



9-1-1 Program Updates



Organizational Change

- Addition of a Project Portfolio Manager
- Increase visibility on work taking place within the 9-1-1 Program
- Align operational program work and projects within a single portfolio to ensure efficient use of existing staff resources
- Improve the prioritization of program and project work
- Identify additional resources needed to support effective Transitional NG9-1-1 portfolio of projects



Portfolio Management (9-1-1 Program)





Oregon Transitional NG9-1-1 Strategy Overview

Frank Kuchta, 9-1-1 Project Portfolio Manager

Pat Lustig, NG9-1-1 Project Manager

Michael Gurley, NG9-1-1 Deputy Project Manager

State 9-1-1 Advisory Committee Meeting – APCO/NENA Conference

May 23, 2017



Agenda

- Purpose
- Standards & Reference Material
- Assumptions
- Governance
- Legacy Environment
- NENA Transition Scenarios
- Transition Approach
- Transition Architecture
- Communication Approach
- Next Steps



Purpose

- Intent of this presentation is to provide a high-level overview outlining Oregon's path to implementing statewide Transitional NG9-1-1
- This presentation is intended for the State of Oregon 9-1-1 Advisory Committee review and input prior to seeking approval from the NG9-1-1 Executive Steering Committee to move forward with future investments in Oregon's NG9-1-1 infrastructure and services



Standards and Reference Materials

- **Standards:**
 - NENA-STA-010.2-2016 - Detailed Functional and Interface Standards for the NENA i3 Solution
- **Reference Materials:**
 - NENA-INF-008.2-2013 – NENA NG9-1-1 Transition Plan Considerations Information Document
 - FCC Task Force on Optimal PSAP Architecture Final Report – January 2016
 - OEM Project Governance Plan for Next Generation 9-1-1 - September 2014
 - NENA NG9-1-1 “end-state” 11 Assumptions

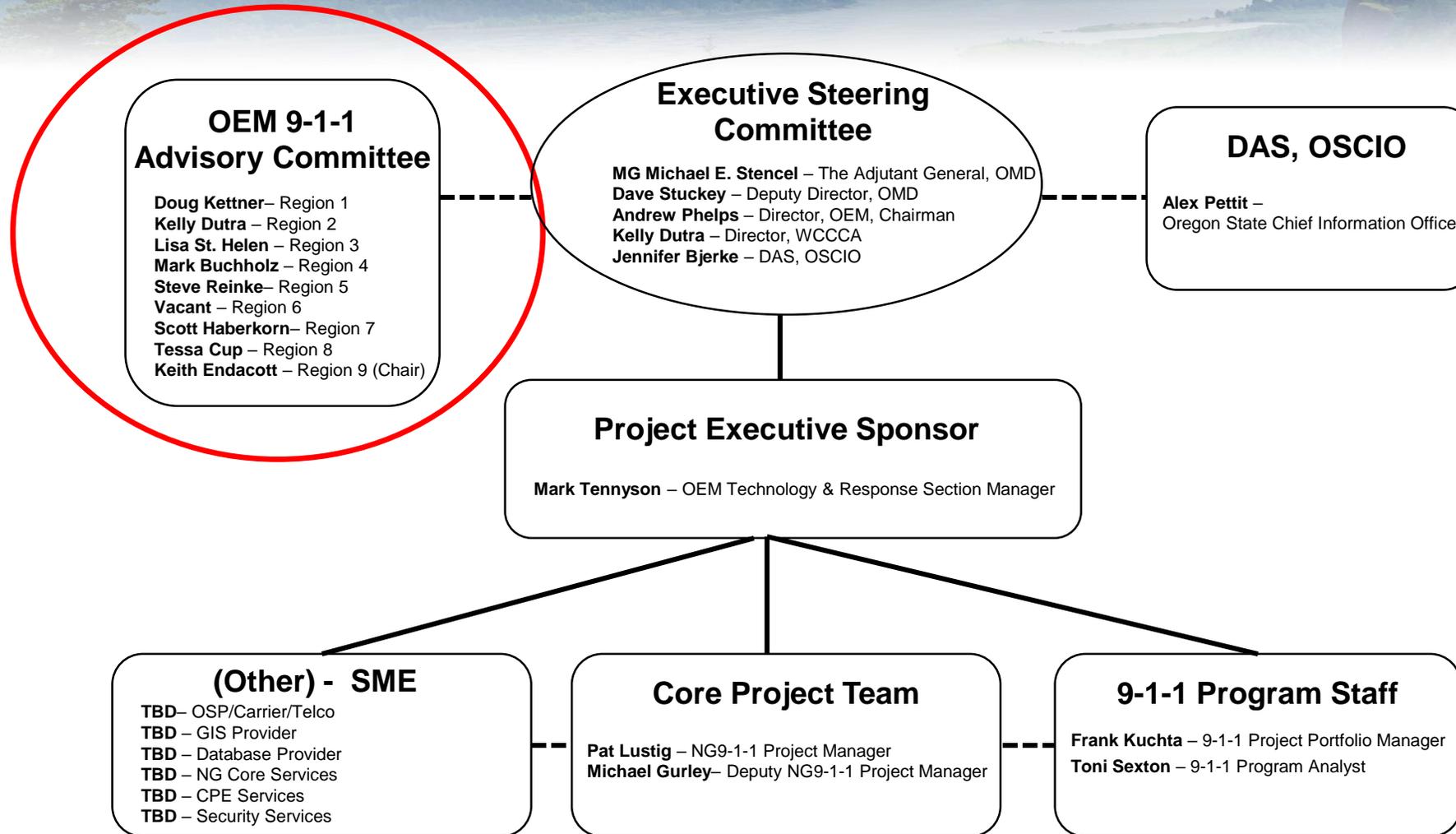


Assumptions

- Phased implementation approach minimizing risk to 9-1-1 service and future NG9-1-1 investments
- 9-1-1 Program will maintain adequate resources to support active projects underway and will acquire additional resources necessary to move future Transitional NG9-1-1 efforts forward
- Planning activities will be funded within OEM's current operational budget
- Next Generation 9-1-1 projects undertaken will require Executive Steering Committee and State CIO approval as defined within the existing NG9-1-1 Governance structure
- Align with the existing State of Oregon 9-1-1 Advisory Committee to actively champion and support transition plans within their respective PSAP regions

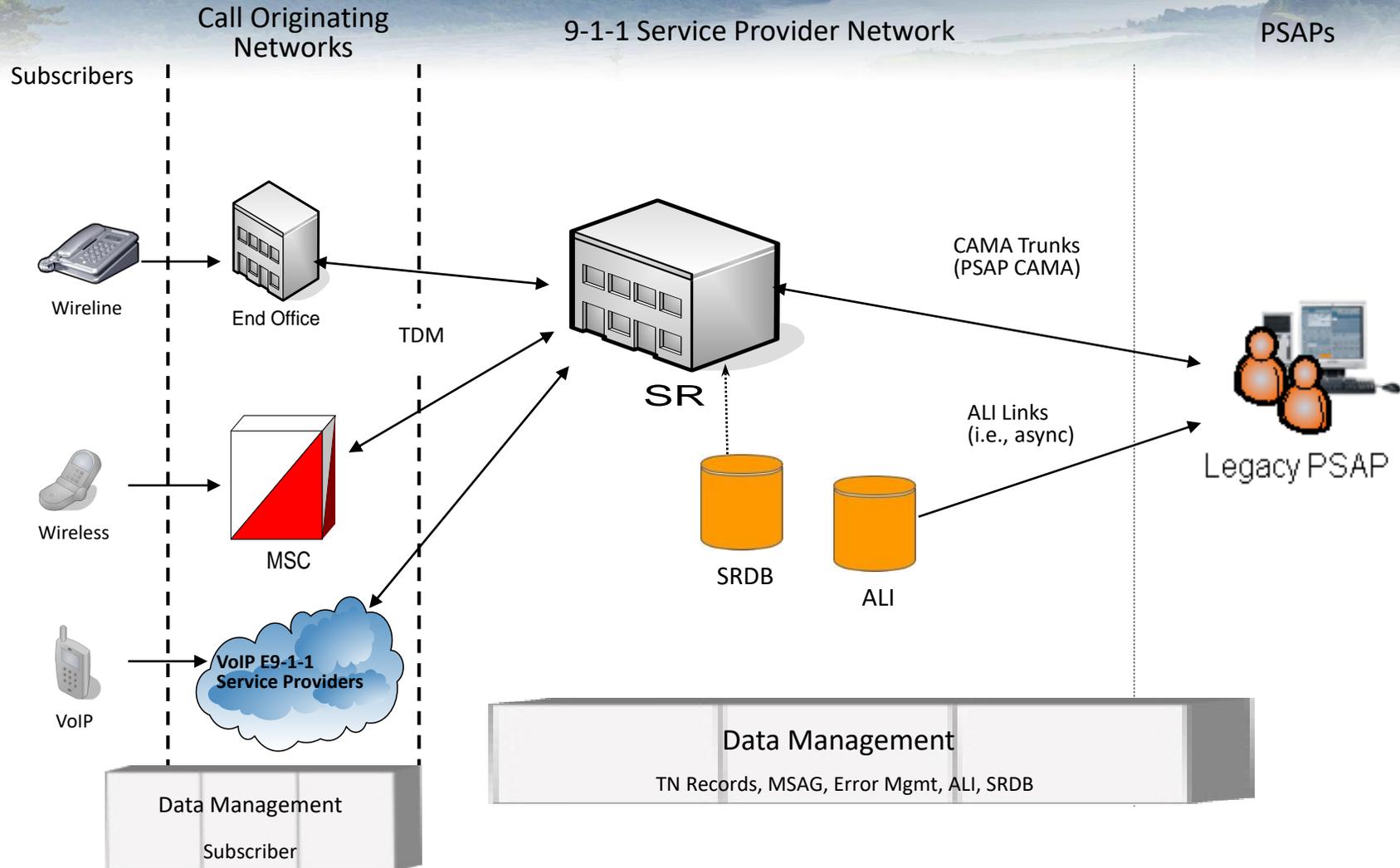


Oregon NG9-1-1 Governance Structure/Membership





Legacy E9-1-1 Environment





NENA Transitioning Scenarios

Scenario 1:

(Tandem to Tandem), emergency calls ingress to the SR and are directed over Tandem to Tandem trunks to the LSRG in the NG9-1-1 system. And there may be a need to transfer/bridge calls between the two networks using the Tandem to Tandem capabilities

Scenario 2: (Preferred)

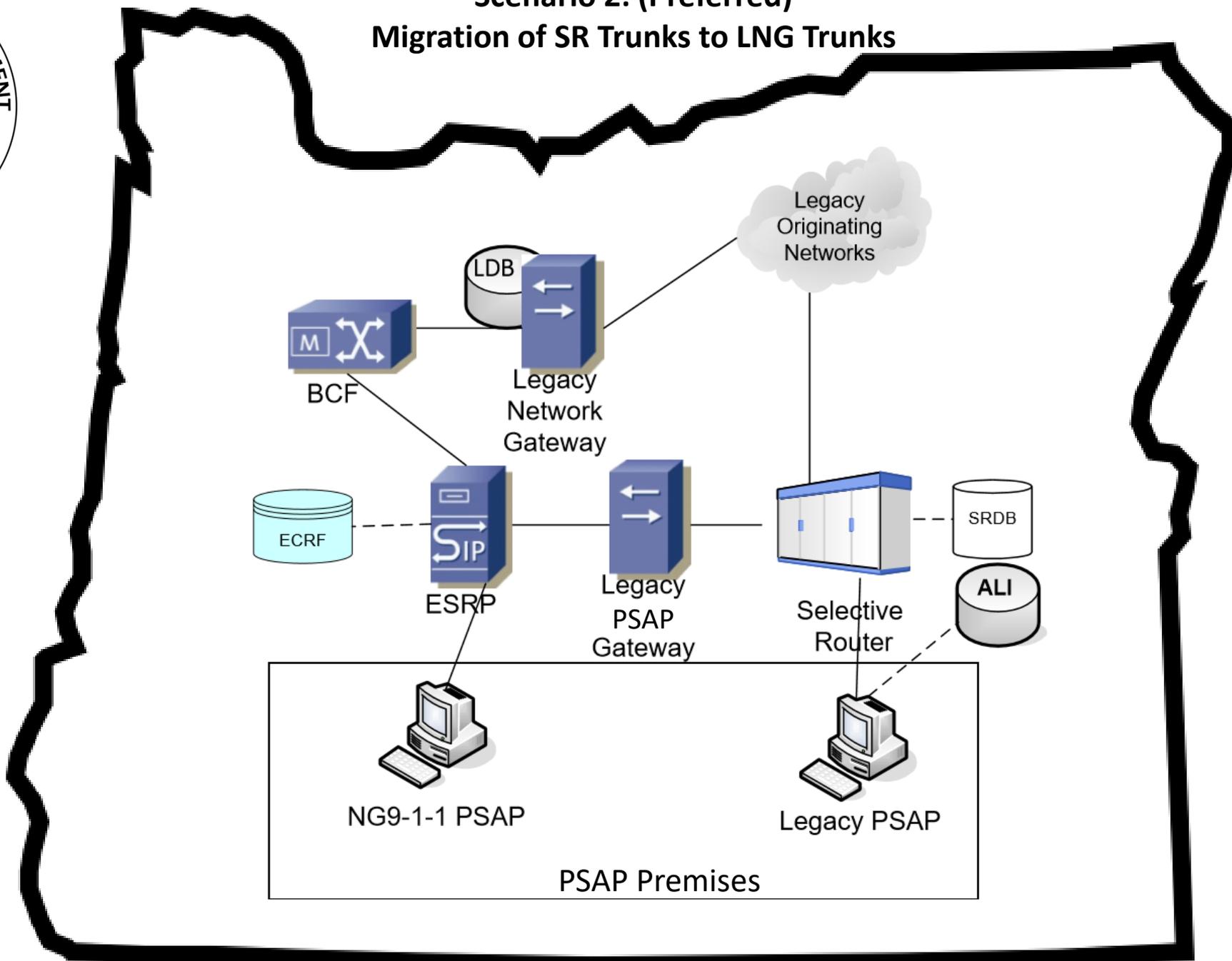
(Migration of SR Trunks to LNG Trunks) calls are migrated from the SR trunks to the LNG trunks

Scenario 3:

(Dual Mode PSAP) the Dual Mode PSAP has connections to both the ESRP and the SR. Calls that ingress through the SR are delivered to the PSAP via the legacy TDM trunks. The PSAP must query the ALI for location information. Calls that enter through the ESI-net are routed using location and the calls are delivered to the PSAP via the IP connectivity, including location

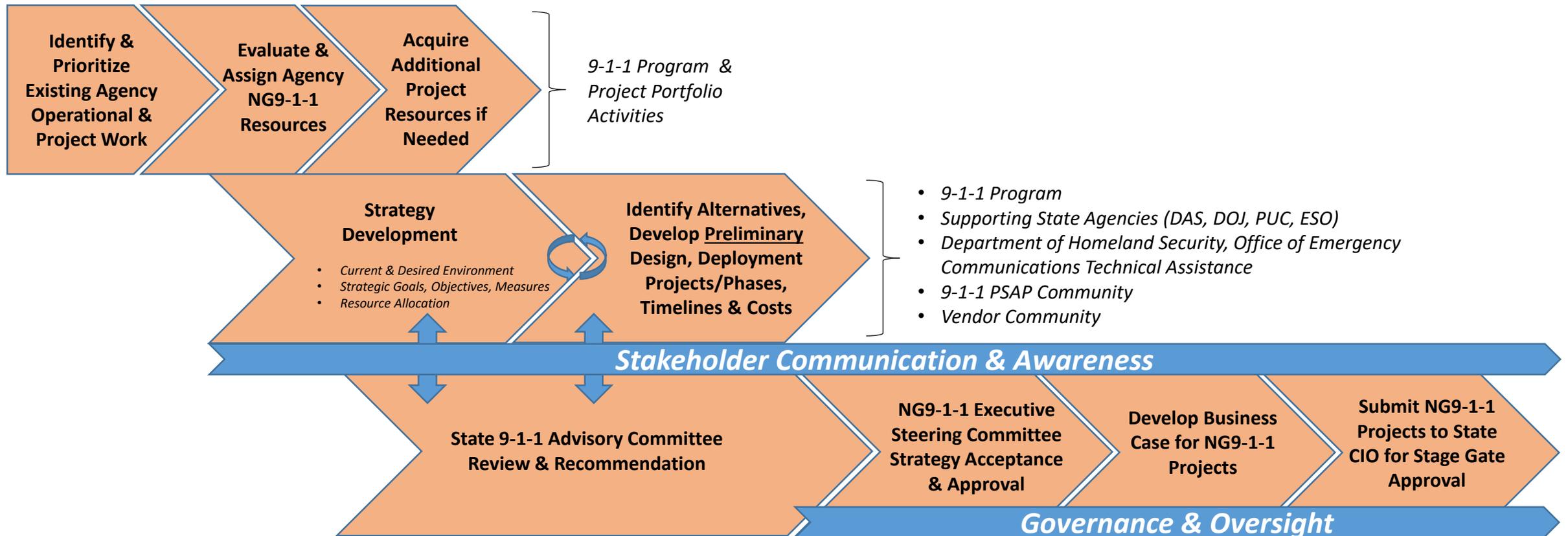


Scenario 2: (Preferred) Migration of SR Trunks to LNG Trunks





Transitional NG9-1-1 Strategy Workflow



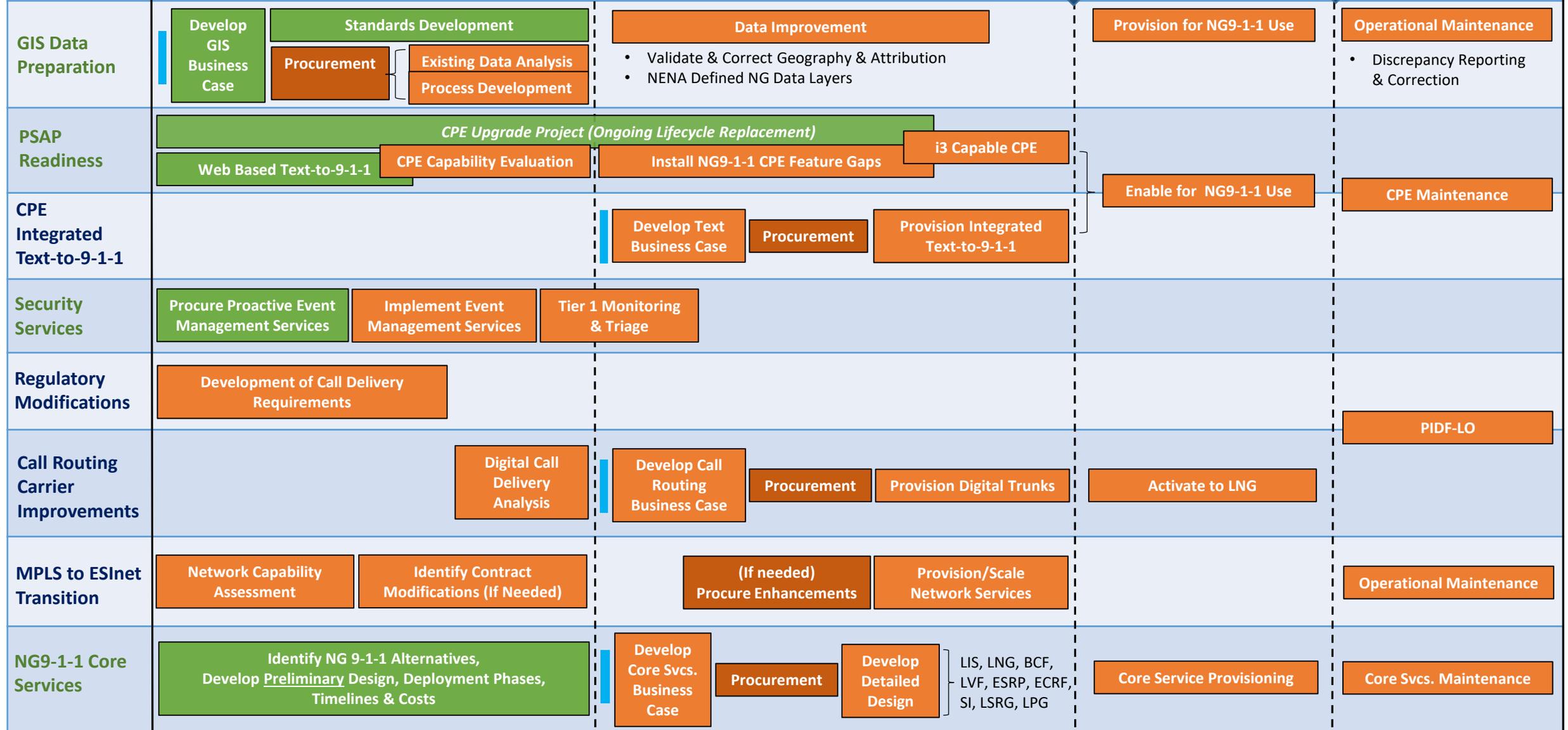
Oregon Transitional NG9-1-1

Core Services Ready

NG Ready

- Functional ESInet
- Improved Call Routing
- Core Services Functional
- ALL PSAP CPE NG Ready
- Integrated Text-to-9-1-1

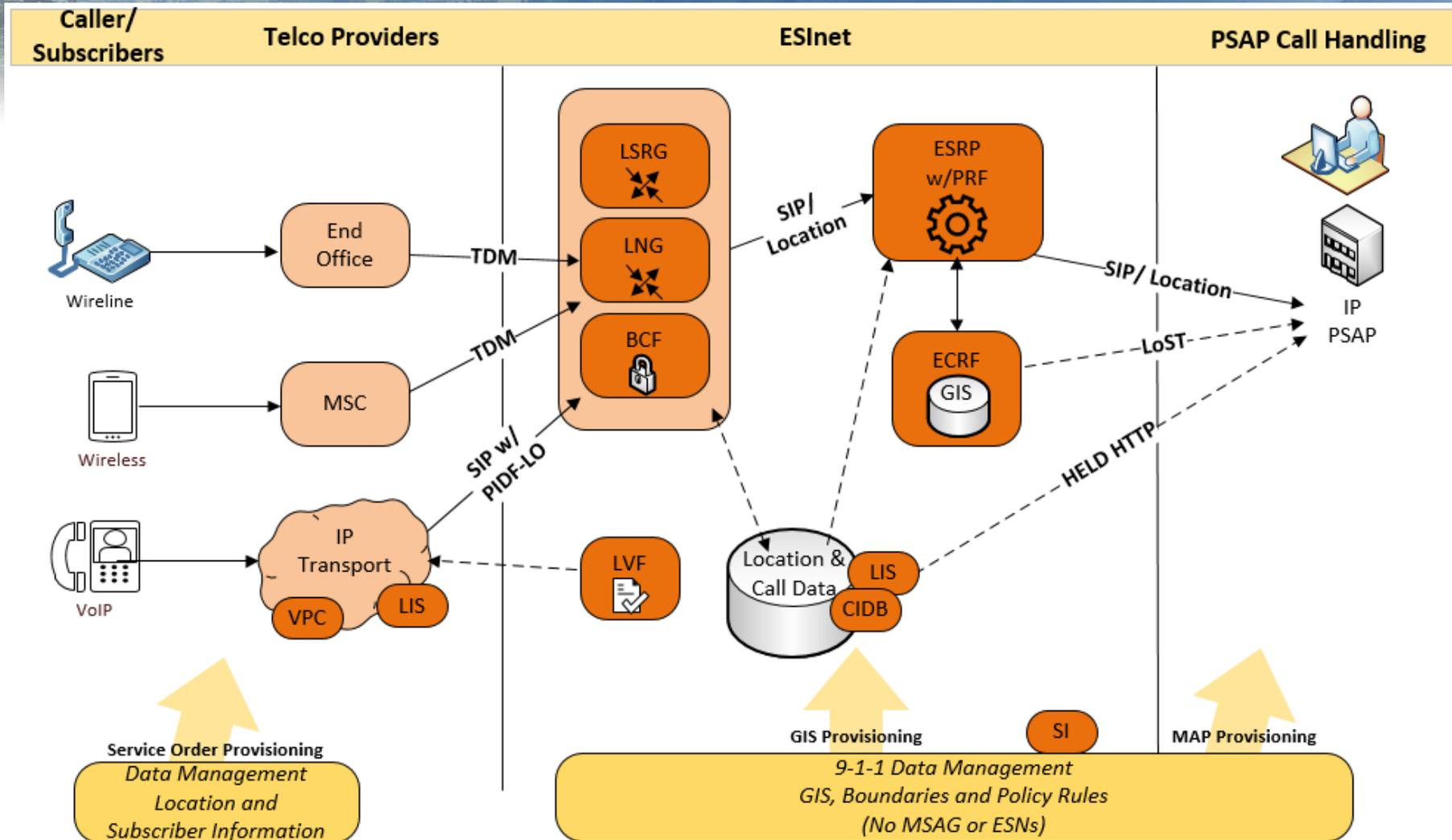
Transition Activities



■ In Progress
 ■ Not Started
 ■ State CIO Stage Gate Initiation



NG9-1-1 Architecture



* NG Elements adapted from the FCC Task Force on Optimal PSAP Architecture, January 2016



NENA NG9-1-1 “end-state” Assumptions

- Access Network Providers (e.g.: DSL providers, fiber network providers, WiMax providers, Long Term Evolution (LTE) wireless carriers, etc.) have installed, provisioned and operated some kind of location function for their networks. Location functions are critical for 9-1-1 calls originating on an IP network because it provides a 9-1-1 valid location to IP clients that bundle their location in the SIP signaling to the ESInet.
- All calls entering the ESInet are SIP based. Gateways, if needed, are outside of, or on the edge of, the ESInet. IP services that are not native SIP based, have protocol interworking to SIP prior to being presented to the ESInet.
- Periodic revalidation of civic location against the LVF is also needed to assure that location remains valid as changes in the GIS system that affect existing civic locations are made.
- All calls entering the ESInet will normally have location (which might be coarse, e.g., cell site/sector) in the signaling with the call.
- Transition to i3 is complete when the existing Selective Router and ALI are no longer used. Even after that time, some PSAPs may not have upgraded to i3. The i3 architecture describes a Legacy PSAP Gateway (LPG) to interface between the ESInet and a legacy PSAP. The LPG supports the origination of an emergency call through the ESInet to a legacy PSAP as well as the transfer of an emergency call from/to an i3 PSAP to/from a legacy PSAP.
- 9-1-1 authorities have transitioned from the tabular MSAG and ESNs to GIS based Location Validation Function (LVF) and Emergency Call Routing Function (ECRF).
- Since the legacy circuit-switched TDM network will very likely continue to be used for the foreseeable future (both wireline and wireless,) the i3 architecture defines a Legacy Network Gateway (LNG) to interface between the legacy network and the ESInet.
- 9-1-1 authorities have accurate and complete GIS systems, which are used to provision the LVF and ECRF. A change to the 9-1-1 Authority's GIS system automatically propagates to the ECRF and LVF and immediately affects routing.
- Federal, State and local laws, regulations and rules may need to be modified to support NG9-1-1 system deployment.
- Civic location will be validated by the access network against the LVF prior to an emergency call being placed. This is analogous to MSAG validation.
- While NG9-1-1 is based on protocols that are international, and are designed to allow visitors and equipment not of North American origin to work with NG9-1-1, the specific protocol mechanisms, especially interworking of legacy telecom and ESInet protocols is North American-specific and may not be applicable in other areas.



Communication Approach

- OEM Transitional NG9-1-1 Webinar – May 30th from 1:00 – 3:00 Pacific
- Communication as needed (e-mail/phone) with Advisory Chair and Committee Members



Next Steps

- OEM will provide electronic copy of presentation materials to Regional PSAP Advisory Committee Members
- Advisory Committee shares approach with PSAP community seeking feedback from each respective regions:
 - Collect recommendations
 - Identify any major gaps in the proposed strategy
 - Feedback on sequencing of activities
- Advisory Committee provide OEM feedback to determine the value of recommendations and evaluate potential impacts against original proposed strategy
- Determine time needed to collect regional feedback and future meeting schedules

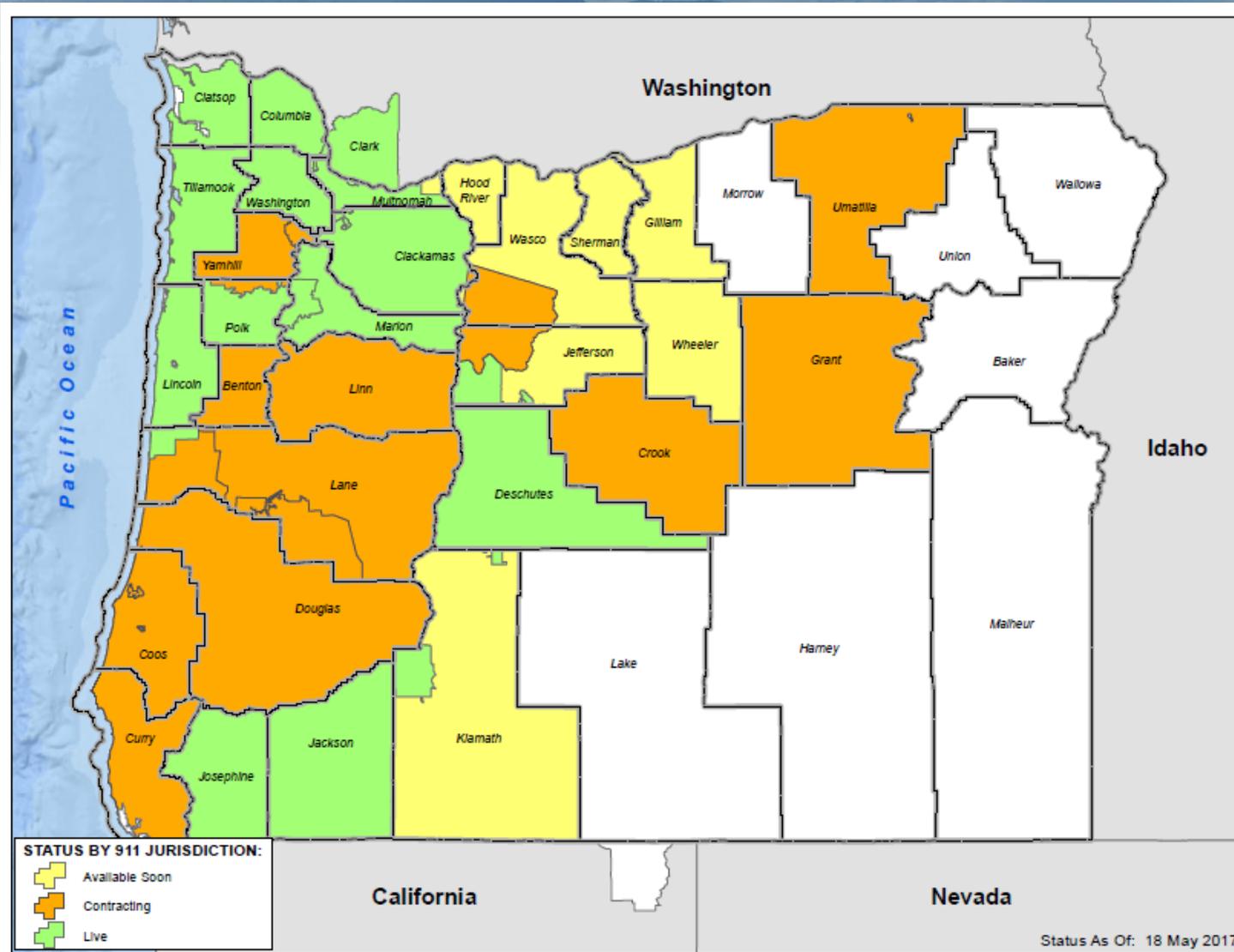


Text to 9-1-1



OREGON

Text to 9-1-1
May 2017





<http://www.nwtext911.info/>

911
CALL IF YOU CAN
TEXT IF YOU CAN'T

TEXT - TO - 911

OREGON &
SW WASHINGTON

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For PSAP Users

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Protected: For PSAP Users

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PSAP911text (it is case sensitive on the PSAP).

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Protected: For PSAP Users

Welcome to Text-to-911 Resources for Public Safety Answering Points

The following resources are intended to help you navigate the process of securing your own interim text-to-911 solution within the State of Oregon and Southwest Washington.

Product Selection Research

- › [TCS Solution Versus Intrado Solution](#)
- › [FCC Text-to-911 webpage](#) (look for Current Listing of PSAP deployments about mid-page)

Action Forms for Text Solutions

- › [Sample Carrier Letter](#)

Policy Development

- › [Regional Model Policy](#) (June 16, 2016)
- › [Sample Localized Policy \(Clackamas 911\)](#)

Admin, Testing, Transcript & Evaluation Info

- › [Quick Messages](#)
- › [ECATS Session Transcript Sample](#)
- › [Sample Test Message Script](#)

Training Information

- › [TCS E-Media PSAP User Guide](#)
- › [TCS E-Media Simulator](#)
- › Dispatcher Training: [What To Expect \(Clackamas 911\)](#)
- › Dispatcher Training: Scenario "At Your Desk" [Practice Guide \(Clackamas 911\)](#)

Public Education Tools

- › [NENA Text-to-911 Website](#)
- › Presentation: [Leslie Taylor / APCO Meeting in May 2016](#)
- › Presentation: [Centroid Explanation](#)
- › Public Education Committee (PEC): [Community Brochure](#)
- › PEC: [First Responder Brochure](#)
- › PEC: [Talking Points](#)
- › PEC: [News Release Template for YES](#)
- › PEC: [News Release Template for NO](#)



Have a Question? Click this picture & email your question!



Sessions Per Hour

Clackamas County Communications

2200 Kaen Rd.

Oregon City, 97045

County: Clackamas

Year: 2017

Agency Affiliation: Police

Report Date: 05/18/2017 09:22:28

Report Date From: 05/01/2017

Report Date To: 05/18/2017

Period Group: Month

Time Group: 60 Minute

Time Block: 00:00 - 23:59

Date	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total
May 2017	0	0	0	0	0	0	0	0	0	1	1	1	0	1	2	0	0	1	1	0	1	0	1	0	10
Total	0	0	0	0	0	0	0	0	0	1	1	1	0	1	2	0	0	1	1	0	1	0	1	0	10

Text Sessions by Hour for May



Messages Per Hour By Carrier

Clackamas County Communications

2200 Kaen Rd.

Oregon City, 97045

County: Clackamas

Agency Affiliation

Police

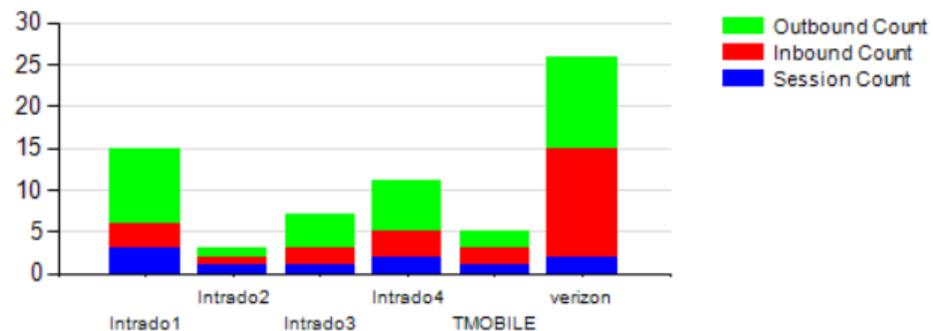
Report Date: 05/18/2017 09:24:21

Report Date From: 05/01/2017

Report Date To: 05/18/2017

Sessions shown contain the entire SMS session from the caller's perspective, including all SMS transfers that occurred. Sessions where no messages were sent are excluded.

Overall Totals			
Carrier	Number of Sessions	Number of Inbound Messages	Number of Responses
Intrado1	3	3	9
Intrado2	1	1	1
Intrado3	1	2	4
Intrado4	2	3	6
TMOBILE	1	2	2
verizon	2	13	11
Grand Totals	10	24	33





- Standard Reports**
- Call Summary
- Calls Per Hour
- Top Busiest Hours
- Average Call Duration
- Calls By Circuit
- Circuit Utilization
- PSAP Answer Time
- PSAP Ring Time
- Last 12 Months Answer Time
- Last 12 Months Ring Time
- Class of Service
- Call Transfer
- Calls by Agent
- Call Transfer Count
- Agent Speed of Answer
- Initial Station Total Calls
- Agent Ring Time
- Calls per Hour by Day of Week
- Call Detail Records**
- Top ESN Report
- Top ANI Report

REPORTS

Standard Reports > Call Detail Records

Select PSAPs:

- Bureau of Emergency Communications
- Central Lane Communications
- Clackamas County Communications
- Columbia 911 Communications
- Coos Bay Police Department

OR

Select Groups:

- All PSAPs
- Bureau of Emergency Communications

Select Date Range

Last Full Day

From:

To:

Call Type:

All

Ani:

Output Format: Web

Generate Report



Clackamas County Communications ^

Total Calls: 305

Open CDR Report	Psap Name	Seizure DateTime	Call Type	ALI ANI	Class Of Service
	Clackamas County Communications	5/17/2017 00:16:40	911 Calls	503-884-7981	WPH2
	Clackamas County Communications	5/17/2017 00:30:17	911 Calls	503-726-6854	WPH2
	Clackamas County Communications	5/17/2017 00:35:16	911 Calls	503-995-7028	WPH2
	Clackamas County Communications	5/17/2017 00:42:45	911 Calls	503-995-7028	WPH1
	Clackamas County Communications	5/17/2017 00:43:03	911 Calls	503-995-7028	WPH2
	Clackamas County Communications	5/17/2017 01:06:38	911 Calls	971-276-2748	WPH2
	Clackamas County Communications	5/17/2017 01:12:09	911 Calls	503-462-4533	WPH2
	Clackamas County Communications	5/17/2017 01:13:54	911 Calls	503-847-5927	WPH2
	Clackamas County Communications	5/17/2017 01:17:46	911 Calls	503-723-7321	RESD
	Clackamas County Communications	5/17/2017 01:27:29	911 Calls	503-659-3449	VOIP
	Clackamas County Communications	5/17/2017 01:43:06	911 Calls	911-169-8650	WPH1



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CML Text Formatter

3001 CCOM
ANI 5033419081
CPN 5037266854

Call 188178 Arrives On 911_6 cell May/17/17 00:30:17 DST
911_6 cell Goes off Hook May/17/17 00:30:17 DST
911_6 cell Filtering Begins Test_Profile May/17/17 00:30:17 DST
Call 188178 Cellular call May/17/17 00:30:18 DST
Call 188178 CPN: 5037266854 May/17/17 00:30:18 DST
Call 188178 Accepted (Vox) Test_Profile May/17/17 00:30:31 DST
911_6 cell Filtering Ends Test_Profile May/17/17 00:30:31 DST
911_6 cell Queue In Queue 12 May/17/17 00:30:31 DST
Queue 12 Queue Out 1505 May/17/17 00:30:35 DST
1505 Picks up May/17/17 00:30:35 DST
1505 Puts On Hold 911_6 cell May/17/17 00:31:12 DST
1505 Retrieves 911_6 cell May/17/17 00:31:38 DST
1505 Puts On Hold 911_6 cell May/17/17 00:31:39 DST
1505 Dials 913606964461 May/17/17 00:32:01 DST
1505 Calls CLKMSM1K1A May/17/17 00:32:01 DST
CLKMSM1K1A Is Ringing May/17/17 00:32:01 DST
CLKMSM1K1A Answers May/17/17 00:32:05 DST
CLKMSM1K1A Is Put In Conference May/17/17 00:32:05 DST
1505 Retrieves 911_6 cell May/17/17 00:32:05 DST
1505 Hangs Up Call 188178 May/17/17 00:32:47 DST
911_6 cell Is Transferred To CLKMSM1K1A May/17/17 00:32:47 DST
CLKMSM1K1A Hangs Up Call 188178 May/17/17 00:35:16 DST
911_6 cell Is Released May/17/17 00:35:16 DST
Call 188178 Finishes May/17/17 00:35:16 DST

ALI Information
503-726-6854 05/17/17 00:30:43
VERIZON
5030 P#503-341-9081
BROADWAY ST

ESN=00346 WEST
LINN OR

CLASS:WPH2 TEL=VZW
LAT:+045.372440 LON:-122.586075
METERS:28 PERCENT:090
ELV SPD DIR
PSAP=CLACKAMAS CO--WIRELESS
VERIFY
VERIFY
```

Call Detail Record With Pocket Dial Filtering



Oregon Office of Emergency Management



9-1-1 TAX DISTRIBUTION & 1%

Gordon Tiemeyer, 9-1-1 PSAP Relations Analyst
Hood River Conference
May 23, 2017

9-1-1 TAX DISTRIBUTION

ORS 403.240 Distribution of account proceeds; uses; reimbursement request review; reports.

(8) After all amounts under subsections (1) and (2) of this section and ORS 403.235 (2) have been paid, the office shall allocate the balance of the Emergency Communications Account to cities on a per capita basis and to counties on a per capita basis of each county's unincorporated area for distribution directly to 9-1-1 jurisdictions as directed by the city or county. However, each county must be credited a minimum of one percent of the balance of the account after the amounts under subsections (1) and (2) of this section and ORS 403.235 (2) have been paid.

9-1-1 TAX DISTRIBUTION

- Distribution amount is the tax collection amount, after subtracting for:
 - Dept. of Revenue, up to 1% amount
 - OEM Admin, up to 4% amount
 - 35% to 9-1-1 Subaccount
- Remainder is then distributed.

9-1-1 TAX DISTRIBUTION

- Distribution calculation handled by DAS
- Maintains city/county populations and processes for several types of distributions throughout the state.
- Population figures updated and provided by Portland State University Population Research Center

Population

- 4,013,843 Total
- 2,777,113 Incorporated – *Inside* the cities
- 1,236,730 Unincorporated – **Outside** the cities

- 241 Cities
- 36 Counties

- Which county has the fewest incorporated cities?
 - Crook – 1
- Which county has the most?
 - Marion – 19

9-1-1 TAX DISTRIBUTION - 1%

“...to counties on a per capita basis of each county’s unincorporated area for distribution directly to 9-1-1 jurisdictions as directed by the city or county. However, each county must be credited a minimum of one percent of the balance of the account...”

Interpreted to mean that each county is credited with either the 1% amount or what amount the per capita of the unincorporated would be, whichever is larger.

9-1-1 TAX DISTRIBUTION - 1%

- Determine 1% amount

$$\$6,232,481.55 \times 1\% = \$62,324.82$$

Now determine which counties might have a larger amount than this 1% amount, based on the population of their unincorporated area.

9-1-1 TAX DISTRIBUTION - 1%

- Baker County unincorporated population divided by total population to reach percentage.

$$4,928 / 4,013,843 = 0.1228\%$$

$$0.1228\% \times \$6,232,481.55 = \$7,651.93$$

Less than \$62,324.82, so Baker County is allotted the larger 1% amount.

9-1-1 TAX DISTRIBUTION - 1%

Counties that receive more than 1% based on their unincorporated populations are:

Deschutes	58,430
Douglas	59,065
Jackson	66,148
Marion	90,919
Lane	97,485
Clackamas	179,177
Washington	237,963

9-1-1 TAX DISTRIBUTION - 1%

- For remainder of distribution.
- Unincorporated population and amount of 1% counties is removed.
- Standard determination is completed to find per capita amount for remainder

9-1-1 TAX DISTRIBUTION - 1%

- Note that this credit is for each county, not 9-1-1 jurisdiction.
- Amount is paid to the 9-1-1 jurisdiction that serves the unincorporated area of the county.
- For multiple PSAP counties, it is divided up based on percentages.
- These percentages are built in to the DAS calculation.

9-1-1 TAX DISTRIBUTION - 1%

- Clatsop County
- Served by City of Astoria PSAP and City of Seaside PSAP.
- County 1% amount is split between the two based on a percentage of unincorporated area of the county served.

9-1-1 TAX DISTRIBUTION - 1%

- Polk County (No 9-1-1 jurisdiction)
- Served by City of Salem PSAP (WVCC) and YCOM PSAP.
- Again, split based on a percentage.

9-1-1 TAX DISTRIBUTION - 1%

- Umatilla County
- City of Milton - Freewater PSAP serves just their respective city, so only get their city's share.
- County 1% goes to Umatilla County PSAP, which serves all of the county unincorporated area.

9-1-1 TAX DISTRIBUTION - 1%

Questions?

Future Update

Toni Sexton, President, Oregon APCO/NENA



GIS/MSAG FUNDING POLICY



GIS/MSAG FUNDING POLICY GOALS



- Support both current operational and transitional NG needs
- Focus less on time expended and more on results
- Variable, based on population (in-line with PSAP distribution process)
- Flexibility for recognized differences in needs/focus
- Diminish administrative burden without weakening accountability
- Improve identified weaknesses in current policy
 - Special Projects
 - Multiple entities and jurisdictional issues
 - Data sharing
- Full stakeholder participation



WORKGROUP SCHEDULE



5/8 – 5/12	MEETING #1
5/15 – 5/19	MEETING #2
5/22 – 5/26 (Quarterly)	Individual input
5/29 – 6/2 (holiday and vacation)	Individual input
6/5 – 6/9 (NENA 2017)	Individual input
6/12 – 6/16	MEETING #3
6/19 – 6/23	MEETING #4
6/26 – 6/30	Final DRAFT



GIS/MSAG FUNDING SUBCOMMITTEE



NAME	REPRESENTING
Michael Gurley	State 911 Program
Jeff Rusiecki	Region 1 (Clatsop, Columbia, Tillamook, Lincoln)
Ian Crawford	Region 2 (Clackamas, Washington, Yamhill)
Laura Wolfe	Region 3 (Multnomah)
Gina Audritsh	Region 4 (Marion, Polk)
Steve Reinke	Region 5 (Hood River, Wasco, Jefferson, Deschutes, Crook, Wheeler, Gilliam, Sherman, Morrow)
Deb Rozeboom	Region 6 (Umatilla, Grant, Harney, Wallowa, Union, Baker, Malheur)
Keith Massie	Region 7 (Benton, Linn, Lane)
Cynde Black	Region 8 (Coos, Douglas, Curry)
Chad Piler	Region 9 (Josephine, Jackson, Klamath, Lake)



QUESTIONS?



Michael Gurley
NG9-1-1 Deputy Project Manager

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