DC GIS Steering Committee Meeting
June 12, 2008

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Office of The Chief Technology Officer

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Agenda

- – **Introductions** – Barney Krucoff
- – **DC GIS News** – Barney Krucoff
- – **ArcSDE 9.2 Upgrade –** Barney Krucoff
- – **Data Report** – Mario Field
- – **DC 3D Buildings on Public Google Earth** – Barney Krucoff
- – **Google (Earth) DC Launch** – Barney Krucoff
- – **Master Address Repository Update** – David Jackson & Tianpu Liang
- – **Training Report** – Eva Stern
- – **DC GIS Strategic and Business Plan** – Rich Grady, Applied Geographics

Introductions
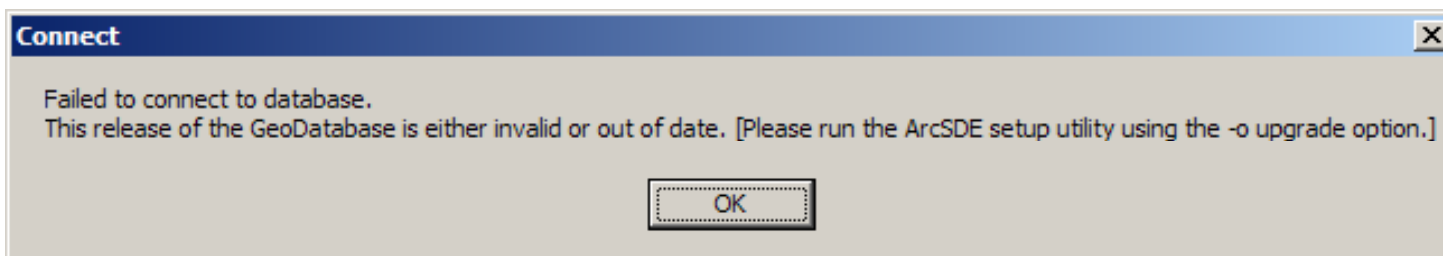
DC GIS News

- Upcoming conferences
  - ESRI International User Conference, August 4 – 8, San Diego, CA
    - free registrations available from DC GIS contact **cheryl.harris@dc.gov** tomorrow.
  - Google Earth, Conference, Early July
- Citrix account problems
  - Hidden tool bars
  - Some accounts don't work well, for example, can't save a map document.
  - Contact **Zhen.Lo@dc.gov** and **Eva.Stern@dc.gov.**

ArcSDE Upgrade to 9.2 sp5 (Finally)

- Requirements
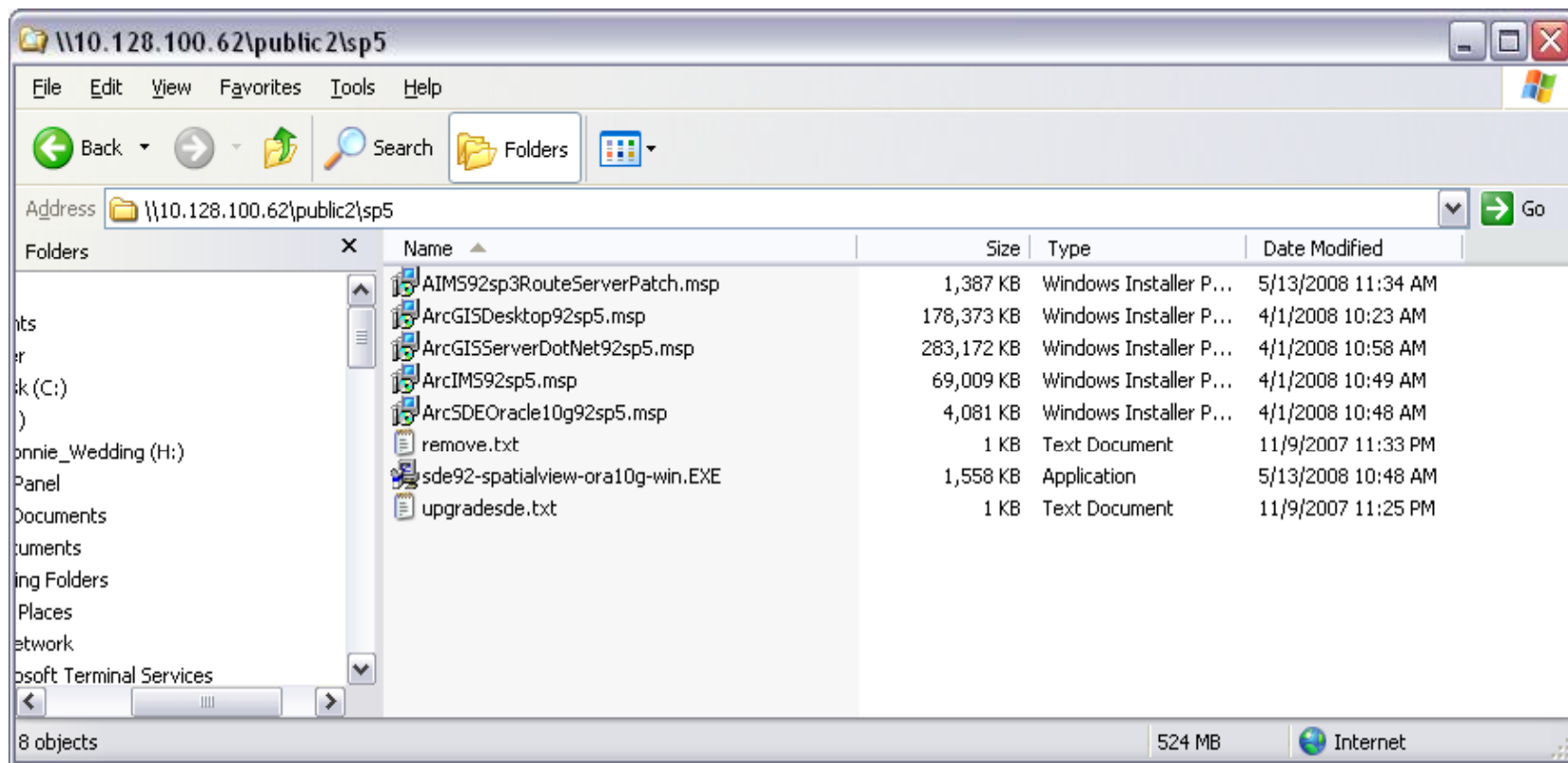 - All clients need to be at the same version and patch level. (If you use Citrix you are OK.)

IF NOT

Connect   [X]

Failed to connect to database.
This release of the GeoDatabase is either invalid or out of date. [Please run the ArcSDE setup utility using the -o upgrade option.]

[OK]

Upgrade Paths

- ## Already at 9.2
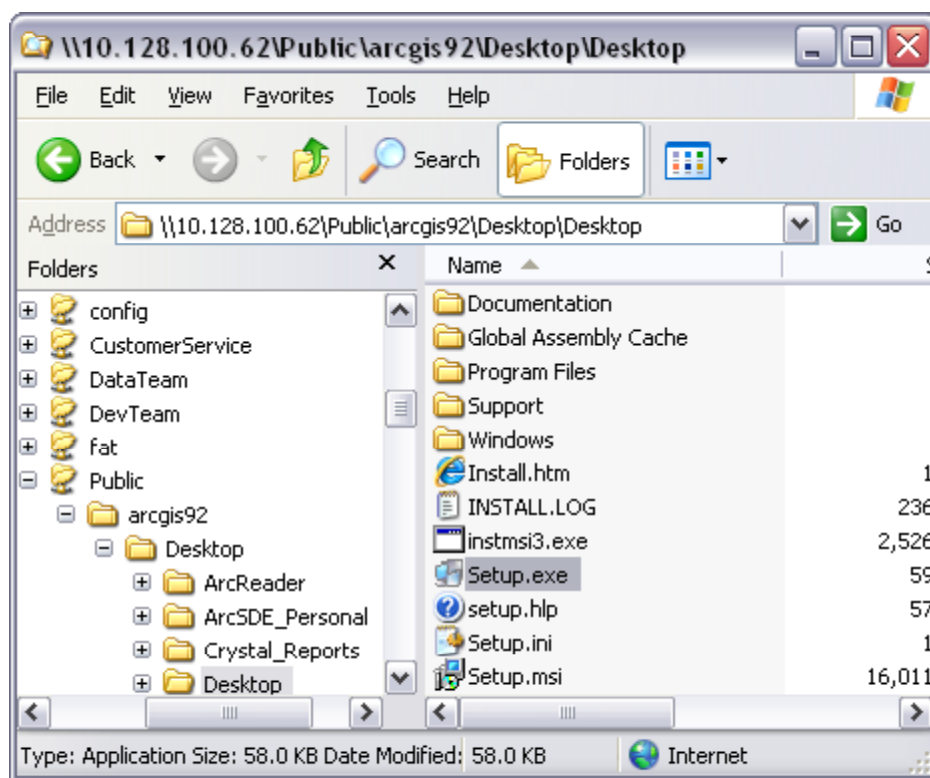 - \\10.128.100.62\public2\sp5

Upgrade Path con't

- **Version 9.1 and older**
  - Required to remove current installation.
  - Control Panel➔Add/Remove programs

  \\10.128.100.62\Public\arcgis92\Desktop\Desktop\setup.exe

**For more information:
Zhen.lo@dc.gov**

Deadline to upgrade to 9.2sp5

Saturday, July 5th 2008 at 8pm

- The good news! What we get with ArcSDE 9.2
  - Cascading geocoding
  - ArcSDE to ArcSDE replication

DC GIS Data Report

Mario Field

Dr. Data

Dr. Data's Data Report

- **DC GIS Update List**
- **DDOT Data**
- **Scanned Historic Maps**
- **Planimetric Update**
- **Satellite Imagery**
- **OCFO Income Data**
- **Vector Property Map**
- **What's Next**

Data Updated since last Data Report (9/2007)

- **Annotation (1:1200 Scale)**
- **Air Rights Lots**
- **Appropriations**
- **Alley Frontage**
- **Buildings (3d)**
- **Building Restriction Line**
- **Business Improvement District**
- **Camera**
- **CAMA**
- **Income Table with expanded OCFO income data from the tax return database (tract level)**
- **Fire Hydrant**
- **Focus Improvement Area**
- **Historic District**
- **Library**
- **Nursing Home**

- **Owner Point**
- **Owner Polygons**
- **Park and Ride lots**
- **Parcel Lot**
- **Primary Care Location**
- **Public Housing Areas**
- **Public School**
- **Record Lot**
- **Square**
- **Sale point**
- **Senior Service Network Location**
- **Tax Lot**
- **Transfer Point**
- **University**
- **Walkout Route**
- **Zip Code**
- **Zoning**

DDOT data

- **Bridge Point**
- **Bridge Poly**
- **Bus Rapid transit - 2030 master plan**
- **Commuter Bus Locations**
- **DDOT Budgeted Projects - Line**
- **DDOT Budgeted Projects - Point**
- **DDOT Completed Projects - Line**
- **DDOT Completed Projects - Point**
- **DDOT Current Projects - Line**
- **DDOT Current Projects - Point**
- **DDOT Alley Maintenance**
- **Flexcar locations**
- **Highway Advisory Radio Locations**
- **Metro Maintenance Facilities**
- **Parking Meters**
- **Portable Dynamic Sign Message Sites**
- **Primary Signed Routes**

- **Property CAD linework**
- **Rapid Bus - 2030 master plan**
- **Residential Parking Permit Blocks**
- **School Crossing Guard Locations**
- **Secondary Signed Routes**
- **Specialty Lighting**
- **Speed Detectors**
- **Street Car - 2030 master plan**
- **Street Centerlines**
- **Street Segments**
- **Super cans**
- **Signalized Intersections**
- **Traffic Permanent Count Locations**
- **Traffic Cabinets**
- **Traffic Control Officer Sites**
- **Trails**
- **Trails - NPS**
- **Transportation Study Areas**
- **Weigh-in-Motion stations**
- **Zip Car Sites**

Scanned Historic Maps

- **Ellicott DC Plan**
- **Good DC Plan**
- **Hawkins Topography**
- **Historic Sewer Survey**
- **Historic Shaded Relief**
- **Historic View of DC**
- **Hopkins DC Survey**
- **Islington DC Plan**
- **Jattnig DC Plan**
- **Johnson and Ward DC Survey**
- **Keily Survey**
- **Kroe DC Plan**
- **Latrobe DC Survey**
- **LEnfant DC Plan**
- **Thackara Vallance DC Plan**
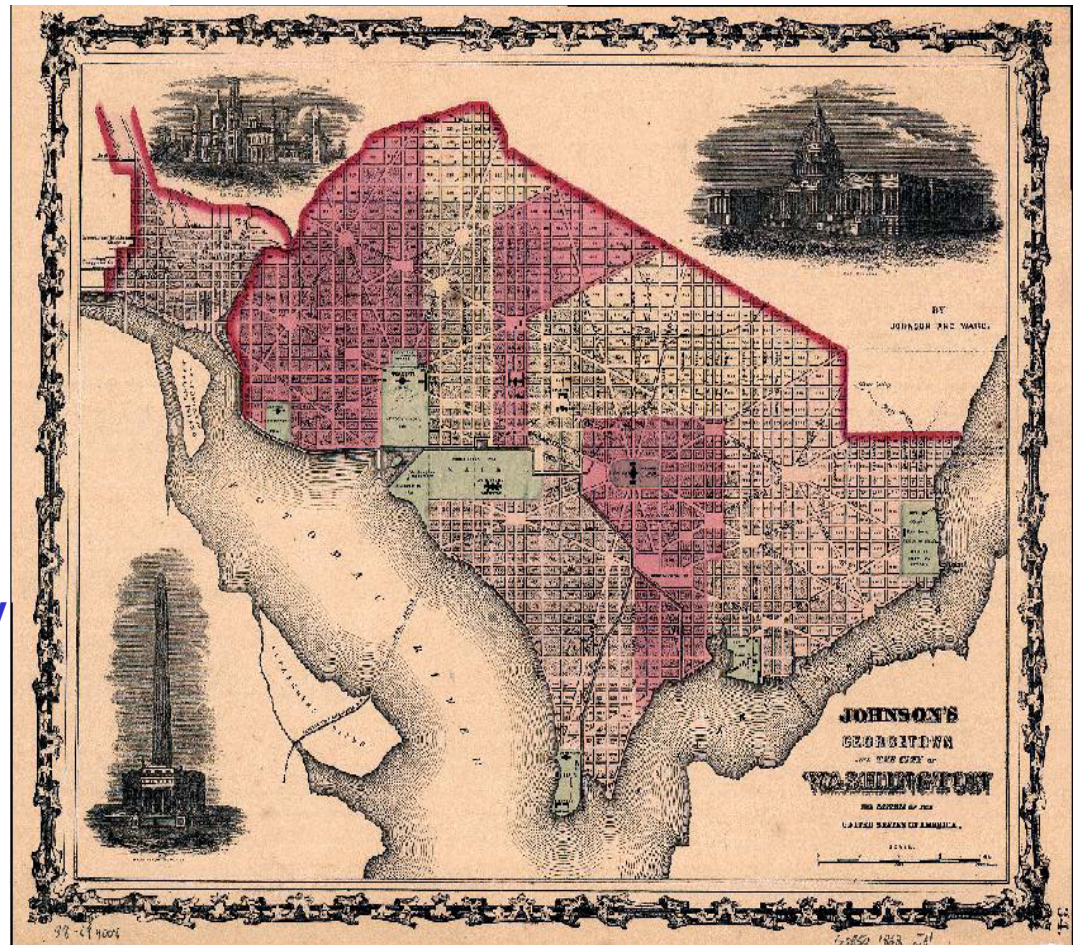
Planimetric Update

- **Continuing regular updates to the basemap**
- **Missing key buildings, sidewalks, and road casings**
- **Latest complete Orthophoto from 2005**

Planimetric Update

Layers:

- Building
- Bridge and Tunnel
- Digital Elevation Model
- Geodetic Control
- Obscured Area
- Railroad
- Street Centerline
- Road
- Sidewalk
- Topography (2 ft contours)
- Wooded Area
- Orthophoto (6" resolution)
- 3D Building

Planimetric Update

- **Aerial Photography captured on two parts of the year: March and April 2008.**
- **Tree Canopy will be an issue for the central part of DC**
- **Will not affect capture of base planimetric features**
- **Will affect the look of the orthophoto**
- **Vendor has mapped select planimetrics effectively using leaf-on aerial photography**

Planimetric Update

Photo Points

Date of File

- 030908
- 031708
- 032108
- 052408
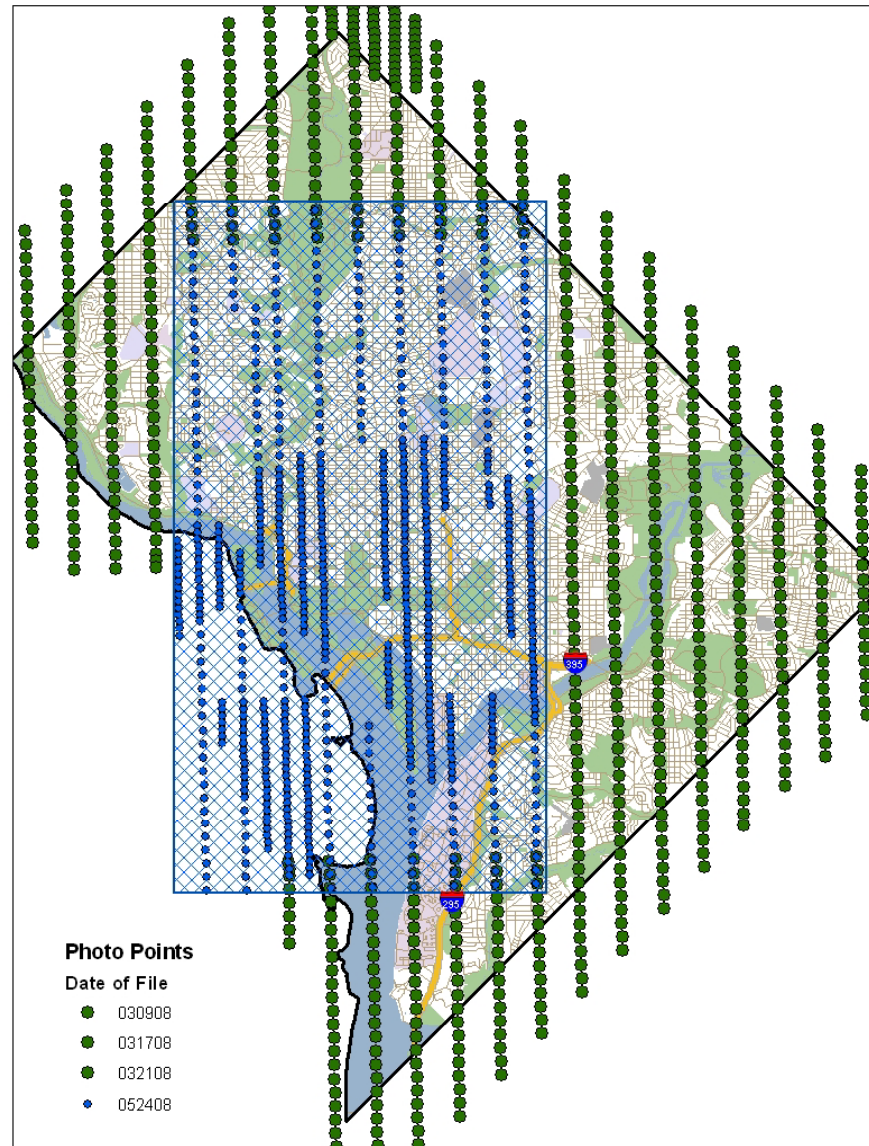
Satellite Imagery

- **Digital Globe WorldView-1 Satellite Imagery**
- **50cm resolution**
- **Captured February 3, 2008**
- **Black and White to expedite delivery**

OCFO Income Data

- Aggregated to Census Tract Level

- 2005 DC Tax Data from OTR ITS

- FAGI Total, Mean, and Median in "Tract00Ply"

- More Attributes in "OCFO_TRACT_INCOME _2005" Table – relate on Tract
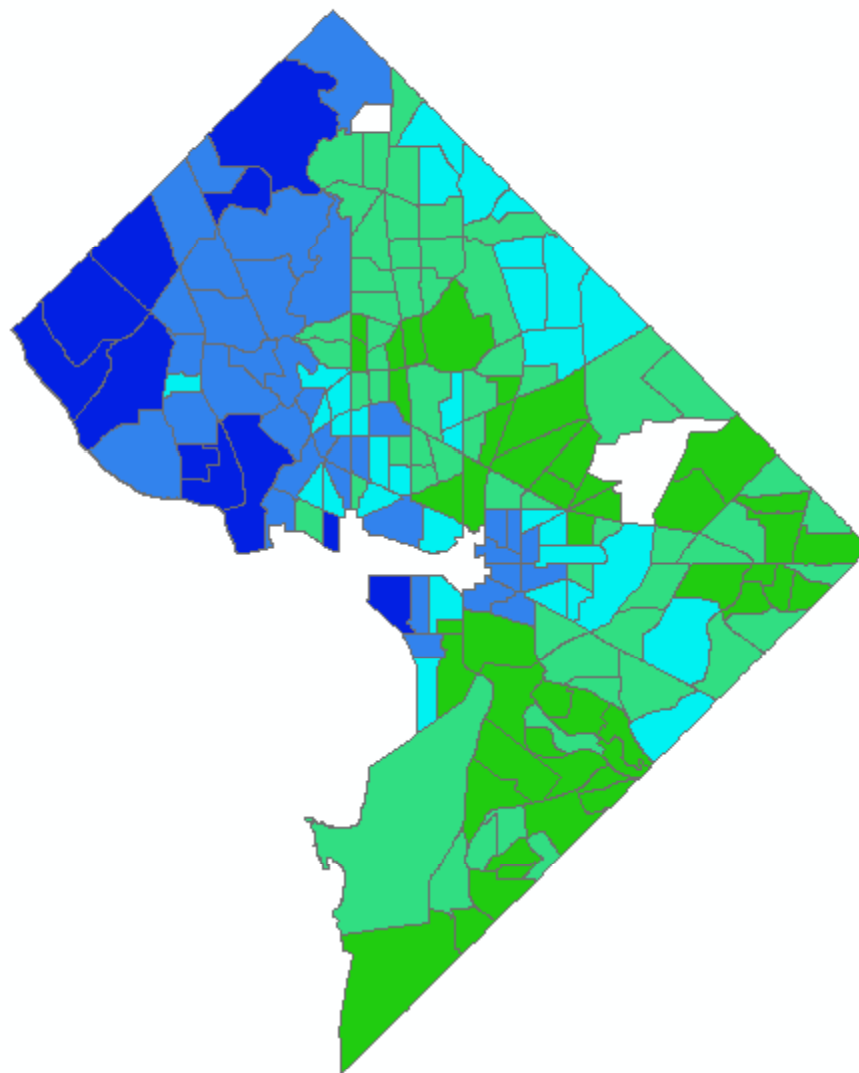
Vector Property Map

- **Data is being maintained by OTR as of 3/13/08 (2 week time delay in getting it posted to DC Central- fixed with replication)**

- **Transactional History layers (captured since Sept 05') posted in DC Central and available via Citrix**

- **Still approximately 50 squares with open transactions.**

What's Next

- **DDOT Images**
- **Updated CAMA Property Images**
- **2006 Aggregate Income Data**
- **Income Data aggregated to Census Block Group**
- **ROW values added to Street Centerlines**

DC 3D Building On Public Google Earth

- Google has published the DC GIS / Cybercity 3D Buildings on the latest version of the public Google Earth.

- 140,000 structures is largest collection published by any jurisdiction worldwide (that we know of).

- 50% published June 4, the rest to published early July.

- Press event planned for early July.

- Demo

Google (Earth) DC

- DC's own slightly customized version of Google Earth.
- Has almost all DC GIS & Citywide Data Warehouse layers included.
- Master Address Repository gazetteer built in.
- Designed for people who are primarily doing visualization, already know and love the application, but need more detail on the District than the public Google Earth provides.

- http://dcgis.in.dc.gov

Master Address Repository Update

David Jackson, Tianpu Liang, & Barney Krucoff

Address Anomalies

What is an Address Anomaly?

An address anomaly is an address that is illogical for its location. Meaning the address does not follow the normal rules of Washington, DC's addressing grid system.

Types include:

- Wrong Block
- Out of Sequence
- Wrong Side of Street

Why do Address Anomalies matter?

Address Anomalies matter because these addresses are illogical realities that negatively affect the delivery of services (including 911 response) to that location.   Delivery of these services may take longer, or possibly not happen due to difficulty in locating these addresses.

In many cases they can not be found by traditional centerline geocoding as employed by commercial sites (Google, Yahoo, etc) or GPS navigation devices (Tom-Tom, Garmin).

Address Anomalies

- **DC GIS has spent hundreds of hours tracking down these cases and ensuring that the addresses in MAR match the reality on the ground.**

- **It should be noted that there is no official address legislation which defines address standards.**

- **There are dozens of cases throughout DC.**

- **Available on Website for download in a PDF document**
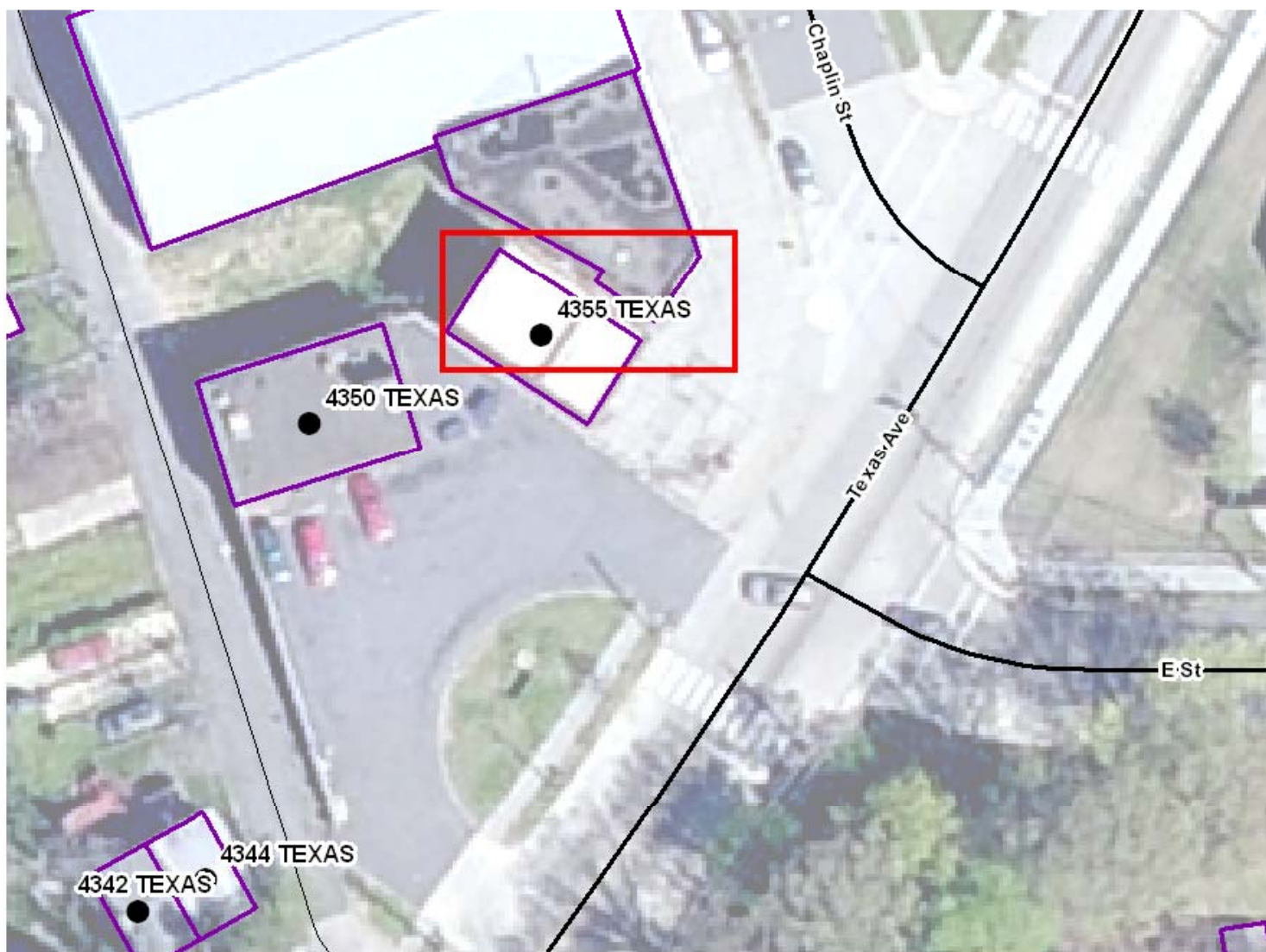
Address Anomalies

3330 WHEELER ROAD SE - Out of Sequence

Address Anomalies

4355 TEXAS AVENUE SE - On The Wrong Side of The Street

Address Anomalies

2855 BLADENSBURG ROAD NE - On the 3000 Block
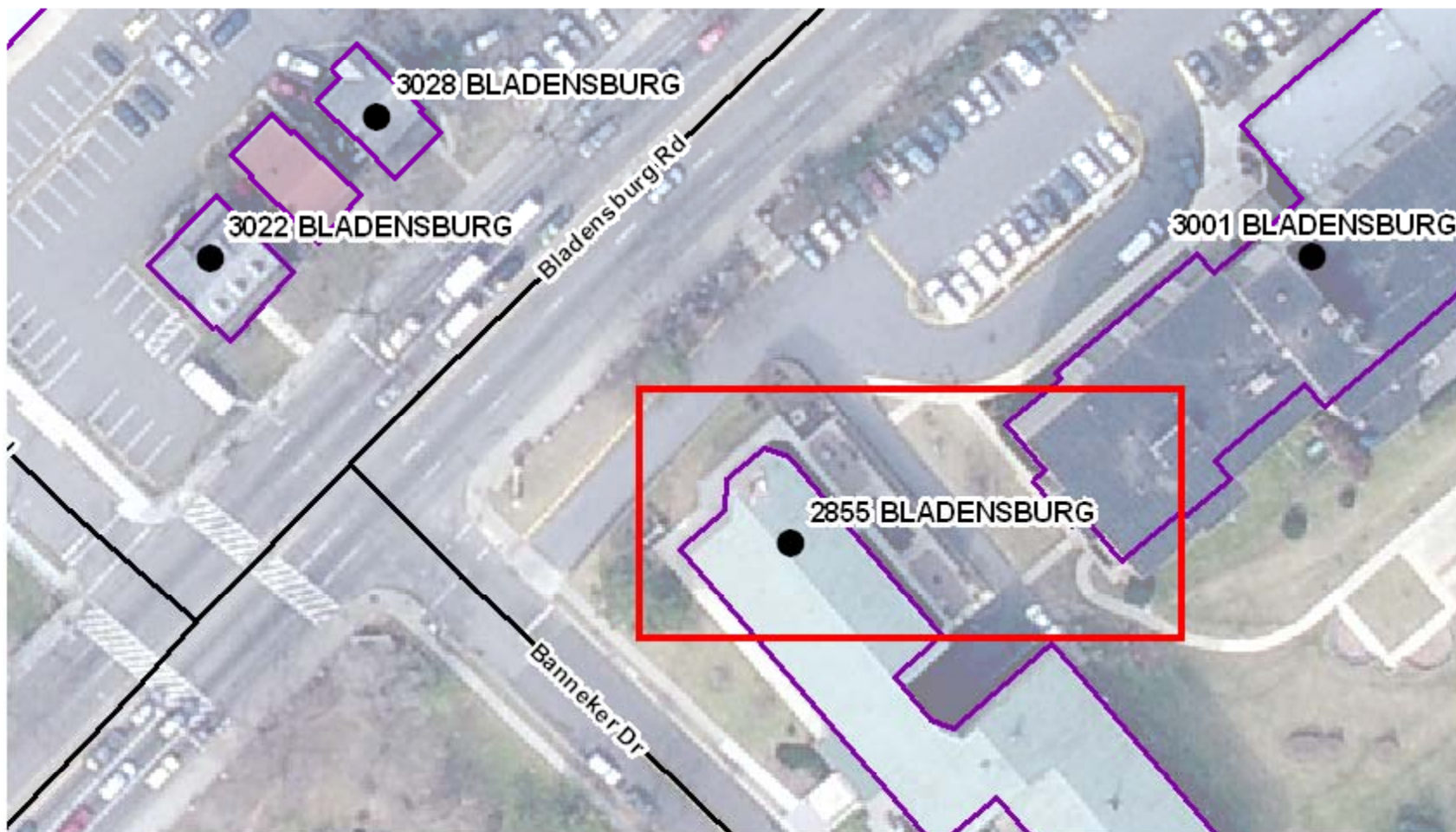
Questions?

Residential Units

In preparation for the 2010 Census, DC GIS and Office of Planning recently completed a unit canvassing project. The focus was on rental buildings with 4 or more units.

A housing location which has a secondary designation. Most of these units have an interior entrance to the location.

Examples of designations include:

- 1 18th Street NE 101
- 1439 SPRING ROAD NW 302
- 4338 HALLEY TERRACE SE 1A
- 100 CHESAPEAKE STREET SE   5

Residential Units

- **Includes both Condos & Apartments**

- **124,000 Units in the table; we estimate there are approximately 180,000 residential units in the District.**

- **Thus far we have good unit information for buildings with 4 or more units. For buildings with 3 or less units there is little information at this point. Many of these locations are indeed basements. Others are row houses that have been converted into multiple units.**

- **For Condo units an associated Condo SSL value is stored.**

- **The precise difference between an address number suffix and a unit is being worked. These cases apply almost exclusively apply to smaller buildings which have 3 or less residential locations**

Residential Units

Total Unit(s): 12	
Unit	Unit SSL
101	1096 2017
102	1096 2018
103	1096 2019
104	1096 2020
201	1096 2021
202	1096 2022
203	1096 2023
204	1096 2024
301	1096 2025
302	1096 2026
303	1096 2027
304	1096 2028

Condominium – 1 18TH STREET SE

http://dcgis.dc.gov/mar

MAR

A MAR Frequently Asked Questions (FAQ) has been added to the DC GIS Website http://dcgis.dc.gov/mar

Residential Units

Questions?

Newly Added MAR web service Operations

- reverseGeocoding
  Find MAR address/alias points within 100 meters from a given Maryland State Plane (NAD 83) coordinates and return the nearest five. Note: The radius is default to 100 meters. The returned distance unit is meter.

Newly Added MAR web service Operations

- **submitAddress**
  Submit addresses automatically(silently, set withVerification=false), or submit address that is Valid Not Veirifed after verification (set withVerification=true). The default value of withVerification is true.

Recently Modified SSL-AID Relationship

Addresses
AID, SSL, Ward, ANC, Xcoord, Ycoord....

New processing

AID/SSL Many to many relationship
AID, SSL

Old processing

SSLs

One to One

Owners

One to One
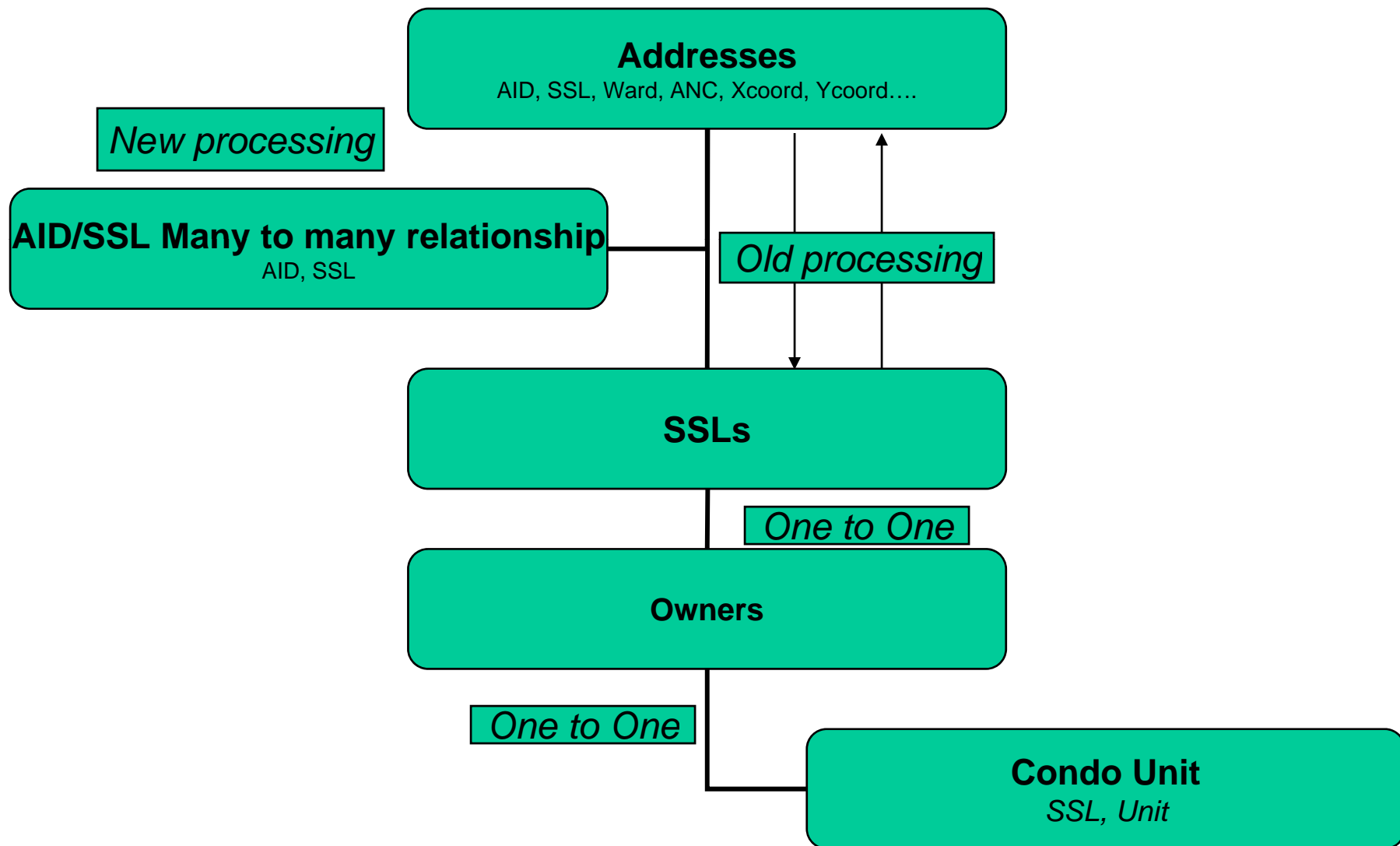
Condo Unit
SSL, Unit

Recently Improved SSL-AID-Owner-Condo Unit Relationship

Addresses
AID, SSL, Ward, ANC, Xcoord, Ycoord….

New processing

AID/SSL Many to many relationship
AID, SSL

Old processing

SSLs

One to One

Owners

One to One

Condo Units
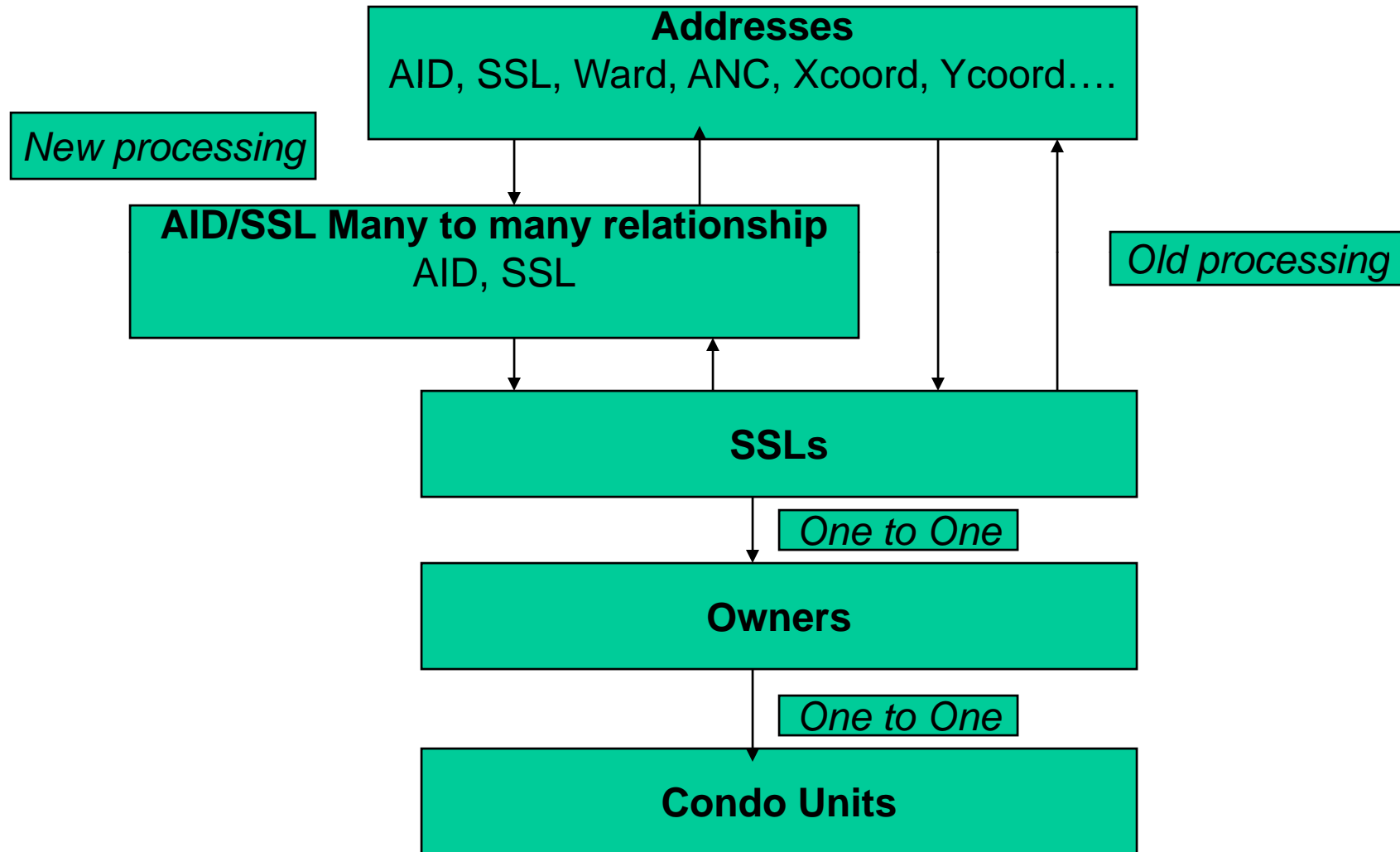
Newly Added MAR web service Operations

- findAddFromSSL_new
  Accepts square, suffix (optional), lot (optional) and return all addresses associated with this SSL. The result from the old findAddFromSSL operation is not accurate due to not fully considering the many-to-many relationship between addresses and SSLs.

Recently Added MAR web service Operations

- findSSLFromAID
  Accepts address id and return all SSLs associated with this address id. The operation takes consideration of the many-to-many relationship between addresses and SSLs.

Recently Added MAR web service Operations

- FindCondoUnitFromAID
  Accepts address id and return all Condo Units associated with this address id.

Recently Added MAR web service Operations

- findAliasFromAID
  Accepts address id and return all Aliases associated with this address id.

Recently Added MAR web service Operations

- findOwnerFromSSL
  Accepts square, suffix (optional), lot (optional) and return owners associated with this SSL.

Recently Added MAR web service Operations

- **findSSLFromSquareSuffix**
  Accepts square and suffix (optional) and return All SSLs in this Square/Suffix.

Training Report

Eva Stern

FY 07-08

- Since October 2007, DC GIS has trained approximately 160 people from various DC agencies and the FBI

- It is estimated that we will train approximately 300 students in this Fiscal Year (including custom classes)

- 8 scheduled classes remain in the current Fiscal Year (out of a total 20)

- We are in the process of organizing custom training classes for the Mayor's Office and DDOT's Urban Forestry Administration to be held in FY07-08

- Planning for FY 08-09 starts June 2008

FY08-09

- We will add more Overview classes to the training schedule to accommodate high demand for this class.

- We will incorporate training classes for Google Earth into the training schedule

- We will incorporate workshops of specific GIS topics into the training schedule (e.g. cartography/designing maps; quick start to using ArcGIS; etc.)

Questions? Interested in custom training? Please contact: eva.stern@dc.gov

DC GIS Strategic and Business Planning Process :
Overview for GIS Steering Committee
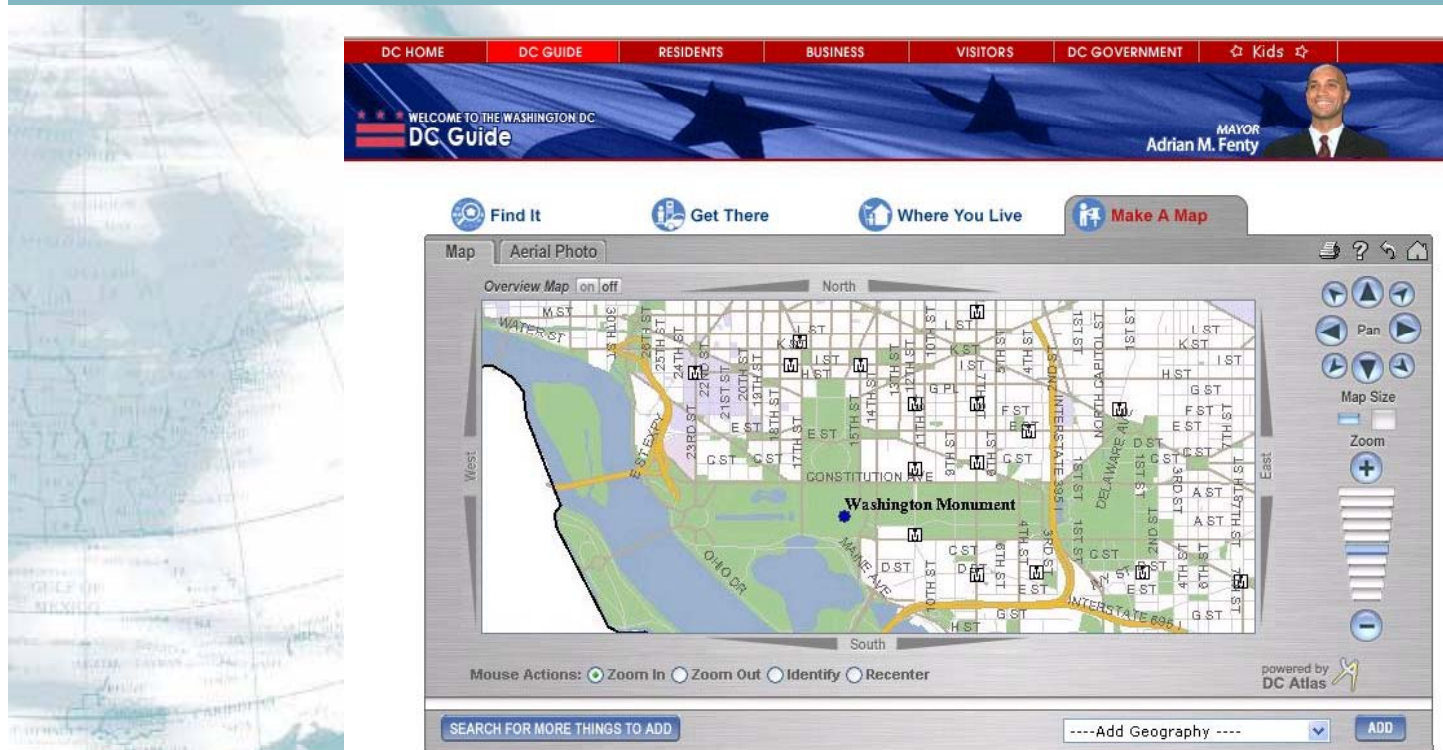
GISSC Meeting
June 12, 2008

GIS Strategic & Business Planning in the District:
Project Background

- Both leadership & operational stakeholders recognize the need for this to be done

- USGS supplied support for the project (FGDC CAP Grant)

- Outreach to stakeholders is a key part of the process, to gather input and support for a collaborative **District-wide** effort

Relevant National Initiatives

- National Spatial Data Infrastructure (NSDI)

- Federal Geographic Data Committee (FGDC) & National States Geographic Information Council (NSGIC) **"Fifty States Initiative"**

  - Cooperative Assistance Program (CAP) Grant Support

  - GIS Strategic Planning and Business Planning Guidance

  - Lessons Learned From Other CAP Grant Recipients

We are following the NSGIC/FGDC approach for the Strategic Plan and Business Planning Process

- **Strategic Plan**
  - **What** and the **Why**
  - The "big picture" and overall context
  - Vision & Goals (both strategic and 'programmatic')
- **Business Plan**
  - **How, When**, and **How much**
  - Details of initiatives emerge
  - Makes the business case for implementing a 'programmatic' goal

DC GIS Strategic Plan:
Second Draft

Overview

Prepared By:

APPLIED GEOGRAPHICS, INC.
Empowering People with Spatial Solutions

octo
OFFICE OF THE CHIEF TECHNOLOGY OFFICER

DC GIS

USGS
science for a changing world

Strategic Planning Process: We gathered input on…

- Strengths
- Weaknesses
- Opportunities
  - Threats

Strategic Planning Process: Strengths

- DC GIS has a **working program**, and provides tangible access to data and functionality to both government users and citizens, through a variety of means

- There is a range of data consumers in DC, both internal and external to DC government, spanning the spectrum of sophistication; servicing this **diversity of demand** has resulted in the DCGIS program being broad-based and versatile

- There is **alignment between GIS and IT** in DC, making the high-level goal to bridge the digital divide pervasive

- There are long-standing, **working partnerships** in the District between many stakeholders

Continued

Strategic Planning Process: Strengths

- DCGIS has an established **Federated Geospatial Data Model** to optimize data sharing and minimize duplication of effort; data stewards are named, and cooperation takes place to facilitate data sharing

- DCGIS offers **modern and innovative Web services**

- City **leaders believe** in the value of GIS in DC

- DCGIS and its predecessors have **coordinated flyovers and planimetric base map data** for the benefit of DC Government users and other stakeholders in the District since the mid-1990s

Strategic Planning Process: Weaknesses

- The Mayor's Order that established the GISSC is not fully implemented, and the **governance model is not satisfactory** to all members, and turnover amongst those who participate is high

- Data gaps exist for a few key themes, such as **utilities, federal properties, and high-resolution elevation data** in the District

- There is a **"broken partnership"** with components of the National Park Service (NPS) responsible for property data

Continued

Strategic Planning Process: Weaknesses

- Data sharing in the Metro Washington area is not consistently practiced by neighboring jurisdictions, which is an impediment to emergency services having a **Common Operating Picture (COP) based on the same data**; while this is not a DC GIS Program issue, it is a regional deficiency of concern to the FGDC in terms of NSDI development and homeland security situation awareness

- Members of the GISSC have been mostly **passive on strategic matters**

- While there is some key support at high-levels, much of DC executive **leadership is lacking in knowledge of GIS** and its problem-solving applications

Strategic Planning Process: Opportunities

- **Interest-levels are high** in GIS, so the timing is good for engaging new and old GIS stakeholders, and increasing the diversity of membership on the GISSC

- **GIS technology is much better understood** than ever before, which makes the current time opportune for making it more integral to DC infrastructure

- The opportunity exists to **apply GIS to government areas of responsibility that could benefit**, such as helping to maximize tax collections

- DC GIS can exploit GIS functionality for summarizing data such as crime and accidents not only according to traditional geopolitical boundaries, but also *across* these areas, resulting in **improved access to information** for the public and GIS stakeholders

Continued

Strategic Planning Process: Opportunities

- DC GIS and its supported applications are poised to benefit from **increased availability of geospatial data** from the private sector (e.g., streets, imagery) as well as other public organizations (e.g. GSA data holdings on federal government property, socioeconomic data, etc.)

- There is an opportunity for **shared planning for GIS data collection** amongst GISSC members, to better leverage and coordinate across independent mission-based efforts; and, the private sector could be involved in the planning process, too

- Funding for the DC GIS program has been requested as part of the proposed OCTO operating budget in Fiscal Year 2009 (October 2008-September 2009), and there is an opportunity to achieve **sustainability as a regularly funded enterprise system**

Strategic Planning Process: Threats

- **FOIA requests and appeals** to achieve data sharing between governmental entities can have political repercussions

- **DCGIS resources could get pooled** to support other enterprise applications within OCTO, thereby diluting GIS initiatives and activities

- Misunderstanding or **overselling "cool" new technology** may result in less support or unrealistic expectations for established technology that gets-the-job-done on a daily basis

- The possibility of a **chargeback business model** may weaken support for OCTO's respected position in DC GIS oversight

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DC GIS

USGS
science for a changing world

Mission Statement: As modified…

- The Mission of DC Geographic Information System (DC GIS) is to improve the quality and lower the cost of services provided by the DC Government, through the District's collective investment and effective application of geospatial data and systems. Furthermore, DC GIS will reach beyond the DC Government by continuing to make DC GIS data freely and publicly available to the fullest extent possible in consideration of privacy and security.

Programmatic Goals: Newly Stated…

1. Focus District resources on geospatial data and systems that are inherently state or local and align with District priorities

2. Develop and operate enterprise geospatial applications, mapping data, and Web services that enhance the utility, reduce the cost, and expand the interoperability of citywide and agency IT systems (*)

3. Provide outstanding customer service and training that enables DC agency users to leverage the full power of GIS technology

4. Sustain and improve GIS coordination in the District of Columbia

5. Be innovative and adapt to the changing market for geospatial technology

(*) Goal #2 & 3 to be the subject of a focused Business Plan

Goals #1 and Success Factors (For Comment)

- **Focus District resources on geospatial data and systems that are inherently state or local and align with District priorities:**

  a) <u>Focus on desired outcomes and measurable benefits</u> associated with the Mayor's CapStat policy areas, including: Education; Public Safety; Government Services; Government Operations; Health and Human Services; Economic Development

  b) <u>Further the transparency of the District government</u> by provide geospatial data and applications to the public so that citizens can efficiently interact with DC agencies (e.g., the DDOT Snow Response Reporting System)

  c) <u>Support educational initiatives</u>, such as GIS Day (November 19, 2008) in District schools

Goal #2 and Success Factors (For Comment)

- **Develop and operate enterprise geospatial applications, mapping data, and Web services that enhance the utility, reduce the cost, and expand the interoperability of citywide and agency IT systems:**

a) <u>Develop and maintain comprehensive mapping data</u> programs on a regular planned schedule, including the following:

  i. *Vector Property Map (VPM)*

  ii. *Master Address Repository (MAR)*

  iii. *Photogrammetric data such as streets, building footprints, and elevation*

  iv. *Agency originated layers such as administrative boundaries*

b) <u>Develop and deploy DC intranet applications</u>, e.g., a version of Google Earth that combines the richness of DCGIS data with the ease of use of Google (DC professional use only, due to licensing constraints)

c) <u>Continue the development and deployment of Web services</u> for DC GIS departmental users and applications, such as permitting

From Survey: "Of the following, please choose THREE of the most important tasks for DC GIS as they relate to DATA"

Answer Options	Response Percent	Response Count
Maintain and expand the one-stop shop of current, accurate, and documented DC geospatial data within the DC GIS Federated Data Model (FDM); adopt clear criteria to determine whether any dataset poses an unacceptable privacy or security risk	37.5%	3
Complete and maintain the District's award-winning Master Address Repository (MAR)	87.5%	7
Complete and maintain the District's Vector Property Map (VPM)	37.5%	3
Complete the planimetric update of DC GIS data and maintain a regular schedule for such updates	50.0%	4
Leverage both professional and citizen participation in error identification and correction	37.5%	3
Strengthen the recognition and appreciation of standards for data sharing	62.5%	5
Leverage Internet information-providers such as Google, Microsoft, and Yahoo as distributors of DC GIS data	12.5%	1
answered question		8
skipped question		7

Goal #2 *continued*

d) <u>Maintain and expand the one-stop shop</u> of current, accurate, and documented DC geospatial data within the DCGIS Federated Data Model (FDM); adopt clear criteria to determine whether any dataset poses an unacceptable privacy or security risk

e) <u>Deploy mobile laptop applications</u>, e.g., for DC First Responders (FRs)

f) <u>Adopt a standard for feature-level metadata</u>, to require such metadata, and provide tools to create and mange it

g) <u>Make it easier for non-GIS users to contribute spatially-oriented data</u> in a usable and reliable way by deploying a Web-based version of the MAR batch geocoder that works with Microsoft Excel and Google Docs

h) <u>Improve business processes with the use of GIS</u> and achieve a greater degree of uniformity and usability in DC Government's many interfaces

Goal #3 and Success Factors (For Comment)

- **Provide outstanding customer service and training that enables DC agency users to leverage the full power of GIS technology:**

a) <u>Train GIS users</u>

   i.   *Add entry-level course for using Google Earth*

   ii.   *Continue other aspects of the DC GIS Training Program*

   iii.   *The DC GIS program trains a significant number of GIS users every year (300-400), but it does not reach enough executive leadership with "executive-friendly" training*

      a.   *In consultation with Human Resources, Include GIS requirements in the Management Supervisory Service (MSS) program and the Capital City Fellows Program*

      b.   *Properly and effectively position "Google-type" solutions in the minds of executives; in particular, the perception that "Google can do everything, for free" needs to be reconciled with reality*

b) <u>Provide technical support</u> (Tier II -- help desk) and consulting

c) <u>Expand penetration of GIS to where it is not utilized</u>; in this context, prioritize one cluster of departments per year that could benefit

From Survey: "Of the following, please choose FIVE of the most important tasks for DC GIS as they relate to OUTREACH and PLANNING"

Answer Options	Response Percent	Response Count
Address data quality concerns with regard to data from potential DC GIS users who are not currently GIS practitioners	12.5%	1
Further the transparency of the District government by provide geospatial data and applications to the public so that citizens can efficiently interact with DC agencies	75.0%	6
Achieve intra and inter government GIS planning and activities in DC	62.5%	5
Reach beyond the District Government to engage both new and old partners from the Federal Government, Academia, and relevant Non-Profits in DC GIS programs	25.0%	2
Formalize governance for sustaining the GIS Steering Committee (GISSC) and the DC GIS programs it supports; achieve this by drafting and adopting Bylaws to more fully implement the Mayor's Order 2002-27, which established GISSC to support the development and maintenance of DC GIS programs	75.0%	6
Recognize and publicize the importance of "workflow integration" to improve business processes with the use of GIS	37.5%	3
Expand penetration of GIS in District agencies where it is not yet utilized	87.5%	7
Reach out to senior-level decision-makers by providing "executive-level" training	37.5%	3
Consider Return on Investment (ROI) studies or case studies to help determine what programs are most favorable to the District's priorities	0.0%	0
Look to CAPSTAT for some of the Mayor's priorities	50.0%	4
answered question		8
skipped question		7

Goal #4 and Success Factors (For Comment)

- **Sustain and improve GIS coordination and partnerships in the District of Columbia, the region, and the nation:**

  a) <u>Formalize and sustain governance for the GIS Steering Committee (GISSC)</u> and the DC GIS programs it supports by drafting and adopting Bylaws to more fully implement the Mayor's Order 2002-27 that chartered GISSC to be formed in support of the development and maintenance of DCGIS programs

    i. *<u>Establish an Executive Board</u> within the larger GIS Steering Committee (a so-called "two tier" structure); voting rights might be vested in such a board for key Committee decisions, such as developing or changing Bylaws*

    ii. *<u>Vote on the "big stuff"</u> to ensure consensus (e.g., budget priorities, and standards), but not everything; votes may be to "endorse" certain priorities (since approval rights may be beyond the GISSC's authority); voting rights should be specified in the Bylaws*

Goal #4 *continued*

    iii.   *The executive members of the GISSC will <u>hold an "Annual Budget Meeting"</u> in September of each year to accomplish the following:*

        a.   *Review GIS obligations during the Fiscal Year ending September 30th*

        b.   *Review planned obligations for the upcoming Fiscal Year beginning October 1st*

        c.   *Prepare coordinated budget submittal for the Mayor's Office for the Fiscal Year beyond the upcoming new one*

    iv.   *<u>Departmental leadership (agency heads) shall attend the annual "budget meeting"</u> of the GISSC, leaving the rest of the meetings to their designees if appropriate*

b) <u>Reach beyond the District Government</u> to engage both new and old partners from the Federal Government, Academia, and relevant Non-Profits in DC GIS programs

    i.   *Determine appropriate mechanisms to involve GIS stakeholders who are external to DC Government*

Goal #4 *continued*

    a.   *<u>Add Universities and Non-profits</u> as formal non-voting members of GIS Steering Committee*

    b.   *<u>Add the Federal Government</u> as a formal non-voting member of GISSC*

    c.   *<u>Execute a survey of stakeholders</u> on needs and utilization regarding DC GIS data and services*

ii. *<u>Leverage external resources and support</u> on behalf of DC GIS (e.g. Universities in the area are interested in supplementing DC GIS training with programs for executives)*

iii. *<u>Leverage federal investment</u> in geospatial data and systems*

iv. *<u>Support and benefit from the National Spatial Data Infrastructure (NSDI)</u>*

v. *<u>Achieve interoperability</u> with systems that are external to DC Government*

Goal #4 *continued*

c) <u>Achieve intra and inter government GIS planning</u> and activities in DC

    i. *As well as reviewing OCTO budget priorities for DCGIS, individual departments should review their own budgets for congruence with GISSC endorsed priorities*

    ii. *GIS budgets that support "hidden infrastructure" should be publicized in a more visible way, to minimize the risk of false economies and misperceptions*

d) <u>Reaffirm and refine Mayors Order 2002-27</u> to revitalize and update if necessary

Goal #5 and Success Factors (For Comment)

- **Be innovative and adapt to the changing market for geospatial technology:**

  a) Leverage the modern 'data democracy' of the Internet and the World Wide Web (www)

  b) Leverage both professional and citizen participation in error identification and correction

  c) Leverage private investment in geospatial technology

  d) Migrate to commercially supported mapping services, e.g., Google Earth, when sufficient and cost-effective for meeting agency needs

  e) Leverage Internet information-providers such as Google, Microsoft, and Yahoo to help bridge the digital divide in the District

Implementation Priorities and Action Items (Proposed)

- ## OCTO will:

  - Move forward on implementing the programmatic goals of this Strategic Plan (e.g., Programmatic Goal #2 & #3 will be the focal points of a Business Plan being developed)

  - Convene an Executive Board for the GISSC, made up of senior representatives of the current permanent members, chaired by OCTO

  - Seek endorsement (or amendment if needed) of Mayors Order 2002-27 from the current Mayor, Adrian M. Fenty

Continued

Implementation Priorities and Action Items (Proposed)

- ## OCTO will:
  - □ Schedule the first official "Annual Budget Meeting" for September 2008
    - *Review GIS obligations during the Fiscal Year ending September 30th*
    - *Review planned obligations for the upcoming Fiscal Year beginning October 1st*
    - *Prepare coordinated budget submittal for the Mayor's Office for the Fiscal Year beyond the upcoming new one*

Continued

Implementation Priorities and Action Items (Proposed)

- ▪ GISSC Executive Board will:
  - □ Conduct a vote amongst the Executive Board to endorse and adopt the completed Strategic Plan as a guide to the continuing operations of DCGIS and GISSC governance reform, including by reference the official adoption of the DC Government Federated Geospatial Data Model and associated best practices
  - □ Develop Bylaws for the governance of GISSC

Summary

Second Draft of Strategic Plan Complete:

- Revised Mission Statement

- Articulated Five Programmatic Goals and Drafted Success Factors

- Description of Existing Infrastructure and Requirements Underway

- Implementation Priorities Established, i.e.,

  - GISSC Governance Reform

  - Business Plan for Data, Applications, Web Services, and People Services

DC GIS Business Plan:
First Draft

Overview

Prepared By:

APPLIED GEOGRAPHICS, INC.
Empowering People with Spatial Solutions

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Programmatic Goals

1. Focus District resources on geospatial data and systems that are inherently state or local and align with District priorities

2. Develop and operate enterprise geospatial applications, mapping data, and Web services that enhance the utility, reduce the cost, and expand the interoperability of citywide and agency IT systems (*)

3. Provide outstanding customer service and training that enables DC agency users to leverage the full power of GIS technology(*)

4. Sustain and improve GIS coordination in the District of Columbia

5. Be innovative and adapt to the changing market for geospatial technology

(*) Goal #2 & #3 are the focal points of the Business Plan

Why "Applications, Data, and Services" for a Business Plan?

- Strong demand for current, spatially accurate geographic data for the District
- Increased implementation of custom GIS applications by agencies to improve operations
- Growing demand for Web services as an accessible platform for application development
- Ongoing demand for training and workforce development

DC GIS Federated Model: Building on a Solid Concept

"A group of various bodies or parties that
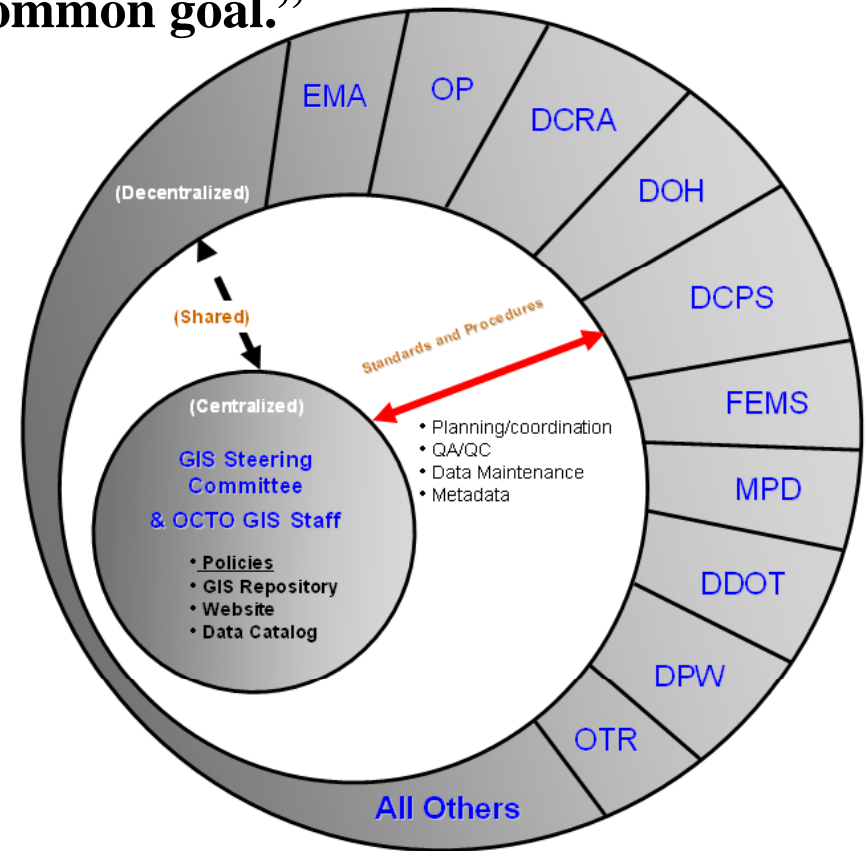have united to achieve a common goal."

The Outer Rim

- Front line agencies
- Federation Participants
- Specific dataset responsibility

The Center

- GIS Steering Committee
- OCTO GIS Staff
- Hosting data and services
- One Stop Geospatial Stop

The Standards Connect

- Adherence is federation membership responsibility
- Support efficient distribution
- Enable common shared tasks

(Decentralized)

(Shared)

(Centralized)

Standards and Procedures

GIS Steering Committee & OCTO GIS Staff

- Policies
- GIS Repository
- Website
- Data Catalog

- Planning/coordination
- QA/QC
- Data Maintenance
- Metadata

EMA OP DCRA DOH DCPS FEMS MPD DDOT DPW OTR All Others

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From Survey: "Please rate the importance of these categories of data to your organization's function"

Answer Options	Not Important	Important	Very Important	Essential	Response Count
Planimetric Mapping	1	3	2	6	12
Digital Orthophotography	1	7	0	5	13
Real Property (SSL/Parcel)	1	4	2	7	14
Citywide Data Warehouse	0	3	4	7	14
Administrative and Political Boundaries	1	2	3	8	14
Census and Demographics	2	4	4	4	14
Elevation and Bathymetry	5	3	4	2	14
Geodetic Control	5	1	4	2	12
Geographic Names and Places	1	5	3	5	14
Hydrography	6	3	2	2	13
Land Use and Land Cover	2	3	4	4	13
Transportation	0	3	5	6	14
Address Points	0	2	2	10	14
Live Data (e.g. camera feeds)	2	4	3	4	13
Other (please specify type and relative importance)					1
answered question					14
skipped question					1

Number	Other (please specify type and relative importance)
1	Oblique Aerial Photography

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From Survey: "Please rate your relative dependency on the following DC GIS services in your job"

Answer Options	Not needed	Occasionally needed	Frequently needed	Essential for job function	Response Count
Master Address Repository	0	1	5	6	12
Google Maps	3	5	3	1	12
Google Earth (public version)	3	6	2	1	12
Google Earth (DC Intranet version)	5	5	2	0	12
ArcGIS (Citrix)	2	2	4	4	12
GIS Data Search - Searchable GIS Database with Metadata	0	5	4	3	12
Frequently Requested Maps	1	9	1	1	12
DC Atlas - Detailed Online Mapping	1	6	2	3	12
DC Guide - User Friendly Online Mapping	4	5	1	1	11
					12
					3

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From Survey: "Rank the following tasks.1 is least important and 5 is most important"

Answer Options	1	2	3	4	5	Rating Average	Response Count
Continue the development and deployment of Web services for DC GIS departmental users and applications, such as permitting	0	0	2	1	5	4.375	8
Train GIS users	1	0	2	4	1	3.5	8
Deploy a DC intranet version of Google Earth that combines the richness of DC GIS data with the ease of use of Google (DC professional use only, due to licensing constraints)	3	3	1	0	1	2.125	8
Provide technical support (help desk) and consulting	2	2	2	1	1	2.625	8
Deploy mobile laptop applications for DC First Responders (FRs)	2	3	1	2	0	2.375	8
answered question							8
skipped question							7

From Survey: "What are your major challenges or barriers to increasing use of GIS in your organization?"

Answer Options	Response Percent	Response Count
Data availability	18.2%	2
Cost of data collection	9.1%	1
Business process changes	18.2%	2
Integration with non-GIS systems	45.5%	5
Data sharing issues	36.4%	4
Need more GIS staff	54.5%	6
Need more GIS training	72.7%	8
Need technical assistance	27.3%	3
Problems acquiring appropriate software	18.2%	2
Lack of adequate or stable funding	36.4%	4
Lack of executive management support	36.4%	4
Lack of support from elected officials	36.4%	4
GIS not viewed/used as a necessary technology	27.3%	3
Other (please specify)	9.1%	1
answered question		11
skipped question		4

Work-in-Progress From Data Catalog Analysis:
## Quarterly Update Schedule

Bold = Strat Plan Goal #2 layer

		10/1/07	10/1/08	10/1/09	10/1/10	10/1/11	10/1/12	10/1/13	10/1/14
Calendar Year		2008	2009	2010	2011	2012	2013	2014	
FY		2008	2009	2010	2011	2012	2013	2014	
Quarter		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Category	Layer Name	Originator	Update Cycle	Last Modified
Boundaries	Business Improvement Districts	Individual BIDs	Yearly	12/10/07
Boundaries	Enterprise and Empowerment Zones	EOM	Yearly	1/12/04
Boundaries	High Tech Development Zones	EOM	Yearly	7/21/05
Boundaries	Neighborhood clusters	OP	Yearly	1/12/04
Bus/Econ Dev	Neighborhood Investment Fund Areas	EOM	Yearly	2/4/08
Bus/Econ Dev	District Revitalization Areas	OP	Yearly	7/27/06
Bus/Econ Dev	Historically Underutilized Bus Zones	OP	Yearly	7/27/06
Bus/Econ Dev	Home Again Areas	OP	Yearly	7/27/06
Bus/Econ Dev	District Revitalization Areas	OP	Yearly	7/27/06
Bus/Econ Dev	Strat Neighbor Investment Prog Areas	OP	Yearly	7/27/06
Bus/Econ Dev	Hotel	OCTO	Annually	7/27/06
Bus/Econ Dev	Shopping Centers	OCTO	Annually	4/18/07
Civic	Cemeteries	OCTO	5 Years	1/12/04
Civic	**Cultural features**	**OCTO**	**5 years**	**1/12/04**
Civic	Libraries	DCPL	Yearly	10/10/07
Civic	Places of worship	OCTO	Yearly	3/18/08
Civic	Post Offices	USPS	Yearly	10/23/06
Civic	African American Heritage Trail	CulturalTourismDC	Yearly	6/16/06
Demographic	Census Block Groups - 2000 DC	OP	10 Years	7/27/06
Demographic	Census Block Groups - 2000 DC	OP	10 Years	7/27/06
Demographic	Census Block Groups - 2000 DC	OP	10 Years	7/27/06
Demographic	Census Block Groups - 2000 DC	OP	10 Years	7/27/06
Demographic	Census Block Groups - 2000 DC	OP	10 Years	7/27/06
Demographic	Census Blocks - 2000 - DC	OP	10 Years	12/19/07
Demographic	Wards - 2002	OP	5 years	4/18/07

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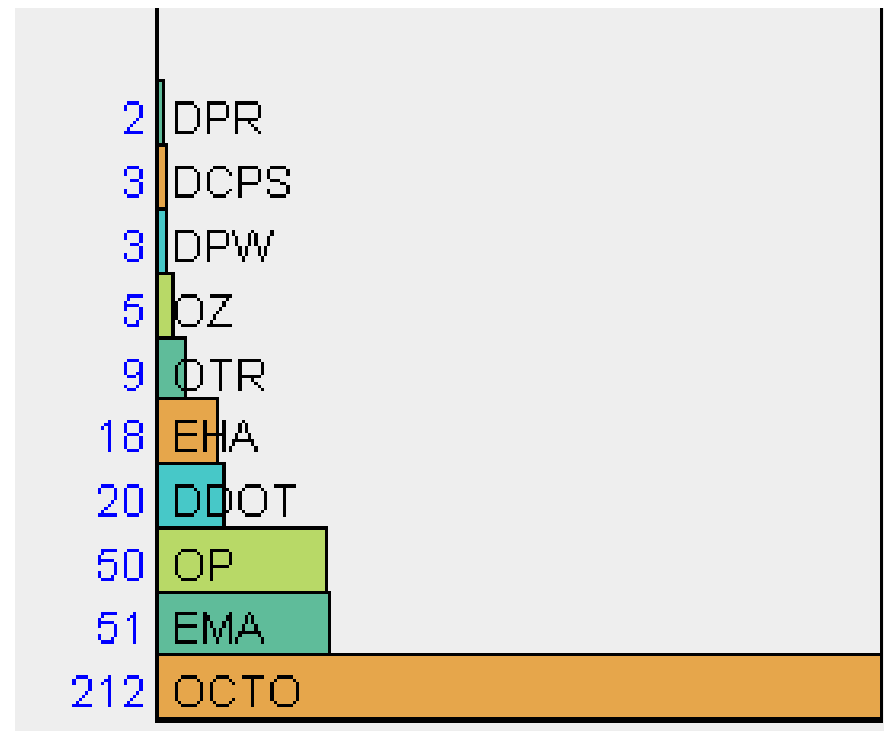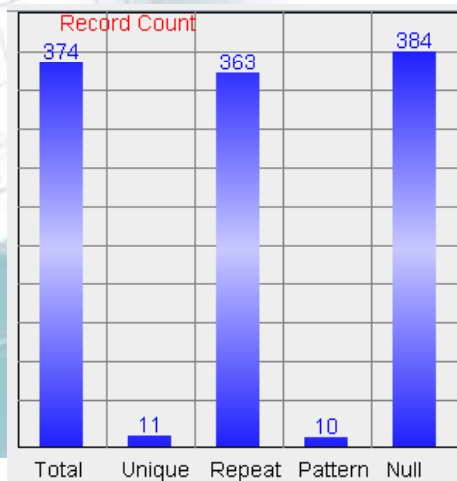USGS — science for a changing world

From Data Profiling: Data Inventory "Originator"

- 68 data originators
- OCTO originates 11% of the layers
- Followed by OP, DDOT, and Census
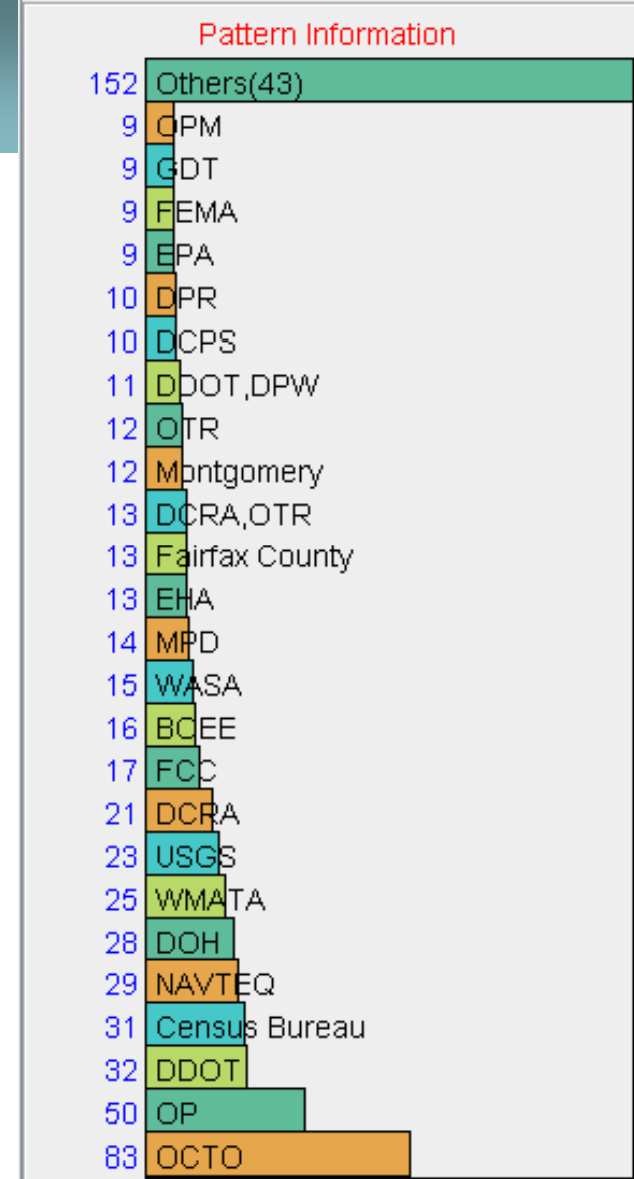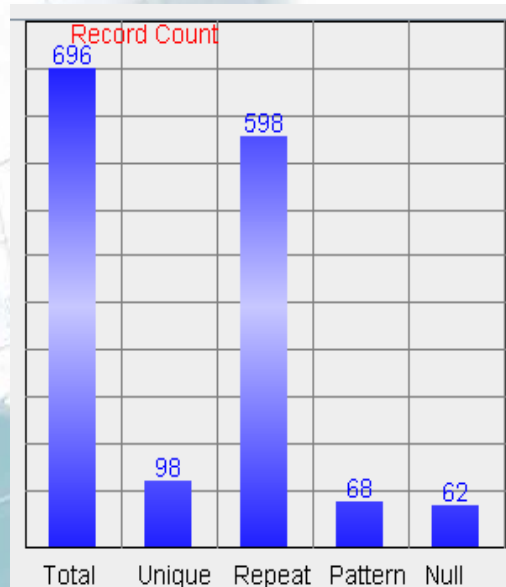
From Data Profiling: Data Inventory "GIS Lead"

- Distribution skewed towards a few
- OCTO is the GIS Lead for 28% of the layers
- Followed by EMA, OP, DDOT

Program Areas and Benefits Matrix

Benefits (to right) Program Areas (below)	Enhance Utility	Reduce Cost	Expand Inter-operability
Mapping Data	Provide user community with enhanced geospatial intelligence for improved decision-making	Reduce redundancy in data creation and maintenance efforts while providing a superior quality data product	Produce a common operating basemap and GIS interfaces across District IT systems
Geospatial Applications	Leverage untapped spatial data in existing business	Automate and streamline business processes to make DC government more efficient	Expose business information across the enterprise through spatial and map-centric reporting for intra-agency benefit
Web Services	Exploit the Web and its protocols to facilitate integration of mapping into existing systems	Deploy "free", re-usable functionality to the development community to increase efficiency in application development efforts	Offer a standardized development platform to deliver consistent GIS functionality across disparate District IT systems

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Summary

First Draft of Business Plan Complete:

- Focused on Programmatic Goal #2 (Applications, Data, and Services)

- Prioritizing Data, Applications, Web Services, and People Services

- Profiling Data Catalog for "Business Metadata"

- Details Being Developed

In Closing, We Are…

- Following the NSGIC and FGDC recommended process for Strategic & Business Planning (Part of 50 States Initiative)

- Involving the Stakeholders in the planning process

- Making progress, but still a work-in-process!

- In the final stretch for completing both the Strategic Plan and the Business Plan: **Final Draft for each due at the end of July**

Remember:
It's the process, not just the plan than counts!

Thank you for your input!

Thank you

Next DC GIS Steering Committee Meeting:

Thursday, September 11, 2008
at 1:00 p.m.
Conference Room TBD
441 4th Street NW