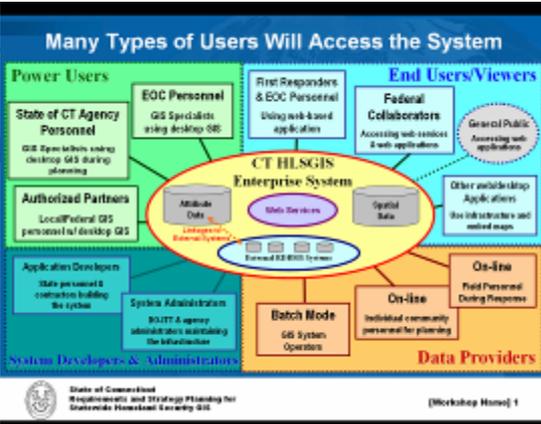
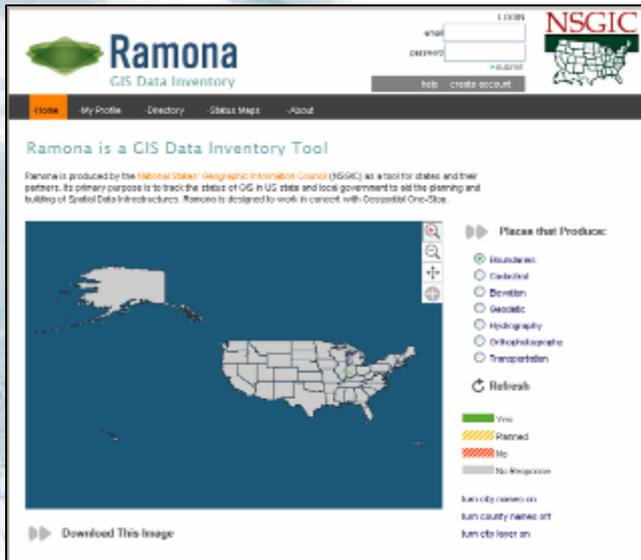
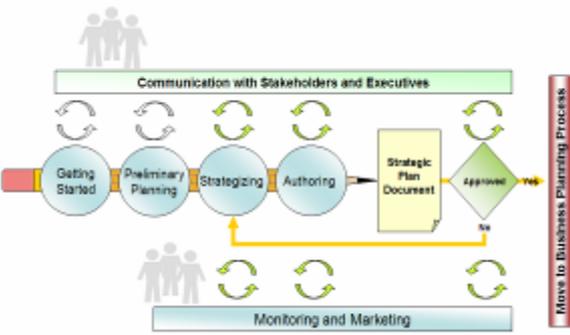
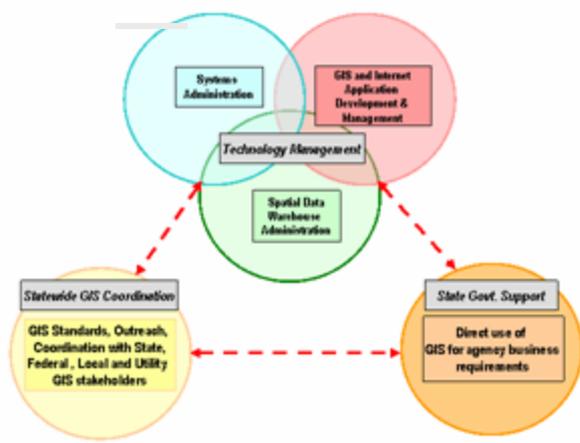


State of Connecticut

Developing Geospatial Strategic and Business Plans for the State of Connecticut



Functional View of Staffing Requirements for Connecticut Enterprise GIS



GISC Project Update

Agenda...

- **Project Update**
 - **Six Programmatic Goals**
 - **Findings from Informational Gathering Workshops**
 - **What's the biggest issue in CT? Which Business Plan?**
 - **Schedule for Completion**

What are the Programmatic Goals for Connecticut?

Six areas for improvement...

1. Organizational Issues

- Create GIS Coordination office
 - Decentralized versus centralized model preferred
 - Fully staffed and dedicated to GIS
 - State GIS Coordinator/Manager
 - Outreach Coordinator
 - Support Analyst(s)

2. Funding Related Issues

- Create sustainable funding source
- Become/remain eligible for Federal funding
- Small local government entities lack staff and financial resources to develop their own GIS
- High Level of interest in parcel grant program similar to Massachusetts and Rhode Island
- NGA is looking to provide funding to CT, but does not have an avenue to
- Funding requests should be tied to important initiatives where GIS can benefit program
- Partnerships for funding (particularly w/utilities) should be looked in to. (MDC in the past)

3. Data Related Issues

- Create a SSDI and support NSDI
- Create standards for data layer development
- Efforts need to be coordinated with other local government efforts
- Create framework data layers
 - Orthos
 - Parcels
 - Street Centerlines & Address Points

Modifications/clarifications
in red

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What are the Programmatic Goals for Connecticut?

Six areas for improvement...

4. Infrastructure

- Create a state clearinghouse
 - Both file-based and services based needed, services priority
- Build on base infrastructure being established by DEMHS project
- Use federated (decentralized) system approach
- All stakeholder groups have high speed access

5. Enlist a high-level GIS Champion(s)

- Executive Level – Lt. Governor
- Departmental – CIO, Commissioners
- Political – tie to “hot topics” or initiatives
 - (Smart growth, Brownfields, Economic Development, Health Care, Education, Homeland Security, Public Safety, Streamlined Sales Tax, Water Systems)
- Multiple Champions will be necessary

6. Communication and Marketing

- **Communication is probably the largest issue that needs to be dealt with**
- Letting stakeholders know what is going on
- Letting stakeholders know who they should talk to about a particular issue
- Letting stakeholders know where they go to get a dataset, or who they talk to with questions on a data set
- Education of decision makers
- Build awareness for current uses of GIS

Modifications/clarifications
in red

Programmatic Goal

3. Creating framework data layers

- **Focused on 4 Key Data Categories:**
 1. Orthophotos (aerial photography)
 2. Parcels
 3. Street Centerline
 4. Address Points
- **Provided an introduction covering:**
 - Current status
 - Applications of the layer
 - Future vision
 - Issues & opportunities
- **Interactive discussion with stakeholders**

Orthophotos

Current Status:

- **2004 Statewide Imagery Program**
 - 0.8' resolution (~9.6 in.)
 - 1" = 200' Scale (+/- 4-5' spatial accuracy)
 - Black and White Photography
 - **Usability:**
 - Not color balanced serious issue
 - Format of data
 - Color versus B&W
 - Different year data used to complete coverage
- **Other Options**
 - **SBC/SNET/AT&T**
 - 6" Resolution
 - 1" = 200' Scale
 - Color Photography
 - Limited Planimetrics (Road cl's, hydro, bldgs)
 - License Restrictions
 - **Reliability: Did not fly this year**
 - **Individual or Regional Flights**
 - "Buy up" through SNET/SBC/AT&T (South Windsor & Others)
 - High Resolution Flights (Stamford, Greenwich, Newtown, Mansfield, etc)
 - Regional Flights (MDC)
 - Increased Resolution and/or accuracy
 - Typically 1" = 100' or 1" = 40', 3-6" Resolution
 - Planimetrics (roads, sidewalks, structures, etc)
 - **Pictometry Data**
 - Lower accuracy data more for physical location of obliques
 - No statewide coverage, 1/3 of State mapped
 - Not spatially accurate, USGS DEM used
 - Can be improved for a fee
 - How will data be distributed?

Modifications/clarifications
in red



State of CT



SBC/AT&T



Custom Flight

Orthophotos: Discussion

- How would they be used?
- What scale/accuracy/coverage is needed?
- How often do they need to be flown?
- Who should pay? Cost sharing?
- Can we aggregate local data?
- What role should the state play?
- Who should decide?

Orthophotos

Future Vision:

- Regularly scheduled and funded re-flights
 - New digital multi-spectral imagery acquired **every 5 years**,
 - Should be every **three** years (tied to state assessment cycle)
 - Scale: 1"=200' works, but preference for 1"=100' (majority of tax maps)
 - Should be color, even if at a higher scale
 - Resolution: 1 foot is OK, but 6" preferred
 - Participate in Imagery for the Nation program or follow this approach
 - Federal/State pays for base, offer "buy-up" program for other stakeholders in contract:
 - Increased scale 1"=40'
 - Increased resolution (6" or 3" resolution)
 - Additional planimetric features (sidewalks, driveways, etc)
 - Impervious surfaces
 - Land cover
 - Historical photos are as important as new photography/flights to many stakeholders
 - Should be georeferenced
 - Should be archived
- Improved elevation data and contours (statewide LiDAR)
 - Support **2 ft. – 5 ft. contours**
 - 2 foot contours should be a minimum

Modifications/clarifications
in red

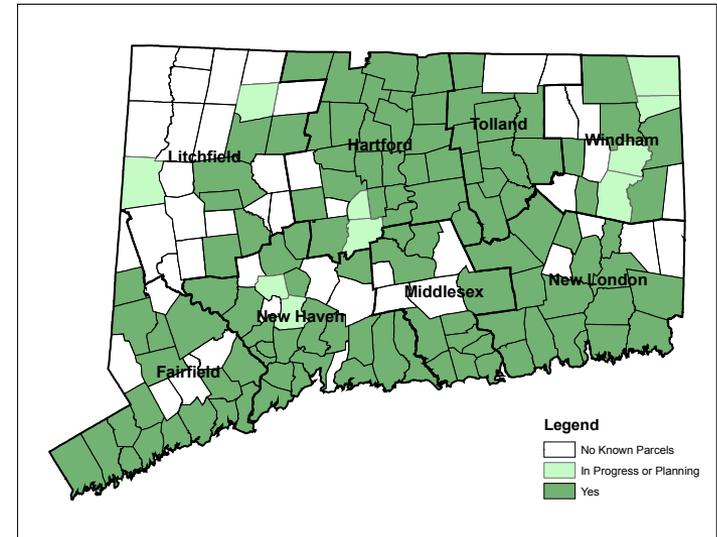
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Parcels

Current Status

- Parcel data are developed and managed at the local level
- Electronic parcel data exists for >65% of the State
- No digital parcel standards exist
- **No official municipal boundaries**
 - Create conflicts in ownership
 - Each municipality considers theirs correct
 - Potential for duplicate assessment in multiple towns
- **Inconsistent:**
 - Attributes (CAMA, naming, street names)
 - Creation methods, although large majority digitized tax maps
 - Update frequencies, although annual most prominent, monthly preferred
- Neighboring States, MA, RI, and NY:
 - All have parcel standards
 - All have parcel conformance grant programs
 - Establish
 - Baseline spatial accuracy
 - Attribute consistency

Map of Parcel Coverage for the State of Connecticut



**Modifications/clarifications
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Parcels:

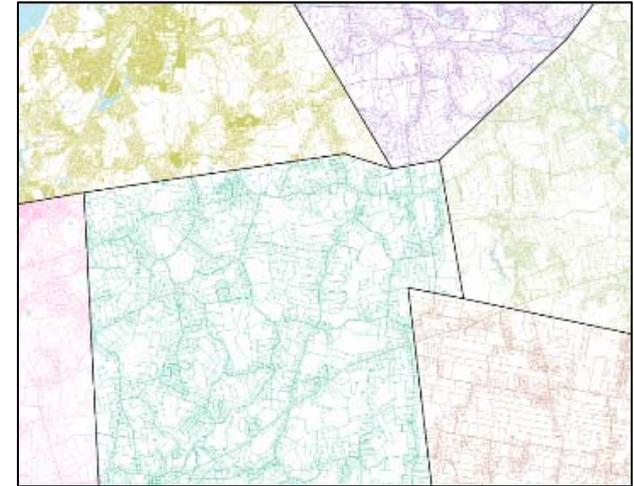
Discussion

- Do you have a digital parcel base?
- What method was used to create it?
- What is the relative accuracy of the layer?
- What method is used for updates (digitized surveys, COGO)?
- What is the best way to aggregate local data?
- What role should the state play?
- How should we address local concerns?

Parcels

Future Vision

- **Statewide parcel layer is developed**
 - Use of standards makes this feasible
 - State should create standard and provide for use
 - Standard will be adopted for new creation without the need for a mandate
 - Should also include CAD submission standard
 - Consulting companies will use if standard exists
 - Will need to assist (pay for) migration to standard
 - State grant funding helps standardize those that have created parcels or “finish the job” for small communities
 - All stakeholder groups like Massachusetts’ grant model
- **All communities maintain parcel data & share edits**
 - State should create official template RFP’s and specifications
 - State should have a preapproved vendor list (blanket contract)
 - Technical assistance from RPOs/COG’s or private sector
 - Automated replication
 - Local interests in data are protected
 - Owner’s name should not be aggregated at a state level
 - State should create official policy for data distribution costs/fees



Modifications/clarifications
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Roads & Addresses

Current Status

- **Multiple Statewide road centerlines exist**
 - TANA: Managed by DPS
 - Commercial product licensed by State of Connecticut
 - Delineation of updates requested from municipalities
 - Some communities do; some communities don't
 - TANA then incorporates updates
 - Sometimes they do, sometimes they don't
 - All government agencies have access to this data, but do they know about it
 - DOT:
 - State Roads
 - Route and mile markers
 - No address ranges
 - Not considered to be accurate, complete or up-to-date by stakeholder groups
 - SBC/SNET/AT&T
 - Statewide coverage
 - High-level of spatial accuracy (200 scale)
 - No address ranges or mile markers – conflation?
 - Individual Municipalities
 - Many muni's have there own centerline layers
 - Managed locally and updated annually
 - LUCA (census improvement project) – should be studied as potential source for improvement or funding
- **Much confusion around TRU maps, versus 911, versus DPW road reporting**
- **Statewide address range data exists**
 - State license of TANA data provides address range data
 - Enables statewide geocoding
 - New DEMHS/Enterprise System being stood up with geocoding service

Modifications/clarifications
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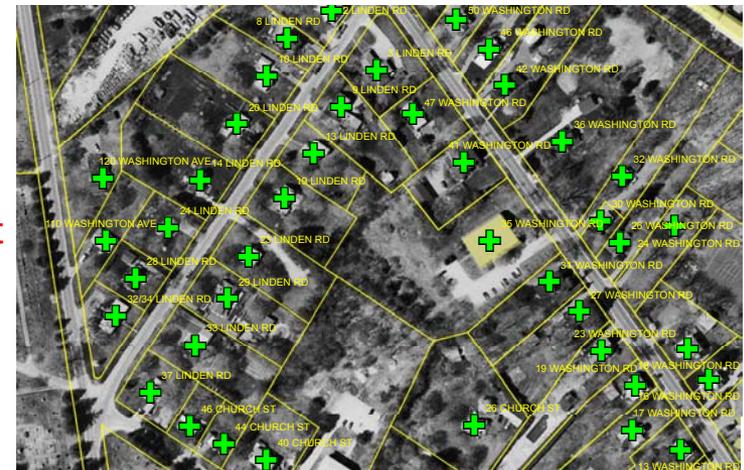
Roads and Addresses: Discussion

- Does your municipality submit updates to DOT?
- Do you have address points?
- How would you use address points?
- What are the benefits to you of a state wide address layer?
- What is the best way to aggregate local data?
- What role should the state play?
- What are the local concerns about road/address data?

Roads & Addresses

Future Vision

- **GISC Data Workgroup subcommittee looking in detail at this**
- **Road centerline improvements**
 - Establish single, uniformly accurate, and complete, centerline layer
 - DPS/DOT take over management of core line work
 - Updates flow “seamlessly” in from municipalities on a regular basis through web site interface
 - Municipalities add their own details on top of core, shared geometry
 - Municipal attribute tables linked via unique ID number
 - **Data should be owned by state, not licensed product**
- **Addressing improvements**
 - Move from “address ranges” to “**address points**”
 - Enabling improved location reliability
 - Potential for “structure based” location points
 - **General lack of understanding of use**
 - **Once understanding achieved, high-level of interest**
 - Incorporate address locations from parcels
 - Conflation of DOT data for Linear Referencing System



**Modifications/clarifications
in red**

What's the biggest issue in Connecticut?

Which business plan should be developed?

- Communication and Outreach Plan
- Funding a Statewide GIS in CT
- Orthophotography Program
- Statewide Parcel Development
- Statewide Centerlines (and addresses)

Schedule for completion...

- 4th Informational Gathering Session 8/16/07
 - Connecticut Agricultural Experiment Station (New Haven)
- Draft strategic plan delivered and presented at 8/22/07 GISC
- Steering Committee review meeting on 8/29/07
- Final Strategic Plan document to State on 9/7/07

- Decide on which Business Plan today (7/25/07)
- Draft Business plan delivered and presented at 8/22/07 GISC
- Steering Committee review meeting on 8/29/07
- Final Business Plan document to State on 9/7/07

- Adoption of both plans in September