



## 3<sup>rd</sup> Informational Briefing Scope of Work Items #5, 6, 7 & 12

May 20, 2019

- Quick Review of Sections Covered in 1<sup>st</sup> & 2<sup>nd</sup> Briefings
- Scope of Work Item #5 – Staffing Levels and Shift Configurations
- Scope of Work Item #6 – Strategy for Transition of Existing Workforce
- Scope of Work Item #7 – Best Call Taking Strategy for Combined PSAP/Dispatch
- Scope of Work Item #12 – Review of Alarm Ordinances

- **Scope of Work Item #4 – Review of Current CAD/RMS Systems**
  - Current RMS systems can continue in use
  - Burlington’s Tyler/New World CAD system can be reconfigured and utilized as the regional CAD system
  
- **Scope of Work Item #8 – Recommendations on Existing Technologies**
  - CAD and RMS systems continue in use
  - Most systems at the regional dispatch center will need to be new
  - Some opportunities for reuse of support systems and workstations

- **Scope of Work Item #9 – Evaluate Designated Space**
  - The space is adequately sized to accommodate regional dispatch needs
  - Collaboration with South Burlington PD helps reduce the need for meeting & training space in the comm center itself
- **Scope of Work Item #10 – Recommendations on Radio Systems**
  - Existing systems should continue in use as currently designed and be integrated into a new radio console system at the regional dispatch center
  - Local jurisdictions should retain responsibility for these systems until a formal regional radio initiative is considered by CCPSA

- **Scope of Work Item #11 – Recommend Options for Backup Center**
  - Burlington’s communications center provides the most space to reconfigure as a backup center.
  - Using this center also likely creates several easier technology transitions.
- **Scope of Work Item #1 – Transition Plan for Dispatch Centers**
  - 2-Phase transition is recommended, with Colchester, South Burlington, Williston and Winooski going first and Burlington following closely behind.
  - Policy/procedure and training development would be conducted by personnel from each of the centers and engage the user agencies as needed.
  - Training for regional operations would be conducted while personnel are still working for their home agencies, and include new-hire personnel as needed.

- **Scope of Work Item #2 – Handling of Telephone Calls**
  - Initially 9-1-1 calls will continue to be transferred from one of the State PSAPs, with 9-1-1 telephone system equipment and training coming after the Center is operational.
  - When recognized as a PSAP, the Center will handle 9-1-1 calls from the participating jurisdictions as well as roll-over calls from other PSAPs that will need to be processed and transferred.
  - Appropriate 10-digit lines will also be established to support non-911 needs of each agency
- **Scope of Work Item #3 – Development of Policies, Procedures & Practices**
  - This work would commence as soon as the formal decision to proceed has been made.
  - Working group would engage both communications center and user agency personnel.
  - A model Table of Contents has been provided.

Text from the Statement of Work: *Recommend appropriate staffing levels and shift configurations for consolidated dispatch center that considers the following factors and provide an explanation of the methodology used to determine results:*

- *PSAP requirements*
  - *9-1-1 call volume*
  - *Radio traffic*
  - *Non-emergency phone activity*
  - *Number of officers on per jurisdiction*
  - *Training, Management, and QA/QC*
- 
- 9-1-1 data from the State allows us to project the 2020 9-1-1 call volumes for a CCPSA regional communications center and PSAP.

# Item #5 – Staffing Levels and Shift Configurations

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Baseline 9-1-1 Call Volume Assumptions for Primary Catchment Area				
	2018		2020 Est	Statewide Stats
Burlington	15,844	41%	16,636	2017-to-2018 call volumes increased 2.7%. Using 5% as the local estimated increase from 2018 to 2020.
South Burlington	8,708	23%	9,143	
Colchester	7,290	19%	7,655	
Williston	3,991	10%	4,191	
Winooski	2,387	6%	2,506	
	<b>38,220</b>	100%	<b>40,131</b>	
			26,888	67% Wireless
			13,243	33% Wireline
			3,612	9% of Total Abandoned

Total Estimated 9-1-1 Call Volumes		CCPSA 2020 Estimates	
Total 911 calls from PSAP Catchment Area (CA)		40,131	90.8%
Rollover calls answered by PSAP		2,888	6.5%
OOS (out of state) calls answered by PSAP		1,185	2.7%
<b>Total Estimated 9-1-1 Call Volume</b>		<b>44,205</b>	<b>100.0%</b>



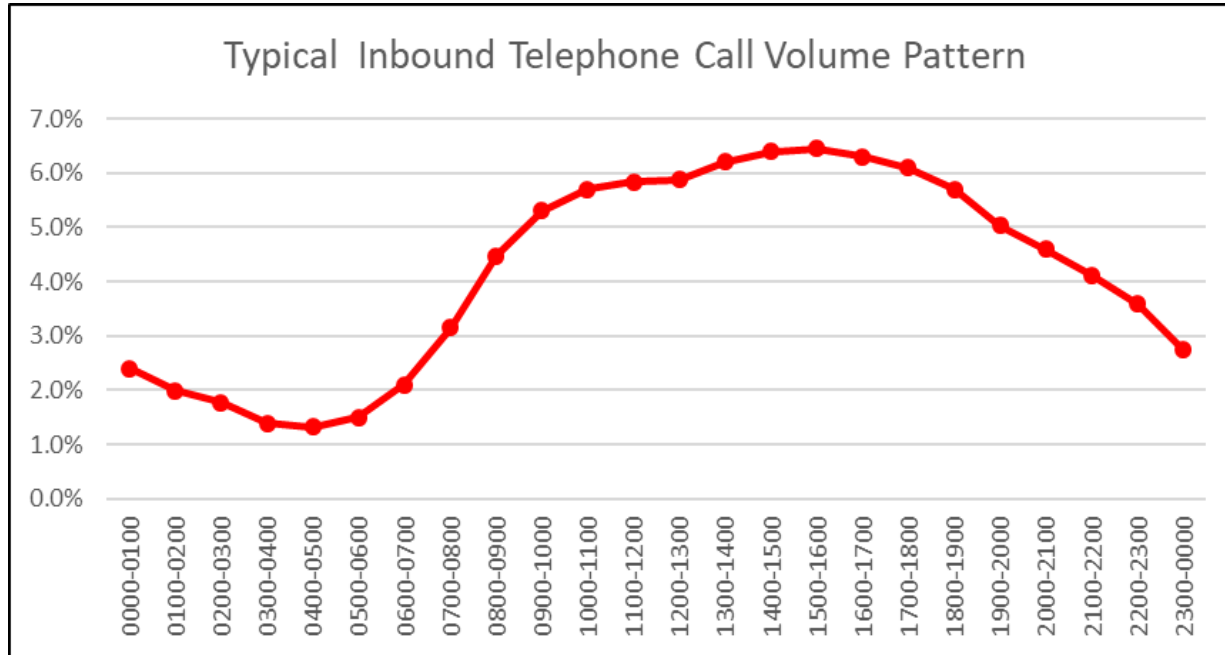
## Item #5 – Staffing Levels and Shift Configurations

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- In addition to 9-1-1 calls, the Center will need to handle 10-digit lines as well. Based on experience in other similar-sized multi-jurisdictional and multi-disciplinary centers that IXP has worked with, this call volume is projected to be approximately 1.5X the number of 9-1-1 calls.
- This means the center would need to be staffed and configured to accommodate an estimated 110,512 inbound calls per year, and an average of 329 calls per day during the busier days of the week.
- This call volume will be distributed throughout the day approximately as shown on the following slide.

# Item #5 – Staffing Levels and Shift Configurations

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Hour of Day	Projected Hourly Inbound Call Volumes	
0000-0100	2.4%	8
0100-0200	2.0%	7
0200-0300	1.8%	6
0300-0400	1.4%	5
0400-0500	1.3%	4
0500-0600	1.5%	5
0600-0700	2.1%	7
0700-0800	3.1%	10
0800-0900	4.5%	15
0900-1000	5.3%	17
1000-1100	5.7%	19
1100-1200	5.8%	19
1200-1300	5.9%	19
1300-1400	6.2%	20
1400-1500	6.4%	21
1500-1600	6.5%	21
1600-1700	6.3%	21
1700-1800	6.1%	20
1800-1900	5.7%	19
1900-2000	5.0%	17
2000-2100	4.6%	15
2100-2200	4.1%	14
2200-2300	3.6%	12
2300-0000	2.7%	9
	<b>100.0%</b>	<b>329</b>

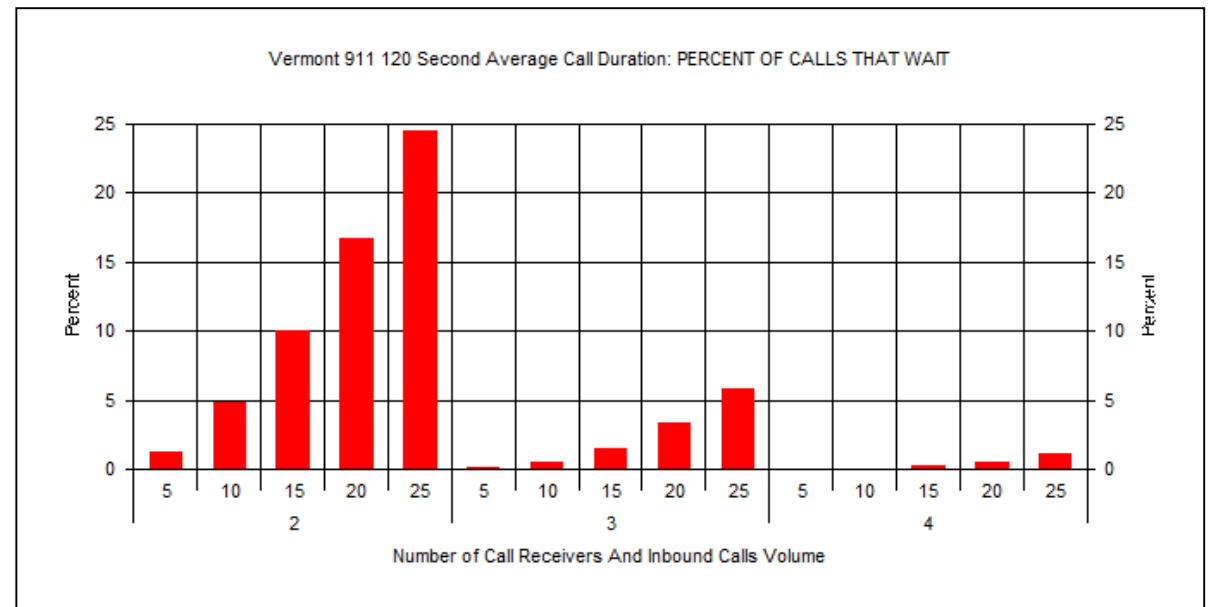
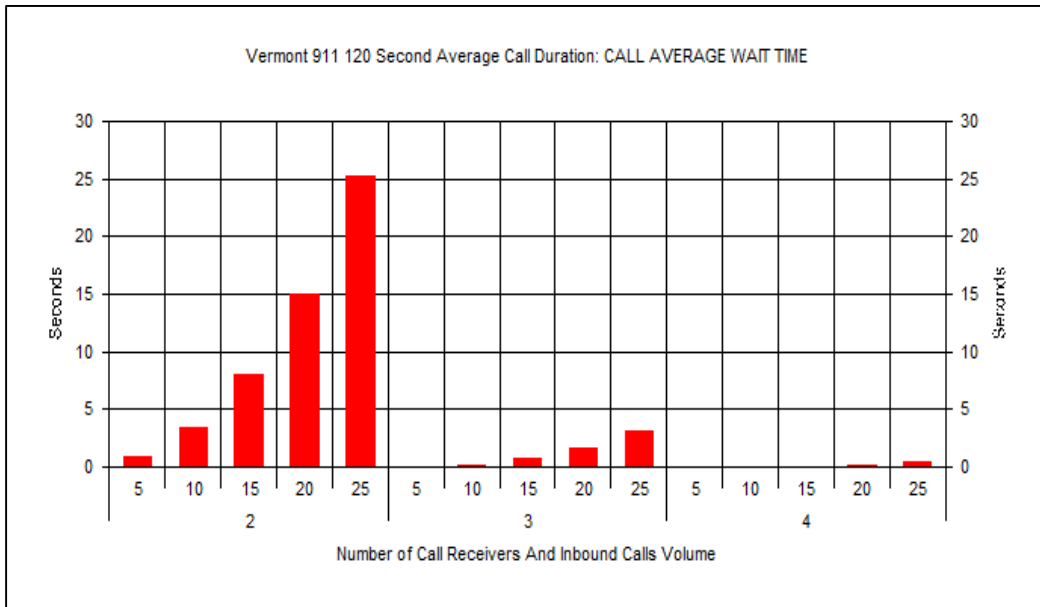
## Item #5 – Staffing Levels and Shift Configurations

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- Staffing levels to handle these call volumes needs to be calibrated to make sure that State of Vermont and industry standards can be met, such as the NENA standard of answering 90% of the calls within 10 seconds during the busy hour of the day.
- Industry standard telephone queuing calculations are used that take into account the number of calls arriving each hour, the average duration of each call, and the number of personnel available to answer inbound calls.
- IXP has developed a tool to allow multiple call volume and staffing variables to be examined together, and calculates the average time a caller would wait and the percentage of callers that need to wait.

# Item #5 – Staffing Levels and Shift Configurations

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- Staffing levels for Dispatch positions are influenced by a number of factors such as:
  - The nature of the discipline being dispatched,
  - The number of agencies being handled,
  - The number of officers on the air generating radio traffic/workload,
  - and similar factors.
- Taking into consideration both call receiving and dispatching responsibilities, IXP recommends a staffing model for the CCPSA regional communications center that utilizes a fully cross-trained staff and normal operating positions as described on the next slide.

- Positions to be staffed 24 hours per day/7 days per week
  - 1 position working Burlington PD (typically ~10 officers on the air)
  - 1 position working South Burlington and Williston PDs (typically 7-9 officers on the air combined)
  - 1 position working Colchester and Winooski PDs (typically 8-9 officers on the air combined)
  - 2 positions working Fire/EMS and serving as the first two positions to handle inbound telephone calls.
- 1 additional person working call receiving 8 hours per day on the busiest days of the week
- 1 Shift Manager on duty the majority of the time

# Item #5 – Staffing Levels and Shift Configurations

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- Taking into consideration various leaves (holiday, vacation, sick, etc.) each employee will be available to work approximately 1,700 hours each year.
- Therefore, to cover the staffing model, a total of 31 personnel will be needed, as shown in the table below:

Estimated Staffing Levels	Positions to Cover	Shift Pattern	Hours to Cover	NAWH per EE	Calculated EE Count
Shift Managers	1	12-hour pairs	NA	NA	4
Telecommunicators/CTO (24X7)	1	8-hour shifts	8,760	1,700	5.2
Telecommunicators (24X7)	4	8-hour shifts	35,040	1,700	20.6
Telecommunicators (8X5)	1	8-hour shift	2,086	1,700	1.2
<b>Total Estimated Staffing</b>					<b>31.0</b>

## Item #6 – Strategy for Transition of Existing Workforce

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Text from the Statement of Work: *Recommend best strategy to transition current workforce into new consolidated center, understanding the need to retain current dispatchers in local dispatch until their communities are dispatched by regional, (considering training and possible joint employment by local and regional dispatch for a period of time) and within the constraints of applicable labor laws and in consultation with CCPSA’s labor attorney.*

- As discussed in other items related to the development of policies/procedures and training of personnel, these activities would take place before the regional operation goes live.
- CCPSA’s Board has already taken a key step by assuring current employees that they will be given an offer of employment with the regional organization.
- Personnel would remain employed by their home agencies until that agency is transitioned to the regional operation.
- Further decisions regarding any labor organizations would be made following the cutover to live operations.



Text from the Statement of Work: *Recommend best call-taking strategy (one stage with combined PSAP/dispatch positions or two-stage with separate PSAP and dispatch positions) for a combined PSAP/Dispatch Center given expected call volume.*

- As discussed in the staffing model, IXP recommends that a fully cross-trained and blended operational be utilized for the CCPSA regional operation.
- While the 2 positions are identified as the initial positions with inbound call answering responsibilities (with an extra position during the busy hours) the personnel working Police dispatch positions will also need to answer calls if these other positions are busy.
- Additionally, the Shift Managers will be able to supplement either call receiving or dispatching activities when needed.

Text from the Statement of Work: *Review alarm ordinances in the six-member communities, to be provided as a single package to selected contractor by CCPSA, and provide recommendations including: a. any proposed changes to individual municipal alarm ordinances, and b. whether to repeal individual municipal alarm ordinance and replacement with a common regional alarm ordinance (a power which CCPSA has).*

- Similar to the issues discussed relative to regionalizing dispatch not forcing agencies to change their RMS solutions, IXP recommends that it also not force a change in alarm ordinances or processing, at least at start-up.
- As discussed in the technology section, the new center will need to be equipped with the central station alarm handling capability for Burlington's fire alarm monitoring function. All other fire and security alarms in the other jurisdictions are handled by commercial central station alarm companies and relayed to the communications center with 10-digit phone calls.
- The regional center can establish methods for gathering consistent data on alarm system incident counts and false-alarm counts to support each jurisdiction's enforcement needs to start with.
- This consistent data can then guide further consideration of aligning or replacing existing ordinances.

- Schedule look-ahead:
  - Once we receive your feedback, we'll make adjustments to the document as needed and send it to you as the final draft.
  - When authorized to go forward, we will work up the CAPEX and OPEX estimates to complete the report and deliver that information in July.

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