ArcGIS for Local Government: Configuring the Solution

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Agenda

• Introduction

• Solution Offering

• Configuration Patterns

• Your Feedback
ArcGIS as a Platform
Simple, Open, and Configurable

Knowledge Workers
Executive Access
Public Engagement
Work Anywhere
Enterprise Integration

Professional GIS
Making Mapping and GIS Available Across Your Organization

Transforming the Role of GIS
ArcGIS for Local Government

Esri’s solution for local government customers

- Series of useful maps and apps focused on government work
  - Organized into modules
  - Extensible, configurable
  - Freely available and fully supported
  - A foundation for Partner solutions

- Community of users
  - Best Practices / Implementation Support

- Network of Esri Services and Partner offerings
  - Help users implement, sustain and enhance

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Available on-premise or in the cloud
Our Mission

To help you....

- Deliver maps and applications quickly throughout your organization
- Stay current with future releases / avoid legacy technology
- Deploy a geospatial platform that can be leveraged by many
- Leverage the collective knowledge of the entire community
- And do this with....less staff, budget, and technical expertise
ArcGIS for Local Government

Planning
- Park and Recreation Finder
- Land Use Public Comment
- Land Use Public Notification
- Community Planning
- Code Violation

Land Records
- Tax Parcel Editing
- Deed Drafter
- Tax Parcel Map Book
- Address Data Management
- Parcel Value for iPhone
- Tax Parcel Viewer
- Value Dashboard
- Tax Reverted Property
- Data Reviewer for Parcels
- Data Reviewer for Addresses

Public Safety
- Flood Planning
- Special Event Planning
- Fire Station Wall Map
- Fire Run Book
- Pre-Incident Planning
- AED Inventory
- Home Safety Inspection
- Target Hazard Analysis
- Fire Hydrant Inspection

Cell Phone Analysis
- Incident Mapping
- Field Interview Card
- Public Safety COP
- Damage Assessment
- My Hazard Information
- EM Maps

Public Works
- Campus Editing
- Campus Place Finder
- Citizen Service Request
- Public Information Center
- SnowCOP
- My Government Services
- Water Utility Network Editing
- Water Utility Capital Planning
- Water Utility Mobile Map

Road Network Management
- Road Closures
- Plans and Drawings
- Maintenance Agreements
- Sidewalk Inventory
- Bridge Inventory
- Sign Inventory
- Signal Inventory
- Streetlight Inventory
- Public Parking

Elections
- Election Results
- Election Polling Places

Local Government
- Information Model
- Basemaps
- Data Reviewer for Basemaps
- Executive Dashboard
- Briefing Book
- Community Parcels
- Maps and Apps Gallery
- Model Organization
A System View
Deploying ArcGIS for Local Government

Citizens

Fire Department
- Central groups
- Common services
- Standard basemaps
- Information model

Assessor’s Office
- Functional groups
- Editing maps
- Services
- Mobile apps
- Web apps
- Open data

Public Works
- Embedded maps
- Mobile apps
- Web apps
- Open data

Embedded maps
- Mobile apps
- Web apps
- Open data
ArcGIS for Local Government

Configuration Patterns
Configuration Patterns

- Influential factors
  - COTS and configurable solutions strategy
  - Deployment time
  - Technical expertise
- Where do you start?
  - With your business requirements
  - Align them with maps and apps
  - Review system configuration patterns
- Three configuration patterns
  - Complete system adoption
  - Publish and adopt
  - Code and customize

...embrace an agile implementation approach
Complete System Adoption

Step 1: Configure mapping portal

Configure ArcGIS Organization
- Set up subscription
- Configure groups
- Invite users

Configure GDB schema
- Add fields, features
- Configure domains
- Set spatial reference
- Load source data

Step 2: Organize your data

Configure maps
- Adjust scale dependencies and def queries
- Validate label expressions
- Publish basemaps and operational layers

Step 3: Author the maps

Configure the desktop, mobile and web apps
- Add basemaps and operational layers
- Adjust extents
- Configure popups
- Deploy Add-ins and models
- Add new maps and apps to Organization

Step 4: Deploy the apps

Supported by Esri Support Services
Publish and Adopt

Configure ArcGIS Organization
- Set up subscription
- Configure groups
- Invite users

Step 1: Configure mapping portal

Configure GDB schema
- Add fields, features
- Configure domains
- Set spatial reference

Step 2: Create publication database

Create ETL Scripts
- Set source / target
- Schedule scripts
- Migrate production data

Step 3: Load production data

Configure maps
- Adjust scale dependencies and def queries
- Validate label expressions
- Publish basemaps and operational layers

Step 4: Author the maps

Configure the mobile and web apps
- Add basemaps and operational layers
- Adjust extents
- Configure popups
- Add new maps and apps to Organization

Step 5: Deploy the apps

Supported by Esri Support Services
**Code and Customize**

**Step 1: Configure mapping portal**
- Configure ArcGIS Organization
  - Set up subscription
  - Configure groups
  - Invite users

**Step 2: Use your GDB Schema**
- Configure your GDB schema
  - Add fields, features

**Step 3: Repair the maps**
- Configure maps
  - Repair map layers (source and symbology)
  - Adjust scale dependencies and def queries
  - Validate label expressions
  - Publish basemaps and operational layers
  - Or, just try to use your maps...

**Step 4: Customize the apps**
- Publish your own mobile and web apps
  - Customize/re-compile the apps
  - Add basemaps and operational layers
  - Adjust extents
  - Configure popups
  - Add new maps and apps to Organization

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The Developer Pattern
Configuring the Information Model

- Supports maps and apps
  - Known local government requirements
  - Easy to adopt and extend
- Fully documented
  - Features, layers and services
- Central repository, organized around thematic content and logical permission model
  - Organized access/maintenance patterns
- Service catalog supports mobile / web apps
- Tip
  - Xray for ArcCatalog and ArcMap

Start with the layer and field aliases and work from there....
Show Me!
Configuring the Information Model
Overview

- Moving existing data from sources to LGIM
- Several tools and approaches available
  - Geoprocessing and Arcpy
  - FME
  - Advanced Arcpy and FME - Gizinta
- Learn the tools
  - Save time
  - Better results
Data Models are like Haircuts

Same Uniform, no problem

Same Haircut, no way!

http://www.couriermail.com.au
Geoprocessing and Arcpy

- Roads - Append, then DeleteRows/Append
- Export to GP script, edit in Pythonwin
FM E

- Desktop and Server technology from Safe Software
  [http://www.safe.com](http://www.safe.com)
- Read and write
  - Formats, Platforms, Systems
- FME for ArcGIS enables access to many systems
- Visual tools, no programming required
- Roads example
Advanced Tools

• **Gizinta tools**
  
  http://gizinta.com
  http://github.com/Gizinta

• **Examples:**
  
  • Delete Rows in Geodatabase
  • Append from 1 GDB to another
    • Handy for updated data models

• **Playlists**

• **Works with other GP/FME/Python tools**
Show Me!

Loading Content into Information Model
Configuring Web Apps (On-Premise)

- On-Premise web application
  - Configurable JavaScript applications
  - Configurable ArcGIS Viewer for Flex applications
- Follow a consistent pattern
  - Consume ArcGIS Online Hosted Services or ArcGIS for Server Services
- Can be configured quickly
  - No programming necessary, just use a configuration file
- Deployed on local web servers
- Example
  - Citizen Service Request
Configuring Web Applications (Hosted)

- ArcGIS Online Hosted Web Applications
  - Local Government Configurations
  - Leveraging ArcGIS Online web application templates
- Follow a consistent pattern
  - Consume web maps
- Can be configured quickly
  - ArcGIS Online configuration panel or advanced configuration within json
- Published in ArcGIS Online
  - Or, downloaded and deployed on local web server
- Example
  - Public Parking (configuration of Finder Web Application Template)
Show Me!
Configuring Local Government Web Apps
Tips & Takeaways

1. Deploy the application with the sample dataset first
2. Follow documentation (…don’t skip any steps)
3. If you *really* need to skip…skip the basemap creation and caching
   - Instead, just use an Esri provided ArcGIS Online Basemap (Web Mercator Auxiliary Sphere)
4. Don’t forget to configure the proxy and publish the app as ASP.NET application (on premise)
5. Never mix spatial references. If the basemap is in Web Mercator then the operational layers need to be in Web Mercator too

More detailed info in Demo Theaters and ArcGIS Solution Island
The Community
It's not just about the technology

Destination where governments can collaborate

Place where developers can contribute too

Ongoing dialog to share success stories and learn from others
Summary

• Identify the business needs of your organization
• Select a configuration pattern that makes sense for your organization
• Configure quickly, iterate...
• Customize only if necessary
• Leverage ArcGIS Online web application templates
• Participate in the community
  • Join our Meetup!
• Don’t hesitate to ask for help from
  • Esri, Peers, Partners
UC Events

• ArcGIS for Local Government Sessions
  • Seven different tech workshops

• Special Interest Group
  • Wednesday Lunch

• Solution Island
  • Focused conversations / support
Thank you...

http://solutions.arcgis.com
http://vertex3.com
http://gizinta.com

http://meetup.com/ArcGIS-for-Local-Government/

@ArcGISLocalGov
@SteveGrise

http://esri.github.com

Please fill out the session survey:

Offering ID: 1213

Online - www.esri.com/ucsessionssurveys

Paper - Pick up and place in drop box