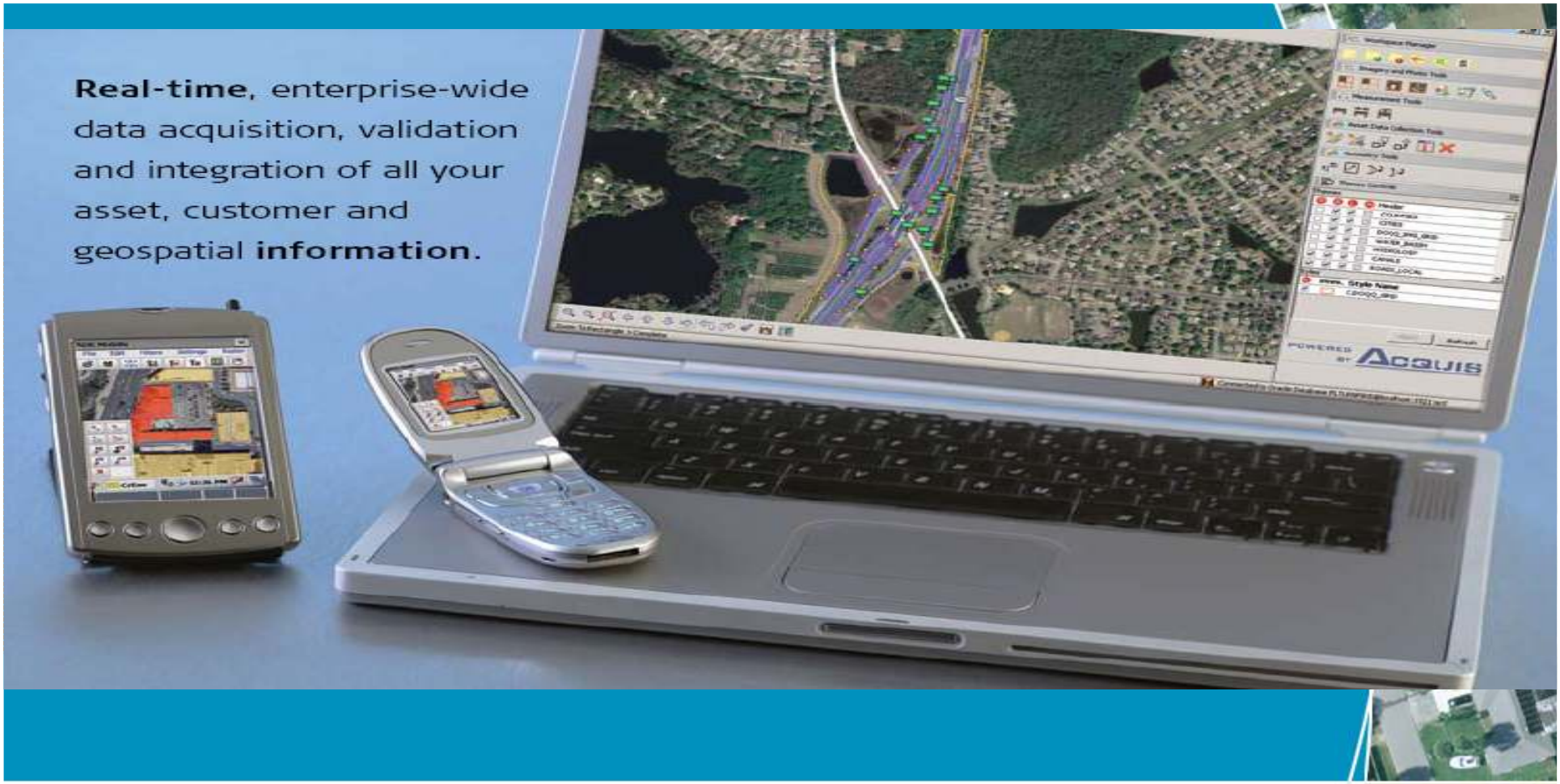


erdas
The Earth to Business Company

ERDAS ADE Suite – Technical Overview

Iryna Wetzel – ERDAS Inc Switzerland

Introduction to Products and Target Market
what we will cover in this module

- **What were the business drivers?**
- **What business problems does it solve?**
- **Who is it for? (Target Markets and Customers)**
- **What is our solution - Top 5 selling features**
- **How is it different?**
- **What is our Value Proposition**

Selling ADE – First & Most Important Rule

ERDAS ADE is NOT another GIS

Business Drivers - Location information is everywhere

- Devices with GPS, E911, in vehicle navigation systems as standard
- All devices are becoming location enabled, web portals, mobile devices
- Legislative and public demand for real-time location services for mobile phones
- Enterprise Location Intelligence improves data accuracy across the organization
- Geospatial Information can be an integral part of many other IT systems from Work Force Automation, Billing, Marketing and CRM to high level Business Intelligence.

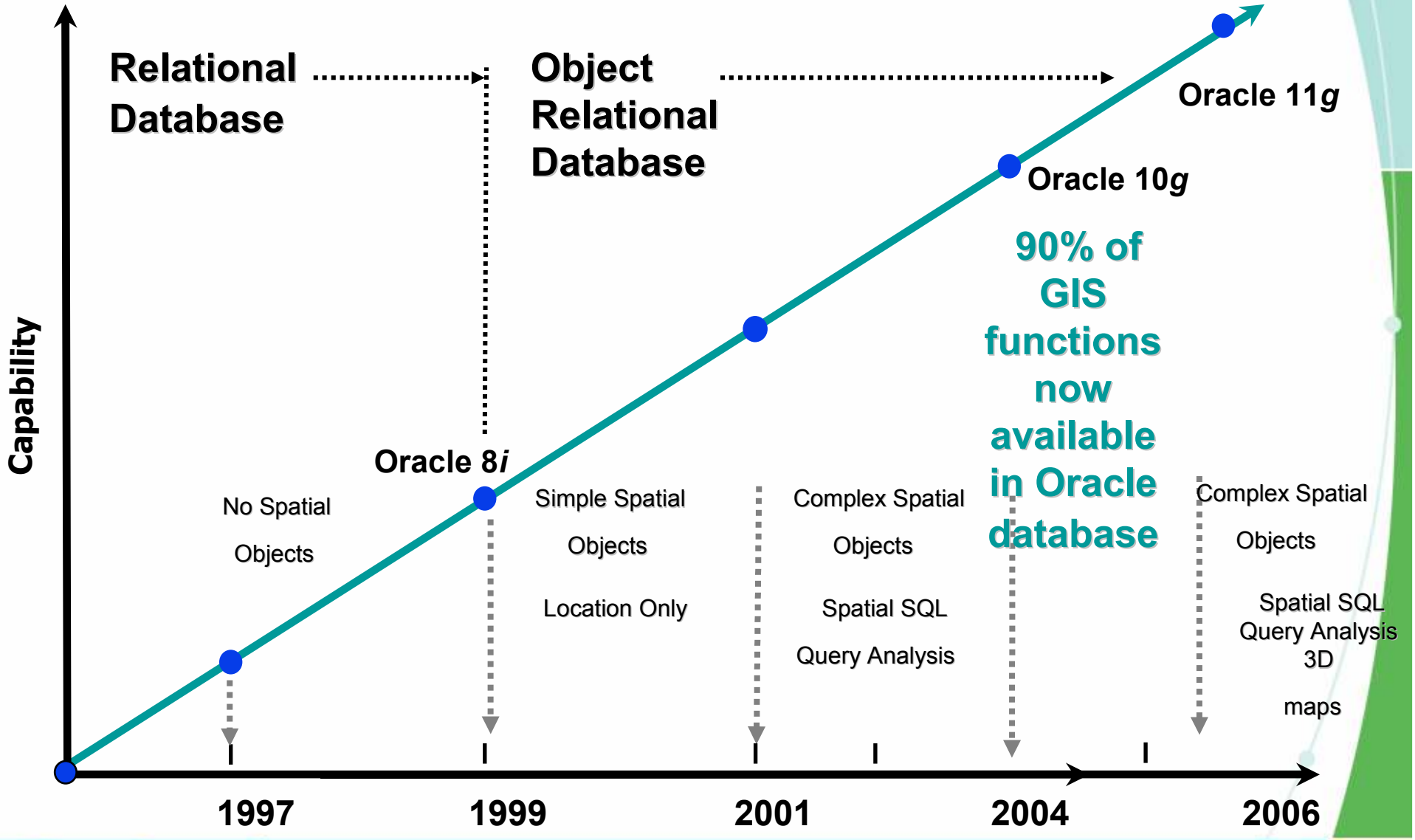
Enterprise Location Services Primed for Growth

Enterprise Location Software and Services (ELSS) generate about $1.4 billion today (IDC)

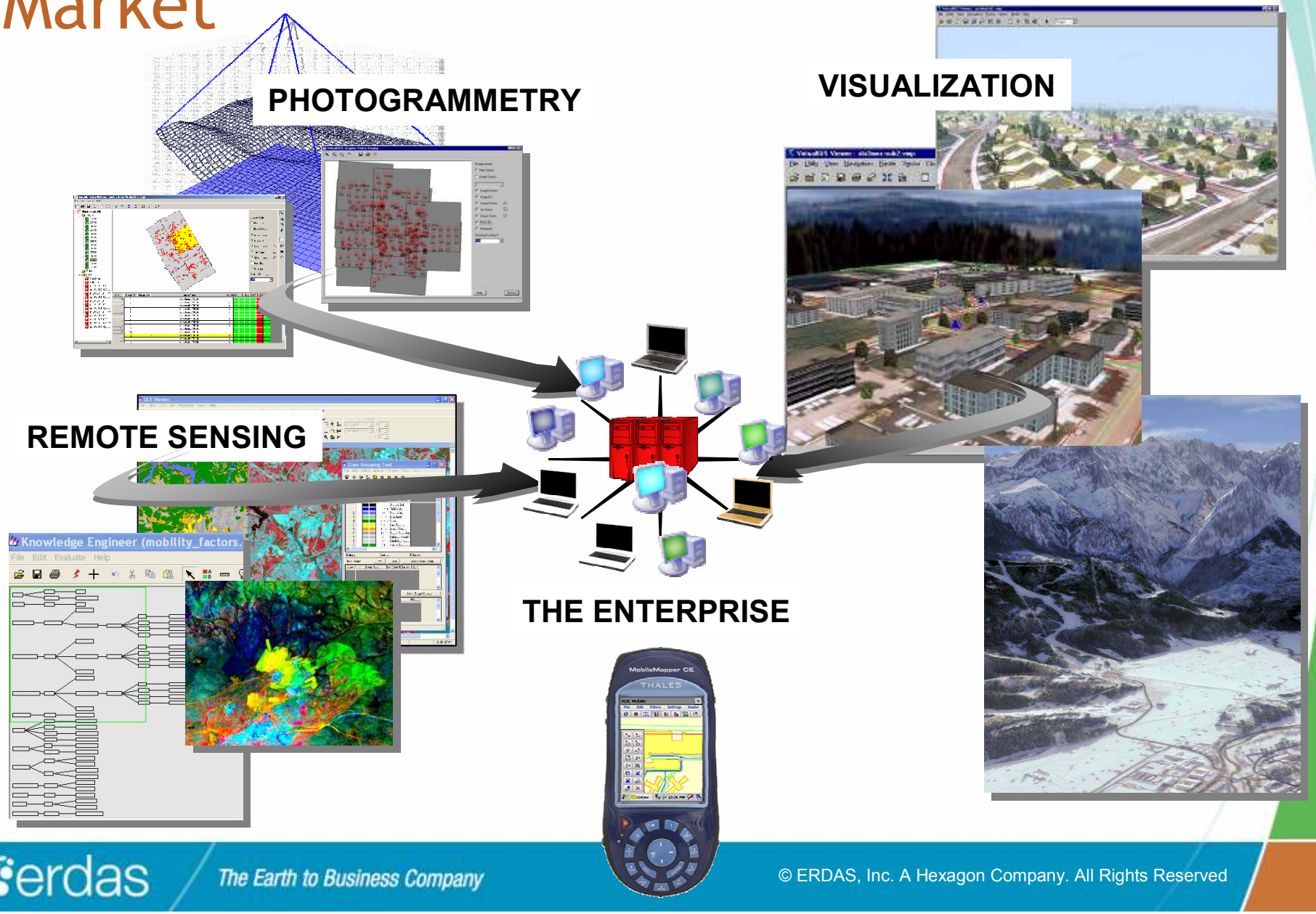
80% of all data contains a location component

Types of Location Information	Location Services		
	Consumer	Business	Government
Positions	• Where am I? (map, address, place) • Where is? (person, business, place,..)	• Contact nearest field service personnel. • Where is this business located?	• Location-sensitive reporting. • What's your 20?
Events	• Car broken down... need help. • Medical alert!	• Local training announcements. • Traffic alert!	• Local public announcements. • Accident alert!
Distributions	• House hunting in low density area. • Vacationing near highest concentration of....	• High growth trend? • Sales patterns?	• Growth patterns? • Per capita greenspace?
Assets	• Where is my car? • Lowest insurance rates?	• Where are my dispatched repair trucks? • Status of my holdings?	• Where are the snowplows? • Road maintenance.
Service Points	• Tell me when I'm near where I'm going. • Where are the sales?	• Where are my customers, given target profile? • Targeted advertising.	• Economic development areas? • New zoning.
Routes	• How do I get there? (address, place) • Fastest route (given traffic situation)?	• Best delivery route given shipping manifest, traffic and weather? • Taxi dispatch.	• Traffic patterns? • Emergency dispatch.
Context (Overview)	• Nearest visible landmark? • Show me the nearest___ (business, place,..)	• What's near the hotel? • Show me car rentals near the airport.	• Collaborative economic planning. • Local commerce.
Directories	• Looking for nearest___ (specialist,..) • Where can I buy? (product, service)	• Best supplier within next two hours? • Nearest repair services?	• Public services. • Outsourcing?
Transactions	• Lowest shipping rates? • Location-sensitive billing.	• Low cost distribution services? • Location-sensitive quickdial.	• Tax revenues. • Location-sensitive tolls.
Sites	• Candidate properties to build my house. • Places to visit?	• Candidate store sites? • Optimum cell tower locations?	• New schools? • Environmental monitoring stations?

Technical Breakthrough: Spatial Data in Oracle



ERDAS Respond to the Enterprise Market



The Business Problems We Solve

The GI solution to the BI problem, if you have these you need us:

Step 1 – Consolidation of data from multiple sources – improve decision making

Step 2 – Enterprise wide access to consolidated information – share cost of information – improve business operations

Step 3 – Edit any data, in any environment, in the same way you can work on business data – improve efficiency, cut costs

Step 4 – Real time editing and interactive updating processes – improve information accuracy and currency

Step 5 – Use standard IT resources – protect customer investment and future adaptations eliminate costly lock in proprietary and personnel.

Why Oracle? - Enterprise Functionality

Client

- **ERDAS ADE suite web map editing tools**

Mid-tier

Internet Application Server Products

- Offers scalability and performance over web
  - **Map Viewer** – a component of AS
    - Map viewer map rendering engines
- **ERDAS ADE Enterprise web map editing tools**

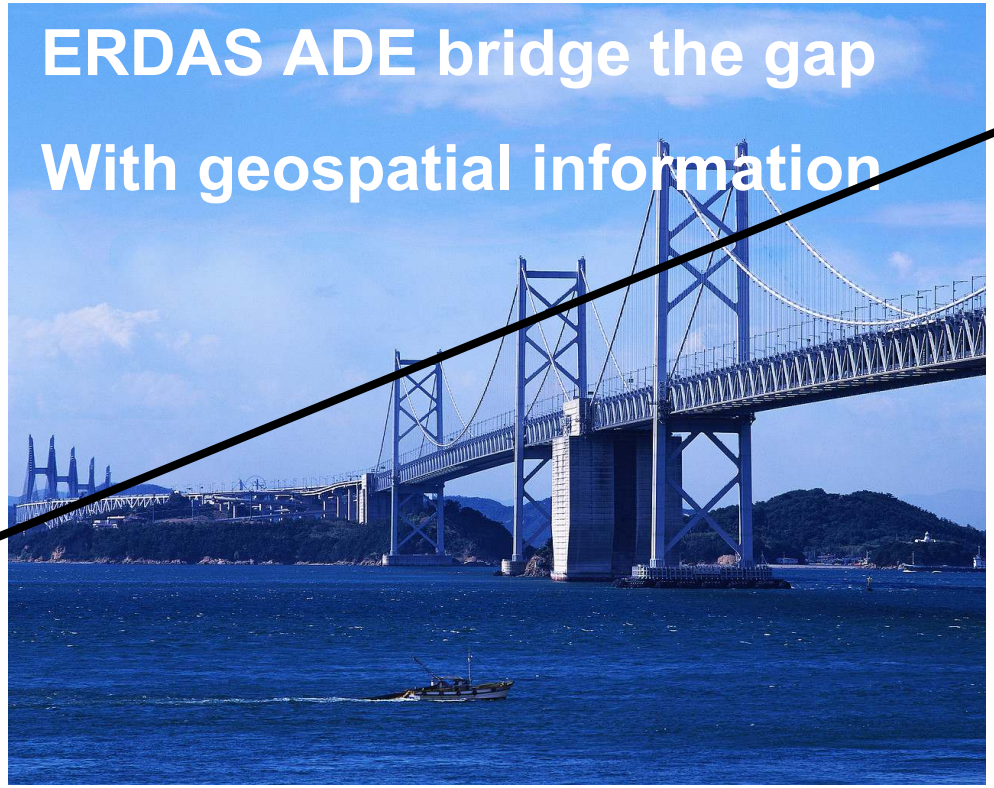
HTTP

JDBC

Database

- Enterprise Data Management
- Spatial (native, open data formats)
- Real Application Clusters
- Security, performance etc.

Our Market - Enterprise Spatial Information Market



Niche markets, slow and low growth

GIS Market

Enterprise IT Market

Large markets

Standard IT

fast growing mobile enterprise applications

GIS

Enterprise GIS

Enterprise Spatial software and Services

Enterprise software and Services

ERDAS ADE is an …….

Integrated Oracle MapViewer Platform for the development of enterprise business applications that require real time visualization, query and synchronous editing of Oracle spatial and business data

ERDAS ADE Enterprise suite

ERDAS ADE Enterprise

- Interactive geospatial business web-applications
- Enables real time data editing of spatial and non spatial data in a thin client

ERDAS ADE Remote

- Field force enabled interactive data editor
- Enables connected, disconnected or occasionally disconnected data management

ERDAS ADE Mobile

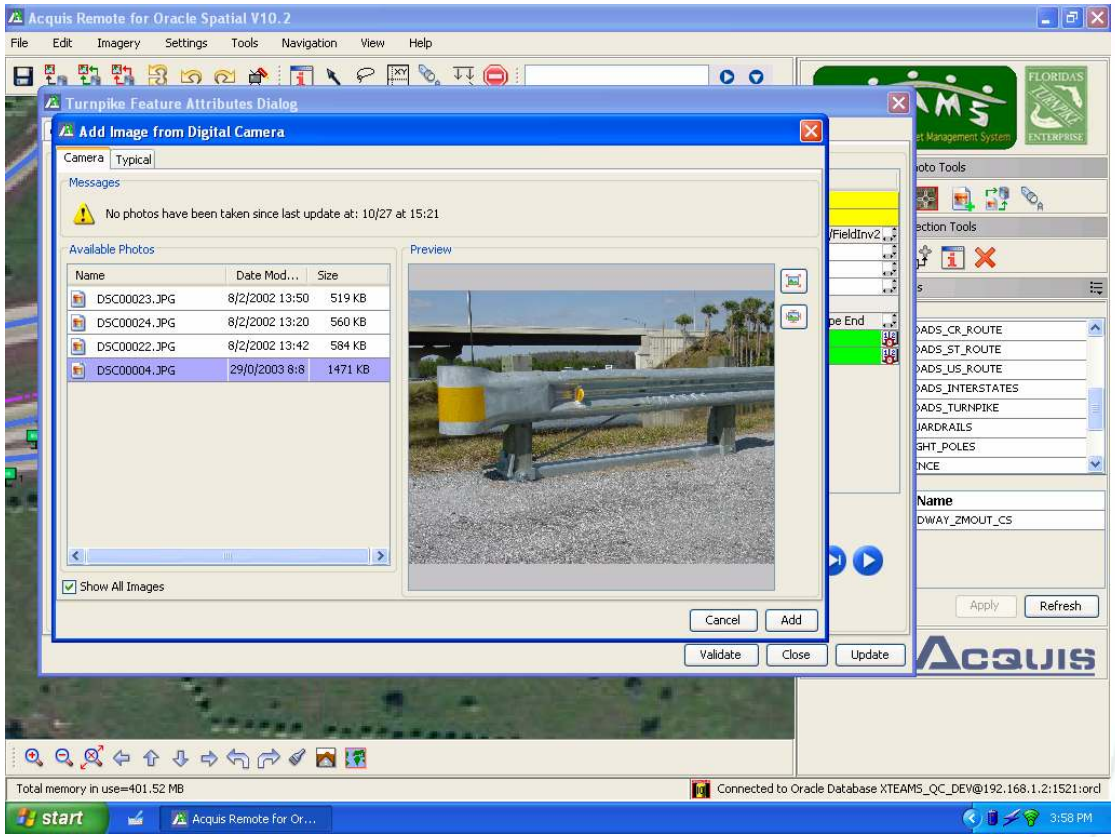
- Real time interactive mobile applications
- Enables connected, disconnected or occasionally disconnected data management

ERDAS ADE Enterprise
Develop once, Deploy Everywhere – Mobile or Remote

- No more remote IT implementation staff
- Fast efficient deployment across the enterprise to web, mobile and remote locations
- Instant synchronization when the user comes online
- Operate with or without live connection
- Spatial data and mobile application can be written to a SD card.

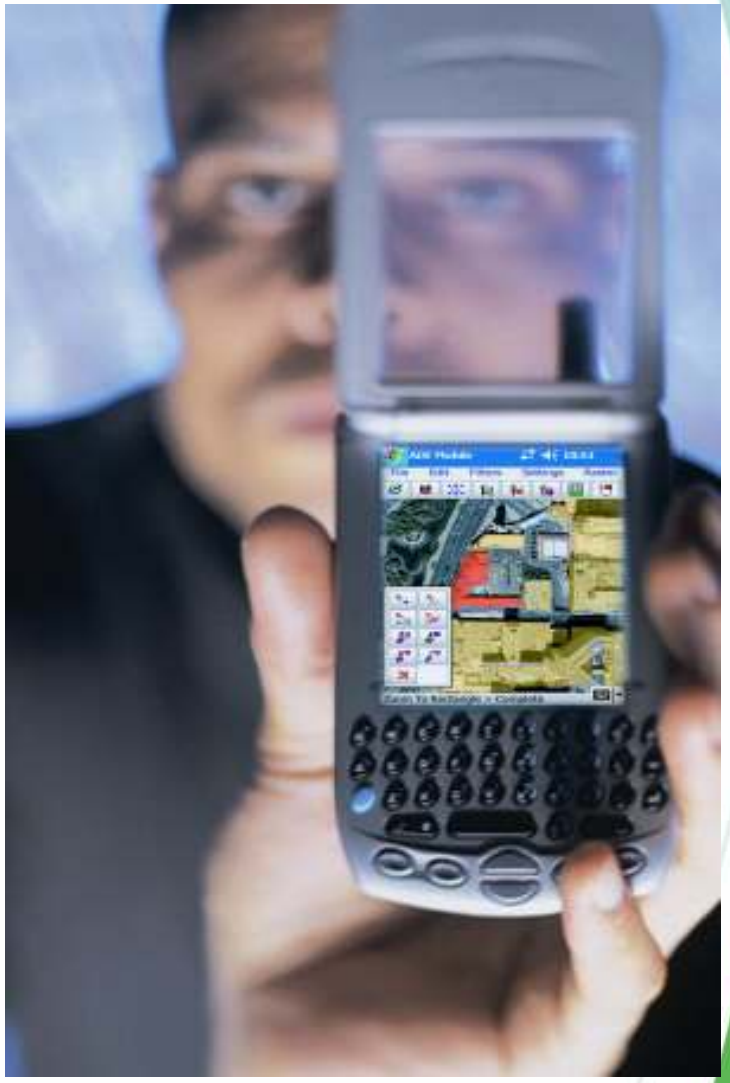
ERDAS ADE Remote

- Rich, secure and flexible spatial and operational management for desktops, laptops and tablet PCs
- Supports enterprise business rules (including topological) in real-time and disconnected modes
- Data changes made in the field will be topologically valid (no post processing of data is required)
- Dramatically Reduces Data Maintenance Costs. (one update process, lower labor costs, lower application costs (web versus desktop)

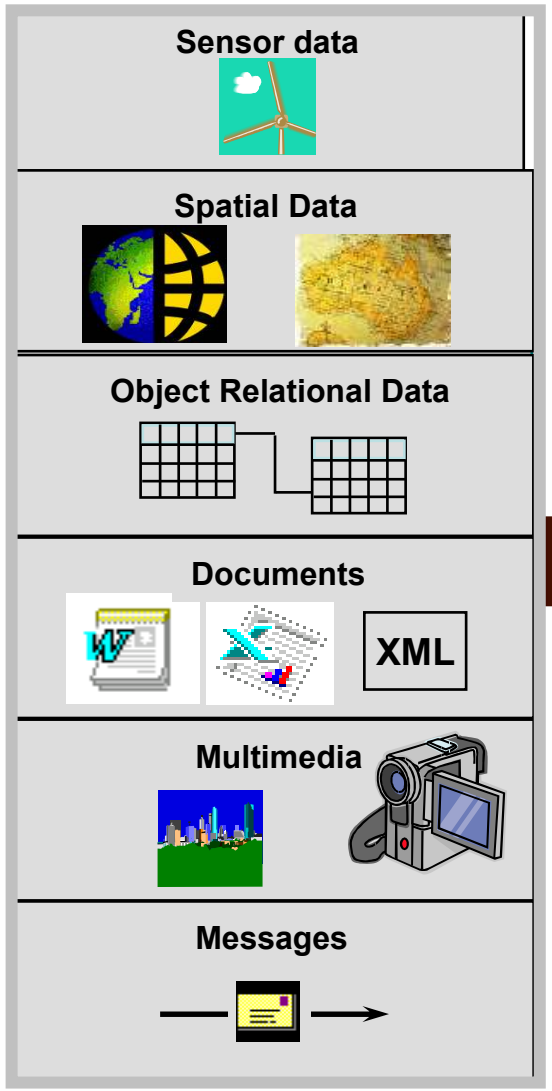


ERDAS ADE Mobile

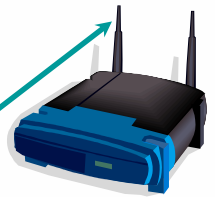
- Real-time and disconnected access to spatial and non-spatial information
- Available on handheld, global positioning systems (GPS) and wireless devices
- Supports enterprise business rules (including topological) in real-time and disconnected modes
- Ensures clean data
- Data changes made in the field will be topologically valid (no post processing of data is required)
- Enables business, spatial data and mobile application to be written to a SD card – simply inserting the SD card into the device and launching the application - a user is not restricted by the limitations of the hardware device
- Develop once, Deploy everywhere.



Managing *all* the information



Field Engineers
Mobile workforce



Customers
Suppliers
Home office workers

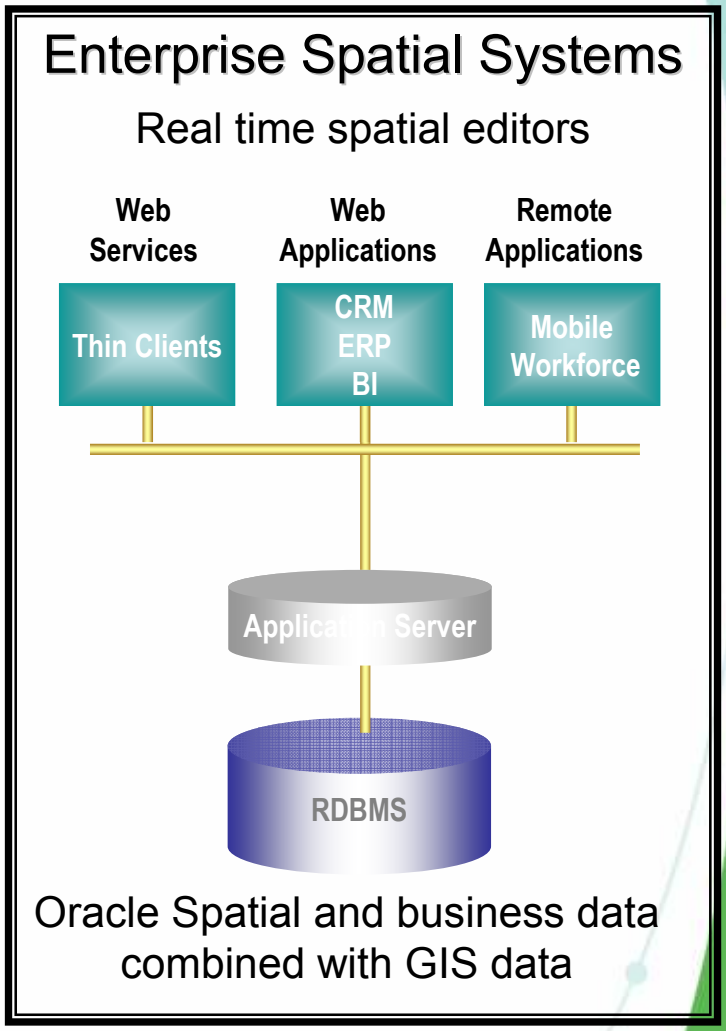
Internal web users
Remote offices
Global managers

Intranet/Extranet/Internet
infrastructure

Combine IT and GIS in an open Service Orientated Architecture (SOA)

ERDAS ADE Suite :

- Enables organizations to access and edit both business and spatial data in one enterprise database rather than disconnected proprietary GIS systems
- Is pre integrated with Oracle database and Oracle Application Server in a SOA
- Provides all standard GIS capability in standard IT environment
- Combines business and spatial data from multiple sources
- Enables users to edit and update enterprise and spatial information on any web or mobile device
- Enables geospatial data editing capability to be embedded in other applications
- Develop Once, Deploy Anywhere



Competitive Analysis

The majority of location information is not current because updating location information is a manual, multi-layered process that can take years.

Location information is isolated from other data due to the proliferation of proprietary formats

Because location information is currently not organized in a format that is manageable over time, it becomes inaccurate. (Data is not rule-driven.)

Limitations of Current Offerings

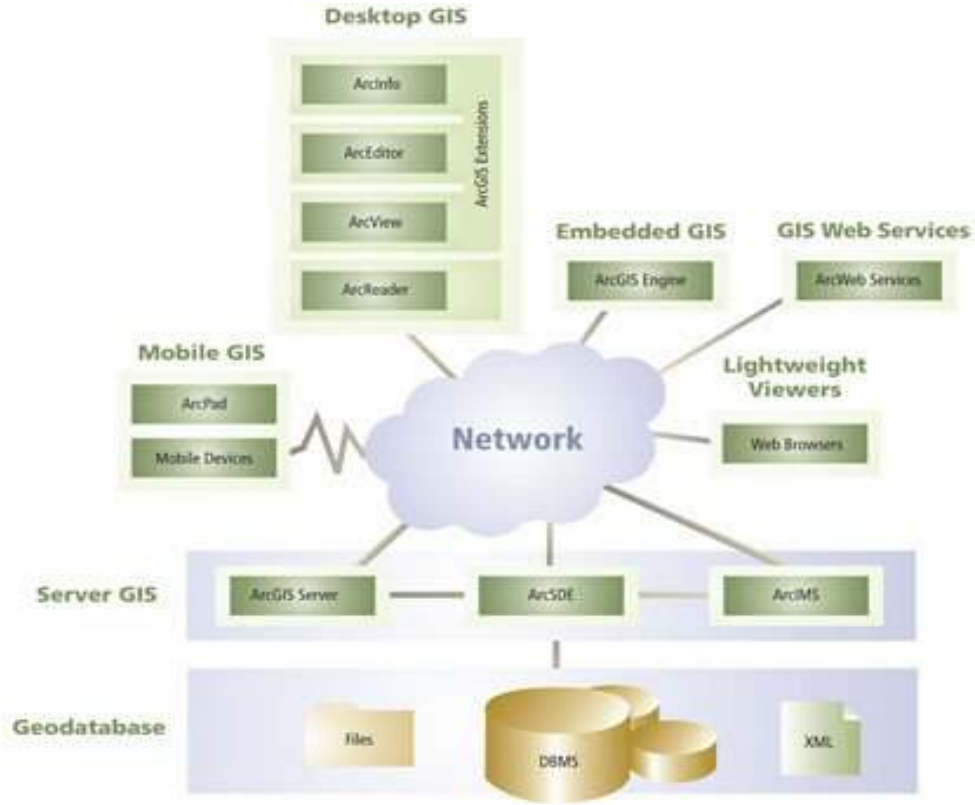
Current GIS applications:

- Do not provide interactive, real-time web-based data editing from any device
  - –Technology Limitation: Existing applications manage data at a desktop level not a database level.
- Location information can not be combined with other business data for comprehensive analysis
  - –Technology Limitation: Data is stored separately in a proprietary binary format and system

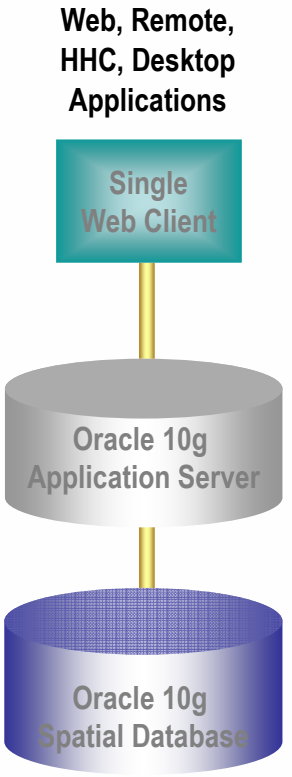
Technology Breakthrough

In 2004 Oracle opened up the Oracle 10G database platform for all types of data, including spatial data in open, published formats

ESRI v ADE Architecture



ESRI Complex Architecture



ADE Architecture

ESRI Products – 9 + !!!

ESRI Desktop Products

- Arc Info
- Arc Editor
- ArcView
- Arc Reader
- Arc Desktop Extensions
- Arc Applications

ESRI Server Products

- Arc GIS Server
- Arc Image Server
- Arc IMS Server

Net Result – Complex Expensive Solution

ERDAS ADE Products – 3 Only

ERDAS ADE Enterprise

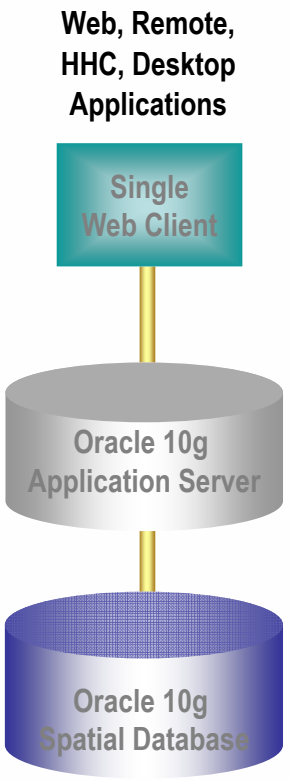
- Web (Connected)

ERDAS ADE Remote (Desktop)

- Connected (Web)
- Disconnected
- Occasionally Connected

ERDAS ADE Mobile (HHC)

- Connected
- Disconnected
- Occasionally Connected



Net Result – Simple Cost Effective Solution

Key differentiators

Unique – Integrated Oracle MapViewer solution

Unique – Editing support for Oracle complex data types, like topology

Value – Protects customer investment, completely integrated SOA built on Oracle

Value – single code base – *Develop Once Deploy Anywhere*

Enhances Business Efficiency – total enterprise mobility includes disconnected and connected editing

Current Successes

Not software based

- Software and services
- Not GIS solution
- Enterprise convergence of IT and GIS
- Not Proprietary
- Standard software and resources
- Low cost high volume applications

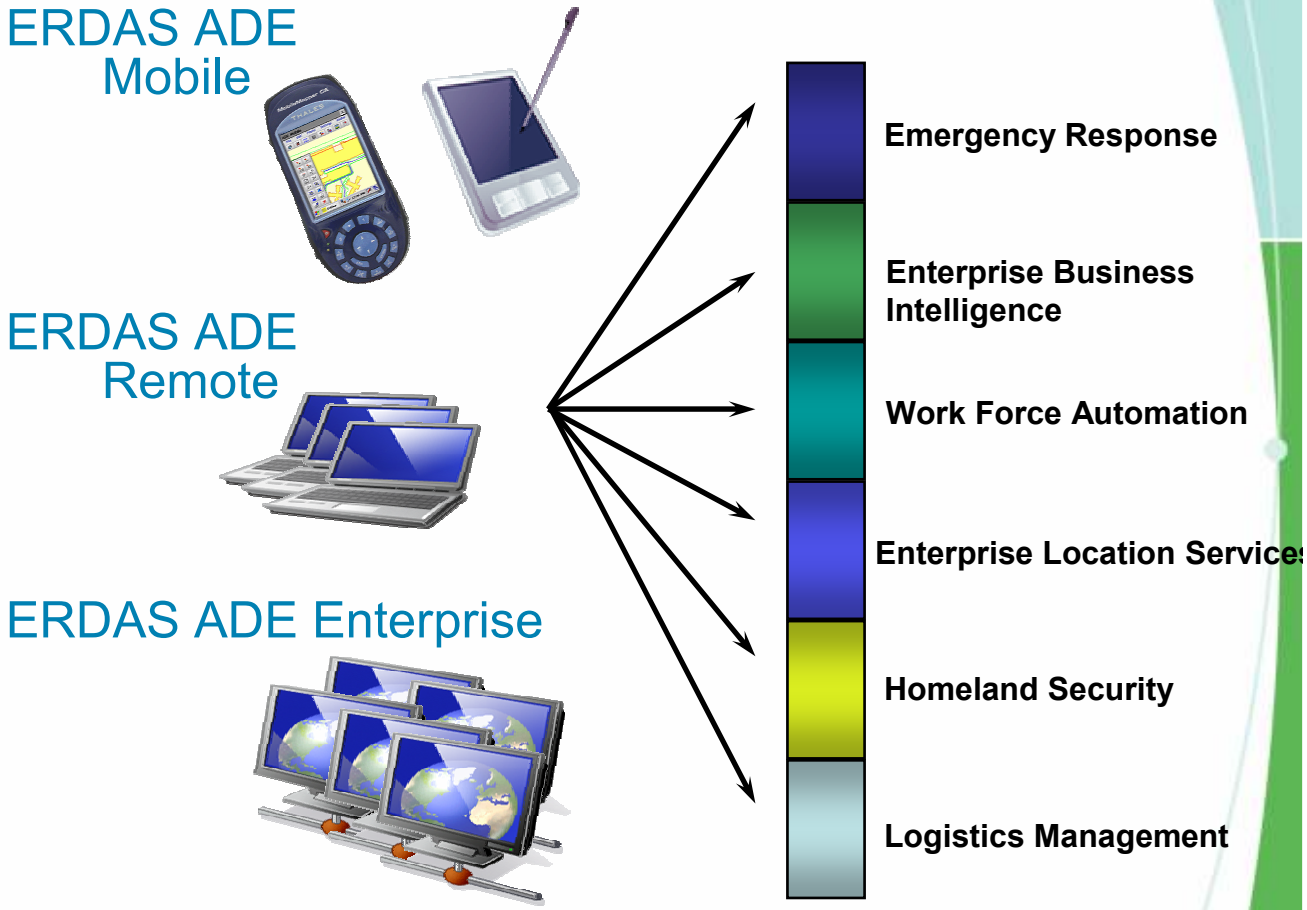
U.S. Census Bureau

WASHINGTON SUBURBAN SANITARY COMMISSION

Targeted Market Position

Target Applications

- Visualization
- Interactive Editing
- Data Output
- Business Logic
- Industry Specific APIs
- Industry Knowledge
- Packaged Solutions
- Oracle Expertise



Anyone with needs for integration of spatial and non spatial enterprise wide web and mobile

Value Proposition

New Revenue Streams

- **Enables new interactive, location services**

Improved Business Operations

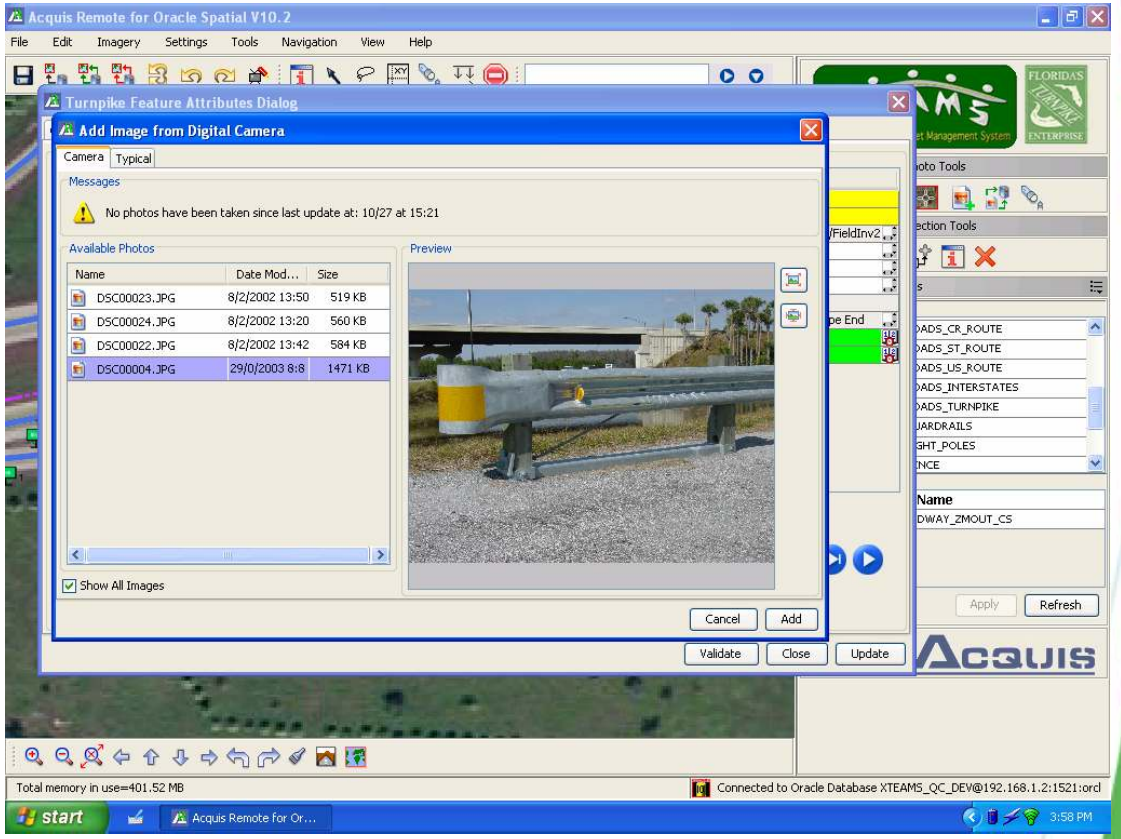
- **Unifies Business Intelligence thru real-time data visibility**
- **Improves decision-making using accurate, up-to-date information**
- **Convenient web access for field operations**
- **Continuous data access between parties and critical data**

Reduced Costs

- **Leverages existing IT infrastructure**
- **Deliver Fast & Efficient Services**

Location-enabling the Enterprise Wirelessly – Florida Turnpike TEAMS

- **Challenge: Replace all weather-damaged assets within 2 weeks of event**
  - **Legacy asset management and maintenance system included pens, paper and LOTS of "hands" on the data and manual processes**
- **Requirement: Build easy-to-use asset management system**
  - **Store all data in Oracle**
    - **–Business**
    - **–Location**
    - **–Photos**

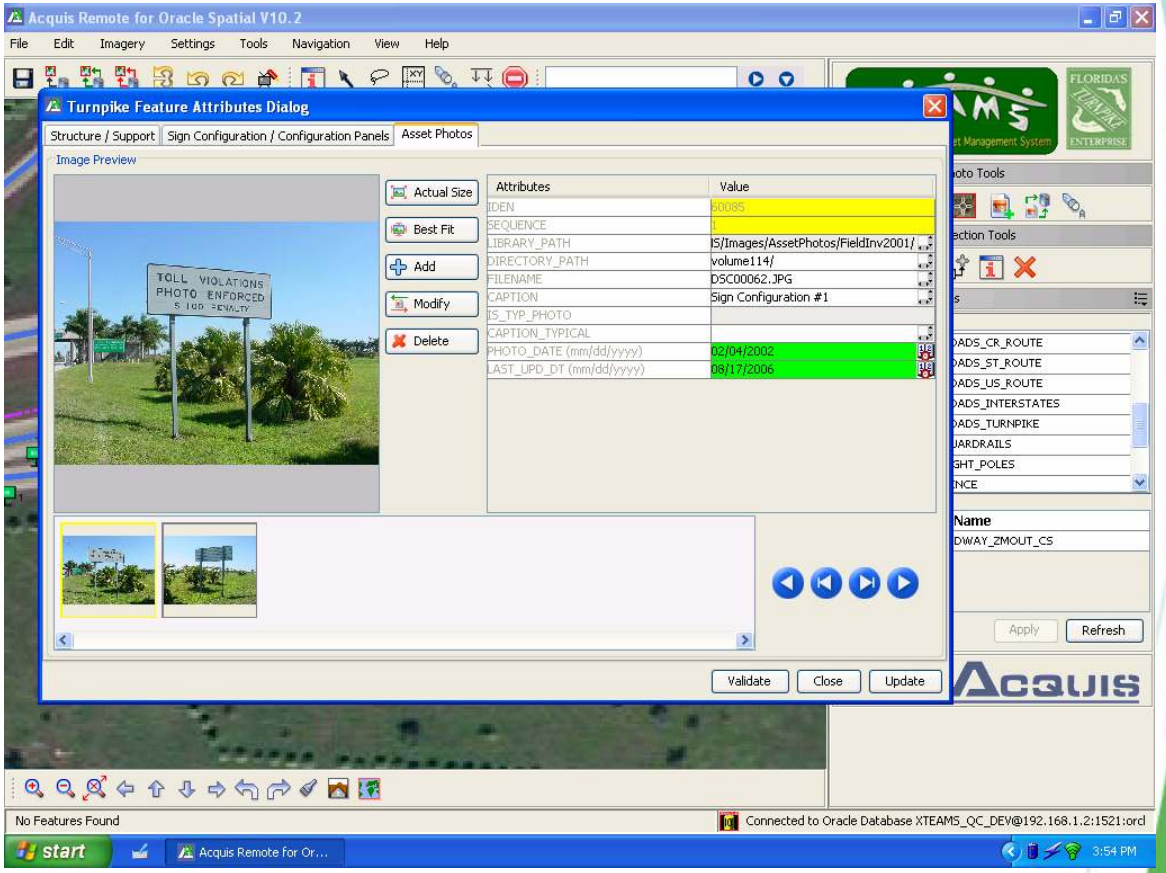


Location-enabling the Enterprise Wirelessly – Florida Turnpike TEAMS

Solution:

Use tablet PCs and Acquis Remote to collect asset information

- **GPS, digital camera record information onto tablets**
- **Field workers now collect, maintain, and have ALL information at their fingertips**
- **Turnpike managers have near-instant reporting on assets**



Florida Turnpike use ADE Remote to update the enterprise asset management system in real-time

ERDAS ADE Remote and Mobile deploys capability you expect to have in the office to your field workforce on a mobile device.

Providing mobile solutions to the field workforce empowers them with the responsibility to create the information and need to use.

Enabling mobile enterprise applications with location capability can save many man years capturing, locating and updating company assets and customer information.

Real-time mobile operations and enterprise data management saves the company time and money by eliminating the need to reprocess changes in other company IT systems like GIS systems.

ADD the Location dimension

Participate ERDAS' Growth Strategy

Move into a leading position in the geospatial SW market, developing and extending our platform into select verticals with COTS and Services

Maintain a clear leadership role in image exploitation and factory processing for photogrammetry – building better technology for Desktop, Web, Client-Server architecture