GIS

The Geographic Approach for the Nation

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GIS for Gov 2.0

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Gov 2.0 Concepts

Gov 2.0 Questions

- What is Gov 2.0?
- Why move to implement Gov 2.0 now?
- How can technology help government agencies provide better access to data and be more transparent/accountable?

Elements of Government 2.0

- Rapid development
- Collaboration
- Mashups
- Social networking
- User generated content (UGC)
  - Crowdsourcing
  - Volunteered geographic information (VGI)
- Cloud computing
- Interoperability
- Open systems
- Database-driven web services
- Mobile applications
- Virtual worlds

Web Services

- Publish services
  - Maps (several formats)
  - Locators
  - Analysis
  - Data
  - …
- Register services
  - ArcGIS Online
  - Search engines (Bing, Google, Yahoo, etc.)
  - Data.gov
  - Geodata.gov
  - Internal registry

Rich Internet Applications

- Internal apps
  - Employee finder
  - …
- External apps
  - Map viewer/browser
  - Informational or general interest
  - Data download
  - Other (depending on function of agency)

Mashups

- **Wikipedia says…**
  - In web development, a mashup is a web page or application that combines data or functionality from two or more external sources to create a new service.

  - The term mashup implies easy, fast integration, frequently using open APIs and data sources to produce results that were not the original reason for producing the raw source data.

Collaborative Development

- Developer community on ArcGIS Resource Centers
  - Many code samples posted by ESRI developers and the community
- Many open source environments
- VDEM VIPER Project

User Generated Content

- Examples
  - Photo sharing (Flickr)
  - Podcasts (iTunes)
  - Product ratings (Amazon, eBay, etc.)
  - Social networking (Facebook, Twitter, etc.)
  - Mapping (OpenStreetMap, Wikimapia)
  - Talk radio
  - Game shows
- Provides value by…
  - Correcting mistakes
  - Identifying missing data
  - Injecting content that's
    - Local
    - Generally not known

Rich Internet Applications

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GIS is a Platform for Gov 2.0

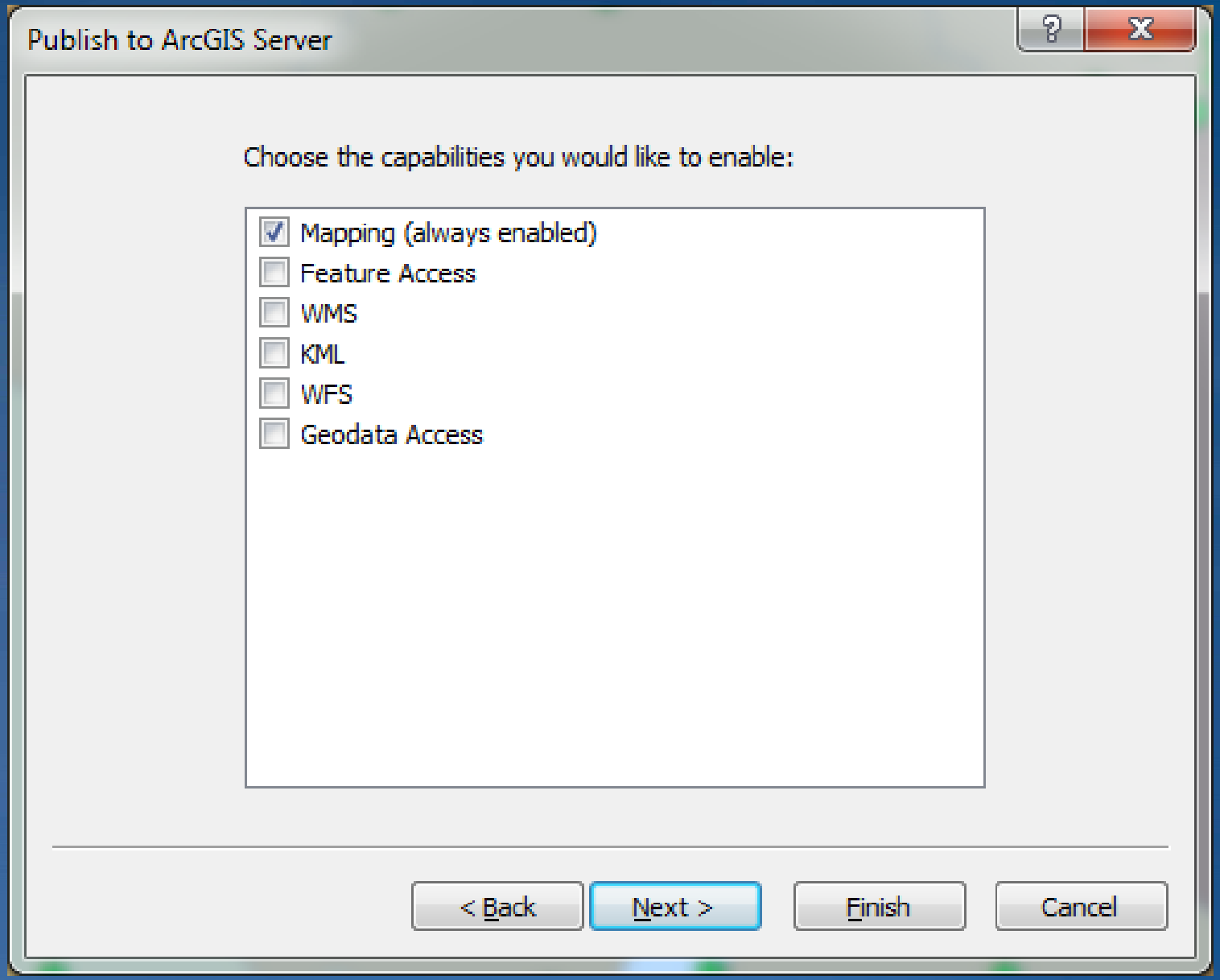
GIS for Gov 2.0

- Dissemination
  - Discoverable web services (REST/SOAP)
  - Lightweight web APIs
  - Mobile applications (iPhone, mobile web, etc.)
- Data management
  - Tools for ensuring data quality
  - Authoritative data
  - Relational databases are fast and scalable
- Visualization
  - Fast web maps
  - Professional cartography
- Robust analytics

Technology

- Desktop – Professional GIS tools
  - Generate and maintain high quality data
  - Design maps with rich cartography
  - Capture simple or complex analytic processes
- Server – GIS Services
  - Maps, data, locators, analysis tools, routing, …
  - Fast access (through caching or optimized dynamic services)
  - Publish once, consume by many (OGC, KML, ESRI, open source, …)
  - REST/SOAP
- Web – Web APIs
  - Rich internet applications (RIAs) provide excellent user experience

Publishing Services



Publishing Services

- Use web mapping best practices
  - Basemaps and operational layers
  - ...See training links at end of presentation
- Think about the intended use(s) of your services
  - Projection/tiling scheme
  - Cartography
- Register your services

Finding Services

- Finding
  - ArcGIS Online
  - Data.gov/Geodata.gov
  - Bing: `inanchor:mapserver inanchor:rest`
  - Google: `inurl:rest inurl:services "Supported Operations" "Supported Interfaces"`

Web APIs

- Lightweight development model
- Collaborate with others in the development community
  - ArcGIS Resource Center Code Gallery
  - Open Source Environments

- Live samples
- Recorded training seminars
- ArcGIS Online
- User community/Code Gallery
- Sample viewer applications

Using with the Web APIs

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Learn More

http://www.esri.com/training
http://www.esri.com/industries/gov20

- Instructor-Led Training
  - Introduction to ArcGIS Server
  - Building Web Maps Using the ArcGIS API for JavaScript
- Free Web Training Seminars
  - Authoring and Deploying Fast Web Maps
  - Building Mashups using the ArcGIS JavaScript APIs
  - Building Rich Internet Applications with ArcGIS API for Flex
  - Getting Started with ArcGIS API for Microsoft Silverlight/WPF

ESRI Training…keep critical skills up to date

Demos

- Publish a service
- Search Bing/Google for servers/services
  - Boston
  - Minneapolis
  - Projection info
- Services Directory
- JavaScript API – make a quick mashup

Demos

- Recovery.gov
- Maryland StateStat
- Data.gov
  - Services/Tools
- Census Maps
- Boston Solar
- VIPER
- RPES Dashboard
- maps.lt
- CrimeView
- CrimeView Community
- King County Alerts
- Tornado Damage