



ATLANTA'S ENTERPRISE GIS PROGRAM (AEGIS)

ARC User Group Meeting- March 4, 2015

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Agenda

- Introduction of the EGIS Team
 - Background and Overview of the Enterprise GIS Program
 - EGIS Data Structure
 - Demo Web Portal and Apps
 - Questions and Answers
 - End
-



The Atlanta Enterprise GIS Program (AEGIS)

What

- Centralized One Stop Shop for Public and Employee GIS Information
- Internal Cloud Solution for All COA's GIS data

Why

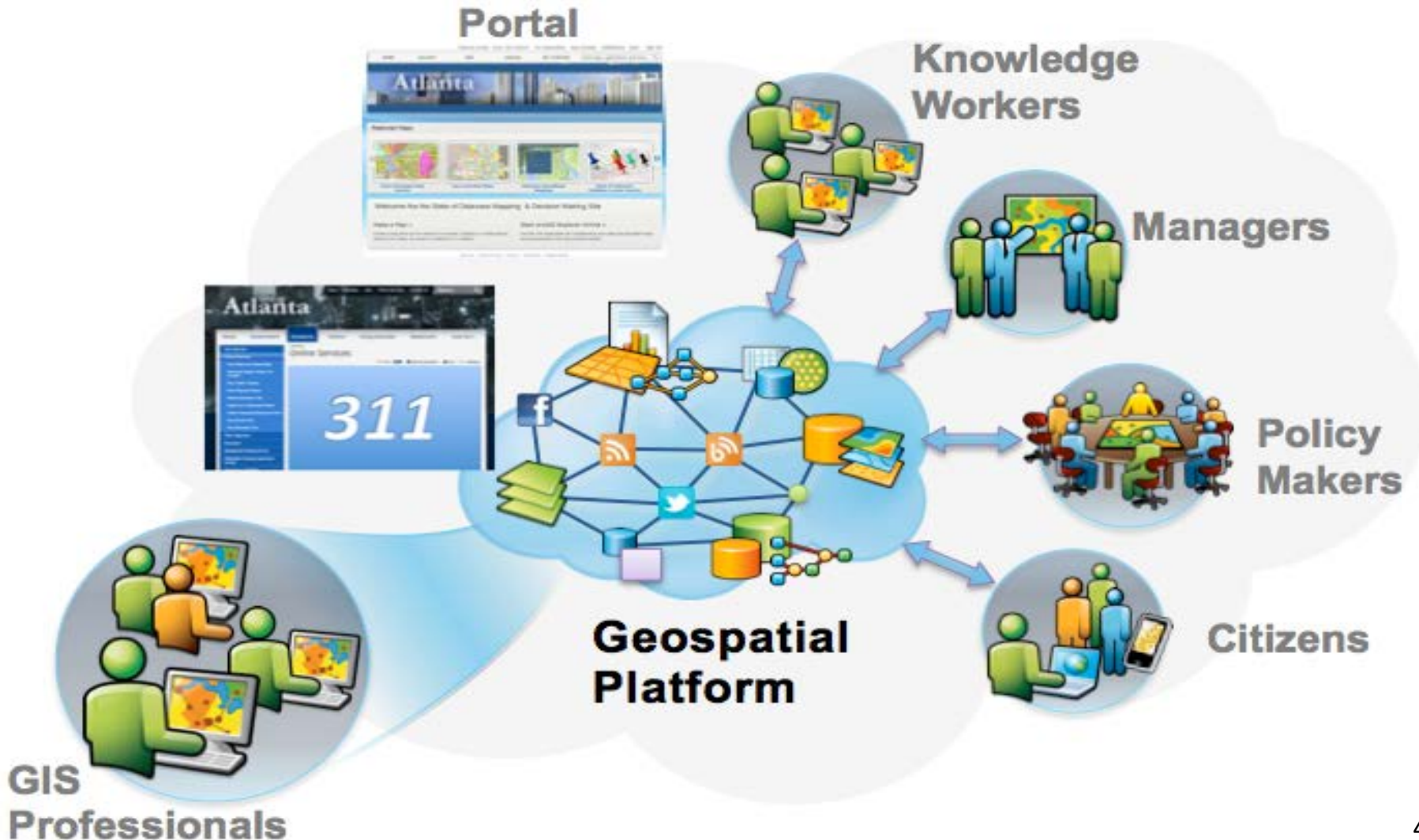
- Too Many Silo'd GIS Environments (7 environments)
- Wide-range of Data Quality
- Difficult to Obtain Accurate Information
- Redundant Information

How

- Select an Enterprise Geographical Information Officer (GIO)
- Design & Build an Internal Cloud Solution
- Migrate & Manage Data in the EGIS
- Govern through a GIS Steering Committee

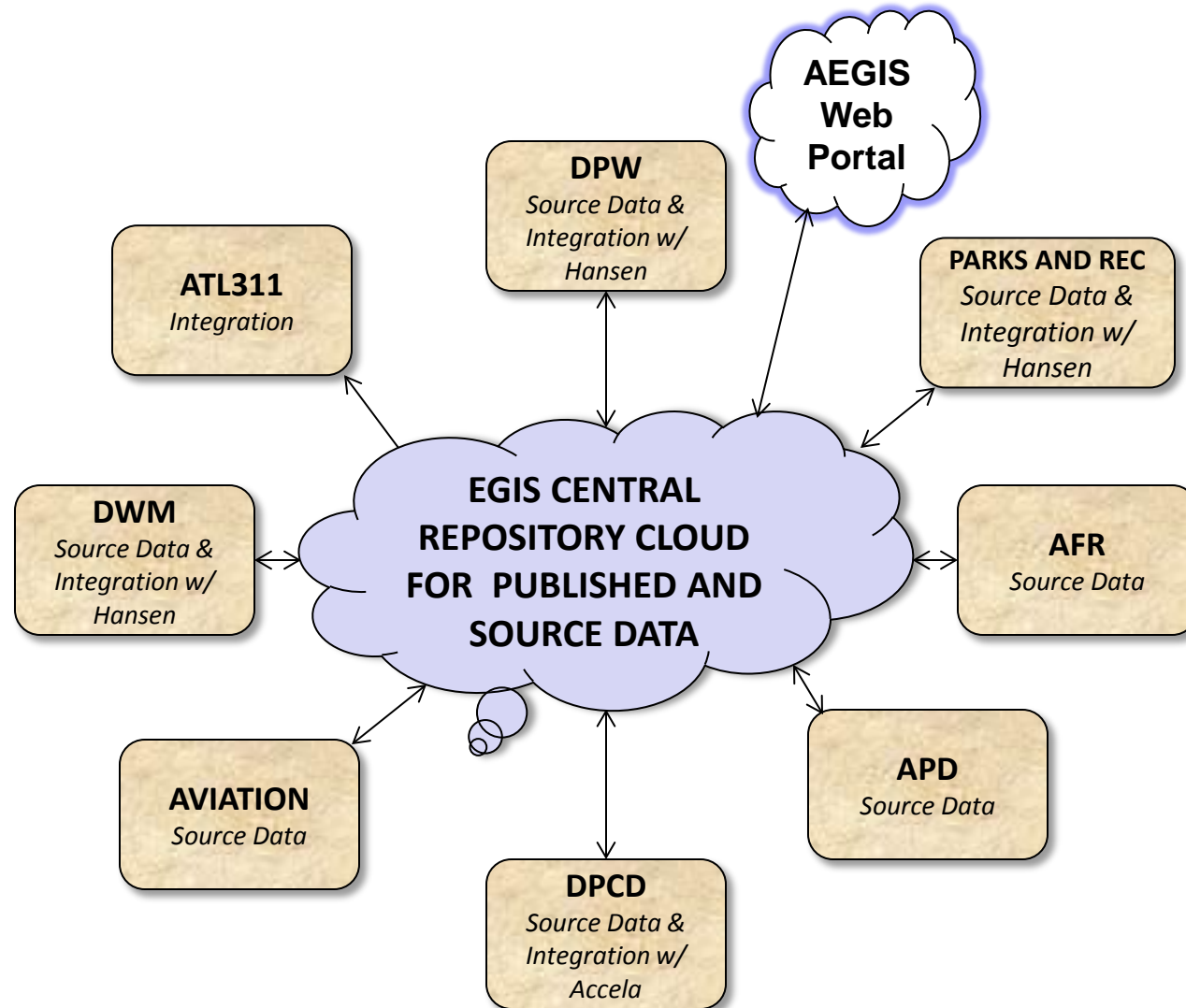


What: The AEGIS Vision





Vision for Gathering, Storing, Editing & Accessing Data



- GIS data (existing) gathered from all internal and external sources
- Data formatted and verified for accuracy and completeness before stored in GIS cloud
- EGIS integrated with ATL311, Accela, Hansen, enQuesta and other Apps as needed.
- Department Workspaces setup for editing and uploading data layers to the EGIS production environment
- Crowdsourcing technics to solicit information from the public
- Design, implement and deploy GIS tools



Overall Strategic Benefits

I. Customer Service

- Provides public with **one** COA contact point for GIS information including online **self-service** to download selected maps
- Establishes central GIS User Helpdesk
- Provides 311 with tools necessary to validate City asset or provision of service at time of customer call
- Provides analytical reporting based on geographic area

II. Fiscal Stewardship

- Consolidates hardware and infrastructure
- Provides potential for revenue generation

III. Operational Efficiency

- Allows information to be accessible and shareable across departments
- Provides map printing capabilities for departments without the capabilities
- Permits use of GIS as a decision support tool by City management

IV. Inter-governmental Coordination

- Improves coordination of GIS activities with other public and private agencies (Fulton, Dekalb, ARC, GDOT, APS, Atlanta Beltline, AFCEMA, etc.)



Department Targeted Benefits

- **Tracking Programs** - GIS provides a powerful tool for communicating and tracking the status and results of programs. From comparing results of educational programs, to following real-time election results, to examining service areas for broadband coverage.
- **Impact Analysis** - In a flooding event, which residences are most at risk? How will the access patterns for emergency care be affected. GIS technology can be utilized to explore these questions with spatial modeling.
- **Business Decisions** - From determining optimal routes for utilities that minimize disturbance and maximize efficiency, to selecting optimal facility locations by considering consumer demographics, site characteristics, and available workforce.
- **Transportation** - From efficiently routing traffic in emergency situations or to reduce fuel costs, to managing the maintenance of roads, bridges, railways, and waterways. GIS provides practical analytical power to the task of keeping the city's transportation systems efficient and safe.

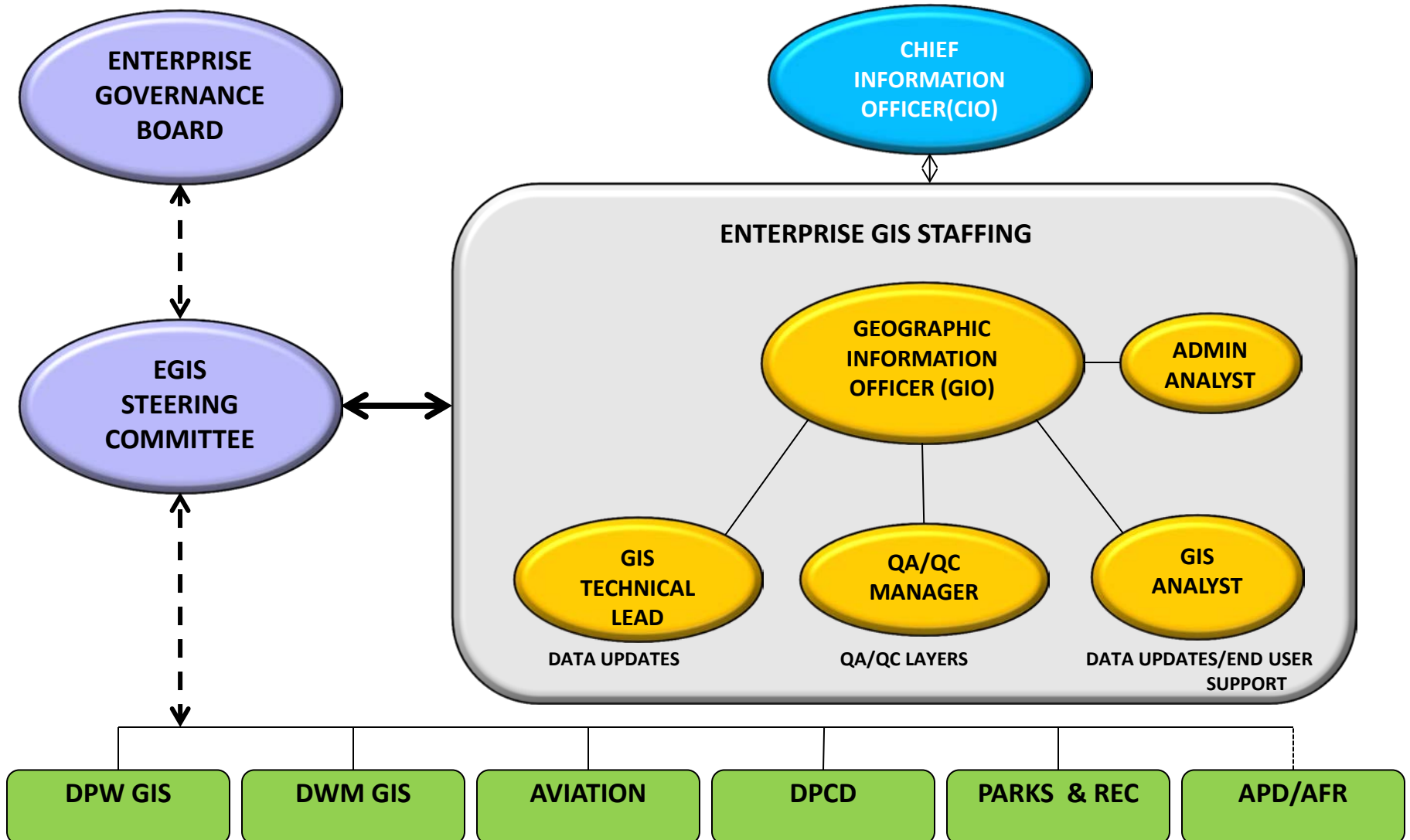


Department Targeted Benefits (cont'd)

- **Safety and Security** - Provide optimal response routes for E-911, to better protect infrastructure and resources critical to homeland security, and analyze crime patterns to optimize patrols, are all ways that geospatial technology can help to protect the City.
- **Community Planning** - Records of land ownership, locations of structures, roads, and utilities, designated and planned green spaces, and other community resources can be integrated using GIS to explore trends in community growth, promote efficient development patterns, and market real estate investment opportunities.
- **Population Trends** - Which areas of the City are growing the fastest and how much has population changed in the last 5 years? Which areas have the oldest population per capita? How have cancer incidence rates changed in the last decade by region?
- **Resource Management** - GIS technology provides a robust method for inventorying, managing, and optimizing the City's resources as well as other resources in the counties. From infrastructure, cultural landmarks, workforce availability and tourist attractions, the location, quantity, and characteristics of various resources can be managed with GIS.

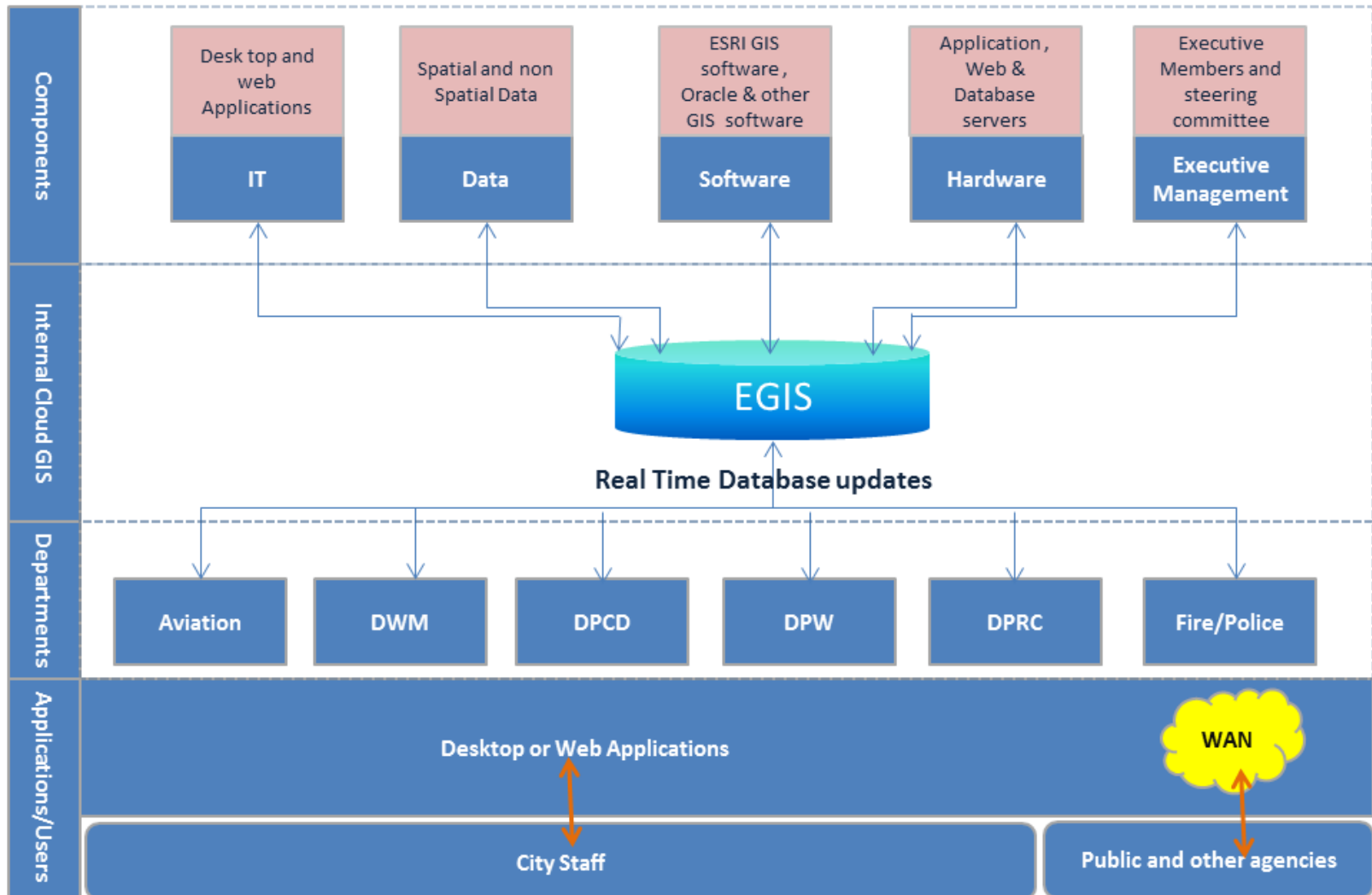


Organizational Support Structure





EGIS Framework





EGIS Data Preparation

Data collection

- Collect All departmental Data
- Data classification (Business Critical Layers/Tables)

Data standardization

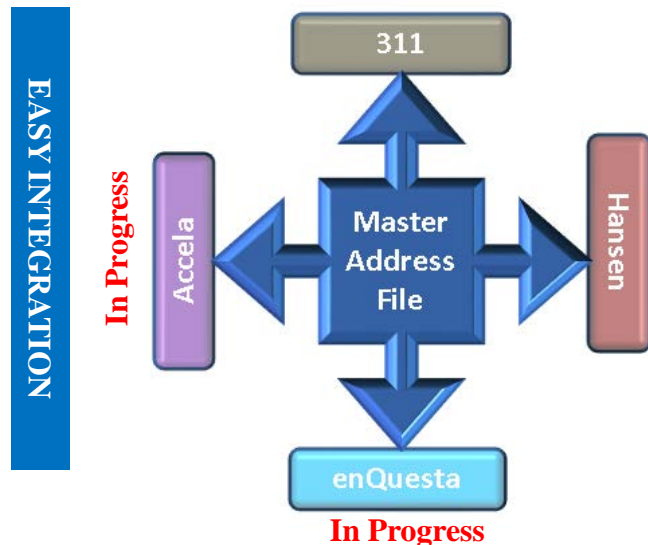
- EGIS Data model
- Import all spatial and non spatial relations to EGIS
- Classification of Layers

Data Cleansing

- Remove Unwanted Data layers (Like Duplicate layers)
- Remove Unwanted attributes (Which are not compatible with Data model)
- Fix Spatial and non spatial distortions

MASTER ADDRESS DATA & INTEGRATION

- All Latest Address Points (Include City and Fulton County)
- EGIS Address Standards
- Regular Update (Inputs from Planning and Fulton County)
- Ongoing QA/QC



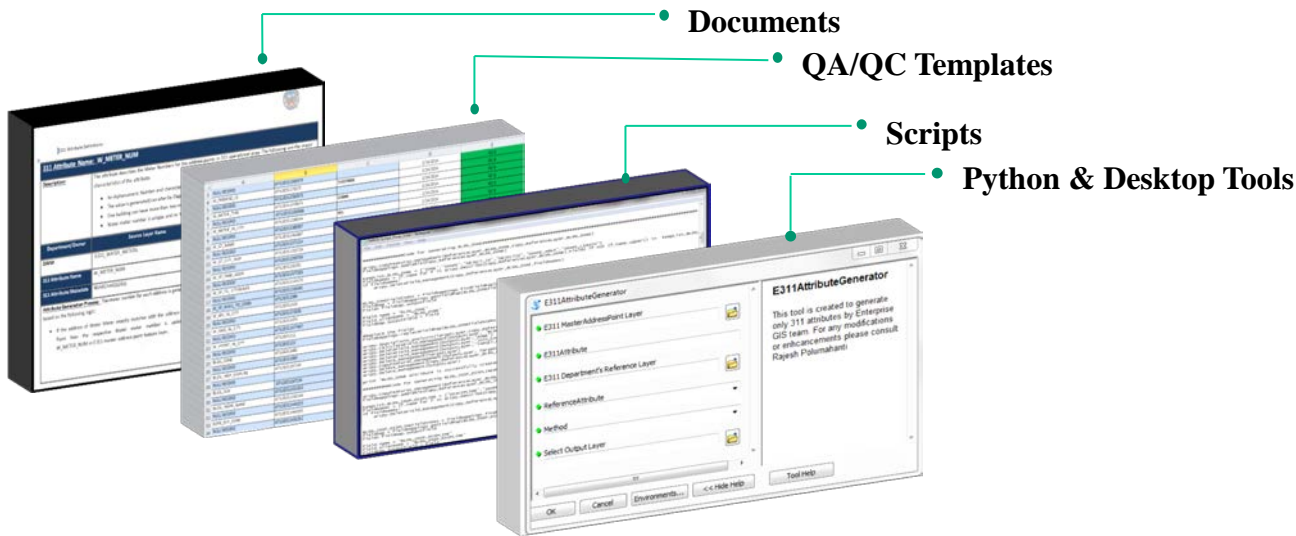


Enterprise GIS Activities

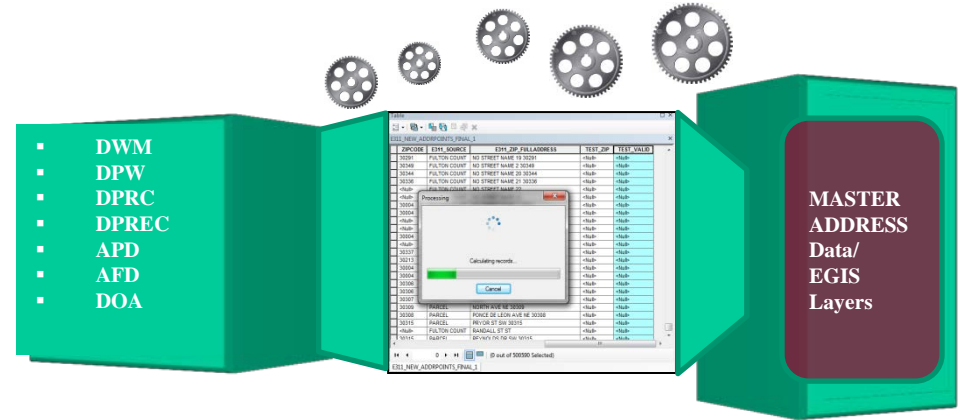
EGIS Updates

- Monitoring 311 Service Requests
- Analyze/Fixing issues with Address Points
- Address data Update
- Ongoing QA/QC
- Freeze Methodology (311-DPCD-Fulton County)

EGIS Support Tools



EGIS Data Generation





Winter Response Utility – Desktop Tool

Winter Response Utility

Winter Response Utility

Input Layer : CITY ROADS CONDITION

Select Field : STR_LBL

Select Field Value : PEACHTREE ST NE

List Of Records:

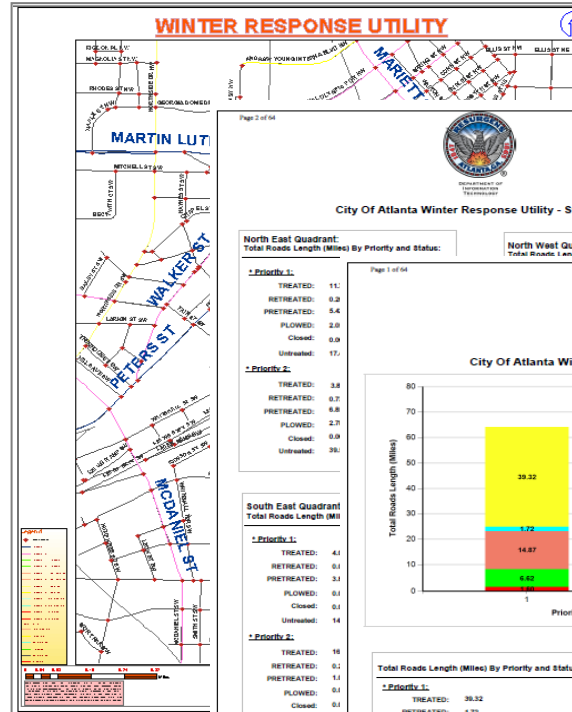
3349	PEACHTREE ST NE	TREATED
3354	PEACHTREE ST NE	TREATED
3359	PEACHTREE ST NE	TREATED
3360	PEACHTREE ST NE	TREATED
3369	PEACHTREE ST NE	TREATED
3381	PEACHTREE ST NE	TREATED
3400	PEACHTREE ST NE	TREATED
3410	PEACHTREE ST NE	TREATED
3415	PEACHTREE ST NE	TREATED
3416	PEACHTREE ST NE	TREATED
3420	PEACHTREE ST NE	TREATED

Update Status :

Select Update Field : ROADSTATUS

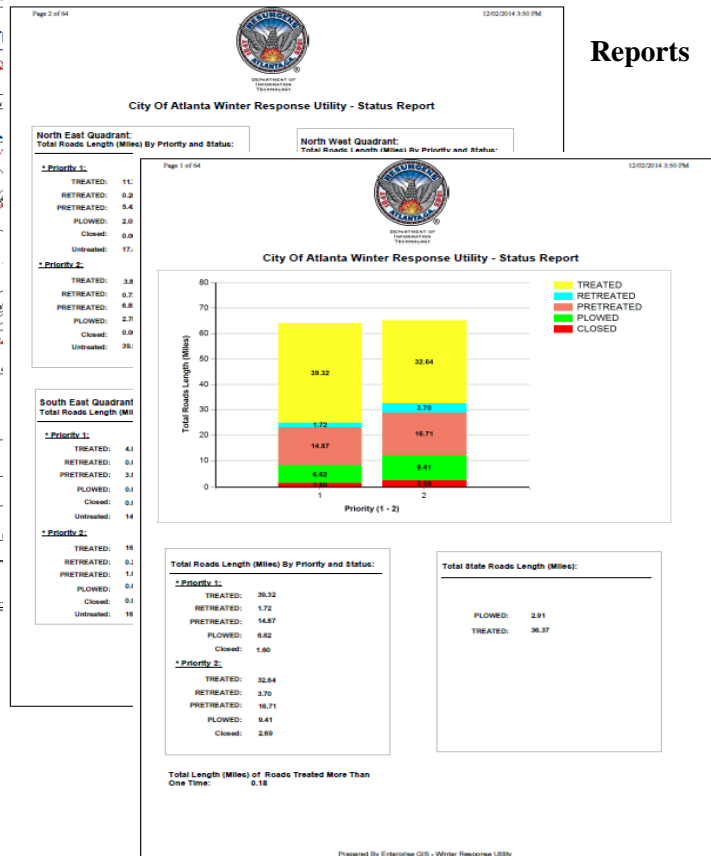
Select Value :

Reports :



Maps

Reports



Real Time





EGIS Program Accomplishments

- **Implemented EGIS Cloud Environment.**
- **Built enterprise GIS Team.**
- **Developed a Master Address File.**
- **Establish EGIS Steering Committee (Seventeen meetings to date).**
- **Setup five Sub-Committees.**
- **Standardized GIS data elements needed for ATL311 integration.**
- **Integrated EGIS with ATL311.**
- **Standardize list of GIS layers from all departments needed for the data population of the EGIS Central Repository.**
- **Design and Layout of the EGIS Web Portal pages.**
- **Add GIS functionality to the EGIS Web pages.**
- **Testing and updating of the EGIS Web Portal.**



EGIS Program Accomplishments (cont'd)

- **Setup and testing external access to EGIS Web Portal.**
- **Developed and deployed the Winter Response Utility for the Department of Public Works.**
- **Developed and deployed ATL311 Service Request Dashboard.**
- **Developed and deployed the Project Collaboration App.**
- **Integrate Vehicle Tracking with Winter Response Utility.**
- **Developing Metal Plate Tracking Tool for Department of Public Works and Watershed Management.**
- **Developing Road Closure and Traffic Condition Tool.**
- **Migrating Departments to internal Cloud Environment.**
- **Negotiating with ESRI for an Enterprise License Agreement.**
- **Developing EGIS Strategic Plan.**
- **Developing EGIS Governance Plan.**



Snapshot of EGIS Web Portal

Enterprise Geograph x
egis.atlantaga.gov/app/home/index.html#

AtlantaGa.Gov / Atlanta News / Contact Us

CITY OF Atlanta

Enterprise Geographic Information Systems - MapATL

Home / Feedback Form / Support / About Us

- MUNICIPAL DISTRICT
- CITY LIFE INFO
- PROPERTY INFO
- PUBLIC SAFETY
- RESIDENCE SERVICE
- TRANSPORTATION

GIS SERVICES

DESTINATION INNOVATION
ATLANTA SUSTAINABLE SUCCESS

- Map Request
- Data Request
- PDF Maps
- GIS Analysis

Get On Board with the Atlanta Streetcar

Exciting changes are coming to downtown Atlanta! Today's dust and detours will soon give way to a spectacular new Streetcar service designed to provide a safe, convenient way to travel along a corridor includes the historic Sweet Auburn District, the campus of Georgia State University...

NEW GEM
OPEN DATA
ATL 311

More About MapATL

- What is GIS
- How to Navigate the map content
- How to query parcel

INTERACTIVE MAP

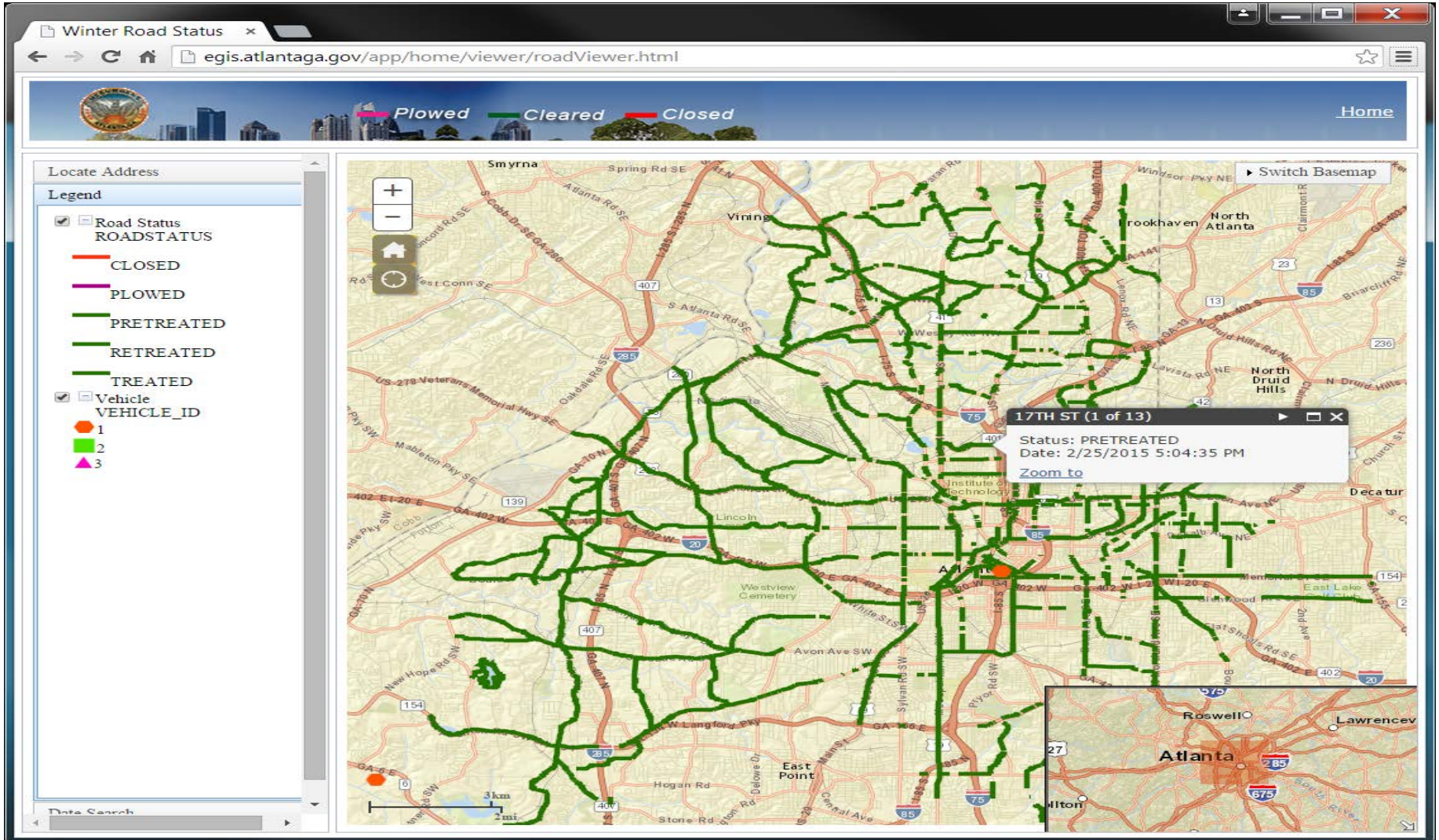
Interactive Tools:

- Service Area
- Winter Response Utility
- Road Closure Coordination
- Road Condition Status
- At311 SR Dashboard
- Vehicle Tracking

Government / Residents / Visitors / Doing Business / Newsroom / How Do I ...



Winter Response Utility Road Status



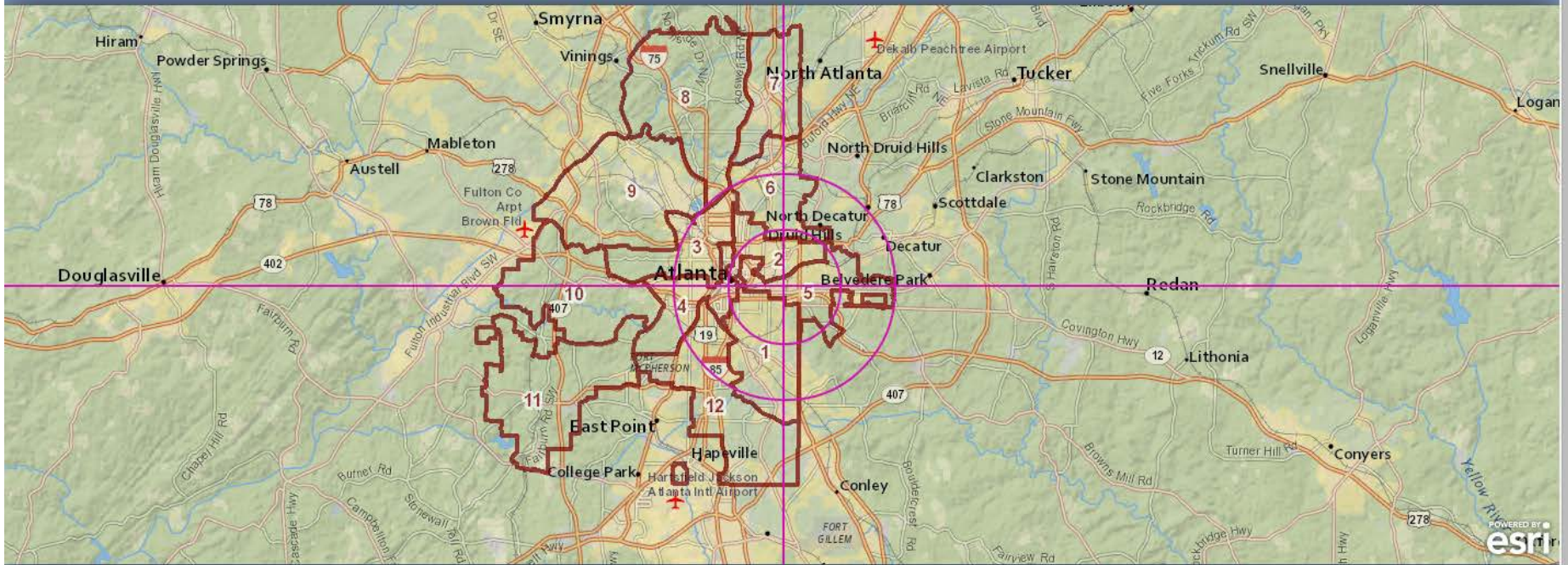


ATL311 Service Request Dashboard

Atl311 Service Request x egis.atlantaga.gov/app/home/gd/default.html

Atlanta 311 Service Request Dashboard

Home Council District 5



POWERED BY esri

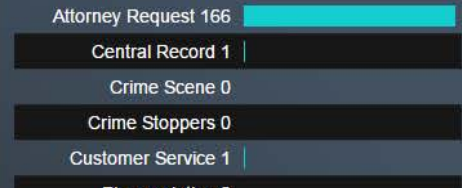
Council District 5

The total service request is **174** between 3/6/2014 and 8/15/2014

Atl311 Service Requests by Area



Atl311 Service Requests by Sub Area





Project Coordination and Collaboration Tool

Project Mapping x

egis.atlantaga.gov/app/home/viewer/utility.html

Enterprise Geographical Information Systems
City of Atlanta

Home

Utility

Layer List

- Point
- PROJ_TYPE
 - CABLE
 - CIP
 - DOT
 - FC
 - GAS
 - PHONE
 - POWER
 - QUALITY OF LIFE
 - REPAVING
 - SEWER
 - SIDEWALK
 - STORMWATER
 - STREET LIGHTS
 - STREETSCAPE
 - UNKNOWN

Date Search

Street View

Switch Basemap

Point

PROJ_NAME	Crosswalk Installation, Counc
PROJ_TYPE	QUALITY OF LIFE
PROJ_DESC	Replace existing crosswalks w
ST_NAME	N/A
CONSTED	7/14/2010


Delete



Public Safety Time Based Coverage Areas

egis.atlantaga.gov/a x

egis.atlantaga.gov/app/home/viewer/service.html

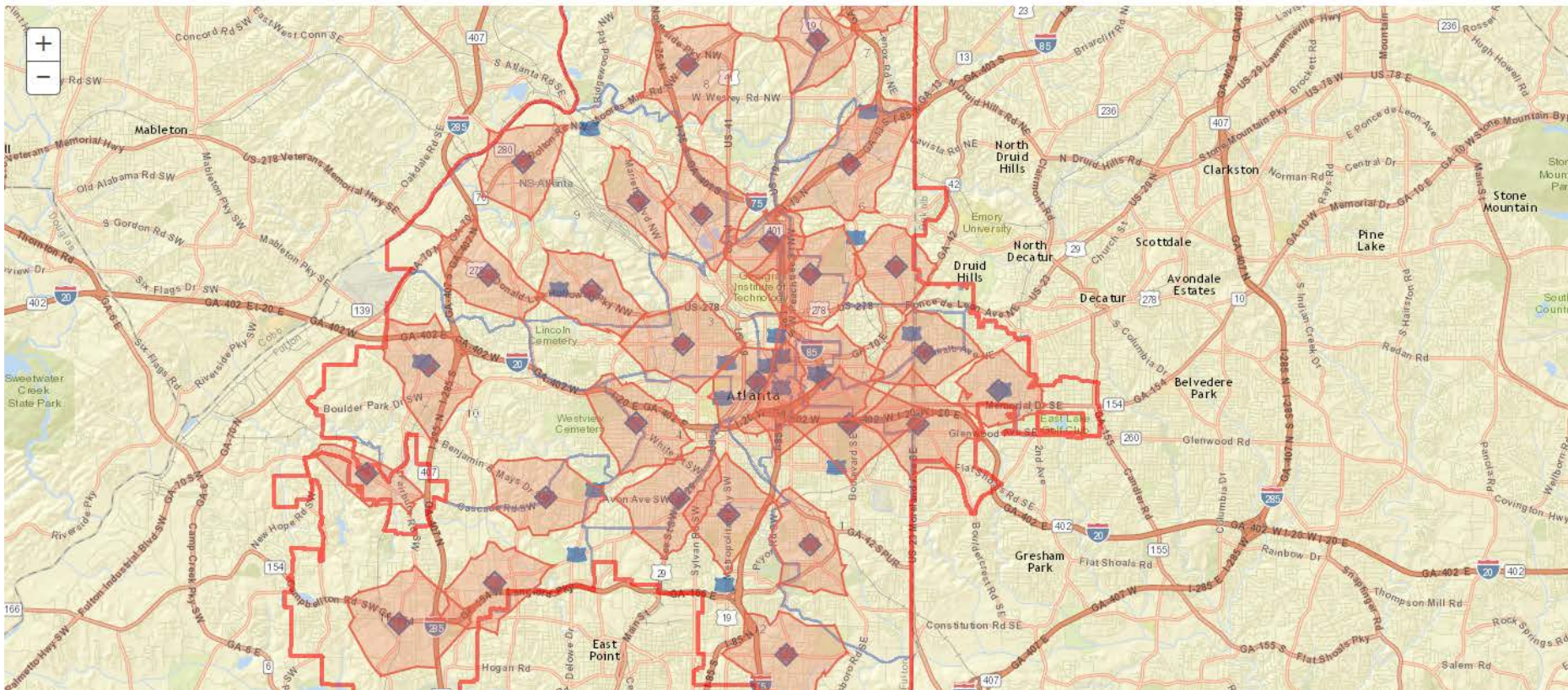
 Enterprise Geographical Information Systems - Service Area [Home](#)

0 0:40 1:20 2:00 2:40 3:20 4:00

Travel time: 120 seconds

Fire Station Police Precinct Clear

Switch Basemap





EGIS - Vehicle Tracking Tool

Vehicle Real Time M... x

egis.atlantaga.gov/app/home/viewer/driveCam.html

Enterprise Geographical Information Systems
City of Atlanta

Home

Locate Address

Find a place

Vehicle Names:
Select Vehicle...

Departments:
ALL

Streets:
10TH ST

Legend

29715
Time: 12:19:11
Vehicle Type: Tandem
Department: Public Works

Atlanta

Atlanta



Questions and Answers

THANK YOU.