



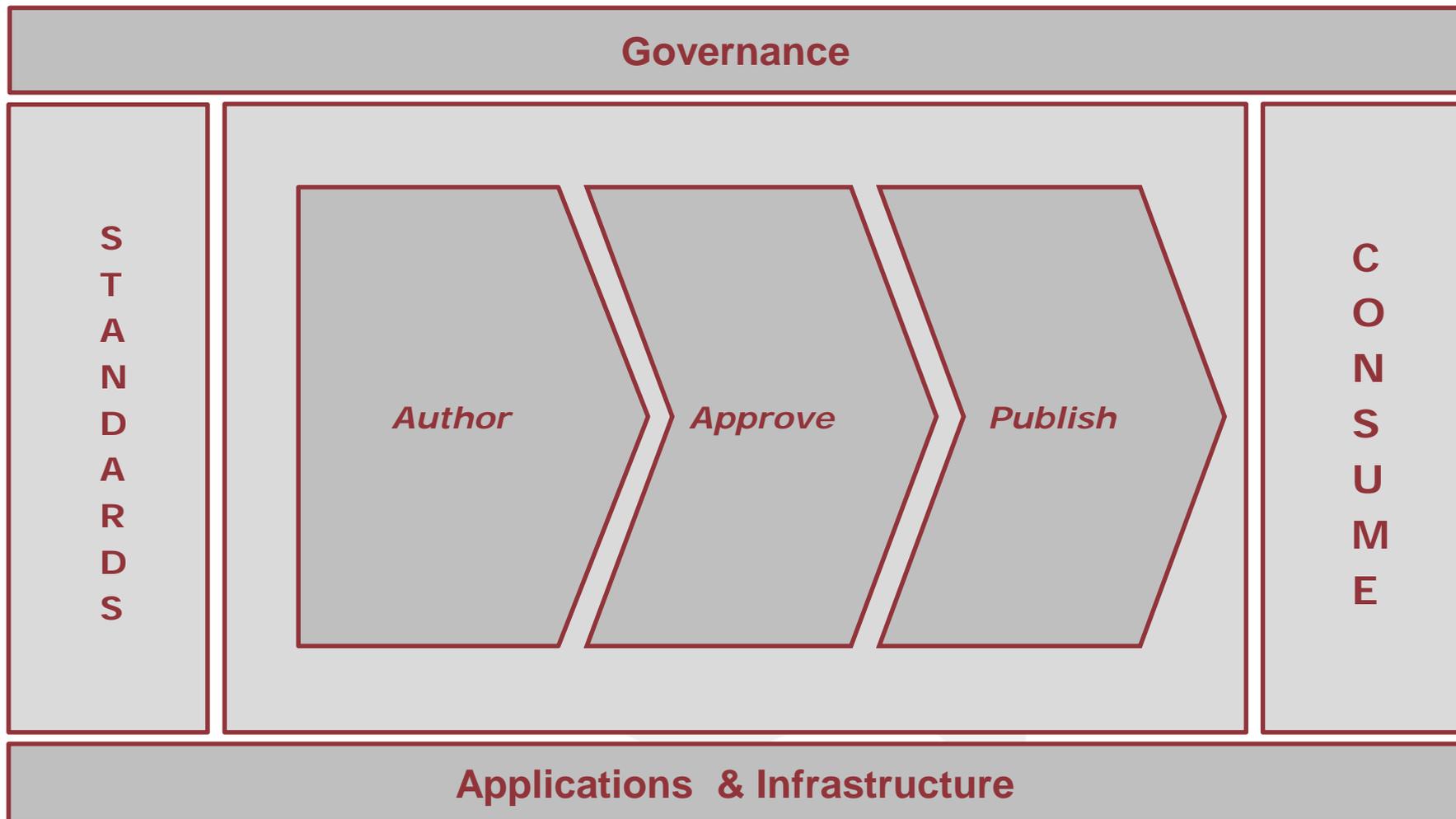
**Commonwealth of
Pennsylvania
State GeoBoard Meeting**

December 2, 2016

Agenda

- Coordination Framework (Slide 3)
- IT Governance Framework (Slide 4)
- Strategic Plan (Slides 5-6)
- PEMA NG911 GIS Plan Overview (Slides 7-16)
- Task Force Updates (Slides 17-31)
- New Business (Slide 32)
- Future Meetings (Slide 33)

Coordination Framework



IT Governance Framework

Definition: *Specification of the decision rights and accountability framework to encourage desirable behavior in the use of information technology (IT).*

IT Principles High level statements about how IT is used in the organization		
IT Architecture Organizing logic for data, applications and infrastructure captured in a set of policies, relationships and technical choices to achieve desired business and technical standardization and integration.	Business Applications Specifying the business need for purchased or internally developed IT applications.	IT Investment and Prioritization Decisions about how much, where to invest, when to invest in IT, including project approvals and justification techniques.
	IT Infrastructure Centrally coordinated, shared IT services that provide the foundation for the organization's IT capability.	

Strategic Plan

- Per Act 178, [the GeoBoard shall] “monitor national and state trends, identify issues of potential interest and concern to the commonwealth and submit annual reports to the Governor and General Assembly and other reports as necessary”
- OA issued a Statement of Work for vendor to document
 - current state
 - activities completed by the Board to date
 - define a Strategic Plan moving forward
- Selected Vendor – GeoDecisions
- Aggressive Schedule
 - 11/21/16 – 3/31/17

Strategic Plan

- Present GeoBoard Strategic Plan during March 20, 2017 Board meeting
- Report will be provided to the Governor's Office
- Expect heavy interaction with task force members
 - 5 day review cycle on deliverables
- Meeting invitations and additional details to follow

PEMA Next Gen 911 Update

NG911 GIS Strategic Plan

NG911 in the Commonwealth



Commonwealth of Pennsylvania
Statewide NG9-1-1 GIS Strategic Plan
November 2016

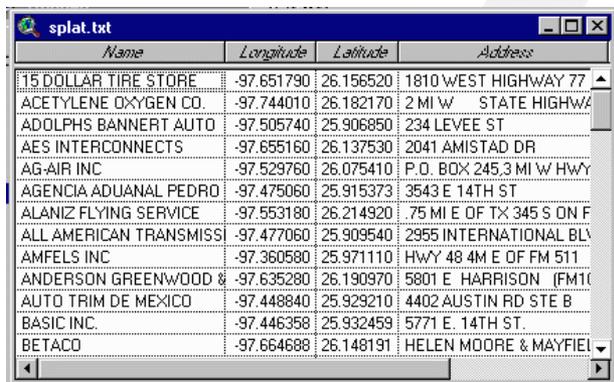


MissionCriticalPartners
2570 Interstate Drive, Suite 106 | Harrisburg, PA 17110 | 800.8.MIC911 or 800.862.2911 | www.MIC911.com

- PEMA 911 Plan
- GIS Component
- GIS Strategic Plan
- Multiple revisions
- Peer review
- Wide circulation
- Ready for adoption

911/E911 to NG911 Transition

Tabular location to Geospatial location



Name	Longitude	Latitude	Address
15 DOLLAR TIRE STORE	-97.651790	26.156520	1810 WEST HIGHWAY 77
ACETYLENE OXYGEN CO.	-97.744010	26.182170	2 MI W STATE HIGHWA
ADDOLPHS BANNERT AUTO	-97.505740	25.906890	234 LEVEE ST
AES INTERCONNECTS	-97.655160	26.137530	2041 AMISTAD DR
AG-AIR INC	-97.529760	26.075410	P.O. BOX 245.3 MI W HWY
AGENCIA ADUANAL PEDRO	-97.475060	25.915373	3543 E 14TH ST
ALANIZ FLYING SERVICE	-97.553180	26.214920	75 MI E OF TX 345 S ON F
ALL AMERICAN TRANSMISSI	-97.477060	25.909540	2955 INTERNATIONAL BLV
AMFELS INC	-97.360580	25.971110	HWY 48 4M E OF FM 511
ANDERSON GREENWOOD &	-97.635280	26.190970	5801 E HARRISON (FM1
AUTO TRIM DE MEXICO	-97.448840	25.929210	4402 AUSTIN RD STE B
BASIC INC	-97.446358	25.932459	5771 E. 14TH ST.
BETACO	-97.664688	26.148191	HELEN MOORE & MAYFIEL



GIS Data Requirements

Statewide, interoperable data:

- Road Centerline:
 - Must contain address ranges
 - Attribution must follow NENA standard
 - Must be topologically correct
- PSAP Boundaries:
 - All edges must snap together
- Emergency Service Zones:
 - All edges must snap together

Why Statewide Data?

- 70% of 911 calls are wireless (FCC)
- Up to 40% of wireless calls are misrouted (CHP)
- PSAP alternate routing
- Call overflow assistance
- Mutual aid dispatching



Statewide Remote Sensing

- PEMA will fund collection of 1' / 6" resolution orthoimagery (Rural / Urban)
 - 46,000 square miles
 - 1/3 of Commonwealth per year
 - Statewide collection considered as well
 - West to East collection plan
 - Commence in 2018 – allowing for budget planning in 2017

Statewide Remote Sensing

- Agencies have opportunity to 'buy-up' additional products
 - Higher resolution imagery
 - Other statewide or local products
 - ~LiDAR, Contours, Planimetrics, Obliques, etc.
- PEMA will solicit buy-up purchases through GeoBoard, CCAP, others
- Guaranteed 911 funding for 3 years

Wider GIS Considerations

- Local data = Best data
- Governance of program
- Adoption of standards
- Overcome learning curve
- Local data and applications needs
- Distribution to Commonwealth
- *More...*

Responsibility Overlap (PEMA / GeoBoard)

- Data creation, aggregation and dissemination standards
- Foster a working group for public safety data
- Maintain a data storage and distribution system for 911 data
- Perform data inventory and quality study
- Remote sensing RFI / RFP



Task Force Updates



Task Force Updates

Data Program

Data Program Task Force

- Data Sharing
 - Activities
 - ~ Review of other sharing agreements in counties and other states
 - ~ Development of strategies around potential barriers and opportunities
 - ~ Attending and presenting at various GIS events and fostering discussion around data sharing

Data Program Task Force

- Potential Barriers
 - Ensuring that data sharing is two way
 - ~ Data must flow both ways from provider to provider
 - Education of data stewards
 - ~ Need to reach out and educate county commissioners and local authorities on why data sharing is important
 - Lack of data standards
 - ~ Not having standards makes sharing more difficult and of less value

Data Program Task Force

- Potential Opportunities
 - Develop a single data sharing agreement
 - ~ Should allow for a one time opt-in and cover all of the entities involved
 - Providing commonwealth-wide, ongoing imagery and LIDAR
 - ~ Needed by all involved and collaborative efforts achieve economies of scale
 - Increased data sharing
 - ~ The state agencies could more actively participate in the sharing of data and the utilization of a central repository like PASDA to make it easier to collaborate

Data Program Task Force

- Potential Opportunities
 - Create centralized funding opportunities
 - ~ Some counties are already finding their own funding opportunities but would like to work on more collaborative efforts and know more about what funding is available for projects. Collaborative efforts related to issues such as flood insurance changes, NG911, data development would be key to helping local governments.
 - Create Archive and Access Point for Data
 - ~ Managing data over time is challenging. Would be in favor of PASDA serving as long term archive for county data. Create a simple process to sharing data at timed intervals. PASDA could maintain data and serve as disaster recovery as well.
 - Metadata Development and Training
 - ~ Existing metadata needs to be improved. Some metadata is incomplete; others don't understand what is required. It is often unclear how, when, etc data was created and updated.

Data Program Task Force

- Joint Task Force Meeting
 - Tuesday, November 15th
 - All day session to develop the proposed base map for Pennsylvania
 - Outcome is 12 data themes
 - Features
 - ~ Broad usability
 - ~ Exists today in various forms
 - ~ Will require coordination for collection and sustainability

Proposed Base Map Themes

<u>Nbr</u>	<u>Theme</u>	<u>Description</u>
1	Transportation – Road and Rail Centerlines, Mile Markers	Represents the transportation network based on a line feature and associated attribute data.
2	Municipal Boundaries	Dividing lines between countries, states, counties, municipalities, and cities.
3	Landmarks	Any prominent natural or artificial object in a landscape used to determine distance, bearing, or location.
4	Hydrography – Catchment, NHD Area, Flowline, Schematics, Waterbody, Junction Points	Represents the drainage network with features such as rivers, streams, canals, lakes, ponds, coastline, dams, and stream gages. It also represent watershed boundaries.
5	Remote Sensing (Imagery)	Uniform-scale image where corrections have been made for feature displacement such as building tilt and for scale variations caused by terrain relief, sensor geometry, and camera tilt.
6	Elevation	Contours, digital elevations models (DEMs), and light detection and ranging (LIDAR)/SPOT data
7	Structures	A constructed item (e.g., building, tower, etc.) that can have an address assigned to it.
8	Land use	Defined as a series of operations on land, carried out by humans, with the intention to obtain products and/or benefits through using land resources.
9	Land cover	Defined as the vegetation (natural or planted) or man-made constructions (buildings, etc.) which occur on the earth surface. Water, ice, bare rock, sand and similar surfaces also count as land cover.
10	Geographic names	Information describing the location and attributes of things, including their shapes and representation. Geographic data is the composite of spatial data and attribute data.
11	Tax parcels/ assessment data	A representation of the boundaries of legal ownership of a single tract or plot of land or real property. It may or may not be spatially accurate.
12	Monumentation	Permanent marking of positions so that the location of the surveyed lands may always be definitely known.

Data Program Task Force

Call for Vote

Propose the approval of these data themes to be adopted as the PA Base Map

Task Force Updates

Governance

Governance Task Force

Objective	Recommended governance model for base map management and service delivery and overall GIS activities across PA
Activities	<ul style="list-style-type: none">▪ Strategic Plan Review Subcommittee▪ Review other states approach▪ Evaluate our own lessons learned▪ Evaluate current opportunities for the governance model▪ Recommend how to complete the governance picture
Deliverables	<ul style="list-style-type: none">▪ Input to governance model for base map▪ Input to PA Strategic GIS Plan

Governance Task Force

Washington State Example

4.0 IMPLEMENTATION PLAN

4.1 Phasing and Milestones

Action Items	Implementation Timeline					Responsibility		DESIRED OUTCOME/RESULTS
	2015	2016	2017	2018	2019	Lead	Support	
Goal #1: Pursue Open Data Initiatives to Facilitate Sharing of Washington State's Geospatial Data								
A. Establish authoritative statewide datasets, including metadata on ownership, frequency of updates, file types, contacts, and others.	★	★	★			GIT Committee	OCIO and WAGIC	
B. Foster widespread use of statewide data standards and guidelines.	★	★	★	★	★	GIT Committee	OCIO and WAGIC	
C. Develop and provide access to a shared geospatial infrastructure for smaller state agencies with limited GIS capabilities, including server space and software licenses.	★	★				GIS Committee	DES	Infrastructure & services are in place for entities to purchase
D. Coordinate Next Generation (NG) 911 data requirements at the state level with input and support from local governments.	★	★				Military	OCIO, WAGIC, Local Gov't	Shared data development environment in place to support spatial information
GOAL #2: Increase Understanding and Support for Geospatial Resources through Education and Outreach								
A. Define target groups of users, analysts, and decision-makers and develop a communication strategy for each group.	★	★	★	★		WAGIC		
B. Widely publicize existing map and data portals, data standards, and other relevant geospatial efforts in Washington State.	★	★	★	★		WAGIC	OCIO	

Governance Task Force

Other Ideas from State Reviews

- Governance Task Force initial concepts are important and consistent:
 - ✓ Concise
 - ✓ Accessible
 - ✓ Updateable
- Vision statement
- History is important
- Layout goals, sub-goals and measurable tasks
- Funding is critical
- Resources to implement are critical

Task Force Updates

Service Delivery

Service Delivery Task Force

Objective	Recommend service delivery provider and approach to produce the base map.
Activities	<ul style="list-style-type: none">▪ Develop provider selection and decision criteria▪ Assess business benefits and potential risks▪ Develop initial service design▪ Determine high-level cost estimates for implementation and operations
Deliverables	<ul style="list-style-type: none">▪ Preliminary service component description, change management impacts, implementation approach, and technical requirements▪ Documented decision about fit for purpose, if fit for purpose, decide on timeline for deployment▪ Decision to proceed with proof of concept testing and identification of target consumers for testing



New Business



Future Meetings

- March 20, 2017, 2:00 -3:00 PM
- May 8, 2017, 2:00 -3:00 PM
- August 14, 2017, 2:00 -3:00 PM
- November 6, 2017, 2:00 -3:00 PM

Location: 333 Market Street, Harrisburg, PA 17126-0333