Configuring the ArcGIS for Local Government Solution

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Agenda

• Introduction

• Configuration Patterns

• Implementation Approaches

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

Making Mapping and GIS Available Across Your Organization

Knowledge Workers
Executive Access
Public Engagement
Work Anywhere
Enterprise Integration

Professional GIS
Web GIS

Transforming the Role of GIS
ArcGIS for Local Government
Esri solutions for local government customers

- Series of useful maps and apps focused on local government work
  - Configurable and extensible
  - Freely available and fully supported
- Community of users
  - Best Practices / Implementation Support
- Network of Esri Services and Partner offerings
  - Help users implement, sustain and enhance

Available on-premise or in the cloud
ArcGIS for Local Government

Our mission is 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
A System View
Deploying ArcGIS for Local Government

Citizens

Fire Department
Assessor’s Office
Public Works

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

- Functional groups
- Editing maps
- Services
- Mobile apps
- Web apps
- Dashboards

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

Step 2: Organize your data

Deploy information model
- Add fields, features
- Configure domains
- Set spatial reference
- Load source data

Step 3: Author the maps

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

Step 4: Deploy the apps

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

Supported by Esri Support Services
Publish and Adopt

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

Step 2: Create publication database
Create ETL Scripts
- Set source / target
- Schedule scripts
- Load production data

Step 3: Load production data
Deploy information model
- Add fields, features
- Configure domains
- Set spatial reference

Step 4: Author the maps
Configure maps
- Adjust scale dependencies and def queries
- Validate label expressions
- Publish basemaps and operational layers

Step 5: Deploy the apps
Configure the mobile and web apps
- Add basemaps and operational layers
- Adjust extents
- Configure popups
- Add new maps and apps to Organization

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

The Developer Pattern
ArcGIS for Local Government

Implementation Approaches
Configure ArcGIS Online organization

1. Review model organization
2. Setup organization
3. Create central groups
4. Register your content
5. Create functional groups
6. Deploy focused maps and apps

Tip: Admin Tools for ArcGIS Online
AGO Admin Tools
Information Model

- Supports maps and apps
  - Easy to adopt and extend
- Organized access/maintenance patterns
- Fully documented
  - Features, layers and services
- Service catalog supports mobile / web apps

Start with the layer and field aliases and work from there....
Deploy information model

1. Review data dictionary
2. Configure schema
   1. Domains
   2. Field Alias
   3. Additional fields
3. Set spatial reference
4. Deploy empty GDB

Tip: Xray for ArcCatalog and ArcMap

Or....start with service definition and create empty layer in your organization
Configure information model

1. Review release notes
2. Analyze differences
3. Select changes
4. Create schema
5. Deploy empty GDB

Tip: Schema Migration Wizard
Show Me!
Load your data

1. Extract
2. Transform
3. Load
4. Repeat...

Tip: Gizinta
Examples

- Append Geodatabases
  - Updated Data Model
- Convert to LGIM
  - One-time or ongoing
Gizinta Downloads

Tools (github.com/gizinta)

- .git
- arcpy
- log
- .gitattributes
- .gitignore
- Getting Started
- Gizinta.tbx
- LICENSE.md
- README.md

Examples (gizinta.com)

- gzLand
- CAD
- DataModel
  - Gizinta.gdb
  - gzVille.gdb
  - LocalGovernment.gdb
- gzVille.tbx
- GizintaVille-BuildingFloor.xml
- GizintaVille-BuildingFloorPlanLine.xml
- GizintaVille-BuildingInteriorSpace.xml
- GizintaVille-FacilitySite.xml
- GizintaVille-GravityMain.xml
- GizintaVille-MunicipalBoundary.xml
- GizintaVille-RootCenterline.xml
- GizintaVille-SiteAddressPoint.xml
- GizintaVille-ssVehicle.xml
- GizintaVille-ssNetworkStructure.xml
- GizintaVille-TaxParcelLayer.xml
- GizintaVille-wHydrant.xml
- GizintaVille-wMain.xml
- GizintaVille-wNetworkStructure.xml
- GizintaVille-wSystemValve.xml
- gzPlaylist.xml
- gzVille.mxd
- InfraDashboard.mxd
- TaxParcelLyr

Documentation
http://gizinta.com/docs/
Gizinta Toolboxes

- Gizinta.tbx
  - 1_Extract
    - extractCADToGDB
    - extractLayerFileToGDB
    - extractWorkspaceToGDB
  - 2_Transform
    - fieldCalculator
    - sourceTargetQA
  - 3_Load
    - addMissingFields
    - appendAllToGDB
    - deleteRowsGDB
    - replaceByFieldValuesGDB
    - replaceRowsGDB
  - Setup
    - Create Gizinta File
    - Create Gizinta Playlist
    - Create Gizinta Project File
    - Gizinta Field Mapper
    - Upgrade Gizinta Xml
It’s Free

• Download and use Gizinta tools from
  - Gizinta.com
  - ArcGIS Galleries
  - Creative Commons Share-alike license

• ArcGIS Desktop Tools
  - http://gizinta.com
  - http://github.com/Gizinta

• http://gizinta.github.io/gseFP
Show Me!
Deploy maps

• File Geodatabase to File Geodatabase
  - Use “Set data source” from the context menu in ArcGIS Catalog

• File Geodatabase to Enterprise GDB
  - Use “Set Map Data Sources” to update map:
    - Data sources
    - Label expressions
    - Definition queries

Tip: Productivity Tools > Set Map Data Sources
Configuring Web Apps (On-Premise)

- On-Premise web application
  - Configurable JavaScript applications
- Follow a consistent pattern
  - Consume web maps with 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
  - Park Locator
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 Web Apps (Hosted)
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 government’s can collaborate

Place where developers can contribute too

Ongoing dialog to share success stories and learn from others
Tools

1. Admin Tools for ArcGIS Online
2. AGO Admin Tools
3. X-Ray for ArcCatalog
4. X-Ray for ArcMap
5. Schema Migration Wizard
6. Gizinta
7. Set Map Data Sources
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://meetup.com/ArcGIS-for-Local-Government/

@ArcGISLocalGov

http://esri.github.com

Please fill out the session survey:

Mobile – Esri Events UC mobile app

Paper – Pick up and place in drop box
Understanding our world.