

Regional 9-1-1 Consolidation Project

Update to Policy Committee

**Jim Hawkins
Project Manager**

May 2, 2019

Final Version

Purpose

Build an implementation plan to consolidate regional 9-1-1 services in order to provide the highest quality 9-1-1 service and lasting value for the residents of participating communities

Core Requirement

- The right public safety resources
- To the right location
- With the right information
- In the shortest amount of time

AND

- General safety and situational awareness for responders during a call or incident

Additional Requirements
for Consolidated 9-1-1 and Dispatch Services
(As Decided by Governance Committees)

Overview



- **Progress and Actions**
- **Concept Development**
- **Project Report Card**
- **Milestones and Events**

Actions on “Enablers”

External Issues Affecting 9-1-1 Consolidation



- **Next Gen 9-1-1 Compliance:** Request Lake County remedy dual addressing in unincorporated areas (public safety & NG 9-1-1 issue)
 - **Action:** Letter from Regional 9-1-1 Consolidation to Lake County requesting a remedy to dual addressing delivered to County Board (Apr. 22)
 - **Action:** Joint 9-1-1 and GIS informational presentation on dual addressing favorably received by County Finance and Administrative Committee (May 2)
[Link to Finance and Administrative Committee Agenda](#)
 - **Action:** GIS Working Group Lead growing working group membership
- **Detention:** 9-1-1 consolidation requires an actionable option / plan to remove detention tasks from PSAP operations
 - **Action:** Law Enforcement group made up of Consolidation Partners held first meeting to explore options to meet county-wide detention needs (Mar. 21)
 - **Action:** LE review of CAD RFI focused on a shared, enterprise RMS (and JMS)

Actions on “Enablers”

External Issues Affecting 9-1-1 Consolidation



- **“Unifying” ETSBs**: Establish a team of ETSB representatives to develop a common, coordinated vision for “unified” use of 9-1-1 surcharge funds
 - **Action**: Initial meeting on Apr. 22 to discuss “unifying” – agree to meet again
- **Standard Technology**: Shared / consolidated public safety technology and data base(s) - CAD, mobile, records (LE & Fire/EMS), and jail
 - **Action**: Tech W.G. (CAD) and new RMS / JMS Team reviewing RFI responses
 - **Action**: Developing pathway to a single RFP for a scalable, shared, enterprise CAD, mobile, records management, and jail management system
 - Window of opportunity for Lake County LE community and LCSO to partner in selecting a new, shared RMS in coordination with CAD selection

Operations Committee

Actions



- **Data Book**: Establish baseline and an understanding of current operations
 - **Action**: Data Book (dated April 2nd) provided to Committees and working groups
 - **Action**: Finalizing “total cost” and staffing estimates
- **Concept Development**: Analyze options and opportunities that can be brought together into one, cohesive 9-1-1 consolidation plan
 - **Action**: [see following slides]

Concept Development

Benefits and Keys to Success



- **Expected benefits (from the IGA)**
 - Reduced call transferring
 - Staffing improvements / enhanced coverage for 24/7 operations
 - More consistent and effective service delivery
 - Greater opportunities for inter-agency response and backup
 - Better data sharing between agencies and responders in the field
 - Enhanced interoperability / ability to share information across jurisdictions
 - Operational savings
 - Reductions in future capital investment
 - Elimination of duplicate technology and maintenance agreements
- **Keys to success**
 - Focus remains on providing the highest quality 9-1-1 service and lasting value
 - Transparency and dialogue
 - Agree to, and work towards, a “coordinated consolidation”
 - Instead of a “*competitive consolidation*”

Concept Development

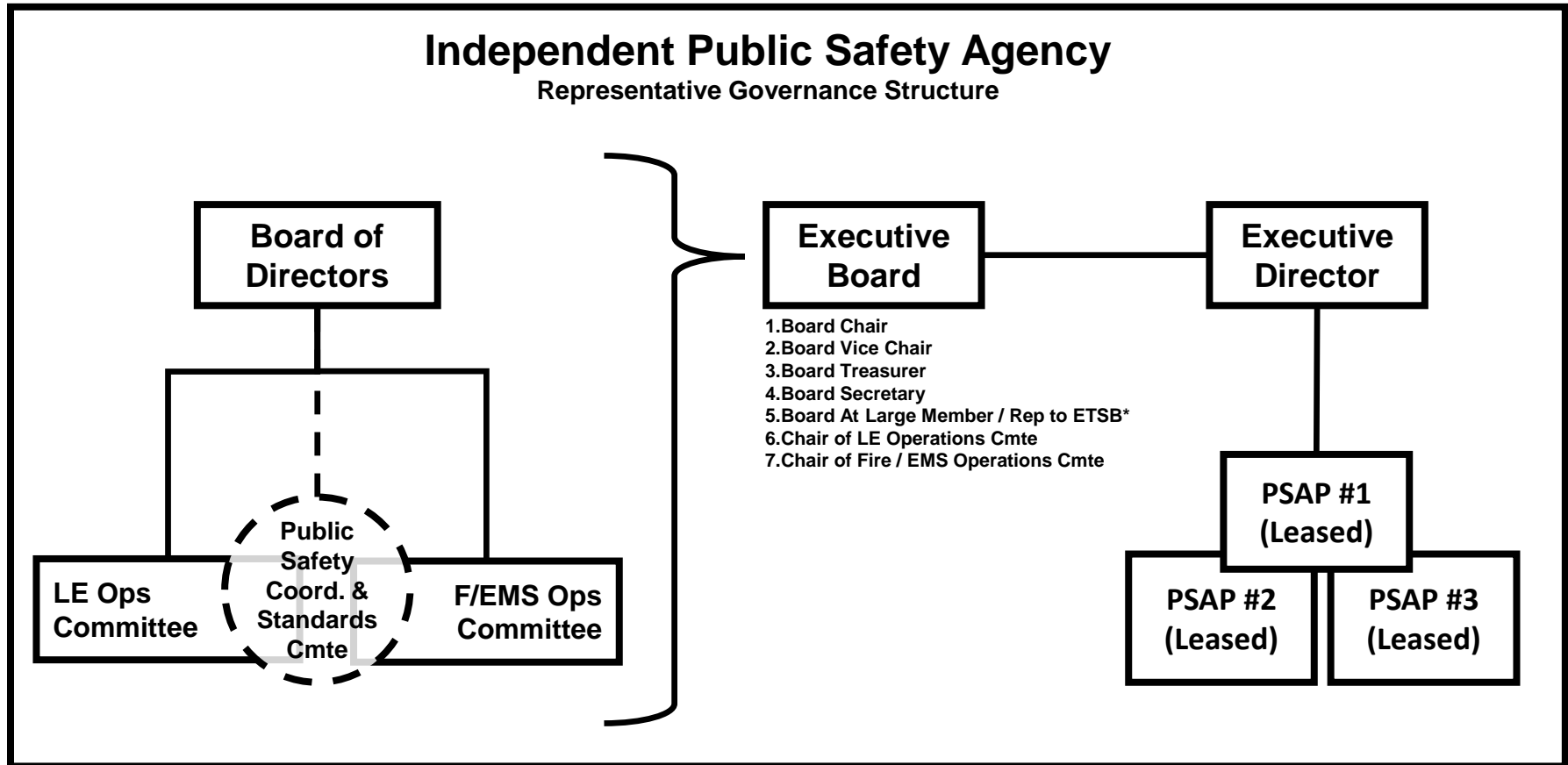
By 2030 ...



- **IGA establishes an independent, public safety agency with a representative governance structure that operates and maintains a joint public safety communications system for mutual benefit of members**

Governance Concept (Proposed)

Structure



* Requires further research

Governance Concept (Proposed)

Structure



- **Board of Directors**

- Each full member can appoint one representative (and alternate) to the Board
- Reps from participating Municipalities, Fire Protection Districts, County
 - City / Village Administrators
 - FPD Trustees
- Elect: Chair, Vice-Chair, Treasurer, Secretary, At Large / Representative to the ETSB*

- **Law Enforcement Operations Committee**

- Membership: Police Chiefs, Senior Sheriff Rep.
- Elect: Chair and Vice Chair

- **Fire / EMS Operations Committee**

- Membership: Fire Chiefs
- Elect: Chair and Vice Chair

- **Public Safety Coord. & Standards Committee**

- Membership: LE Ops Committee leadership, Fire / EMS Committee leadership, Executive Director, PSAP training and standards representatives, other public safety representatives (as required)
- Appoint: PSAP Exec. Dir. is Chair

- **Finance and/or Support Services Advisory Committee(s) (Optional)**

- Appoint: Lead(s)

- **Executive Director**

- Hired by Board of Directors
- Attends all board and committee meetings
- Day to day operations of the agency

- **Executive Committee (7)**

- Allow for expeditious conduct of operations
- Timely policy direction to Exec. Dir.
- Voting Members
 1. Board Chair
 2. Board Vice Chair
 3. Board Treasurer
 4. Board Secretary
 5. Board At Large Member / Rep to ETSB*
 6. Chair of LE Operations Committee
 7. Chair of Fire / EMS Operations Committee
(*Could expand over time*)
- Non-voting Members
 - Executive Director
 - Finance and Support Services Leads

* Requires further research

Concept Development

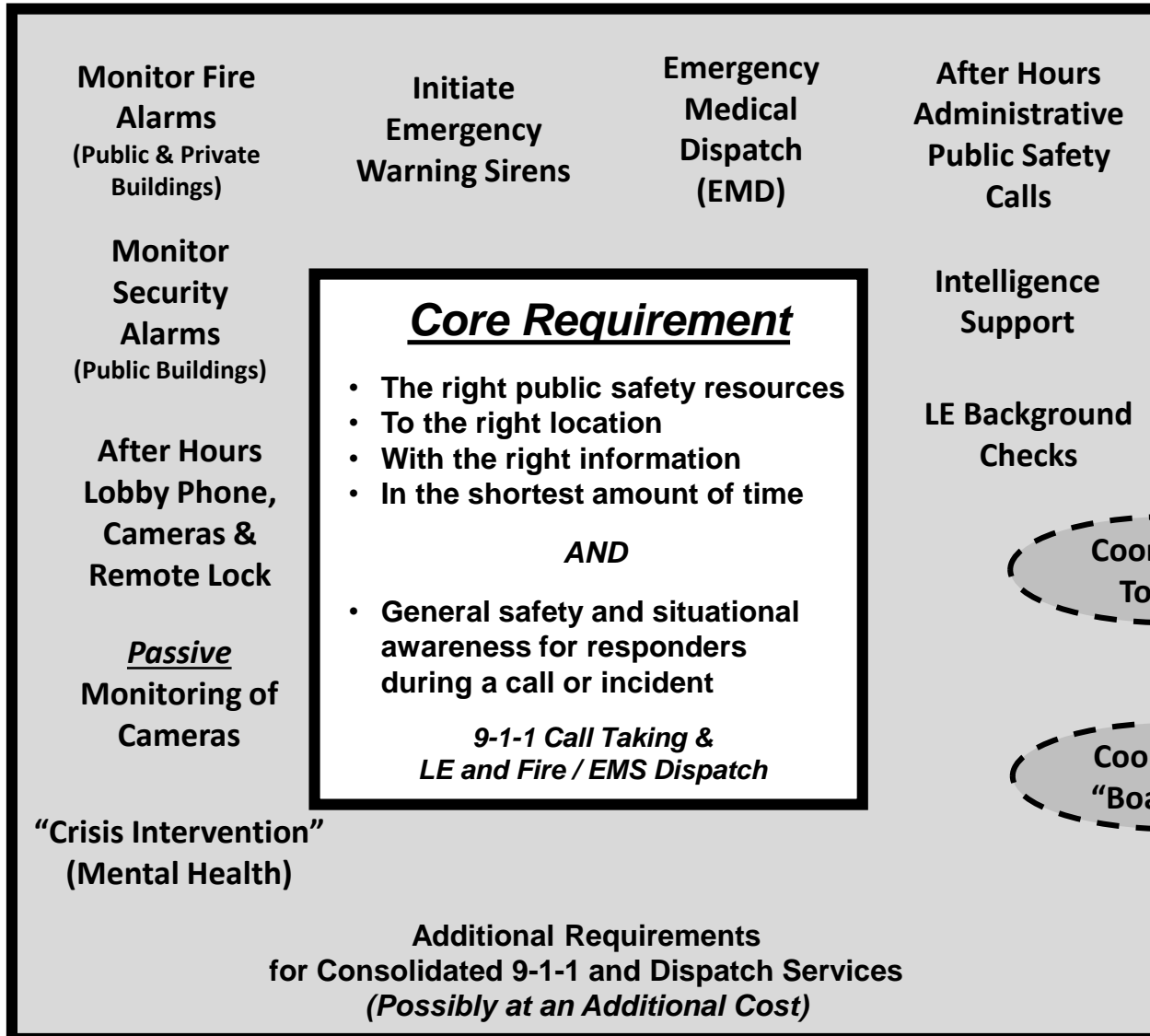
By 2030 ...



- IGA establishes an independent, public safety agency with a representative governance structure that operates and maintains a joint public safety communications system for mutual benefit of members
- **Primary PSAP (answering 9-1-1 calls) and dispatch for LE & Fire / EMS**

Operational Concept (Options)

Additional Requirements



Core Requirement

- The right public safety resources
- To the right location
- With the right information
- In the shortest amount of time

AND

- General safety and situational awareness for responders during a call or incident

9-1-1 Call Taking & LE and Fire / EMS Dispatch

Services NOT Provided

- RMS Entries
- Lobby Window Services
- Operate Detention Facility
- LE Remote Room & Building Access
- Admin. Functions
- Actively Monitor Jail Cameras
- Dispatch Non-Public Safety Agencies

Concept Development

By 2030 ...



- IGA establishes an independent, public safety agency with a representative governance structure that operates and maintains a joint public safety communications system for mutual benefit of members
- Primary PSAP (answering 9-1-1 calls) and dispatch for LE & Fire / EMS
- **Between 2 and 4 leased facilities under one governance structure providing mutual support to include short-term and long-term back up**
 - Back-up facilities are operating centers (“warm” back-up)
 - Short-term and long-term “back-up” facilities physically located in Lake County
 - Primary and back-up facilities have the same equipment

Facility Concepts (Options)

Proposed Consolidated Facilities



Future Facility Summary				
Partners	Existing Additional TC Positions in PSAP?	Area in Current Center / Building to Expand PSAP?	Land Immediately Adjacent to PSAP to Build an Expansion to the PSAP?	Land or Building Available to Build a New, Stand Alone PSAP?
CenCom E9-1-1	YES	YES	YES	NO
FoxComm E9-1-1	YES	YES	YES	NO
Gurnee 9-1-1	YES	YES	YES	YES
LCSO 9-1-1	NO	NO	NO	NO
Lake Zurich 9-1-1	YES	YES	YES	NO
Mundelein 9-1-1	NO	YES	NO	NO
Vernon Hills	NO	YES	NO	NO
Waukegan	NO	NO	NO	NO
Lake County	--	--	--	YES
Lincolnshire (Village)	--	--	--	YES
Mundelein (Village)	--	--	--	YES
Wauconda (Village)	--	--	--	YES

Facility Concepts (Options)

Proposed 2 to 4 Consolidated Facilities By 2030



- **“Four Equals”**
 - 4 (leased) facilities each covering 25% of call / CAD volume
- **“Three Equals”**
 - 3 (leased) facilities each covering 34% of call / CAD volume
- **“Two Satellites”**
 - 3 (leased) facilities total
 - One large facility covering 50% of call / CAD Volume
 - Two facilities each covering 25% of call / CAD volume
- **“Three Satellites”**
 - 4 (leased) facilities total
 - One large facility covering 49% of call / CAD volume
 - Three facilities each covering 17% of call / CAD volume
- **“Two Facility”**
 - 2 (leased) facilities each covering 50% of call / CAD volume
- **“Single Facility”**
 - 1 (leased) facility
 - Requires an external entity / agency provide a backup capability

Facility Concepts

Initial Review of Proposed PSAP Building and/or Property



Name of proposed building and/or property	[name]
Building owner	[name]
Property owner	[name]
Existing building?	Y / N
Proposed shared use of building?	Y / N
Owner willing to lease all or part of the building?	Y / N
Total available ft ²	XX,XXX ft ²
Room to Meet 17% of Total Call Capacity (XX TCs / XX,XXX ft ²)	Y / N
Room to Meet 25% of Total Call Capacity (XX TCs / XX,XXX ft ²)	Y / N
Room to Meet 34% of Total Call Capacity (XX TCs / XX,XXX ft ²)	Y / N
Room to Meet 50% of Total Call Capacity (XX TCs / XX,XXX ft ²)	Y / N
Room to Meet 100% of Total Call Capacity (XX TCs / XX,XXX ft ²)	Y / N
Power - Generator - Back-up power?	Y / N
Power - Grounding - Single point?	Y / N
HVAC - Both temperature and humidity controlled?	Y / N
Radio Comms - Tower on site?	Y / N
Hazards - Lowest floor above 100 year flood plan?	Y / N
Hazards - Lowest floor above 500 year flood plan?	Y / N
Hazards - Proposed comm center floor above or below grade?	[above / below]
Hazards - Name and distance to 3 closest man-made or natural hazards.	1.
	2.
	3.
Distance to closest existing PSAP	[miles]
<p>Note: Analysis using the call and CAD volumes reported in the "Data Book" by the current 21 Partner Agencies.</p>	

Concept Development

By 2030 ...



- IGA establishes an independent, public safety agency with a representative governance structure that operates and maintains a joint public safety communications system for mutual benefit of members
- Primary PSAP (answering 9-1-1 calls) and dispatch for LE & Fire / EMS
- Between 2 and 4 leased facilities under one governance structure providing mutual support to include short-term and long-term back up
 - Back-up facilities are operating centers (“warm” back-up)
 - Short-term and long-term “back-up” facilities physically located in Lake County
 - Primary and back-up facilities have the same equipment
- **Shared / consolidated public safety data base(s)**
 - All participating PSAPs using the same / standard CAD system by 2025
 - Single, shared GIS database
 - Shared / 100% compatible CAD, mobile, RMS, and JMS
- **General pricing model:**
 - LE by # of Sworn Officers
 - Fire / EMS by # of calls
- Larger, contiguous PSAP boundaries (minimal seams, gaps, and overlaps)
- Agency has representation on supporting ETSB(s)











Planning: Month 5 - 8

(Feb. 19 – May. 19)






Goal: Concept of operation approved

Status

-  Update data, capabilities, and assumptions
-  Update timeline and milestones
-  Update working group actions and required output
-  Define outcomes and requirements for:
 - Facilities, Tech, Personnel, Finances, Operating Procedures, Governance
-  Address options for “additional” duties currently performed by dispatch centers
-  Build multiple concepts of operation for committee review
-  Evaluate and compare each concept of operation
 - Outputs / Outcomes, Value, Risk
-  Operations and Policy Committees approve single concept of operation
-  Update agency participant list
-  Update and execute the information plan

Status

	Completed
	In Progress (Trend)
	Problem / Not Started

Consultant Update

Mission Critical Partners (MCP)



- **Project Manager:** Mr. Brian Melcer
- **Cost:** \$115,808 (paid by deliverable)
- **Deliverables and Payment:**

1. **Project Plan:**

- Payment: 15% upon kick off and project plan approval

Completed

2. **First Draft of Plan:**

- Data, analysis, best practices, options, recommendations, risk, and decision support products
- Payment: 30% upon completion of on-site review of first draft of plan

In Progress

3. **Second Draft of Plan:**

- Once the Consortium decides on the concept for detailed planning, the second draft will include the concept decision process, options considered, final decision, and a detailed implementation plan
- Payment: 30% upon completion of on-site review of second draft of plan

4. **Third Draft of Plan:**

- Final draft for review and approval by the Consortium Governance Committees
- Payment: 15% upon completion of on-site review of third draft of plan

5. **Final Plan:**

- Final deliverable must be an executable implementation and migration plan with detailed steps identified for consolidating to a regional 9-1-1 environment for dispatch communication for Lake County partner agencies
- Payment: 10% upon approval of final plan

Milestones & Events

Apr. 14 - 20: National Public Safety Telecommunicators Week

Apr. 23: RFI Responses for CAD Systems Due

Apr. 25 - Ops Committee Meeting (1:00 pm)

Concept Development

May 2 - Policy Committee Meeting (2:00 pm)

May 9: Working Group Meetings

May 16: Working Group Meetings

May 23 - Ops Committee Meeting (1:00 pm)

Concept Decision

Jun. 6 - Policy Committee Meeting (2:00 pm)

Jun. 13: Working Group Meetings

Jun. 20: Working Group Meetings

Jun. 27 - Ops Committee Meeting (1:00 pm)

Jul. 3 - Policy Committee Meeting (2:00 pm)

Questions

Overview of the current environment included as additional slides

Current Environment

End of 2019



- **9-1-1 Consolidation Partners include:**
 - 7 ETSBs (approx. \$6.5 million in 9-1-1 surcharge funds)
 - 8 Primary PSAPs (answer 9-1-1 calls)
 - 8 Law Enforcement Dispatch Agencies
 - 8 Fire / EMS Dispatch Agencies
- **9-1-1 Consolidation Partners service a population of:**
 - ≈ 590,000 (Primary PSAP / 9-1-1 Call Answering)
 - ≈ 560,000 (Law Enforcement Dispatch)
 - ≈ 580,000 (Fire / EMS Dispatch)
- **Telecommunicators**
 - At any time, between 23 and 36 telecommunicators working at the eight partner PSAPs
 - Training period ranges from 3 to 9 months (PSAP dependent)

Comparison: Lake County as a whole (population ≈ 703,000) is currently serviced by:

- ≥ 10 ETSBs (approx. \$8 million in 9-1-1 surcharge funds)
- ≥ 15 Primary PSAPs (answer 9-1-1 calls)
- ≥ 14 Law Enforcement Dispatch Agencies
- ≥ 14 Fire / EMS Dispatch Agencies

Current Environment

9-1-1 Consolidation Partner Totals (Averages for 2016 & 2017)



- **Total calls at Partner PSAPs \approx 1,260,000**
- **Total 9-1-1 calls (\approx 260,000)**
 - \approx 45,900 (17.5%) wire line 9-1-1 calls
 - \approx 202,100 (77.2%) wireless 9-1-1 calls
 - \approx 8,800 (3.4%) VoIP 9-1-1 calls
 - \approx 4,900 (1.9%) abandoned 9-1-1 calls
- **Total 10 digit calls (\approx 1,000,000)**
 - \approx 779,000 (72.6%) inbound 10-digit calls
 - \approx 293,400 (27.4%) outbound 10-digit calls
- **Total computer aided dispatch (CAD) incidents (\approx 953,000):**
 - \approx 67,000 (7%) Fire / EMS Incidents
 - \approx 847,900 (89%) Law Enforcement Incidents
 - \approx 38,300 (4%) Other

Current Situation

PSAP Operations Summary 2017

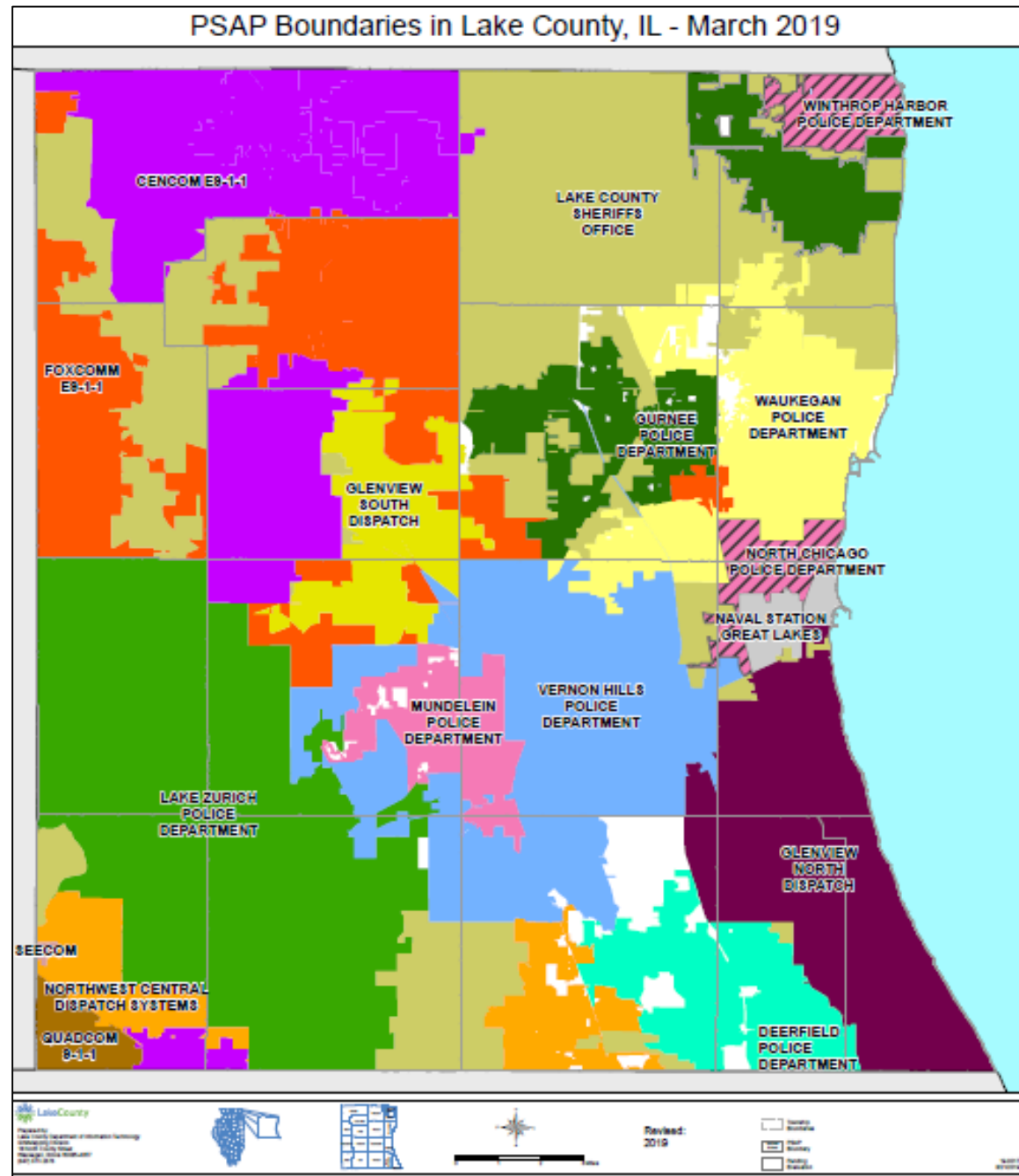
Regional
9-1-1
Consolidation

	Totals	CenCom	FoxComm	Gurnee	LCSO	Lake Zurich	*Mundelein	Vernon Hills	Waukegan	*N. Chicago
PSAP / 9-1-1	590,935	81,500	63,982	90,000	52,149	81,000	31,394	71,181	87,729	32,000
LE Dispatch	561,857	81,379	32,848	54,719	136,876	50,833	31,394	54,079	87,729	32,000
Fire / EMS Dispatch	583,399	91,363	85,000	111,168	0	81,000	31,394	63,745	87,729	32,000
Total Annual 9-1-1- Call Volume	261,675	30,760	14,750	22,720	65,921	19,243	7,458	24,482	62,701	13,640
Wireline (Including VoIP) 9-1-1 Call Percentage	20%	30%	28%	23%	12%	27%	19%	33%	15%	10%
Wireless (Cell) 9-1-1 Call Percentage	78%	62%	72%	68%	88%	73%	81%	67%	85%	84%
9-1-1 Call Volume by Percentage of Partner Total	100%	12%	6%	9%	25%	7%	3%	9%	24%	5%
Total Annual Non 9-1-1 Call Volume	1,084,322	187,416	98,006	126,133	115,767	73,516	38,615	122,279	275,086	47,504
Ten Digit Inbound Call Percentage	73%	77%	71%	71%	69%	70%	70%	70%	75%	76%
Ten Digit Outbound Call Percentage	27%	23%	29%	29%	32%	30%	30%	30%	25%	24%
Non 9-1-1 Call Volume by Percentage of Partner Total	100%	17%	9%	12%	11%	7%	4%	11%	25%	4%
Total Annual Incident Volume	969,044	135,046	126,416	93,067	197,727	144,934	42,048	94,926	84,574	50,306
Fire / EMS Incident Volume Percentage	7%	8%	9%	14%	0%	6%	8%	10%	13%	6%
Law Incident Volume Percentage	89%	69%	88%	85%	100%	94%	92%	90%	87%	94%
Incident (CAD) Volume by Percentage of Partner Total	100%	14%	13%	10%	20%	15%	4%	10%	9%	5%

Current Situation

PSAP Boundaries

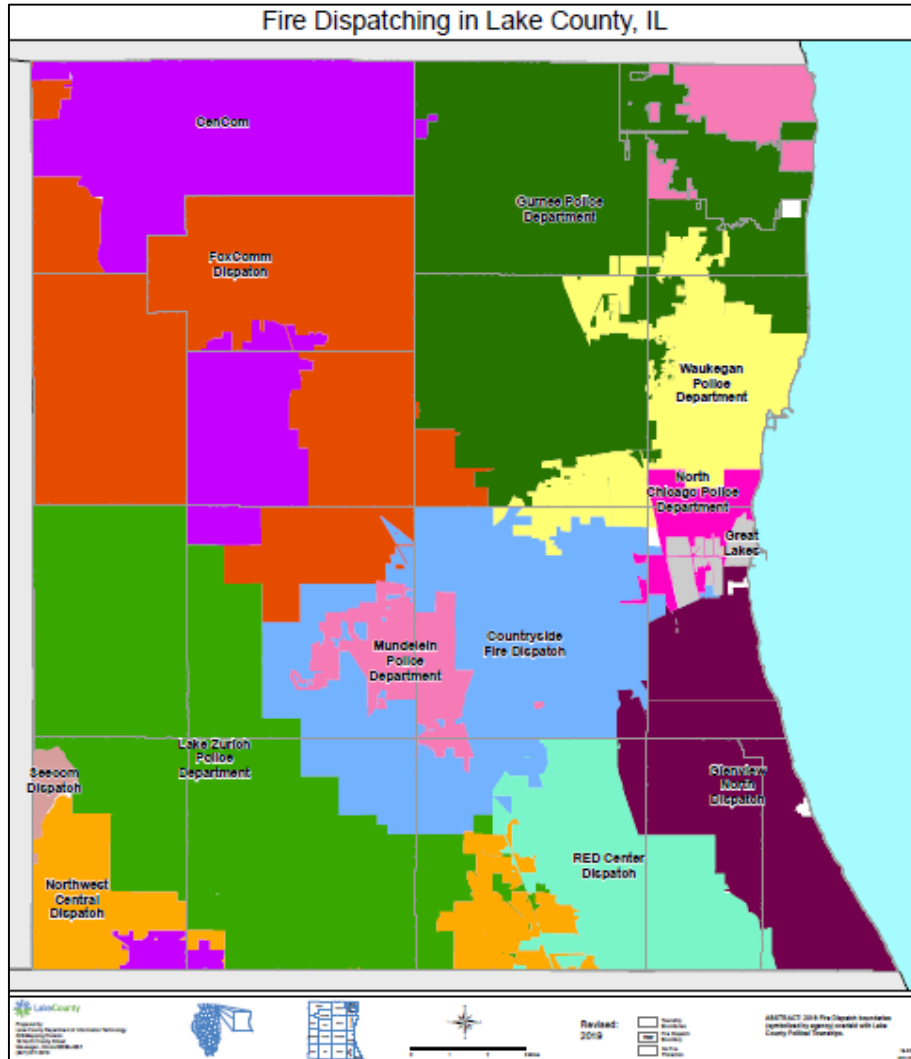
- More than 15 Primary PSAPs
 - Answer 9-1-1 calls
- Wireline 9-1-1 calls follow boundaries to the right
- Cellular (voice or text message) and VoIP 9-1-1 calls may not follow established boundaries
 - A cellular 9-1-1 call may go to the closest available cell tower
 - Text message to 9-1-1 is very limited in Lake County
 - A VoIP 9-1-1 call may show the physical location of the internet server and not the caller's actual location
- NG 9-1-1 will improve cell phone location information



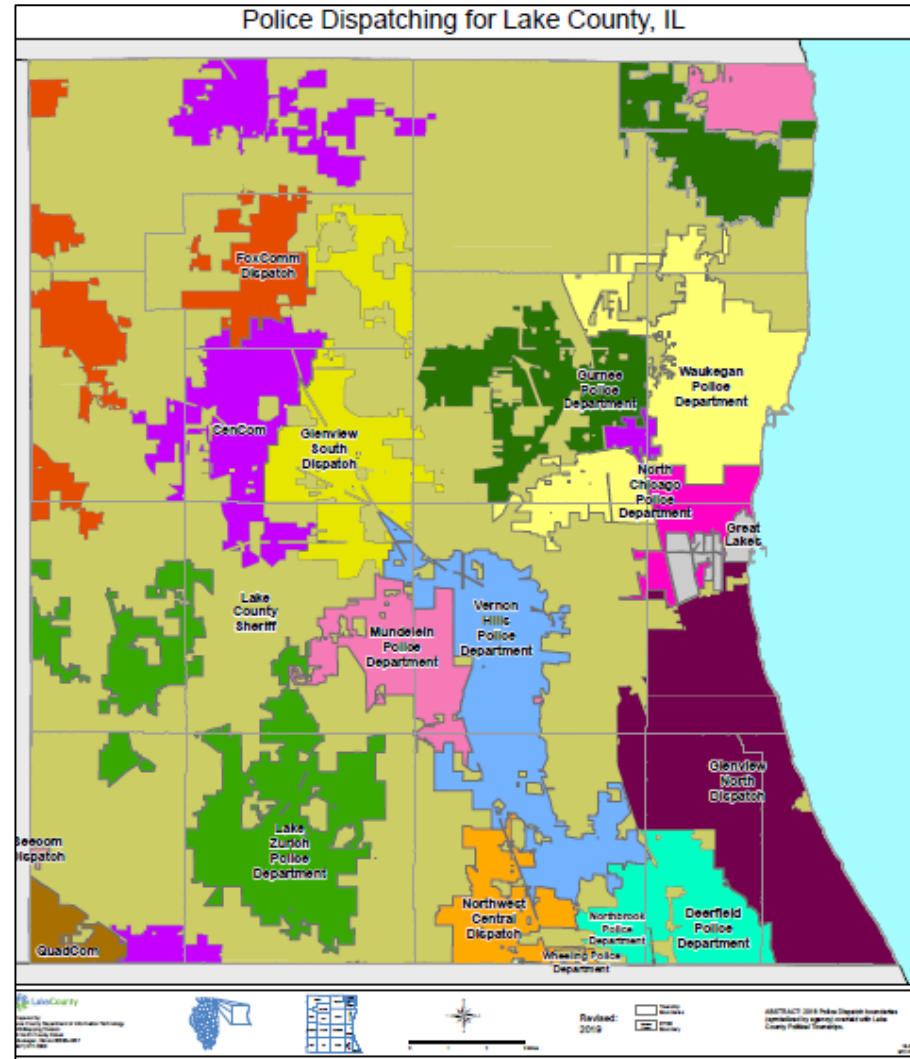
Current Situation

Dispatch Boundaries

**Regional
9-1-1
Consolidation**



Fire / EMS Dispatch Agencies (>14)



Law Enforcement Dispatch Agencies (>14)