Paradigm Shift

- **ArcIMS**
  - It’s still very relevant
  - Proven technology

- **ArcGIS Server (Advanced Enterprise)**
  - Potential uses are great (*Toolbox, Editing, Mobile*)
  - Slow, but apparently will be resolved in v. 10

- **ArcGIS Explorer**
  - A nice Google Earth-like 3D tool
  - Great for fringe applications (in County Gov’t.)

- **Google Maps API**
  - Let them maintain the base map
  - They’ve made mapping easy and attainable for the masses
Decisions for Web GIS

Decision #1

Problem:
Our current ArcIMS Parcel site is difficult for non-technical users - even prohibitive

Solution #1:
Develop a simple parcel viewing site that has a high quality, intelligent map with lots of scale dependency built in – no layer list

Solution #2:
Use less popups, expose the buried tools, use logic in tool design that requires less clicks for the user

Decision #2

Problem:
We still have advanced users out there that do create mailing labels, use other layers besides parcels, create buffers, etc...

Solution:
Develop focused sites for those individuals or include more logic when building those tools
- Focused by data or function: a census data site, an election site
- Focused by audience: Emergency Management Site, Flood Map Site, Planning & Zoning Site
Plan of Action

- Continue to use our current ArcIMS site
- When new web opportunities arise we pick the best web mapping solution for the job, but lean towards Server
  - ArcIMS
  - ArcGIS Server
  - Google
  - ArcGIS Explorer
- In the meantime we redevelop our primary Parcel site using ArcGIS Server
  - Using knowledge we have gained from input about our current web site
  - Develop the site in-house instead of 3rd party which saves dollars and enables us tailor it for our users
What we use today (or recent past)

- **Technology**
  - 3rd Party ArcIMS Site (Varion’s PV.Web)
  - IIS & Tomcat
  - AXL file only
  - Can join database data w/GIS layers
  - Can create custom searches for users
  - Displays metadata

- **What we’ve learned: most users**
  - ...just look up parcel data
  - ...are not interested in looking for data in layers list
  - ...are unaware of advanced functionality
    - Buffering
    - Mail labels
    - Query builder
  - Non-technical users find this site cumbersome and complicated even for the basic tasks
  - We’ve got too much data on this site
Emergency Management Site
gis.pottcounty.com/WebEMA/

- Typical out-of-the-box ArcGIS Server Site
- Things we added/learned:
  - Uses Windows Authentication
  - Uses Layer Grouping
Census/Demographics Tool

Census/Demographics Tool

gis.pottcounty.com/DART/

- ArcGIS Server (with some customization)
- Things we learned
  - Incorporated a Find Address Tool using an Address Locator
  - Incorporated a tool which summarizes data selected by a buffer
- To make it useful we need to:
  - Make the buffer tool more logical/easier to use
  - Make the results of the summary user-friendly
Nature Center Application

- Requires installs of Microsoft .NET Framework and ArcGIS Explorer
- Uses base data and globe from ArcGIS Online
- Shows a 3D view of one of our county parks w/clickable photo points

**Pros**
- Interactive
- Dynamic
- Simple to maintain

**Cons**
- Less Detailed
- Slight learning curve for users
- Users can zoom anywhere (no geo-fencing)

www.pottcounty.com/html/GIS_HNC3D.asp
**Human Services Site**

- Uses Google Maps API
- Shapefile data exported to XML then loaded on top of their map
- List of services grows/shrinks based on map envelope
- Very easy for our non-technical users
- Launched June 1st
ArcGIS Server: New Parcel Site

Look and Feel

- All content in one browser window – No more pop-ups
- Text vs. Symbols as Buttons – Text uses more space but is more user friendly
- Layer Management – No Table of Contents to turn layers on and off (exception: Orthophotos)
- Better Cartography – Because there is no ability to turn layers on and off, scale dependency with symbology and labels/annotation is now very important

Technical

- Developed using Visual Web Developer 2008 Express Edition - free
- Multiple Map Resources – Cached base map (visible), Interactive (not visible – used for server-side processing), Graphics, and multiple Cached Orthophotography services
- Implement Auto complete – Reduce “Not Found” by using client-side JavaScript to Auto complete entries
- Using Stored Procedures in SQL Server for all data retrieval

Challenges

- Cadastral data changes daily – Cached base map must reflect those changes
- In-house development – Coding takes a backseat to daily tasks
- Finding technical resources/documentation – Always improving
Monitor Web Site Usage

- **Webalizer** ([http://www.mrunix.net/webalizer/](http://www.mrunix.net/webalizer/))
  - Free
  - Customizable

- **Geocortex Statistics** ([www.latitudegeo.com](http://www.latitudegeo.com))
  - Designed for ArcIMS sites
  - Maps users maps
  - Which layers are used most/least
  - Which layers are fastest/slowest
  - Will have a comparable ArcGIS Server monitor (called Optimizer)

- **Google Analytics**
Questions/Comments

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Thank You