	12044	Rep
				Vic

Incidents within user defined box Go

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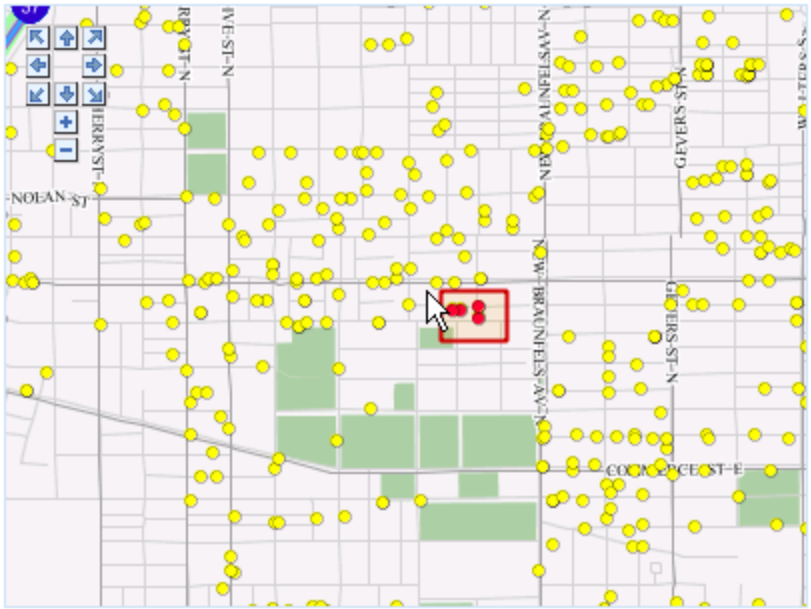

Complaint Detail

Offense Desc	PD Desc	Date Key	Complaint Key	Role Desc	First Name	Race Desc
ASSAULT 3 & RELATED OFFENSES	ASSAULT 3	18-Aug-02	164	Reporter	DARREL	WHITE HISPANIC
				Victim	RUBEN	WHITE HISPANIC
OFF. AGNST PUB ORD SENSBLTY &	AGGRAVATED HARASSMENT 2	04-Feb-03	1148	Reporter	ODIS	WHITE HISPANIC
				Victim	JACOB	WHITE HISPANIC

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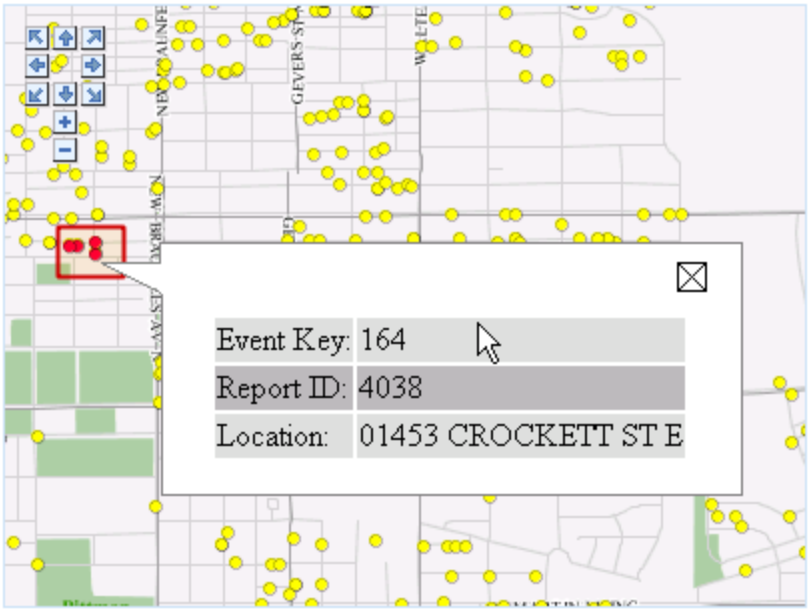

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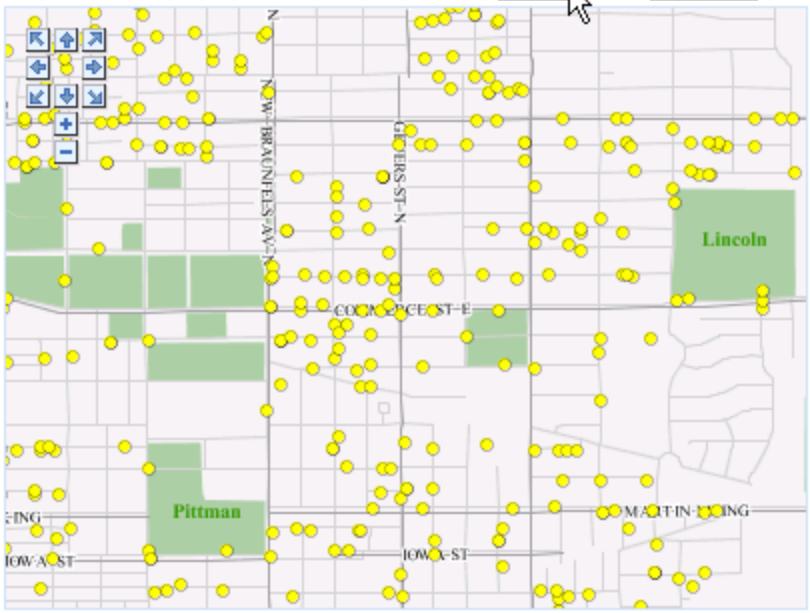
Incidents within user defined box Go

Incidents within 500 ft of selected park Go Clear



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				Victim	JACOB	WHITE HISPANIC

Incidents within user defined box Go

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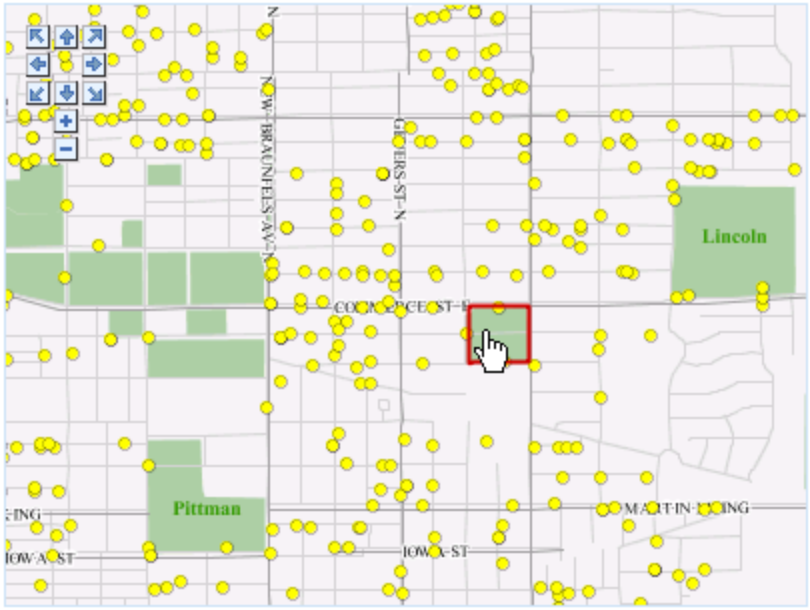

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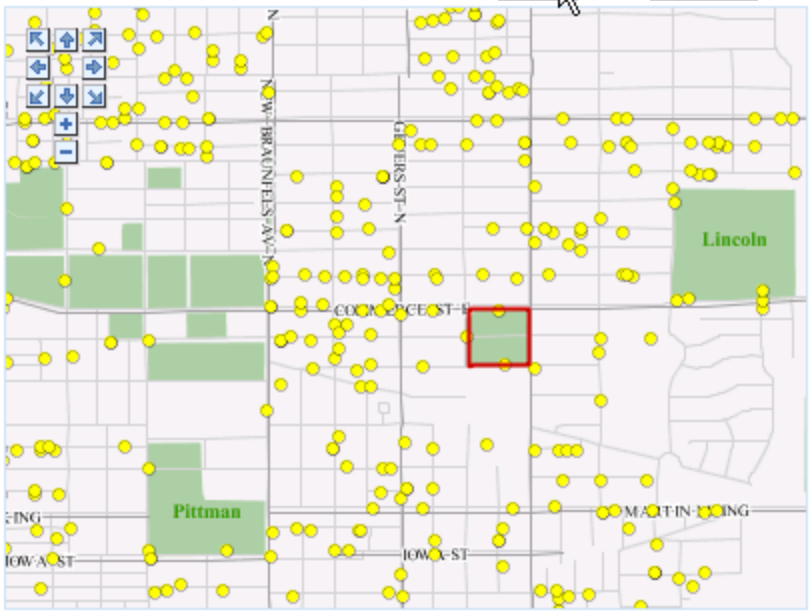

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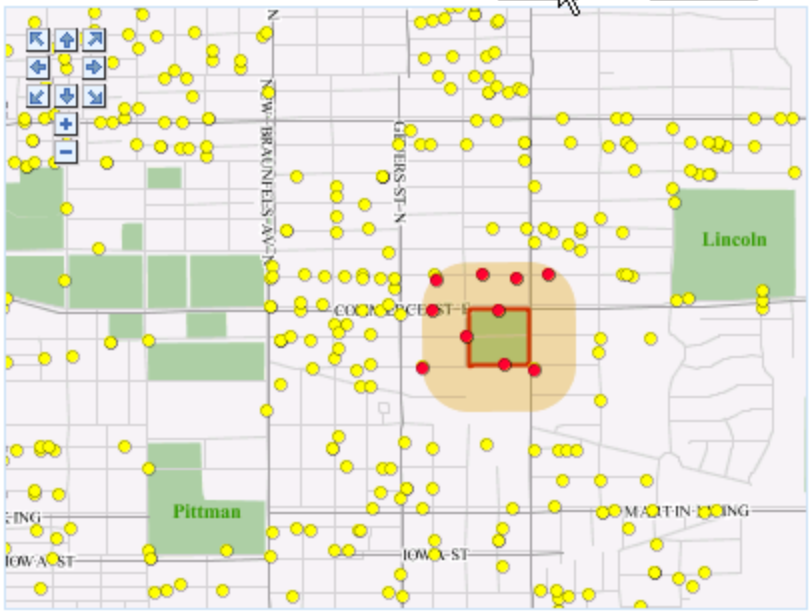

Complaint Detail

Offense Desc	PD Desc	Date Key	Complaint Key	Role Desc	Fi Na
ASSAULT 3 & RELATED OFFENSES	MENACING,UNCLASSIFIED	25-Dec-02	10183	Perp	NE
				Reporter	EV
				Victim	LA
GRAND LARCENY OF MOTOR VEHICLE	LARCENY,GRAND OF AUTO	04-Aug-03	11175	Victim	LU
HARRASSMENT 2	HARASSMENT,SUBD 1,CIVILIAN	15-Oct-03	11180	Perp	
				Reporter	
				Victim	
	HARASSMENT,SUBD 3,4,5	17-Nov-03	1196	Perp	
				Victim	
OFF. AGNST PUB ORD SENSBLTY &	AGGRAVATED HARASSMENT 2	27-Oct-03	11183	Victim	
		27-Dec-03	41183	Victim	
OFFENSES AGAINST PUBLIC ADMINI	CONTEMPT,CRIMINAL	02-Sep-02	30200	Reporter	AV
				Victim	ER
					LA
					TI

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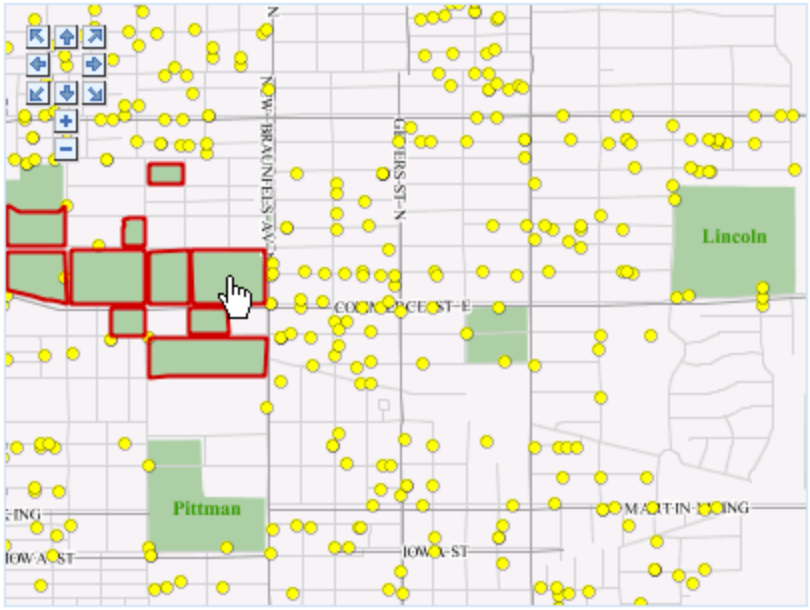

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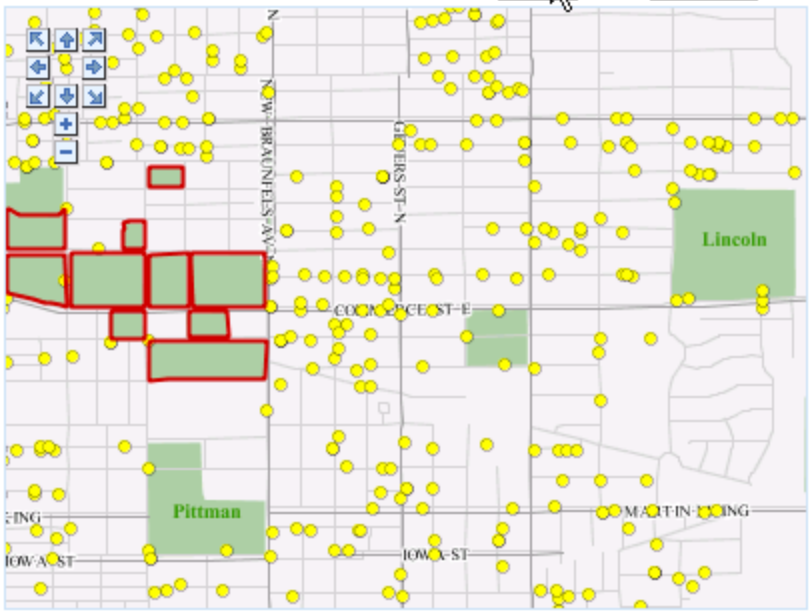

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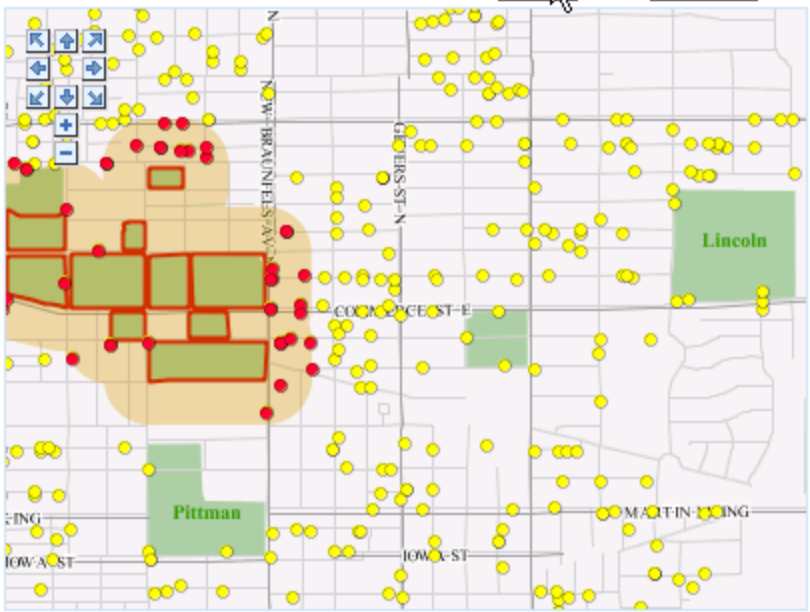
					TI

Incidents within user defined box Go

Incidents within 500 ft of selected park Go Clear

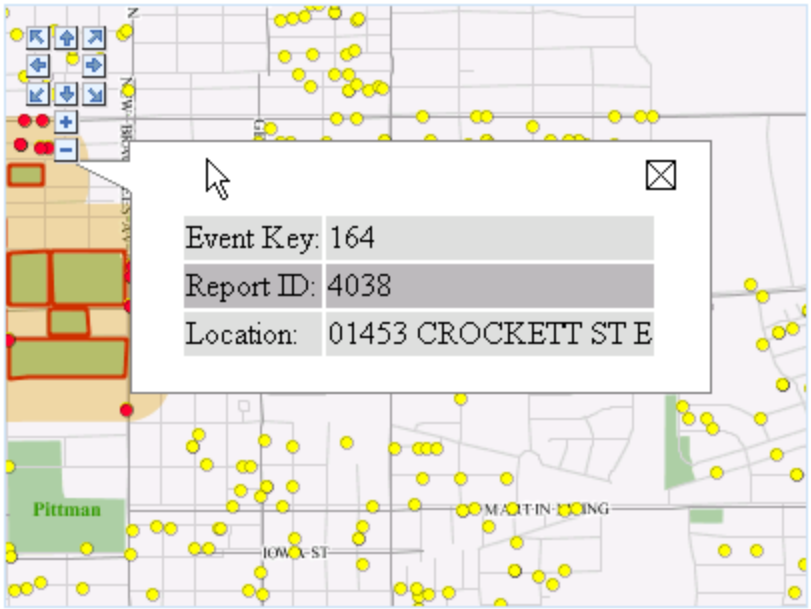


Complaint Detail

Offense Desc	PD Desc	Date Key	Complaint Key	Role Desc	First Name
ASSAULT 3 & RELATED OFFENSES	ASSAULT 3	18-Aug-02	164	Reporter	DARR
				Victim	RUBE
		14-Mar-03	40138	Reporter	DEME
				Victim	VEST
CRIMINAL MISCHIEF & RELATED OF	MISCHIEF, CRIMINAL 3 & 2, OF M	29-Mar-03	1174	Victim	KARL
		29-May-03	31174	Victim	KARL
	MISCHIEF, CRIMINAL 4, OF MOTOR	27-Apr-04	41142	Reporter	FRAN
				Victim	JESSE
		07-Jul-03	41163	Perp	ALAY
				Reporter	LORI
				Victim	ASHA
		21-Sep-03	1118	Perp	ROSA
				Reporter	WAYI
				Victim	MARI
				Perp	KORT

Incidents within user defined box Go

Incidents within 500 ft of selected park Go Clear



Complaint Detail

Offense Desc	PD Desc	Date Key	Complaint Key	Role Desc	First Name
ASSAULT 3 & RELATED OFFENSES	ASSAULT 3	18-Aug-02	164	Reporter	DARR
				Victim	RUBE
		14-Mar-03	40138	Reporter	DEME
				Victim	VEST
CRIMINAL MISCHIEF & RELATED OF	MISCHIEF, CRIMINAL 3 & 2, OF M	29-Mar-03	1174	Victim	KARL
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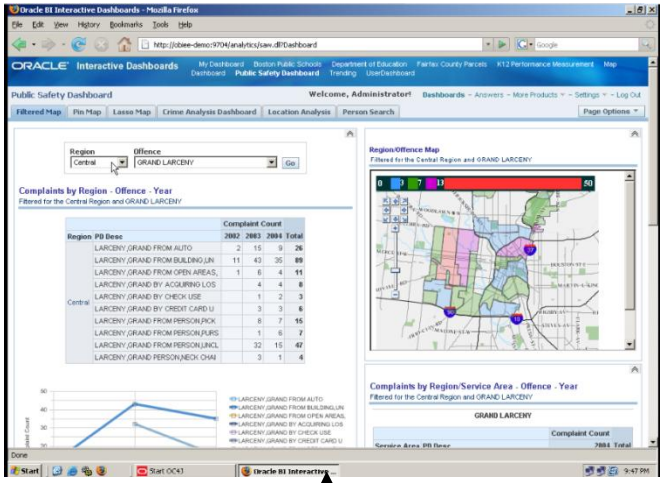
				Reporter	LORI
				Victim	ASHA
		21-Sep-03	1118	Perp	ROSA
				Reporter	WAYI
				Victim	MARI
				Perp	KORT

Integration Framework

BI EE and MapViewer



OGC WMS

MapViewer

NSDP*

OBIEE

Oracle Fusion Middleware

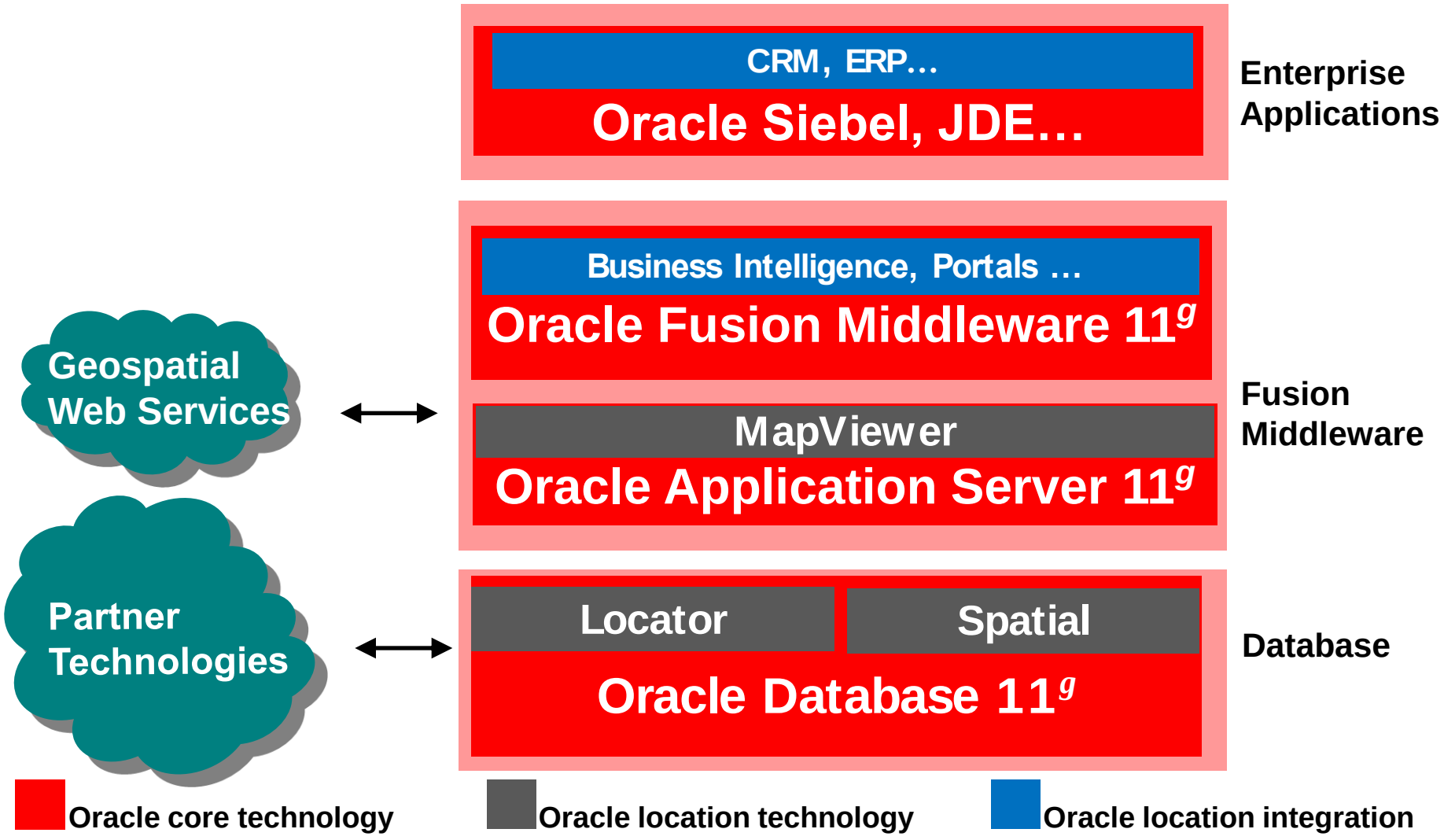
ORACLE SPATIAL

Oracle Database

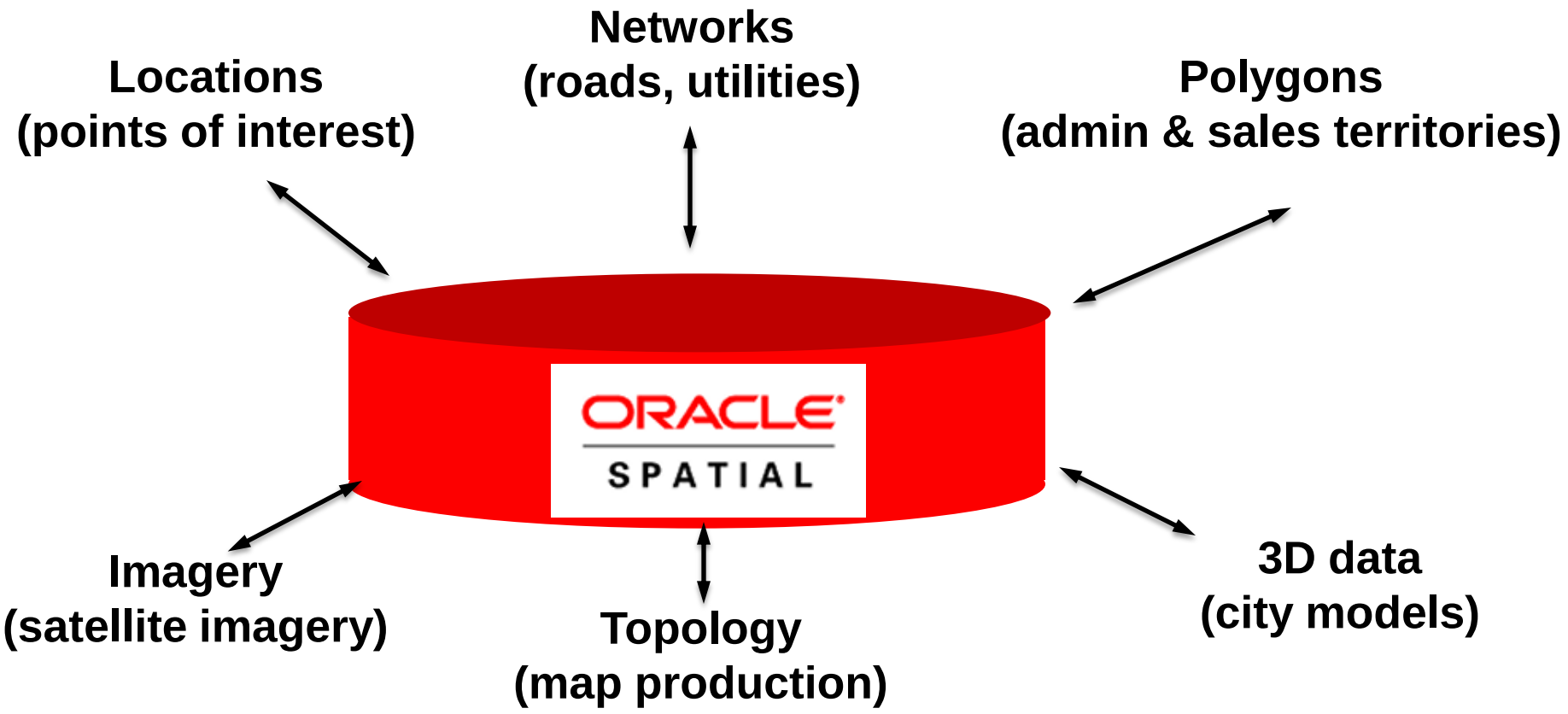
Other Oracle/non-Oracle databases, data warehouses …

* NSDP (Non-Spatial Data Provider) key MapViewer integration feature

Location-enabled Oracle Platform



Geospatial Data Management



BI & Spatial Integration

- BI 11g & Spatial Integration
  - What's coming
- BI and Spatial Integration
  - What is possible today
- Spatial Data
  - NAVTEQ
  - Digital Globe

NAVTEQ Map Boundary Data Bundle

Available From OTN

- North America, Western Europe, Eastern Europe, Asia-Pacific, and Emerging Markets
  - Regional roads
  - Named places
  - Country, state, province, county, and city boundaries

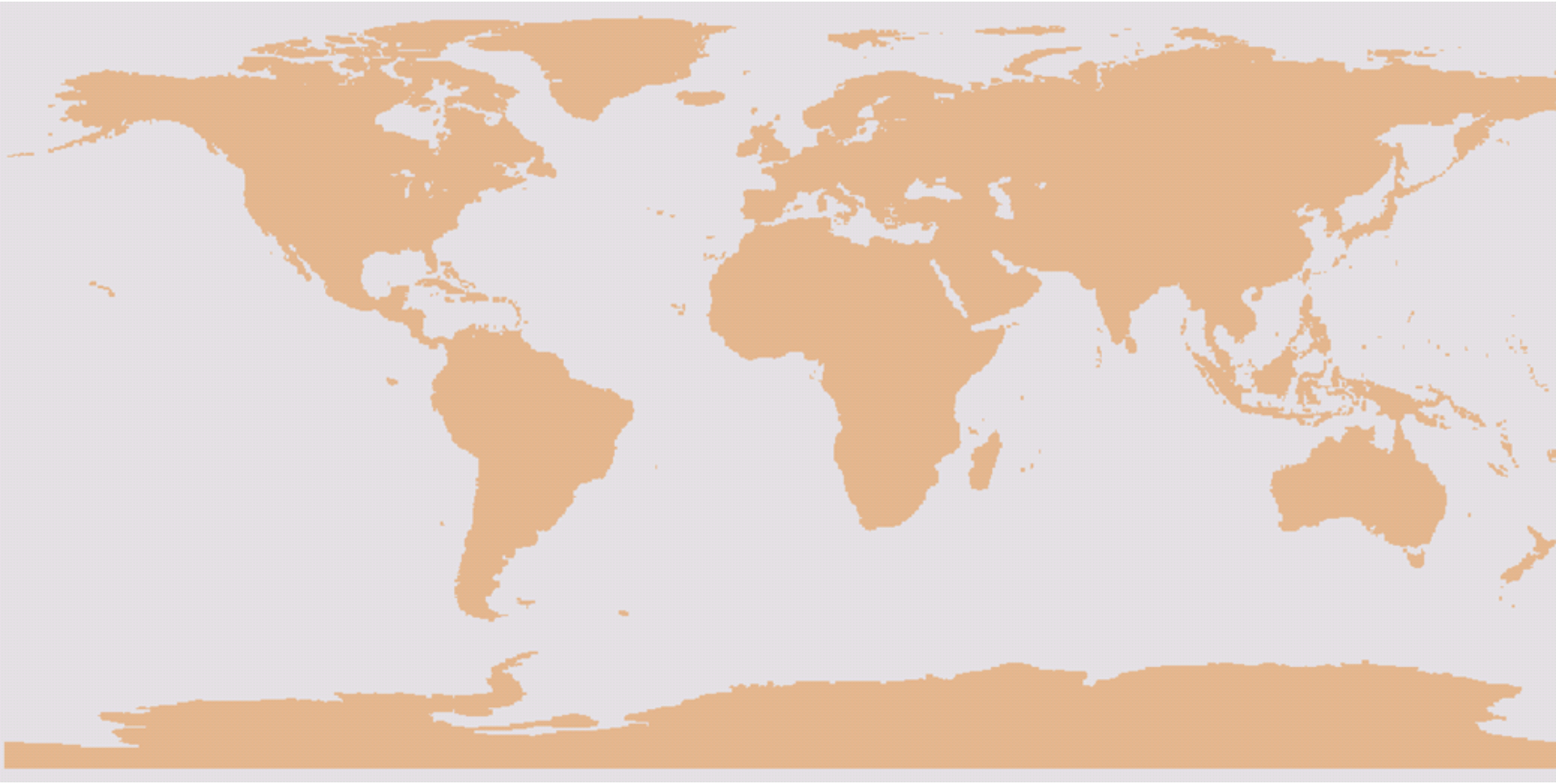
Spatial Data

NAVTEQ

- Multiyear Agreement to incorporate boundary mapping data into Oracle® Database 10g and other Oracle products.
- With Oracle Database 11g, data for over 40 countries available.
- North America, Western Europe, Eastern Europe, Asia-Pacific, and Emerging Markets
  - Regional roads
  - Named places
  - Country, state, province, county, and city boundaries
- Data is supplied in Oracle's native spatial data format: **`SDO_Geometry`**

NAVTEQ Boundary Data Samples

World Overview Map

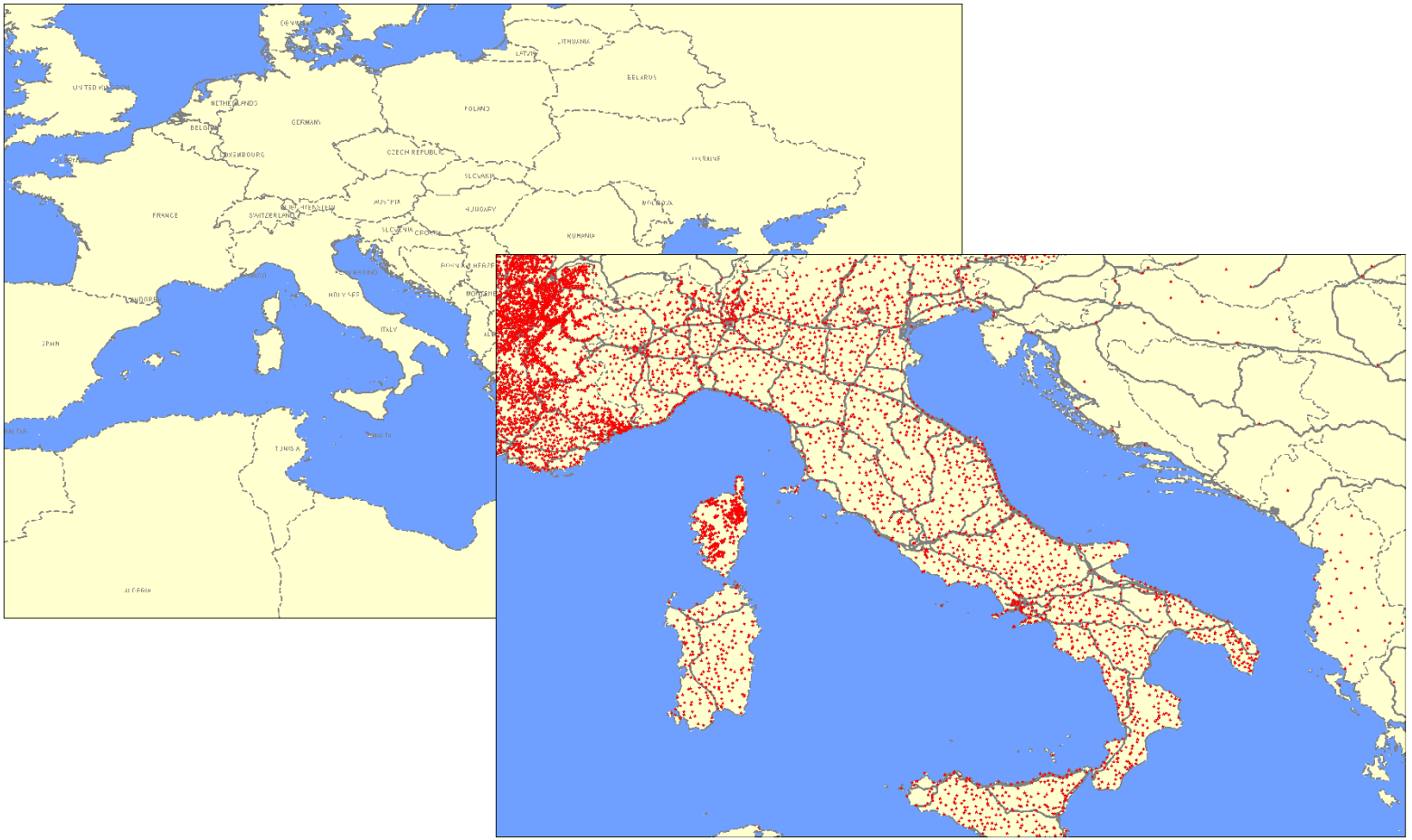


NAVTEQ Boundary Data Samples

Country Boundaries

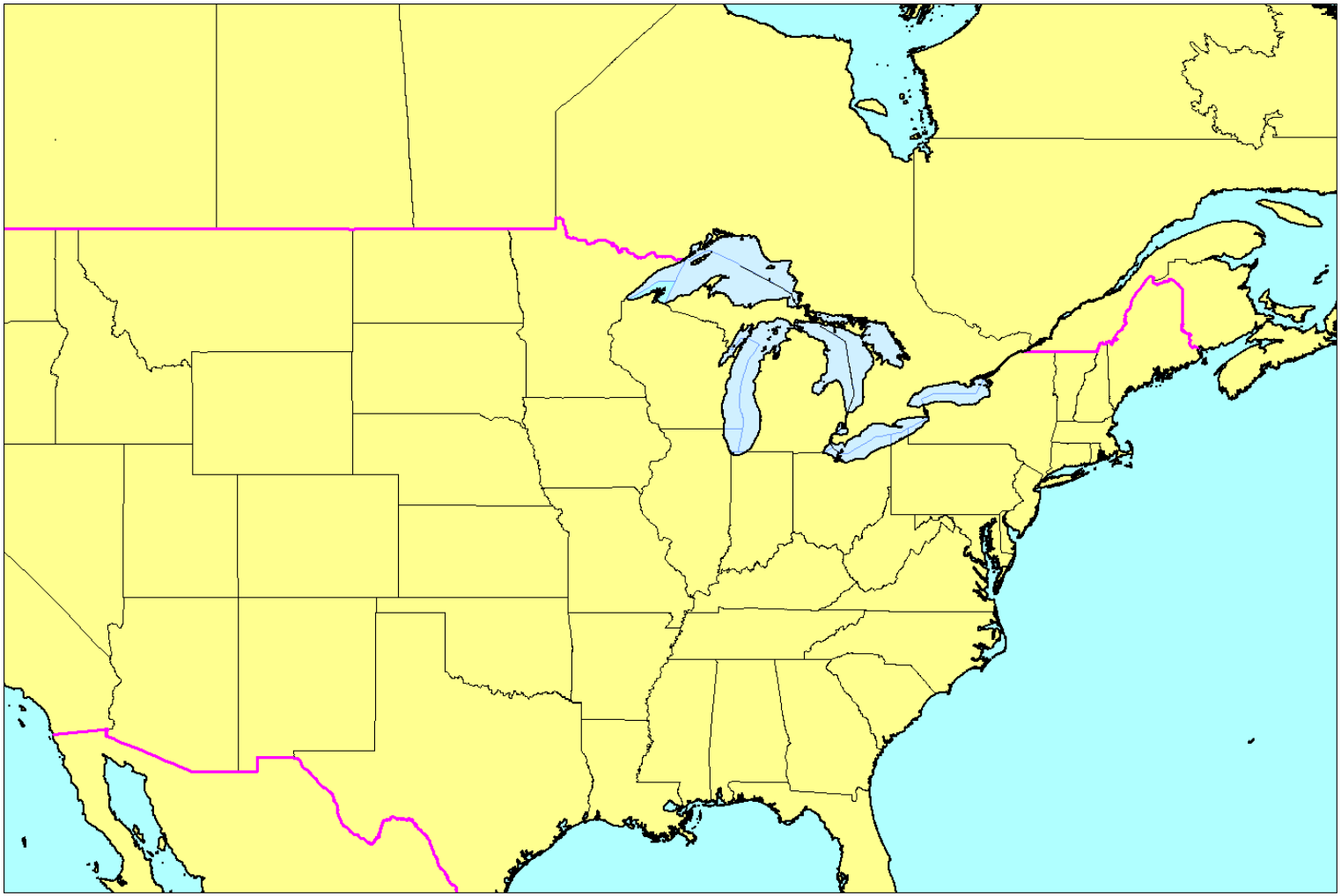
NAVTEQ Boundary Data Samples

Europe – Boundaries & Cities



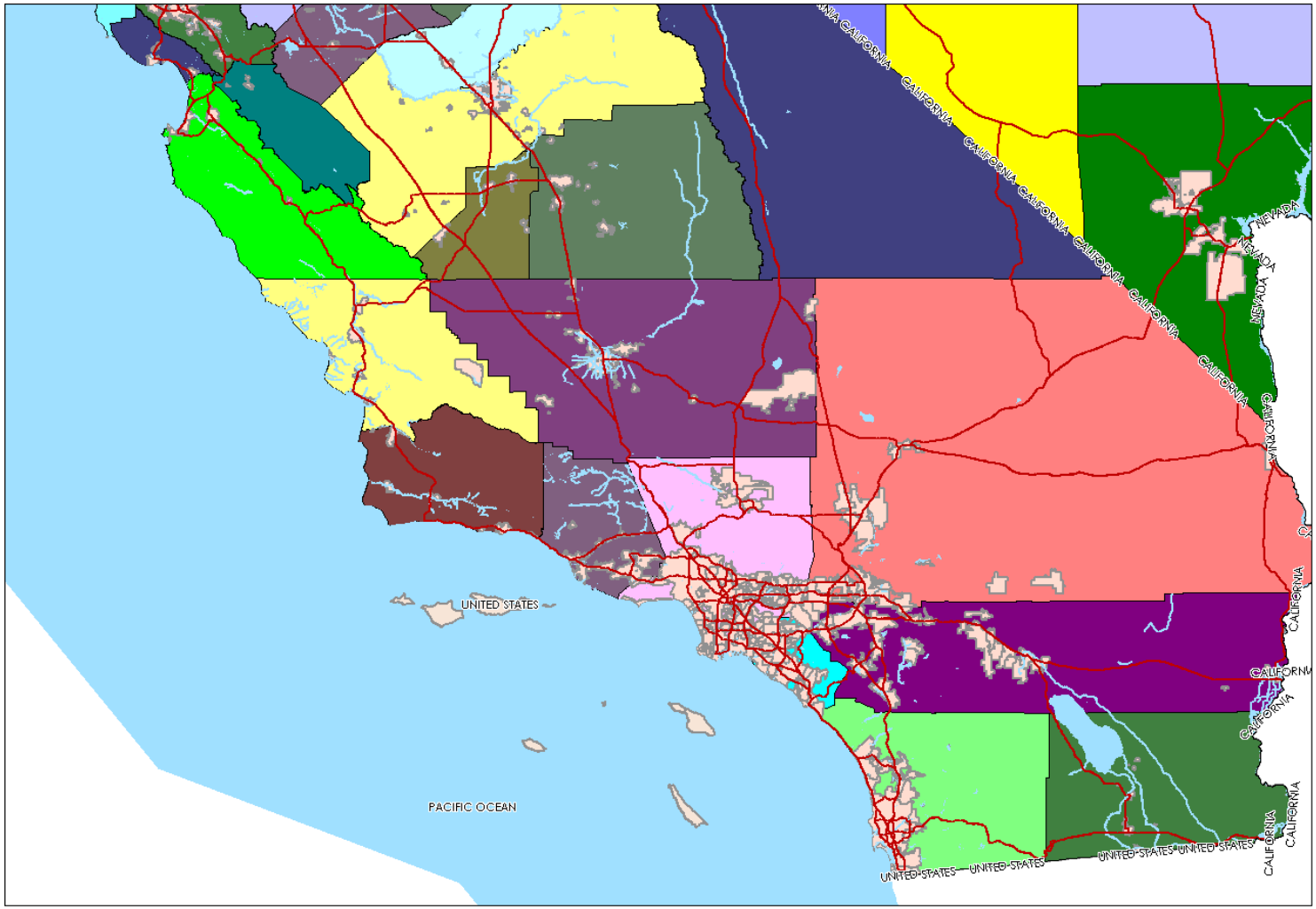
NAVTEQ Boundary Data Samples

US State Boundaries



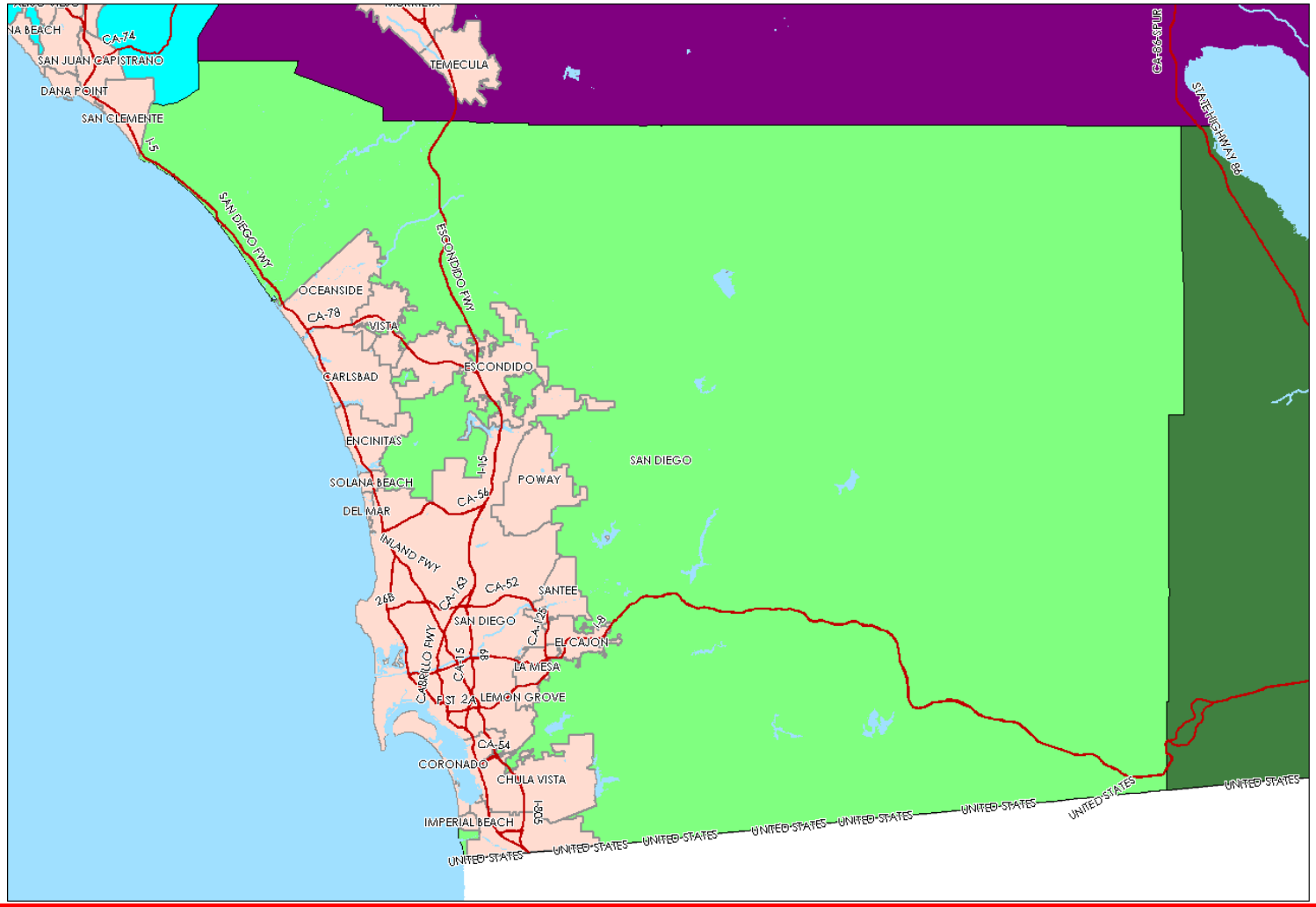
NAVTEQ Boundary Data Samples

Counties



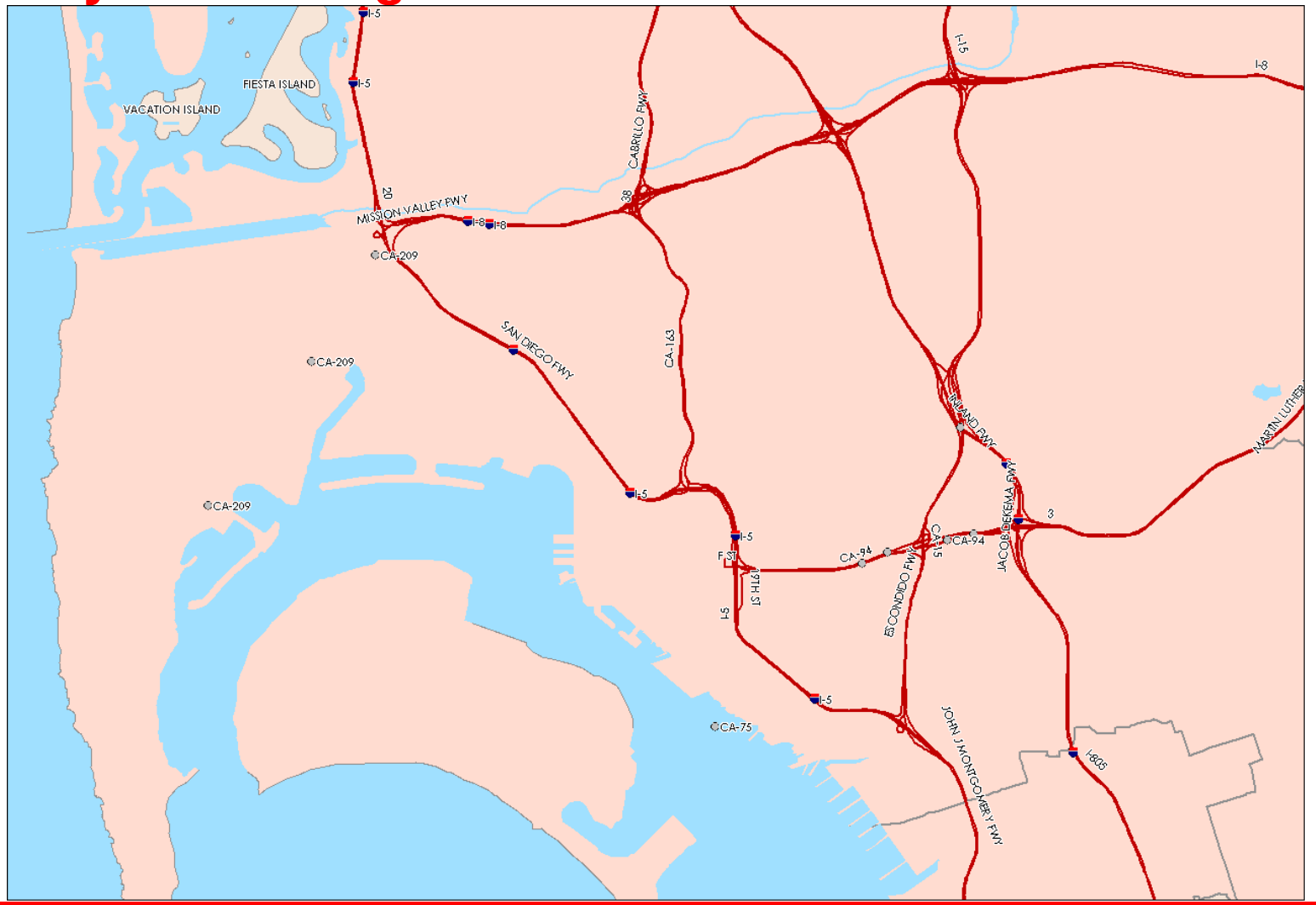
NAVTEQ Boundary Data Samples

County – San Diego county and cities



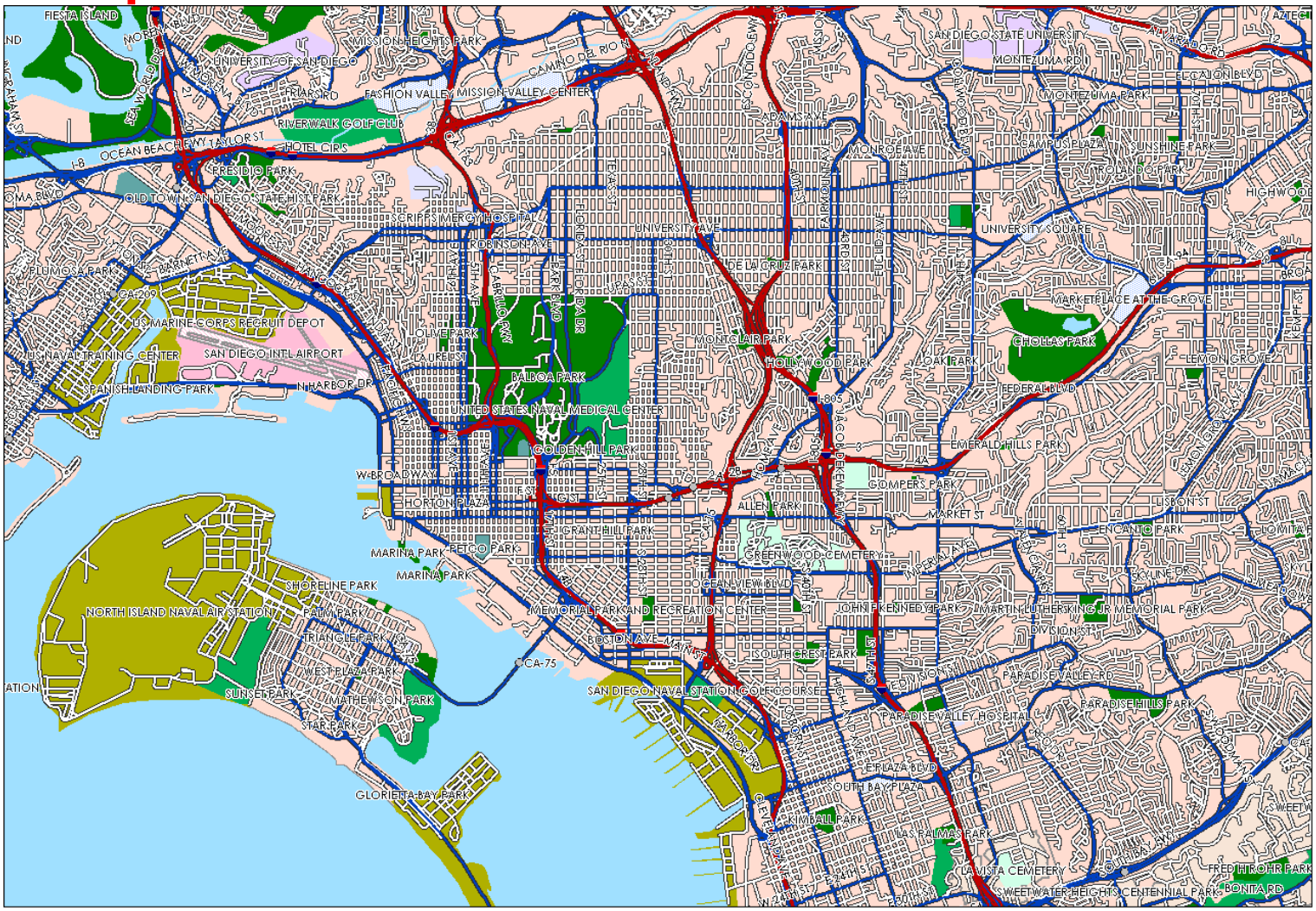
NAVTEQ Boundary Data Samples

City – San Diego



NAVTEQ Detailed Map Content

Compatible with BI and Oracle



Additional data available from NAVTEQ; not available from OTN

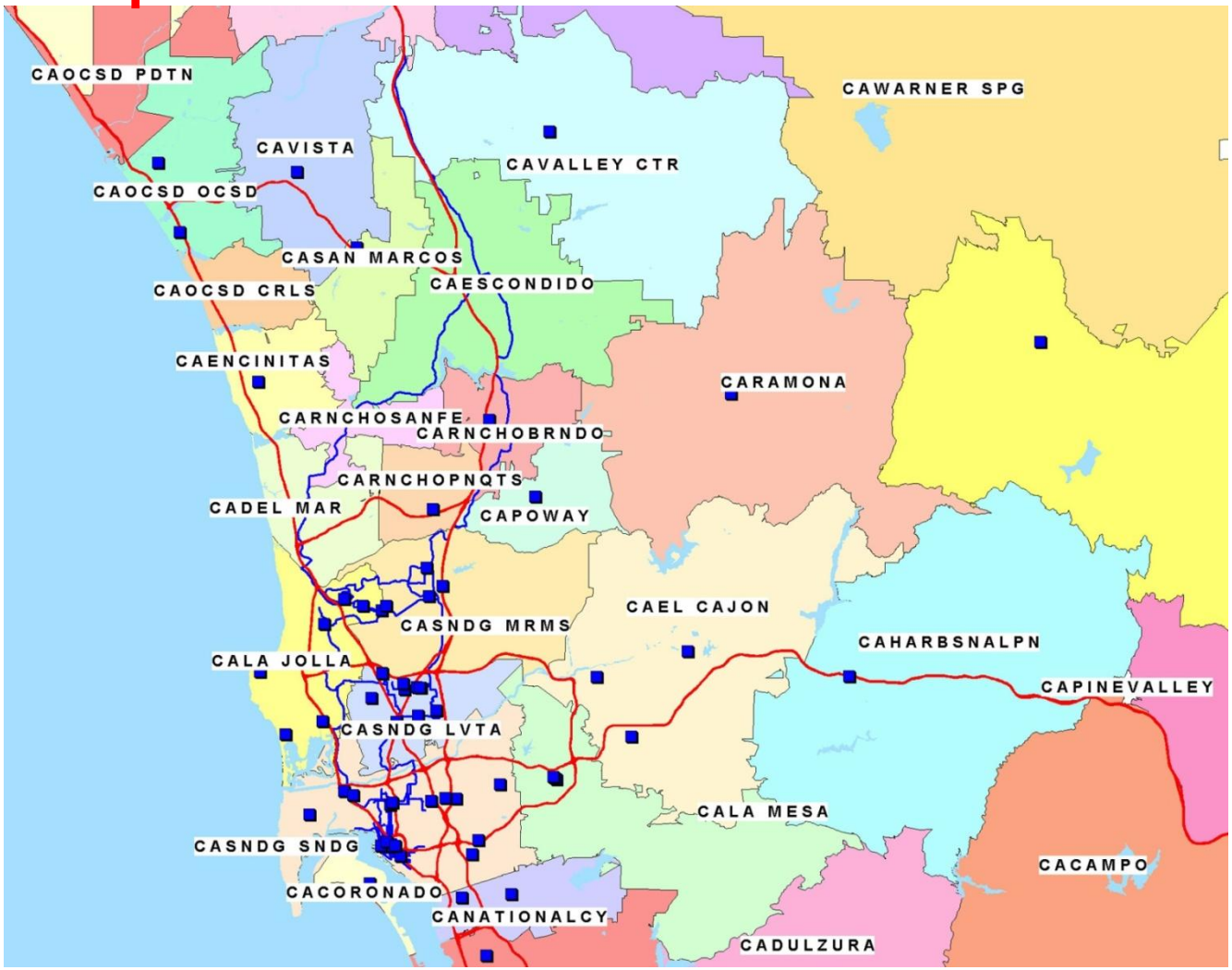
NAVTEQ Detailed Zip Code Content

Compatible with BI and Oracle

Additional data available from NAVTEQ; not available from OTN

NAVTEQ Detailed Telecom Map Content

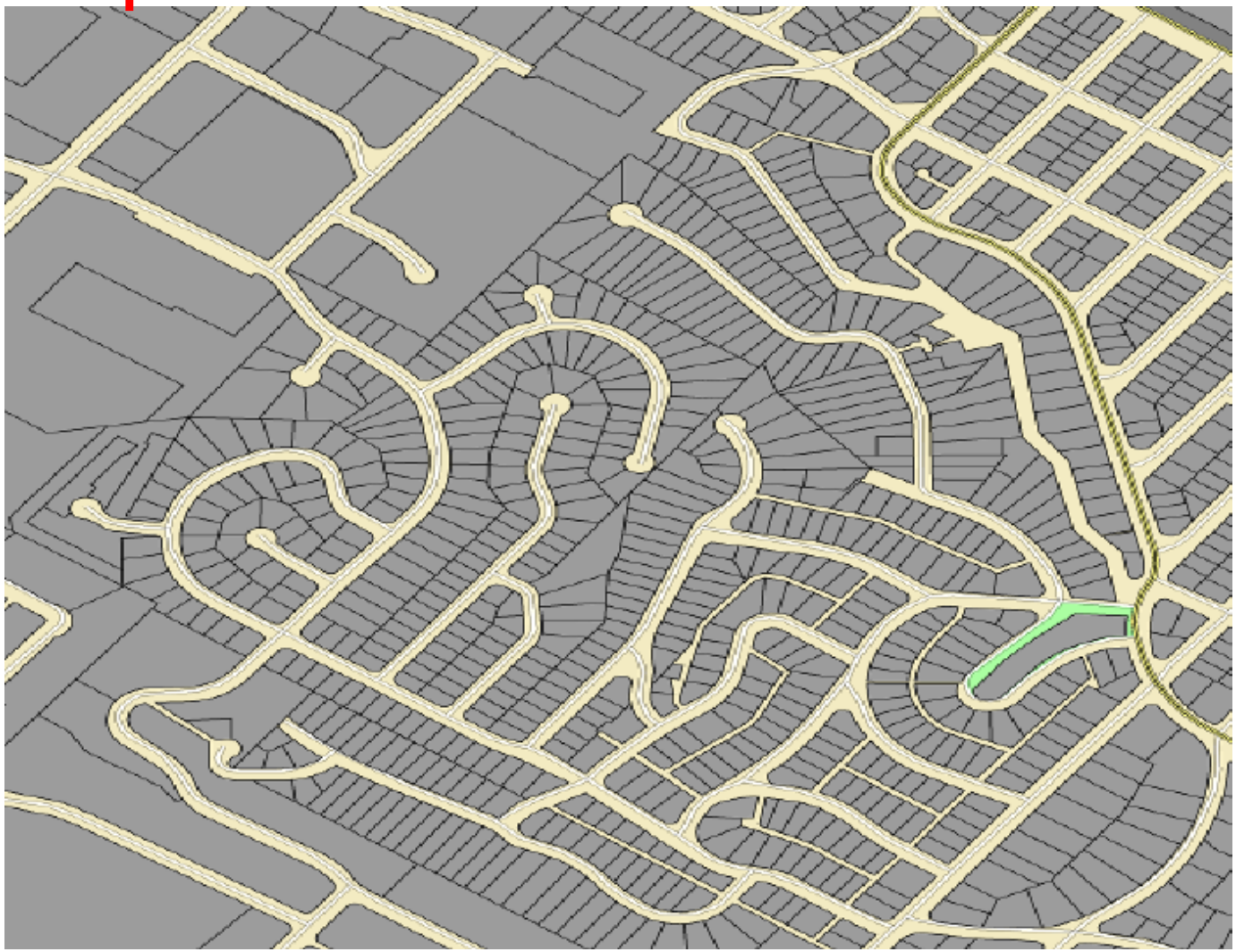
Compatible with BI and Oracle



Additional data available from NAVTEQ; not available from OTN

NAVTEQ Detailed Parcel Map Content

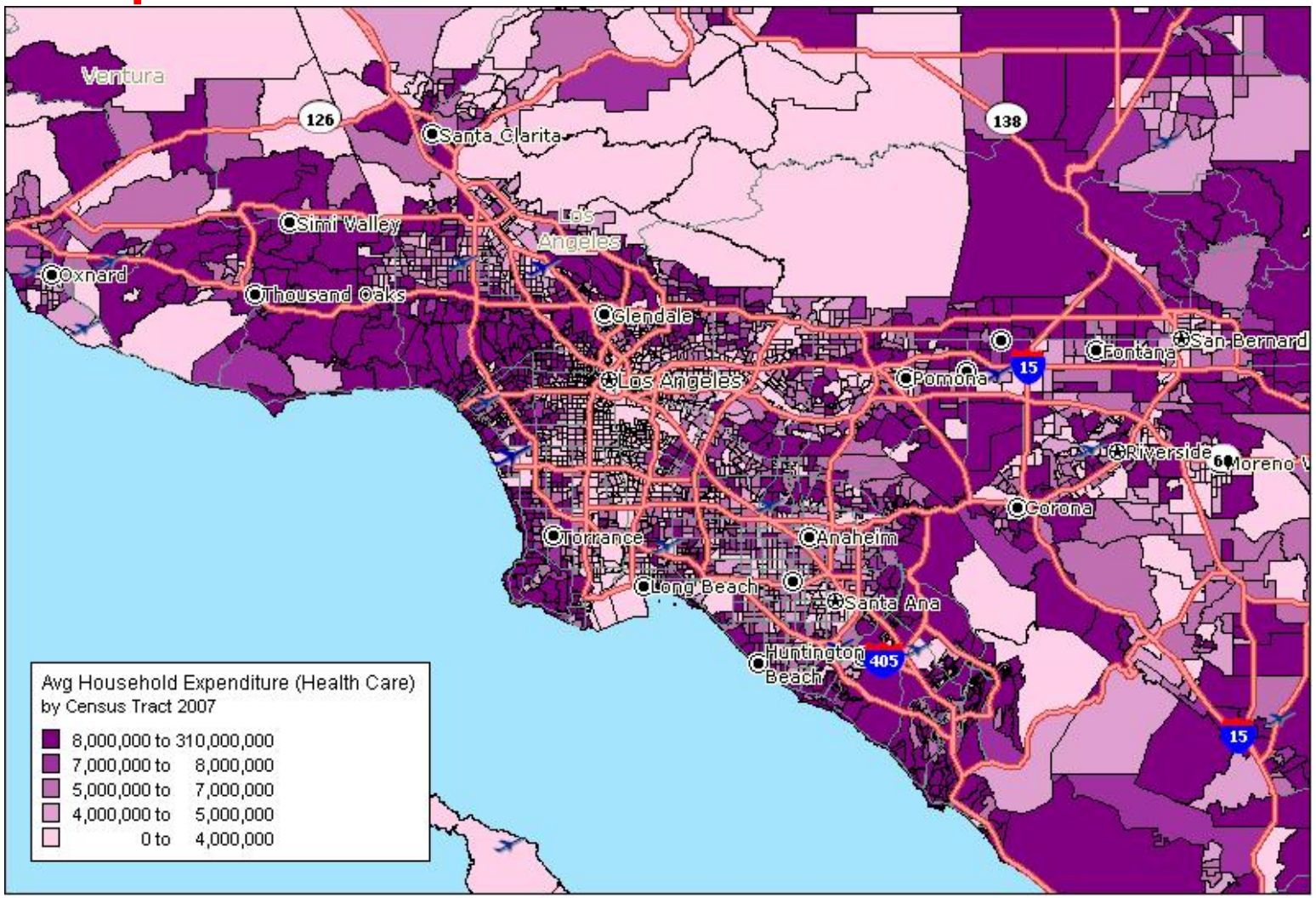
Compatible with BI and Oracle



Additional data available from NAVTEQ; not available from OTN

NAVTEQ Detailed Census Map Content

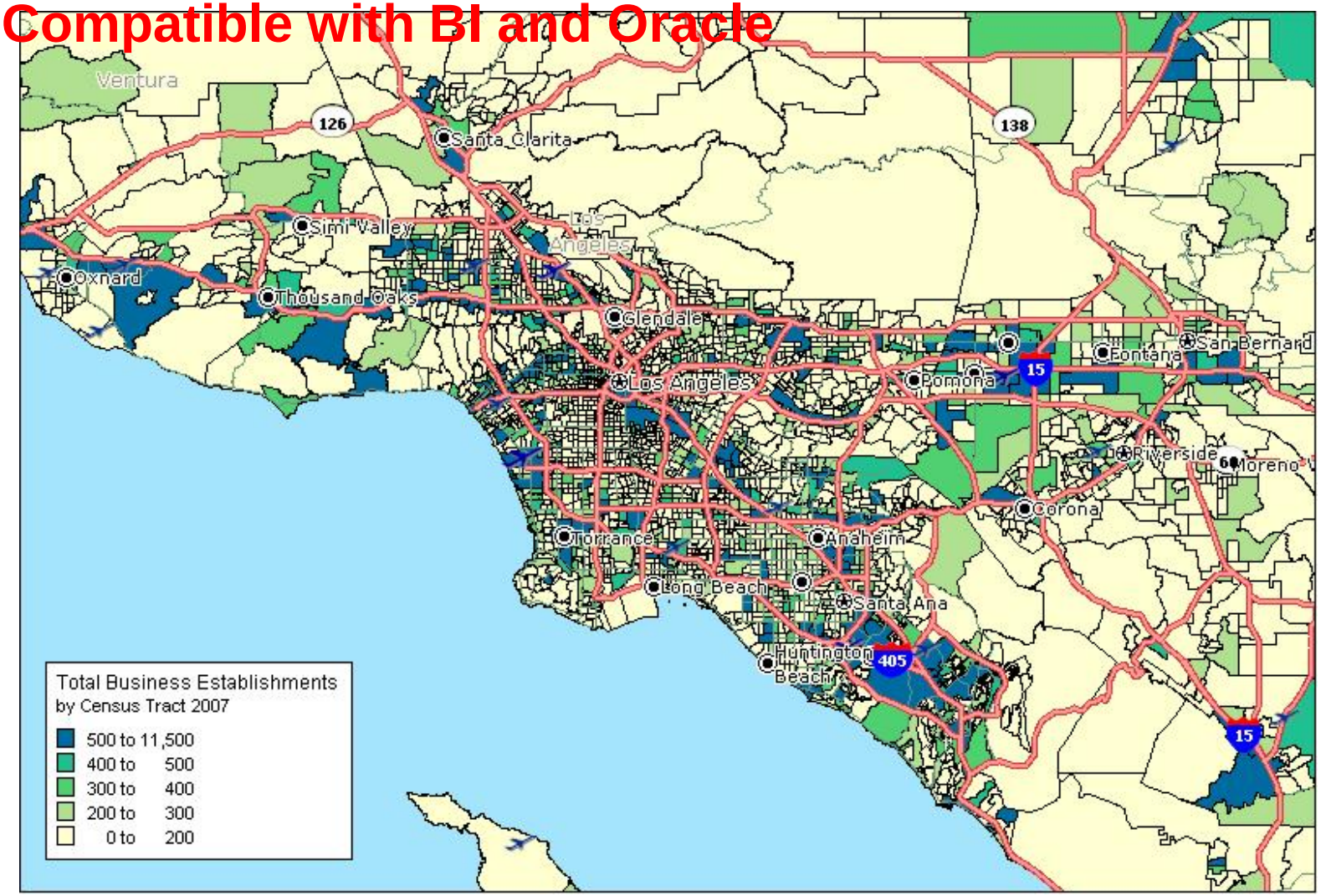
Compatible with BI and Oracle



Additional data available from NAVTEQ; not available from OTN

NAVTEQ Detailed Census Map Content

Compatible with BI and Oracle



Additional data available from NAVTEQ; not available from OTN

BI SPATIAL VIEWS

DIGITAL GLOBE

Oracle BI Interactive Dashboards - Mozilla Firefox

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ORACLE Interactive Dashboards

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EPA Regions

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Total Releases | Carcinogen | Water Releases | Air Releases

Page Options

Reporting Year: 2003 Go

All Total Releases by Year and Region

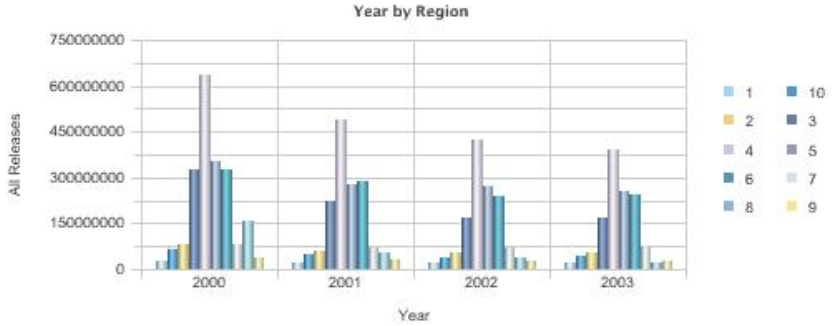
TRI Fac Region	Change from Prior Year
8	-33.79%
4	-8.13%
5	-6.51%
9	-5.32%
3	-1.37%
2	0.18%
6	0.85%
10	2.60%
7	6.47%
1	22.58%

Modify - Refresh - Print - Download - Add to Briefing Book

All Total Releases by Year and Region

All Total Releases by Year and Region Chart

Choose Chart Type: Year by Region



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EPA States

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Total Releases | Carcinogen | Water Releases | Air Releases

Page Options

Reporting Year: 2003 | TRI Fac Region: 1 | Go

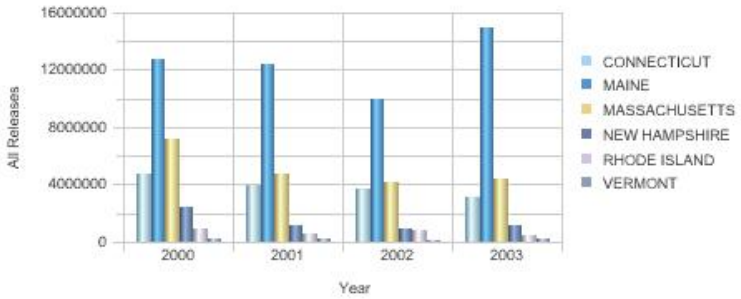
All Total Releases by Year and State

TRI Fac State Name	Change from Prior Year
RHODE ISLAND	-41.32%
CONNECTICUT	-14.85%
MASSACHUSETTS	3.60%
VERMONT	11.48%
NEW HAMPSHIRE	28.20%
MAINE	49.24%

Modify - Refresh - Print - Download - Add to Briefing Book

All Total Releases by Year and State

All Total Releases by Year and State Chart



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EPA Counties

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Total Releases | Carcinogen | Water Releases | Air Releases

Page Options

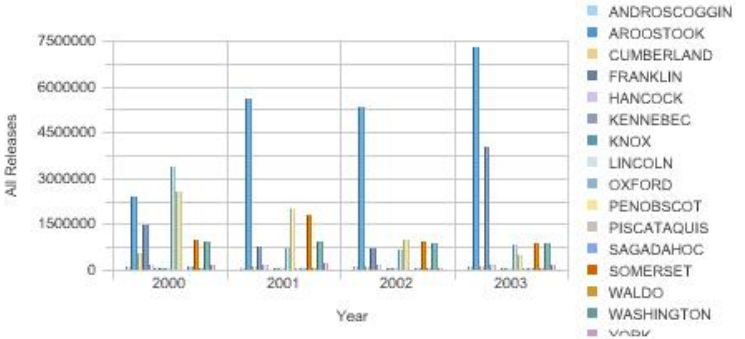
Reporting Year: 2003 | TRI Fac State Name: MAINE | Go

All Total Releases by Year and County

County Fips	TRI Fac County Name	Change from Prior Year
23019	PENOBSCOT	-50.43%
23013	KNOX	-23.68%
23009	HANCOCK	-10.85%
23025	SOMERSET	-7.31%
23023	SAGADAHOC	-3.63%
23029	WASHINGTON	-2.71%
23001	ANDROSCOGGIN	-2.69%
23005	CUMBERLAND	1.11%
23027	WALDO	3.92%
23015	LINCOLN	8.59%
23017	OXFORD	24.95%
23003	AROOSTOOK	36.81%
23031	YORK	220.14%
23007	FRANKLIN	513.42%

All Total Releases by Year and County

All Total Releases by Year and County Chart



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EPA Facilities

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Page Options

Year: 2003 County: 23031 Go

All Total Releases by Year and Facility

TRI Facility Id	TRI Facility Name	Change from Prior Year
04073SPRGLROUTE	VISHAY SPRAGUE INC	-100.00%
04073XPNDDONERI	EXPANDED RUBBER PRODUCTS INC	-49.00%
03906PRTTWROUTE	PRATT & WHITNEY	18.26%
04073CYRNDINDUS	CYRO INDUSTRIES	41.97%
03901PRMTNSULLI	PRIME TANNING CO INC	134.76%
03904PRTSMSEAVE	U.S. NAVY PORTSMOUTH NAVAL SHIPYARD	510948.00%

All Total Releases by Year and Facility

All Total Releases- Facility Detail

TRI Facility Id	Reporting Year	Change from Prior Year	New All Totals	New All Totals Prior Year	Water Total Release	Water Total Release Prior Year
04073SPRGLROUTE	2004					
04073SPRGLROUTE	2003	-100.00%		2176		
04073SPRGLROUTE	2002	143.40%	2176	894		
04073SPRGLROUTE	2001	-82.57%	894	5129		
04073SPRGLROUTE	2000		5129			

Start | D:\temp | Oracle SQL*Plus | 2 Windows Com... | Oracle BI Inter... | MapBuilder | Oracle Map Builder | 4:25 PM

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Year: 2003 County: 23031 Go

All Total Releases by Year and Facility

TRI Facility Id	TRI Facility Name	Change from Prior Year
04073SPRGLROUTE	VISHAY SPRAGUE INC	-100.00%
04073XPNDDONERI	EXPANDED RUBBER PRODUCTS INC	-49.00%
03906PRTTWROUTE	PRATT & WHITNEY	18.26%
04073CYRNDINDUS	CYRO INDUSTRIES	41.97%
03901PRMTNSULLI	PRIME TANNING CO INC	134.76%
03904PRTSMSEAVE	U.S. NAVY PORTSMOUTH NAVAL SHIPYARD	510948.00%

All Total Releases by Year and Facility

All Total Releases- Facility Detail

TRI Facility Id	Reporting Year	Change from Prior Year	New All Totals	New All Totals Prior Year	Water Total Release	Water Total Release Prior Year
03904PRTSMSEAVE	2004	-11.35%	11318	12776	8	0
03904PRTSMSEAVE	2003	510948.00%	12776	3	0	0
03904PRTSMSEAVE	2002	-78.45%	3	12	0	0
03904PRTSMSEAVE	2001		12		0	
03904PRTSMSEAVE	2000					

Spatial Data

DigitalGlobe

- Satellite and aerial imagery and related data
- Sample data available on OTN for download
  - http://www.oracle.com/technology/products/spatial/
  - Oracle Spatial formatted (GeoRaster) sample imagery of San Francisco

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Q&A

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