GIS Incident Management System for City of Philadelphia Emergency Operations Center

ESRI Mid-Atlantic Users Group Conference

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Presented by:

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Who we are

- Full Service GIS/IT Consulting Firm
- Headquartered in Lancaster, PA

Andrew Smart, GISP
- Senior GIS Analyst
- 10+ years with geographIT

Responsibilities Include

- Oversee development of the City's plans for large-scale emergencies and disasters.
- Conduct training and exercises to evaluate the effectiveness of plans and policies.
- Collect, analyze, and disseminate incident information.
- Coordinate and support responses to and recovery from emergencies.
- Educate the public on preparedness
- Obtain funding in support of preparedness for Philadelphia.

http://oem.readyphiladelphia.org/

City of Philadelphia Managing Directors Office of Emergency Management

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Real Life Scenario

- Hurricane is set to hit Philadelphia Area
- EOC is staffed with personnel from all departments and utilities.
- As event occurs, downed trees, wires, building damage, etc. are reported through 311, 911 or direct contact
- Incidents are tracked and managed to ensure all incidents are addressed at to keep track of impact
- Throughout course of event executive staff reports on status of number of incidents, resolution, etc.
- Post event, counts of number of incidents, types, time to resolve, etc are collected to analyze event.

Current Incident Management Process

- EOC Activated for an Event

- Data originates from multiple agencies – Fire, 311, etc. and passed to OEM
  - Paper notes passed between personnel
  - Phone Call
  - Manually copy data
  - Listen to radio

- Spreadsheets used for managing incidents status and counts

Problems

- Manual entry
- No map integration – Copy address into google maps……
- No database for "rollup" counts
- No time "awareness"
- No standardized address
- Incident data entered in multiple systems with same information

What do we want to accomplish?

- Standardized data model to store data
- Reduce Manual data entry
- Integrate incident data with GIS
- Dashboard to provide current picture
- Support operational workflows
- Multi-user and platform support
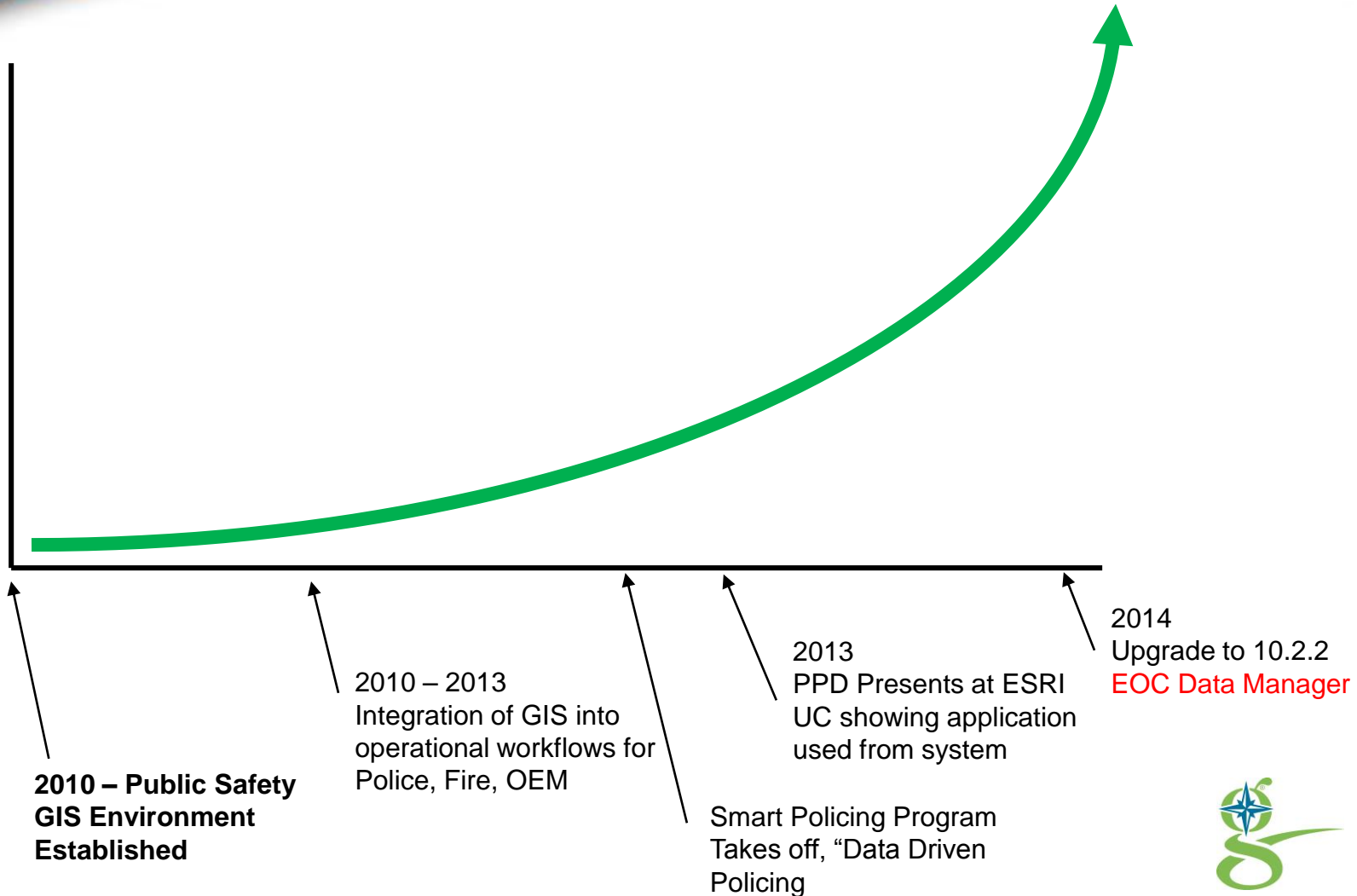- Build on top of existing GIS enterprise
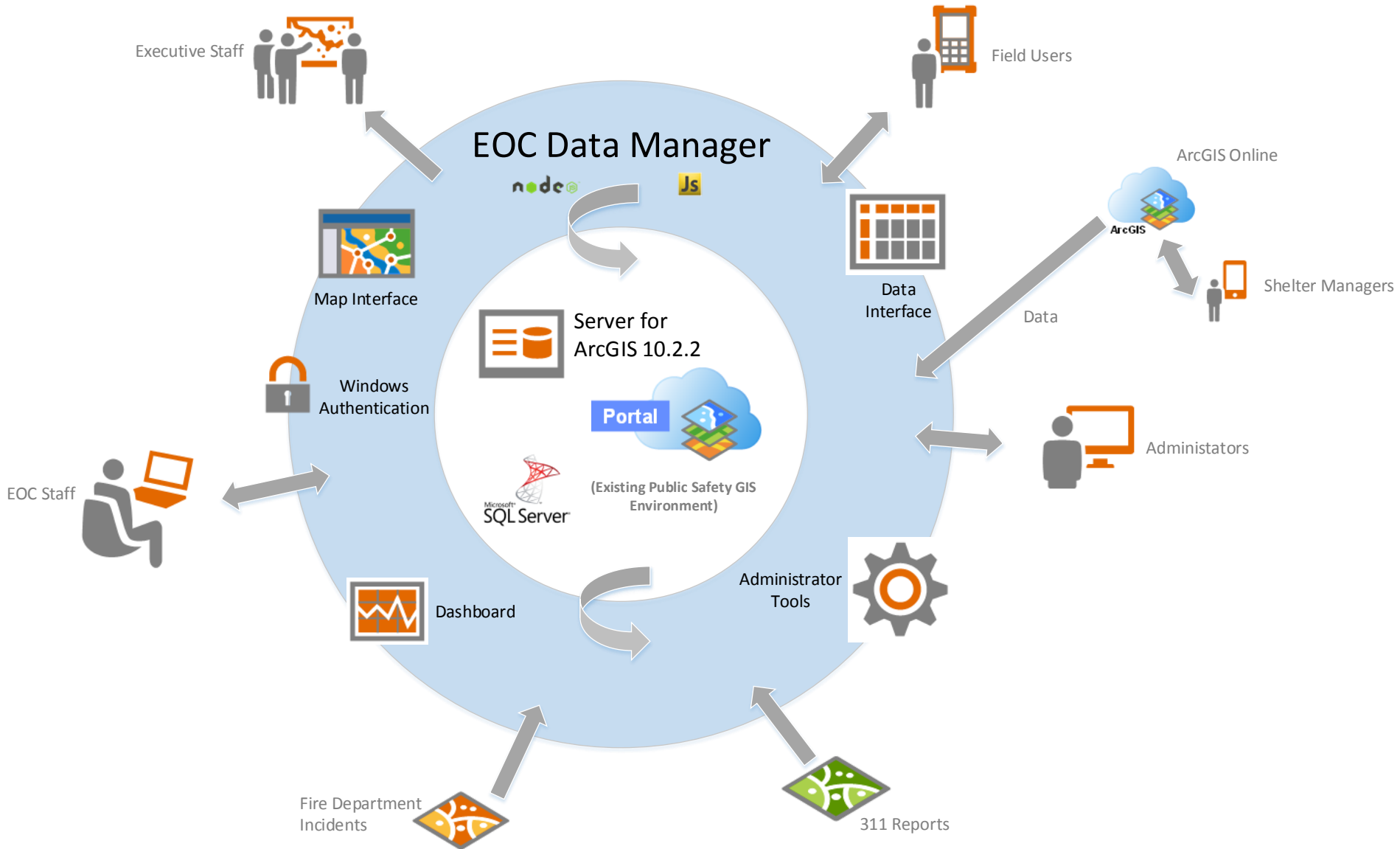
Can all this be done with GIS?

History

Use of GIS in City of Philadelphia Public Safety Departments

2010 – Public Safety GIS Environment Established

2010 – 2013 Integration of GIS into operational workflows for Police, Fire, OEM

Smart Policing Program Takes off, "Data Driven Policing

2013 PPD Presents at ESRI UC showing application used from system

2014 Upgrade to 10.2.2 EOC Data Manager

Demo

Key Functionality

- Centralized database

- Record level metadata (time/user)

- Web based access

- Standardized address system

- Reduction of duplicate records

- Visualization of incidents

Challenges

- Completing project while upgrade to 10.2.2 in progress
- No existing system, starting from scratch
- Incident process not always the same in every situation.
- Building within shared GIS enterprise
- Many participating agencies
- Must run with no internet connection
- Success measured after disaster event…..

Questions?

Contact

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