Embracing ArcGIS for Local Government

Robert Parsons – Delaware County, Ohio Auditor’s Office

Steve Koenig – Bruce Harris & Associates
Background

- Project began in April 2013
- At that time ArcIMS 9.2 was the software that was used for Auditor’s GIS Web Application
- The ArcIMS website was running for almost a decade
- ArcGIS 9.2 was the editing environment for parcel maintenance
- We needed to implement newer technology
Modern, user-friendly, easier accessibility of data, excellent performance, new data layers, new functionality

Important that no IMS functionality was lost for current user base

Accessible to both tablets and PC’s

Use of ArcGIS Online to streamline to other maps and apps for the county

CAMA data joined with Parcels on a daily basis

Editing environment upgraded to support new workflows
ESRI Solutions

http://solutions.arcgis.com/local-government/gallery
1) Assessment and Review of the current Enterprise
   • Servers, RDBMS Version and Geodatabase objects
   • Software and scripting upgrades to python from VB
   • Capture of all functionality from IMS Application

2) Results = Course of Action
   • What did we need help on?
   • What could WE accomplish?
3) Began talks with Bruce Harris & Associates
   - Two Phase Project
   - 1. Database Upgrade and CAMA Extract
   - 2. Website Development & Implementation

4) Results
   - ArcGIS Online would be a large component
   - Utilize LGIM for Publication
   - Upgrade to 10.1
   - Use Javascript API for new website
5) Parallel environments

- Maintain current system
- Support development activities

6) Bruce Harris & Associates selected for both phases

- Database expertise in CAMA systems (notably MVP)
- ESRI partnership
- Their Web development expertise at similar sized counties
- For their ability to work together successfully with clients
Phase 1 tasks were as follows

- Scripting of nightly CAMA extracts
- Gizinta script field mapping from Production database to Publication database
- All CAMA and parcel creation and manipulation scripts (including how to handle condo and multiple address parcels)
- Upgrade from SQL Server 2000 to 2012
- Installation of ArcGIS Server 10.1
- Scheduling backups
/*

Object: Table [dbo].[WEBGIS_PARCELS_STAGING]

Script Date: 6/29/2015 11:31:05 AM */

SET ANSI NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[WEBGIS_PARCELS] (  OBJECTID [int] IDENTITY(1,1) NOT NULL,  SHAPE [geometry] NULL,  [parcel_no] [nvarchar](14) NULL) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS = ON) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

ALTER VIEW [dbo].[vw_webgis_parcelas] AS
SELECT
  dbo.WEBGIS_PARCELS.OBJECTID,
  dbo.WEBGIS_PARCELS.SHAPE,
  dbo.WEBGIS_PARCELS(parcel_no),
  dbo.GovernorMaxExtract.*
FROM
  dbo.WEBGIS_PARCELS LEFT OUTER JOIN
  dbo.GovernorMaxExtract.mp
ON dbo.WEBGIS_PARCELS(parcel_no) =
  dbo.GovernorMaxExtract.mp
GO

EXEC [wgis-db].[production].[dbo].[sp_set_current_version]

-- Check Error code
SELECT (errorno - 0)
if (errorno <> 0)
begin
  goto ERRORTRAP
end

ERRORTRAP
GO
Phase 2

- Began in October 2013
- Creation of search functionality for website
- JavaScript website application

Post Implementation

- Assisted the County in upgrading from 10.1 to 10.2.2
- Extracts from CAMA will be used and modified to support the Paperless Reappraisal project
Phase 1 Tasks

- Server and database acquisition & environment setup
- Creation of all raster mosaics & cache
- Cartography and maintenance of map documents for all services – dynamic and cached
County Implementation

Phase 1 Tasks

• Development of ArcGIS Online website
• Creation of Webmaps (part of AGOL integration)
• Development of popups (part of AGOL integration)
• Editing procedures upgraded from 9.2-10.1
• Training procedures defined and training completion
Phase 2 Tasks

- Design and mock-up of the website
- Functionality requirements for website
- Beta testing of website
- Update of Cartography and Popups as needed
- Training of the user base county-wide
Components

- ArcGIS Server 10.1 (clustered environment)
- SQL Server 2012
- Production environment (for editing)
- Publication environment (for services, etc) which is based on the ESRI Local Government Model
  - Gizinta scripting is used to go from Production to Publication
- Modified ArcGIS Local Government basemap used for services
- Test environment for upgrade to new versions
- ArcGIS Online for cartography and popups
Team Environment - Resources Leveraged

- Bruce Harris’s extensive experience with parcel environments
- Bruce Harris’s expertise in database development and data migration
- Bruce Harris’s experience in website development and knowledge of ArcGIS Online technology
- ESRI’s Local Government Solutions and ArcGIS Online
- ESRI server and desktop suite of products and their Columbus office’s willingness to help us to succeed
Delaware County’s internal GIS and IT team

- Server environments
- Database environment
- Editing environment
- Publication environment
- Testing environment
- Intimate knowledge of data and application requirements
- ArcGIS Online environment
Auditor’s New GIS Website
Since Deployment

- Leveraged Auditor’s JavaScript application to quickly develop and deploy internal applications for:
  - Environmental Services
  - Board of Elections
  - Auditors Mobile App
- Upgraded the system to ArcGIS 10.2.2 in December 2014
Demo . . .
• Development of more internal applications for Engineering and Real Estate Administration
• Paperless Re-Appraisal project with Bruce Harris & Associates
• Take advantage of Collector
• Continue growing our presence on ArcGIS Online
• Data availability in Solutions Model and our historical model
• Continue to grow relationships within Delaware County to create a better world through GIS 😊
Thank You!
Questions?

rparsons@co.delaware.oh.us
steve@bruceharris.com