The Many Faces of Enterprise GIS on Campus

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ESRI International User Conference
Thursday, July 26, 2012
Overview

• University of Wyoming’s (UW) Enterprise GIS Architecture
  – Framework
  – Collaboration
  – GIS Technology

• Deployment and Current Users
  – GIS Analysts / Editors
  – Non GIS / Casual User

• Campus Basemap / ESRI’s Community Basemaps
The Wyoming Geographic Information Science Center (WyGISC) has developed an enterprise GIS for the University of Wyoming’s (UW) administration:

- Enables access to university wide spatial data
- Serves as the backbone for web based applications
- Increase efficiency and decreases data redundancy
- Technology used: ArcGIS 10/10.1, ArcGIS for Server, ArcSDE, ArcGIS for AutoCAD and ArcGIS for Mobile
- User types include: Editors, Viewers, Snapshot Users
Overview of UW’s Enterprise GIS Architecture

Core Development Team Members:
Wendy Berelston, Phil Polzer (WyGISC) and Zarifa Dushdurova (REO)
Current Methods of Sharing / Collaborating on GIS Maps and Data via the Enterprise?

- Direct access and editing of SDE versioned multiuser geodatabase via ArcGIS Desktop environment
  - WyGISC data servers at IT
  - ArcGIS for Server
- Secure GeoData Web Portal (applications.wygisc.org)
  - Web Applications
    - Access the enterprise databases data
- Mobile
  - ArcGIS Mobile, ArcPad
- Disconnected /Extracted
  - Snapshot of data for maps or analysis
## Administrative groups using UW’s Enterprise GIS data and services:

- Wyoming Geographic Information Science Center
- Institutional Marketing
- UW Police Department
- Physical Plant (Utilities Management, Facilities Engineering)
- Transportation and Parking Services
- Facilities Planning
- Institutional Marketing
- Real Estate Operations
- Institutional Analysis
- Office of the President
- Space Management
- Environmental Health and Safety
- Information Technology
- Student Affairs
Desktop Environment
Targeted Users: GIS Analysts

• ArcGIS Desktop and ArcSDE versioned geodatabase provide for viewing, editing and analyzing GIS data and non-spatial data

• Work primarily conducted by Real Estate Operations (REO)
  – WyGISC’s original enterprise partner

• Provides centralized data management
  – Geodatabase on SQL Server
Desktop Editors
Extensive Real Property Database
Web Based Secure Portal to Access GIS Applications, Targeted Users: Non-GIS Professionals

- Objectives: Data dissemination, ease of access and use, customized applications
- Technology used: ArcGIS Server, Adobe Flex & Flash, Web-browser, MojoPortal
Web Portal: Campus Control Network App
Web Portal: UWPD Application
Mobile Based GIS for Both GIS and Non-GIS Professionals

Focused applications for specific work flow, allows for data updates and maintenance

- Windows Mobile, Trimble GPS and ArcGIS Server

Mobile Project Center: Create project for Automated External Defibrillators maintenance (AED)
Additional Data Support and Mapping - Snapshot / Export of Data

• Administrative mapping: UW Administration Dashboard, student demographics and outreach activities
• Information Technologies' WyoMobile iOS App
• Institutional Marketing’s Campus Web Map
• Participating in ESRI’s Community Basemap/World Topographic Map
• Share maps via ArcGIS Online
Administration Uses Enterprise GIS for Strategic Goals/Planning

• Administrative mapping: UW Administration Dashboard, student demographics and outreach activities

• Institutional Analysis
• President’s Office
• Student Affairs
Campus Maps & Basemap Coordination

• Working with various groups on campus
  • Database of both campus based and campus base layers

• Deployed to
  • WyoMobile
  • UW’s Website

• Community Basemaps
  • National basemap program, UW is a partner
  • Localgov.gdb model helping us get our basemaps up and running – not reinvent the wheel
Campus Map Data: WyoMobile
Snapshot / Exported Data

- IT’s WyoMobile
Working with Institutional Marketing: UW Website Campus Maps

- Webmap using Arc for Server services
- They requested First version server KML files using Server
- Moving toward data stored / edited in SDE
UW’s Basemap / Community Basemap

- REO’s basedata (e.g. buildings) and features from Localgov.gdb
- Facilities Planning CAD data conversion (e.g. sidewalks, ADA accessibility)
Additional Enterprise Related Efforts by REO and WyGISC

• Automate CAD Floorplan Data
  – ESRI’s Campus Editing Model
• ArcGIS for AutoCad being used by Physical Plant
• Physical Plant Utilities Mobile Updates
• Monuments and donations database
• UWPD Lights Out
Moving UW’s Enterprise GIS Forward

• Additional buy in from UW’s Administration
• Formalize efforts, but need to keep coordinating now
• Request formation of a committee to prioritize Enterprise GIS efforts
  • Jeff Hamerlinck, WyGISC Director and Josh Decker, Manager REO
• Divisions assigns people to said standing committee for Enterprise GIS Coordination Committee
  – Might have smaller Campus Mapping group (e.g. public, private)
• Tomlinson’s Steps, Thinking about GIS
  – Information products
  – Master data needs/list
Thanks! Questions?

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