



A New Vision for Our Future

Providing geospatial services to anyone, anywhere, anytime...

Oakland County's Geospatial Strategic Plan
September 29, 2006

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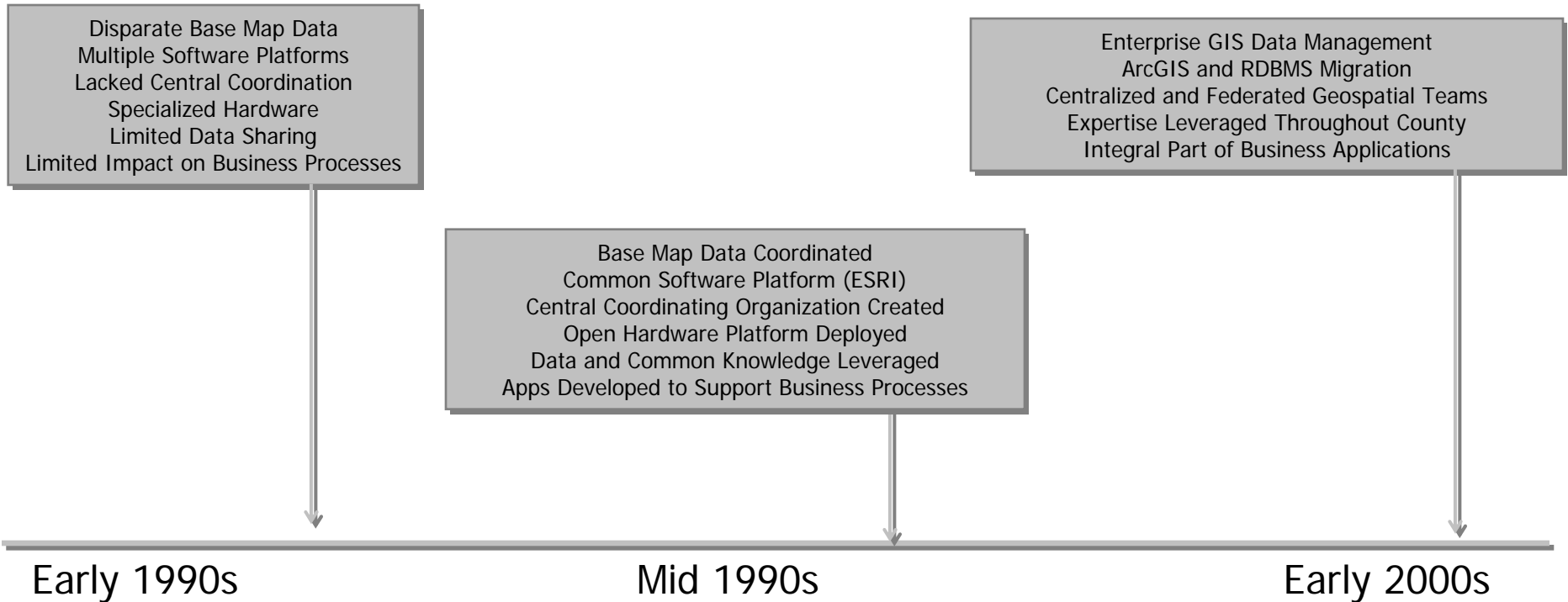
Strategic Plan

(Overview)

- Documents a “unified” vision for the County’s geospatial initiative
- Contains supporting goals and programs that facilitate implementation of geospatial technology and data
- Supports departmental objectives and provides them enterprise context
- Reflects input provided by participants in the Summer of 2005

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Oakland County's Geospatial Evolution



Industry Trends: Specialized Hardware, Many Software Providers, Difficult to Manage Data

Industry Trends: Intel-based Hardware, Market-Leading Software Provider, RDBMS Storage Emerges

Industry Trend: Diverse Hardware, Prominent Software Provider, RDBMS Prevalent



Where are we going?

(The Vision)

A geographically organized Oakland County where location is imbedded as an integral part of information management, is used to formulate environmental, social, safety and economic policies, and where access to this geographically organized data provides citizens with an enhanced opportunity to participate in the governance of their community

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Implications of Vision Statement

- Geospatial technology and data are:
 - Integral parts of the business applications and enterprise IT architecture
 - Recognized as an “asset” in the organization
 - Widely available to citizens, government agencies, and educational community
- Pervasive, yet transparent, geography is promoted

Strategic Goals

(Overview)

- Four key goals have been established to support the vision statement.
- Specific programs have also been developed to support each of the goals.
- Generally, these programs are constituted in the IT Master Plan which assures resources are formally assigned and programs completed.



Strategic Goals

- **Goal 1:** Expand Oakland County's location-based services to reach anyone, at anytime, from anywhere
- **Goal 2:** Leverage accurate and current location-based data to support decision making in Oakland County
- **Goal 3:** Foster a responsive workplace and promote Oakland County as an employer of choice for geospatial professionals
- **Goal 4:** Create and sustain innovative partnerships and collaboration opportunities



Goal 1: Supporting Programs

Expand Oakland County's location-based services to reach anyone, at anytime, from anywhere

- Second Generation Access Oakland
 - Integrates 8 distinct products currently offered
 - Leverages new spatial technologies like:
 - ArcGIS Explorer, ArcGIS Server, etc.
 - Available to PC, cell phone, and PDA consumers
 - Large format printing via web
 - Enhances demographic and destination analysis
 - Extends County's geospatial assets to consumer market (Google, Microsoft)
 - Emulates "Amazon.com" shopping model

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Goal 1: Supporting Programs

Expand Oakland County's location-based services to reach anyone, at anytime, from anywhere

- Oakland County's Geospatial Portal
 - Provides enhanced, role-based access to available geospatial data, metadata, applications, and services
 - Offered to government agencies, educational community, and authorized agents
 - Leverages new spatial technologies such as:
 - ESRI GIS Portal Toolkit, ArcGIS Server

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Goal 2: Supporting Programs

Leverage accurate and current location-based data to support decision making in Oakland County

- Survey and Measurement Catalog
 - Web-based application that allows surveyors and those in the land division community to inventory and access boundary and observation data
 - Supports real-time acquisition of survey and infrastructure grade observations
- County Development System
 - Web-based application that promotes a “jurisdiction agnostic” approach to land development and supporting permit processes
 - Supports a “permit aware” field staff

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Goal 2: Supporting Programs

Leverage accurate and current location-based data to support decision making in Oakland County

- Land and Address Management (LAMS) Phase 2
 - Web-based application that integrates parcel and address management for the E-911 and land management community
- Delinquent Tax Management System
 - Web-based application that leverages geospatial data and technology in the delinquent tax accounting and land sale processes
- Geoscheduling
 - Web-based application that allows field staff to be geographically allocated and effectively routed to service requests

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Goal 2: Supporting Programs

Leverage accurate and current location-based data to support decision making in Oakland County

- Real-Time Sensor Network
 - Provides real, or near real time, access to temporal field observations like weather, traffic and asset locations
- Imagery/Terrain Update Program
 - Formal program that provides updated aerial imagery every 2-3 years and updated terrain data every 10 years
 - Considers emerging government and consumer needs
 - Land cover classification, feature extraction, 3D analysis
 - Leverages emerging technologies such as:
 - LIDAR, digital sensors (airborne/satellite), ESRI's Image Server
 - Ratified in County Budget

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Goal 3: Supporting Programs

Foster a responsive workplace and promote Oakland County as an employer of choice for geospatial professionals

- Geospatial Academy of Excellence
 - Formulates consistent geospatial job descriptions across diverse county departments
 - Integrates geospatial training program with job descriptions so minimum performance standards can be promoted
 - Promotes appropriate professional certifications
 - Promotes knowledge sharing across county departments
 - Promotes research and development (R&D)
 - Promotes professional internships

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Goal 3: Supporting Programs

Foster a responsive workplace and promote Oakland County as an employer of choice for geospatial professionals

- Geospatial Promotion and Outreach
 - Submit technical articles and papers for publication in national/state/regional journals
 - Participate in national/state/regional professional conferences and events
 - Participate on national/state/regional panels and committees that undertake topics relevant to Oakland County
 - Develop training and educational programs in conjunction with local colleges and universities

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Goal 4: Supporting Programs

Create and sustain innovative partnerships and collaboration opportunities

- Primary Spatial Technology Provider (ESRI)
 - Beta Program, Product Evaluation, R&D, Case Studies
- Third-Party Technology Providers
 - Asset Management and Permitting
 - CAMA, Tax Receivables
 - E-911 and Public Safety Solutions
- Local Governments (CVTs)
 - Policy, Technology, Knowledge Sharing and Collaboration
- State of Michigan
 - Policy, Technology, Knowledge Sharing and Collaboration

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Critical Success Factors and Guiding Principles

(Overview)

- Supports the goals articulated in the strategic plan
- Critical Success Factors
 - Are those attributes, assets, or skills that will be needed for the successful implementation of geospatial technologies
- Guiding Principles
 - Are direction-setting statements that are intended to keep the implementation of geospatial technologies heading on a true course

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Critical Success Factors

- Support and commitment from County Executive, Board of Commissioners, County Management
- Demonstrative examples of how geospatial technology can increase productivity and efficiency; propagate more accurate and informed decision-making; and increase access and dissemination of location-based information
- Coordinated, intra- and inter-agency involvement
- Sustained and institutionalized financial investments by the County



Critical Success Factors

- Openness to new technology and improved workflows
- Effective and applicable research and development
- Continuous education and training
- Continued promotion of centralized and coordinated public access to geospatial data through the “One Stop Shop” and Access Oakland
- Flexible, reliable, and shared geospatial architecture

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Guiding Principles

- All County agencies are treated as equal and important partners.
- All geospatial data are shared across County agencies, except where security and confidentiality warrants otherwise.
- The collection and maintenance of enterprise geospatial data are managed centrally by IT.

Guiding Principles

- Geospatial technology is promoted through data standards, centrally administered functions, and training.
- Where appropriate, core geospatial services are provided by the County in an effort to offset costs that would otherwise encumber CVTs.
- Successful development of geospatial technologies is used to promote Oakland County as an information technology leader.



Strategic Technologies

(Overview)

- Advance current use of geospatial technologies
- Promote more widespread use and integration of geospatial technologies
- Directly benefit programs identified in strategic plan
- Consistent with industry strategies
- An area of focus for IT's Land Management Technologies Team

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Strategic Technologies

- Centralized and Consumable Web Services
 - Geocoding, Routing, Real-Time Location (RTL)
- Collaboration and Subscription Technology
 - MS Sharepoint, IM, RSS, GeoRSS
- Location Aware Devices and Assets
 - Mobile Computing and Wireless Connectivity
- Data Intelligence
 - Modeling and Geostatistical Analysis
- Cartography and Visualization

Strategic Plan

(Summary)

- High-level and flexible plan that documents a “unified” vision for the County’s geospatial initiative
- Specific areas of focus for geospatial technologies over the next 3-4 years:
 - Expansion of geospatial data and technology use
 - Continued integration with County business functions
 - Attraction and retention of geospatial expertise
 - Internal and external partnerships
- Subsequent plans/technical papers will be developed to guide specific programs and technologies