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Consolidation Analysis & Next Generation 9-1-1 Implementation Study

Prepared for State of Oregon Office of
Emergency Management

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Project Scope Overview

- Based upon Legislative budget note
 - A consolidation report to be presented to the legislature
 - Three studies
 1. Current environment
 2. One statewide call center
 3. Kimball recommended number of PSAP regions and amount of workstations
 - Good, bad and ugly for all three, to be presented

Project Scope Overview

- Data Gathering/PSAP Surveys
 - 32 PSAPs completed the survey
 - 15 PSAPs filled out much of the survey but did not fully complete
 - 2 PSAPs have not started the survey
- PSAP Visits - 5 PSAPs – Large (1), Medium (2), Small (2)
 - BOEC (large)
 - WVCC (medium)
 - C-COM (medium)
 - Malheur County (small)
 - Ontario (small)
- 2 PSAP Focus Group meetings during APCO/NENA Conference
 - Very well attended, good participation

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Project Scope Overview

- NG9-1-1 Cost Analysis

- Budgetary analysis of the cost to convert to a NG9-1-1 network utilizing current funding structures based on the three studies outlined above

1. Current Environment - keeping the same amount of PSAPs in the state
 1. Legacy and NG9-1-1 costs
 2. Updated from Phase I report
2. Single statewide call center
 - Legacy and NG9-1-1 costs
 - Call taking costs
3. Suggested number of PSAPs and workstations in the state
 1. Legacy and NG9-1-1 costs
 2. Call taking costs

Kimball Study – Five Scenarios

- Scenario One – Transition current 49 PSAPs and 279 workstations
- Scenario Two – One statewide call center - 31 workstations
- Scenario Three – Transition to the recommended number of PSAP regions (nine) and workstations (70) utilizing information from the consolidation study
- Scenario Four – One statewide legacy call center - 31 workstations
- Scenario Five – Legacy pricing for the recommended number of PSAP regions (nine) and workstations (70) utilizing information from the consolidation study

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Scenario One Next Generation 49 PSAPs

- All 49 PSAPs and 279 workstations currently in place will transition to an NG 9-1-1 capable network
- Includes a completely new network and new equipment for each PSAP

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Scenario One Cost Analysis

Year	Total Revenue	Legacy Costs	Scenario One	Available Funding	Total Cost for Year	Difference
2011	\$13,857,395	\$12,120,444	0	\$1,692,021	\$12,120,444	
2012	\$13,857,395	\$6,782,660	\$6,237,096	\$7,074,735	\$13,019,756	\$837,639
2013	\$13,857,395	\$1,277,323	\$9,982,208	\$12,580,072	\$11,259,531	\$2,597,864
2014	\$13,857,395	\$1,000,000	\$7,657,208	\$12,857,395	\$8,657,208	\$5,200,187
2015	\$13,857,395	\$1,000,000	\$7,157,208	\$12,857,395	\$8,157,208	\$5,700,187
2016	\$13,857,395	\$1,000,000	\$7,157,208	\$12,857,395	\$8,157,208	\$5,700,187
2017	\$13,857,395	\$1,000,000	\$7,157,208	\$12,857,395	\$8,157,208	\$5,700,187
2018	\$13,857,395	\$1,000,000	\$7,157,208	\$12,857,395	\$8,157,208	\$5,700,187
2019	\$13,857,395	\$1,000,000	\$7,157,208	\$12,857,395	\$8,157,208	\$5,700,187
2020	\$13,857,395	\$1,000,000	\$7,157,208	\$12,857,395	\$8,157,208	\$5,700,187
2021	\$13,857,395	\$1,000,000	\$7,157,208	\$12,857,395	\$8,157,208	\$5,700,187

Note: OEM does not currently have the staff or resources to implement this scenario

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Scenario Two – Next Generation One Statewide Call Center

- Single in-state call center
 - refers to the consolidation of all 9-1-1 call answering functions within one large call center
- One primary 9-1-1 PSAP for all 9-1-1 calls that originate within the state
- Call takers will process the calls to determine the location of the incident, the nature, and then transfer the callers to the appropriate local secondary PSAP for dispatch of field personnel
- It is assumed that all 49 current PSAPs would continue to dispatch for their jurisdictions

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Scenario Two Cost Analysis

Year	Total Revenue	Legacy Costs	Scenario Two	Available Funding	Total Cost for Year	Difference
2011	\$13,857,395	\$12,120,444	0	\$1,736,951	\$12,120,444	
2012	\$13,857,395	\$7,533,374	\$5,462,180	\$6,324,021	\$12,995,554	\$861,841
2013	\$13,857,395	\$3,896,690	\$6,362,708	\$9,960,705	\$10,259,398	\$3,597,997
2014	\$13,857,395	\$1,000,000	\$5,381,708	\$12,857,395	\$6,381,708	\$7,475,687
2015	\$13,857,395	\$1,000,000	\$4,881,708	\$12,857,395	\$5,881,708	\$7,975,687
2016	\$13,857,395	\$1,000,000	\$4,881,708	\$12,857,395	\$5,881,708	\$7,975,687
2017	\$13,857,395	\$1,000,000	\$4,881,708	\$12,857,395	\$5,881,708	\$7,975,687
2018	\$13,857,395	\$1,000,000	\$4,881,708	\$12,857,395	\$5,881,708	\$7,975,687
2019	\$13,857,395	\$1,000,000	\$4,881,708	\$12,857,395	\$5,881,708	\$7,975,687
2020	\$13,857,395	\$1,000,000	\$4,881,708	\$12,857,395	\$5,881,708	\$7,975,687
2021	\$13,857,395	\$1,000,000	\$4,881,708	\$12,857,395	\$5,881,708	\$7,975,687

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Scenario Three – Next Generation 9 Regionally-Based PSAPs

- Utilizes the information gathered in the consolidation study to analyze the cost to migrate the recommended number of PSAP regions to NG9-1-1
- 9 regionally-based PSAPs
- 70 9-1-1 call taking workstations total
- Would provide the most equitable and efficient use of resources statewide
- There is no recommendation of specific location of PSAPs within the recommended regions

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Potential Consolidation Benefits

- Benefits nationally include:
- An improved emergency communications system which will:
 - Align the local jurisdictions with federal interoperability initiatives
 - Improved use of funding dollars by implementing a shared services model
 - Improved management of PSAP and field resources
 - Improved victim survivability, field responder safety and reduce property damage
 - Improved emergency response during large-scale incidents and natural disasters
 - Potential for long-term local cost efficiency

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PSAP Feedback - Consolidation Concerns

- Degraded level of service
- Loss of ancillary duties
- Delays in dispatch time
- Loss of local control of local resources
- Loss of previous investments in radio system and other large ticket items
- Concerns of a possible unfunded mandate from the State
- Difficult and costly to establish
- Loss of dispatcher positions

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PSAP Feedback - Consolidation Concerns

- Loss of local geographical knowledge
- Difficulty implementing improvements or making needed changes
- Meshing different cultures takes time
- Community outreach would suffer
- Loss of personal connection to the community

Kimball Recommendation

- Kimball recommendation and review based on:
 - Service Level
 - Workload
 - Call volume
 - Population
 - Geography
 - Radio Coverage
 - Service availability/access
 - Political factors

Consolidation Key Points

- Keeping 9-1-1 call taking and the dispatch of field personnel together within each regional PSAP best serves the citizens as well as the field personnel and is critical to establishing the best emergency communications system possible
- Further analysis is needed at local level prior to proceeding
- Many areas in OR have already consolidated or are in discussions to consolidate
 - One PSAP is consolidating on March 1
- Does not always result in cost savings, can result in cost efficiencies

Scenario Three Cost Analysis

Year	Total Revenue	Legacy Costs	Scenario Three	Available Funding	Total Cost for Year	Difference
2011	\$13,857,395	\$12,120,444	0	\$1,736,951	\$12,120,444	
2012	\$13,857,395	\$5,951,327	\$3,353,696	\$7,906,068	\$9,305,023	\$4,552,372
2013	\$13,857,395	\$3,896,690	\$4,937,548	\$9,960,705	\$8,834,238	\$5,023,157
2014	\$13,857,395	\$1,000,000	\$4,037,548	\$12,857,395	\$5,037,548	\$8,819,847
2015	\$13,857,395	\$1,000,000	\$3,537,548	\$12,857,395	\$4,537,548	\$9,319,847
2016	\$13,857,395	\$1,000,000	\$3,537,548	\$12,857,395	\$4,537,548	\$9,319,847
2017	\$13,857,395	\$1,000,000	\$3,537,548	\$12,857,395	\$4,537,548	\$9,319,847
2018	\$13,857,395	\$1,000,000	\$3,537,548	\$12,857,395	\$4,537,548	\$9,319,847
2019	\$13,857,395	\$1,000,000	\$3,537,548	\$12,857,395	\$4,537,548	\$9,319,847
2020	\$13,857,395	\$1,000,000	\$3,537,548	\$12,857,395	\$4,537,548	\$9,319,847
2021	\$13,857,395	\$1,000,000	\$3,537,548	\$12,857,395	\$4,537,548	\$9,319,847

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Scenario Four – Legacy Statewide Call Center

- Includes:
 - A completely new legacy network
 - New equipment for a single in-state call center to handle 9-1-1 calls only
 - A backup call center
 - An IP network to connect the current PSAPs to the call center and backup center
 - Dispatch equipment at each of the in-place 49 PSAPs

Scenario Four Cost Analysis

Year	Total Revenue	Previous Costs	Scenario Four	Difference
2011	\$13,857,395	\$12,120,444	0	
2012	\$13,857,395	\$12,120,444	\$25,609,652	(\$11,752,257)
2013	\$13,857,395	\$12,120,444	\$16,796,652	(\$2,939,257)
2014	\$13,857,395	\$12,120,444	\$16,796,652	(\$2,939,257)
2015	\$13,857,395	\$12,120,444	\$16,796,652	(\$2,939,257)
2016	\$13,857,395	\$12,120,444	\$16,796,652	(\$2,939,257)
2017	\$13,857,395	\$12,120,444	\$16,796,652	(\$2,939,257)
2018	\$13,857,395	\$12,120,444	\$16,796,652	(\$2,939,257)
2019	\$13,857,395	\$12,120,444	\$16,796,652	(\$2,939,257)
2020	\$13,857,395	\$12,120,444	\$16,796,652	(\$2,939,257)
2021	\$13,857,395	\$12,120,444	\$16,796,652	(\$2,939,257)

Note: May require legislative action to complete



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Scenario Five – Legacy 9 Regions

- Includes a completely new legacy network and new equipment for the recommended nine regional PSAPs

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Scenario Five Cost Analysis

Year	Total Revenue	Previous Costs	Scenario Five	Difference
2011	\$13,857,395	\$12,120,444	0	
2012	\$13,857,395	\$12,120,444	\$15,033,238	(\$1,175,843)
2013	\$13,857,395	\$12,120,444	\$11,498,238	\$2,359,157
2014	\$13,857,395	\$12,120,444	\$11,498,238	\$2,359,157
2015	\$13,857,395	\$12,120,444	\$11,498,238	\$2,359,157
2016	\$13,857,395	\$12,120,444	\$11,498,238	\$2,359,157
2017	\$13,857,395	\$12,120,444	\$11,498,238	\$2,359,157
2018	\$13,857,395	\$12,120,444	\$11,498,238	\$2,359,157
2019	\$13,857,395	\$12,120,444	\$11,498,238	\$2,359,157
2020	\$13,857,395	\$12,120,444	\$11,498,238	\$2,359,157
2021	\$13,857,395	\$12,120,444	\$11,498,238	\$2,359,157

Note: May require legislative action to complete

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Questions?

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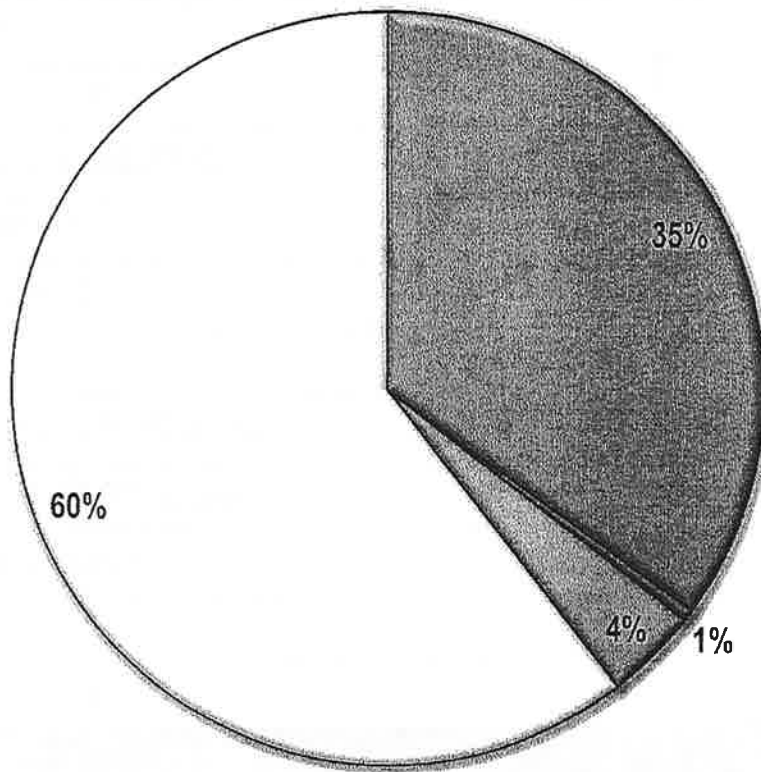
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Emergency Communications Tax Distribution Breakdown

Emergency Communications Tax Distribution



- Enhanced 9-1-1 Subaccount
- DOR Collection Costs (up to 1/2 of 1%)
- OEM Administrative Costs (up to 4%)
- Distributed to PSAPs

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Enhanced Subaccount FY 2010 – 2011 Expenditures

Expenditure	Cost
Administrative	\$220,567.59
CPE	\$1,335,869.98
CPE maintenance	\$1,058,436.20
GIS/Mapping equipment	\$57,592.59
MSAG/GIS maintenance	\$988,394.03
Network	\$642,330.67
PSAP circuits	\$4,972,552.86
PSAP facility	\$12,089.75
UPS and maintenance	\$48,678.37
Wireless needs	\$2,608,869.68
Services	\$175,061.87
Total	\$12,120,443.59

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