



Cal OES

GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

State 9-1-1 Advisory Board

May 19, 2021





Item 1: Call to Order & Member Roll Call

Members of the Board

- Chair – Patrick J. Mallon, Governor’s Office of Emergency Services (Cal OES)
- Chief Chris Childs, California Highway Patrol (CHP)
- Brenda Bruner, Association of Public-Safety Communication Officials (APCO)
- Lee Ann Magoski, California National Emergency Number Association (CALNENA)
- Rosa Ramos, California National Emergency Number Association (CALNENA)
- Sheriff Ingrid E. Braun, California State Sheriffs’ Association (CSSA)
- Sheriff William “Bill” Ayub, California State Sheriffs’ Association (CSSA)
- Chief Edward Hadfield, California Fire Chiefs Association (CFCA)
- Chris Herren, California Fire Chiefs Association (CFCA)
- Chief Elise Warren, California Police Chiefs Association (CPCA)
- Chief Andrew White, California Police Chiefs Association (CPCA)

Establishment of quorum



Item 2: Approval of Previous Minutes

Meeting Minutes

February 2021 meeting minutes:

- Meeting held via video conference



Item 3: Closed Session

Closed Session

The State 9-1-1 Advisory Board will meet in closed session via a secure video conference pursuant to Pursuant to G.C. Section 11126(e)



Item 4: Legislative Update

Mr. Reggie Salvador, Chief, Cal OES Legislative and External Affairs will provide information regarding legislation that may impact California's 9-1-1 system



Item 5: Cal OES 9-1-1 Emergency Communications Branch Report

Mr. Budge Currier will present updates regarding active projects within Cal OES' 9-1-1 Emergency Communications Branch:

1. 2020 Call Statistics
2. Statewide Customer Premise Equipment (CPE) Installation
3. Text to 9-1-1 Update
4. Next Gen 9-1-1 Update
5. Location Accuracy Project
6. Cloud Based CPE
7. Status of SETNA



Item 5-1: 2020 Call Statistics

Total 9-1-1 Calls	2020
Total	25,927,317
Wireless	21,830,501 (84%)
Wireline	2,236,812 (9%)
Voice over IP	1,242,522 (5%)
Other including Telematics	533,027 (2%)
Text to 9-1-1	84,455 (<1%)



Item 5-2: Statewide CPE Installation

Calendar Year	System Acceptance Signed
2021	4
2020	51
2019	69
2018	54
2017	57
2016	93
Older than 2016 (includes PSAPs with self-funded CPE)	110

PSAPs with CPE System Acceptance dates of 2014 or prior are utilizing the year 6/7 maintenance options or are working with the CA 9-1-1 Branch on CPE replacement.



Item 5-2: Statewide CPE Upgrades

- Next Gen 9-1-1 testing has identified the need to upgrade the CPE software
 - Motorola – Vesta will need to be upgraded to Version 7.4 SP1
 - Intrado – Viper sales have been suspended until further testing is completed. Cal OES will not be authorizing Version 7.0.
 - CallWorks, CentralSquare, and Zetron may need a legacy PSAP Gateway
 - Older equipment will need a Legacy PSAP Gateway (~80 PSAPs)
- Your CPE vendor will program additional line appearances on your CPE
- **Your CPE vendor will complete training at your PSAP on the changes in CPE due to NG 9-1-1**
- Your CPE vendor is required to support the existing ANI/ALI spill to CAD and CDR



Item 5-3: Text to 9-1-1 Deployment

Text to 9-1-1 Status	Quantity
PSAPs deployed with Web Based OTT	300
PSAPs pending deployment of Web Based OTT	2
PSAPs deployed with Integrated Text	135
PSAPs pending deployment of Integrated Text	0
Total PSAPs deployed	435
Total PSAPs	437

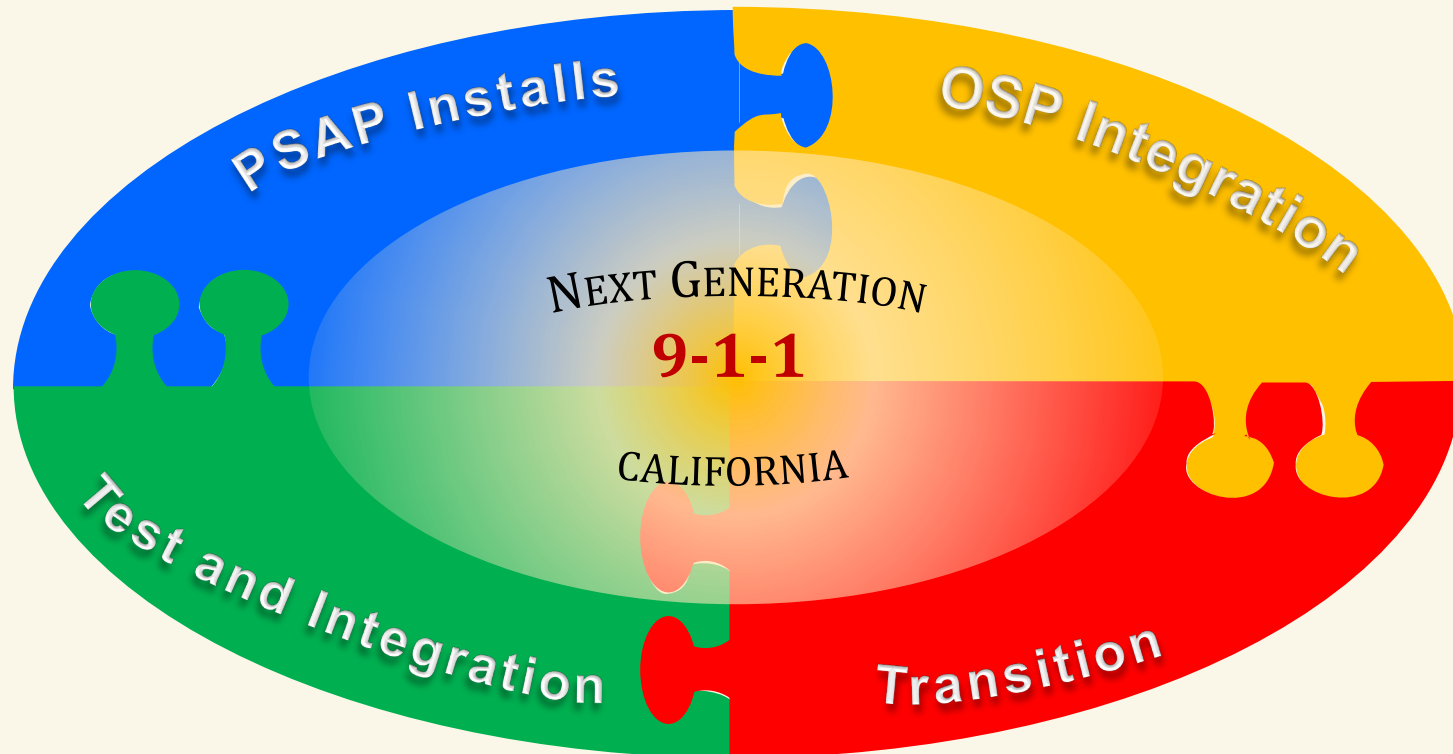


California Assembly Bill 1168
Mandated Text to 9-1-1 by
January 1, 2021

For questions/scheduling Contact Chereise Bartlett @ 916-894-5030 or chereise.bartlett@caloes.ca.gov



Item 5-4: Next Gen 9-1-1 Update





Item 5-4: Next Gen 9-1-1 Deployment



Northern Region



Statewide

Los Angeles Region

NGA 911

Optimistic Deployment Timeline

Statewide Prime – Aug 2019 – June 2022

Northern Region – Aug 2019 – June 2022

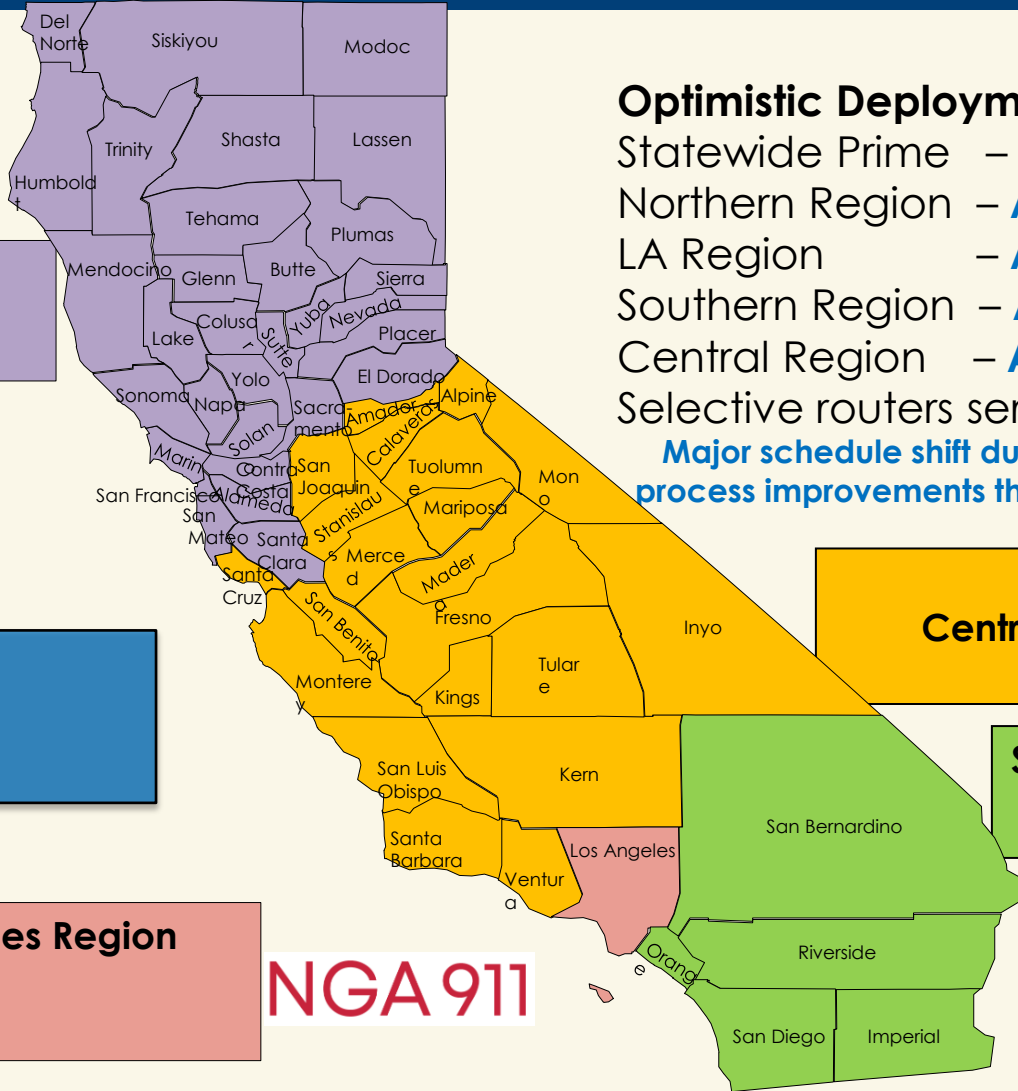
LA Region – Aug 2019 – June 2022

Southern Region – Aug 2019 – June 2022

Central Region – Aug 2019 – June 2022

Selective routers services replaced – 2022

Major schedule shift due to CPE limitations, COVID, and process improvements that will be discussed on next slides



Central Region

NGA 911

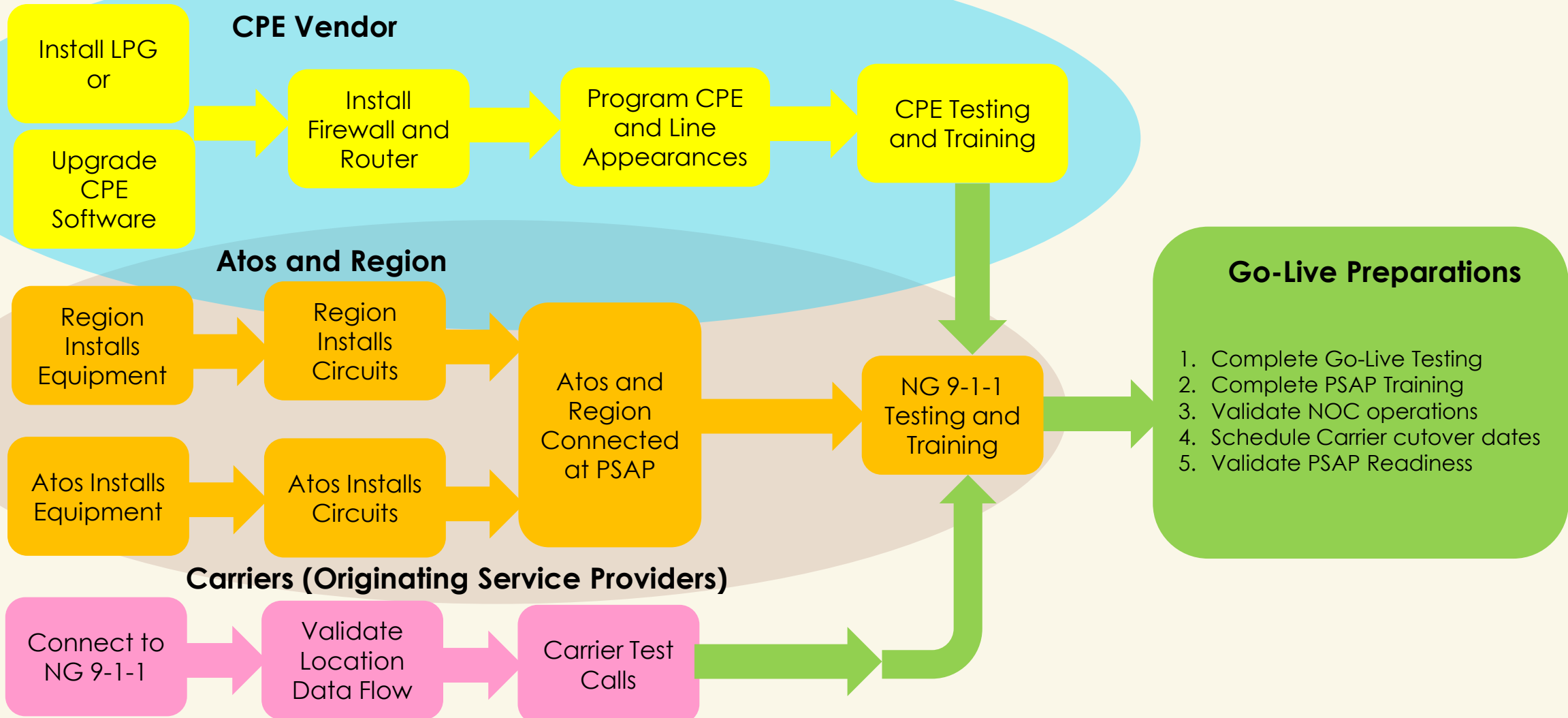
Southern Region





Item 5-4: PSAP Installs

Preparing for NG 9-1-1 Go-Live





Item 5-4: NG 9-1-1 Project Complexity

Tracking the NG 9-1-1 Transition

- Cal OS has received feedback that additional information is needed by your PSAP
- Ideal solution would be an interactive schedule that can be shared with all PSAPs
- The reality is that there are so many project contingencies that the dates change daily
- Cal OES has developed a PSAP tracking spreadsheet
 - Documents the NG 9-1-1 action items
 - Google document with 80 columns and 450 rows that cannot be shared with PSAPs
- Cal OES has developed an interactive tool to display deployment status
- Live Demo of the display tool



Item 5-4: Applying Lessons Learned and Adjusting Schedule as a Result

- Cal OES needs to improve the testing and validation process
- CPE vendors need to complete training and improve the communication with PSAPs
- The Carriers have a very deliberate process and each carrier to NG 9-1-1 service provider interface must undergo rigorous testing
- Cal OES is asking for the help and support of the PSAPs during testing
- Each PSAP needs a unique testing number for Atos and their region to support additional PSAP testing
- Existing CPE has limitations and cannot support all NENA i3 elements



Item 5-4: Lesson Learned: Supporting the Carrier Testing Process

- There are over 30 Carriers that need to be interfaced with the NG 9-1-1 system
- AT&T mobility, AT&T wireline, Frontier, T-Mobile, and Verizon connect to multiple NG 9-1-1 service providers
- Each carrier has a very deliberate process and calls must be landed on CPE
- Cal OES will complete as much testing as possible in the lab
- Most carriers require calls to be landed on the CPE at the PSAP
- Carrier testing will be restricted to specific test windows that have been coordinated with the PSAP
- The initial carrier integration for each NG 9-1-1 service provider is the most extensive



Item 5-4: Lesson Learned: Working with PSAPs to Support the Testing Process

- The Cal OES NG 9-1-1 lab has been an essential part of the testing process
- We can verify NG 9-1-1 functionality in the NG 9-1-1 lab
- We cannot verify specific CPE programming at each PSAP in the lab
- Initial CPE integration at your PSAP can be tested with CPE technician
- Final testing requires dispatchers to answer calls to validate the programming is correct and that the training is adequate
- We are asking for PSAPs to support test windows for the testing that must be completed at the PSAP
 - Test Windows will be Monday – Wednesday from 10:00 am – 1:00 pm
 - No more than 10 test calls will be completed in any single hour unless approved by PSAP
 - During planned events and increased busy times, test windows can be cancelled by PSAP
 - Each PSAP will have unique testing number for Atos and their region to support additional PSAP testing



Item 5-4: Lesson Learned: Existing CPE Limitations

- Existing CPE has limitations and **cannot support**:
 - Internet Protocol, Version 6 (IPV6) and Transport Layer Security (TLS) needed for the Private Key Infrastructure
 - Unique IP address needed to dereference a NENA i3 call for a Carrier maintained Location Information Service
 - Position State, element state, and que state in native NENA i3. These are needed to support dynamic policy routing
 - Real Time Text, video, photos, and multimedia
 - I3 logging for all calls (Most CPE vendors)
- The NG 9-1-1 service providers (Atos, Lumen, NGA 9-1-1 and Synergem) have put in “work arounds” to ensure that the CA NG 9-1-1 system can interface with CPE
- **The real solution is for PSAPs to move to Cloud Native / Data Center CPE using the vendors on the new CPE contract**
- Cal OES is working to complete the testing for these solutions
- The recommendation is to wait to upgrade your CPE until cloud CPE solutions are available



Item 5-4: What does NG 9-1-1 Testing look like for my PSAP?

There will be 4 types of Testing:

- CPE Testing to validate CPE upgrades or LPG
- NG 9-1-1 Testing to validate NG 9-1-1 connectivity to your PSAP
- “Go Live” Testing to validate NG 9-1-1 Go-Live readiness
- Carrier Testing to validate each carrier can deliver 9-1-1 calls through NGCS



Item 5-4: When will my PSAP be ready to Answer Test Calls?

- CPE and NG 9-1-1 Testing– Your CPE technician will answer the first test calls to ensure functionality
- “Go Live” and Carrier Testing – After line appearances are programmed on your CPE and training is completed by the CPE vendor, anticipate that your PSAP will be receiving NG 9-1-1 test calls
 - We are asking for the support of the PSAP for test calls during pre-planned test windows as discussed on slide 19



Item 5-4: PSAP Install Status

North Synergem

- Remediation – 109 of 163 PSAPs
- Equipment Install – 109 of 163 PSAPs
- Circuit Install – 103 of 163 PSAPs

Atos

- 91 of 163 PSAPs
- 49 of 163 PSAPs

South Lumen

- Remediation – 84 of 91 PSAPs
- Equipment Install – 72 of 91 PSAPs
- Circuit Install – 148 of 182 circuits (91 PSAPS)

Atos

- 65 of 91 PSAPs
- 34 of 182 circuits (91 PSAPS)



Item 5-4: PSAP Install Status

Central NGA 9-1-1

- Remediation – 104 of 112 PSAPs
- Equipment Install – 105 of 112 PSAPs
- Circuit Install - 129 of 224 Circuits (112 PSAPs)

Atos

- 87 of 112 PSAPs
- 82 of 224 Circuits (112 PSAPs)

LA NGA 9-1-1

- Remediation - 73 of 78 PSAPs
- Equipment Install – 73 of 78 PSAPs
- Circuit Install - 72 of 156 circuits (78 PSAPs)

Atos

- 67 of 78 PSAPs
- 62 of 156 circuits (78 PSAPs)



Item 5-4: OSP Integration Selective Router Transition

Phase	Selective Router Name	PSAP Region	PSAPs with Circuits
1	EL CENTRO	Southern	5
1	PLACERVILLE NIAGARA	North	6
1	SONORA	Central	4
2	BARSTOW	Southern	14
2	BUNDY	LA	18
2	JACKSON	Central	6
2	LAKEPORT	North	3
2	MARYSVILLE	North	9
2	MILL VALLEY	North	7
2	PALM SPRINGS	Southern	22
2	SANTA CRUZ MAIN	Central	6
2	SEPULVADA	LA	21
2	THOUSAND OAKS	Central	9
2	UKIAH	North	9
3	CHICO	North	23
3	EUREKA	North	10
3	FRESNO MAIN	Central	26
3	HOLLYWOOD	LA	29
3	MADISON	LA	2
3	NORTHRIDGE	LA	2
3	RIALTO	Southern	17
3	RIDGECREST	Central	14
3	San Diego MIRA MESA	Southern	26
3	SAN GABRIEL	LA	44
3	VALLEJO	North	16
3	VISALIA	Central	14
3	WATERMAN	LA	48
3	WESTMINSTER	LA	31

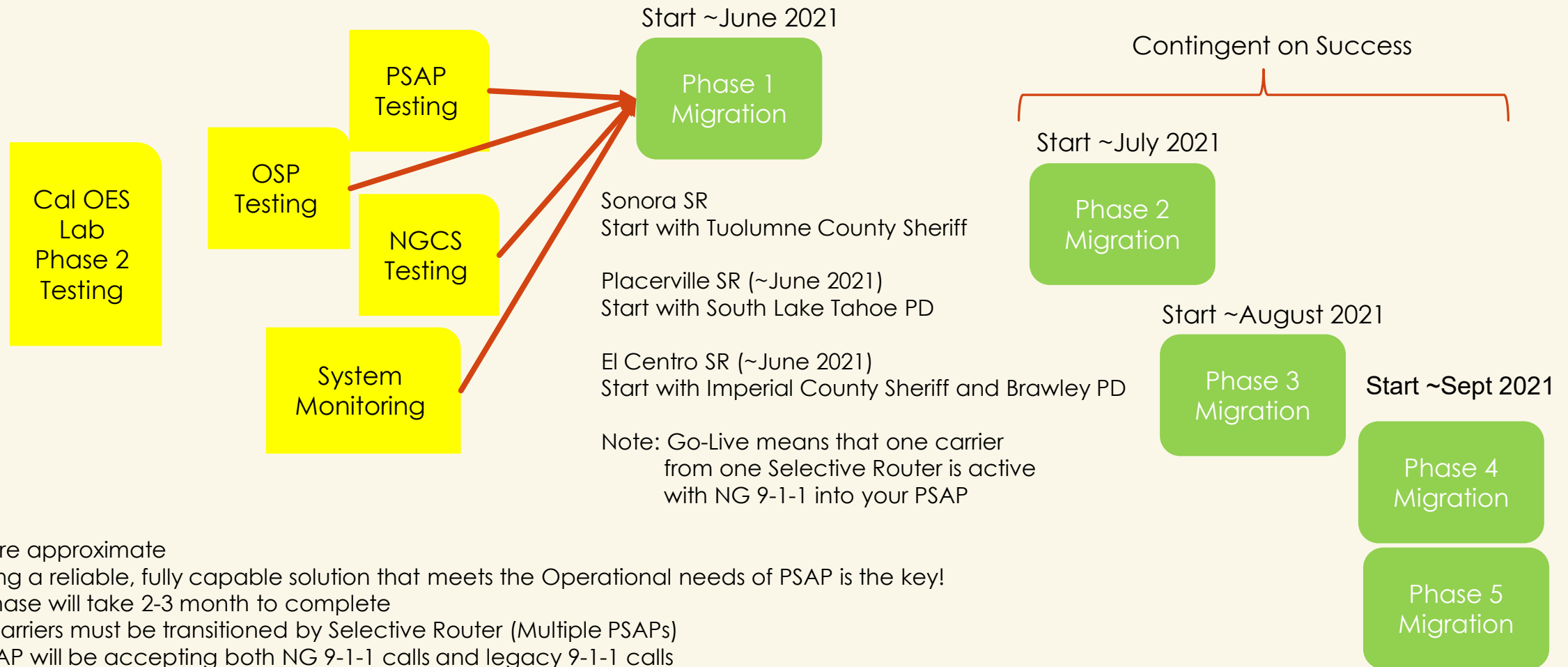
Phase	Selective Router Name	PSAP Region	PSAPs with Circuits
4	LA PUENTE	LA	23
4	LAS POSITAS	Central	13
4	MILLBRAE	North	19
4	MODESTO MAIN	Central	27
4	ORINDA	North	36
4	SAN ANDREAS	Central	7
4	SAN LUIS OBISPO	Central	10
4	SANTA ANA	Southern	35
4	SANTA CLARA	North	26
4	SHERMAN OAKS	LA	23
4	UPTOWN	LA	45
4	VENTURA FIR	Central	11
5	AUBURN	North	18
5	BAKERSFIELD MAIN	Central	18
5	REDDING ENTERPRISE	North	14
5	SACRAMENTO MAIN	North	22
5	SALINAS MAIN	Central	10
5	SANTA ROSA	North	14
5	STOCKTON MAIN	Central	19

Goal is to complete transition by June of 2022.



Item 5-4: Test and Integration

Changing the narrative from dates to process



- Dates are approximate
- Delivering a reliable, fully capable solution that meets the Operational needs of PSAP is the key!
- Each Phase will take 2-3 month to complete
- Some Carriers must be transitioned by Selective Router (Multiple PSAPs)
- Your PSAP will be accepting both NG 9-1-1 calls and legacy 9-1-1 calls



Item 5-4: Validating the Security of the NG 9-1-1 System

- All NG 9-1-1 traffic is routed over encrypted IPV6 connections
- All NG 9-1-1 traffic must use a valid Public Key Infrastructure PSAP security credential
- All NG 9-1-1 service providers actively monitor the network for DDOS and TDOS attacks
- Cal OES is working with Net Force to complete a cyber security assessment of the NG 9-1-1 system
 - Validate the system architecture
 - Validate the security
 - Identify any gaps, recommend cyber security enhancements



Item 5-5: Location Accuracy and Validation Project

- All PSAPs are active with RapidDeploy
- Feedback is overwhelmingly positive
- All PSAPs have been updated to RadiusPlus
 - Includes an SMS text from 9-1-1 capability
 - Integration of data from OnStar is now available
 - All Over the Top text solutions will be migrated to RapidDeploy beginning in August of 2021. All Over the Top text PSAPs must start using RapidDeploy to ensure familiarity with the platform
- Any questions, Cal OES Project Manager:
Curt Guillot @ 916-894-5035 or curt.guillot@caloes.ca.gov
- For RadiusPlus access, Customer Success Manager:
Leah Portnoy @ 512-970-2255 or Leah.Portnoy@rapiddeploy.com



Item 5-6: Next Gen 9-1-1 Call Processing Equipment (CPE) RFP Update

- Contracts were awarded on July 10, 2020
 - AT&T reselling Rapid Deploy Cloud, Motorola Cloud, Viper Cloud, and Viper Data Center
 - Atos - Open Scape Cloud
 - Carbyne Cloud
 - Carousel reselling Motorola Cloud
 - CenturyLink reselling Motorola Cloud, Viper Data Center, and Omni911 Cloud
 - Comtech - Solacom Data Center
 - Frontier reselling Motorola Cloud
 - Intrado - Viper Data Center, and Viper Cloud
 - Motorola Cloud
 - NGA911 reselling WestTel Cloud, Emergent Cloud
 - RapidDeploy Cloud
 - Zetron Data Center



Item 5-6: Next Gen 9-1-1 Call Processing Equipment (CPE) RFP Update

- Cal OES has met with all vendors that are on the new CPE contract
- Some cloud CPE vendors will be ready to test as early as May
- Most cloud CPE vendors will not be ready until fall of 2021 or early 2022
- Cal OES has completed work with Atos, Lumen, NGA 911 and Synergem to establish permanent testing capability in the Cal OES 9-1-1 lab
- Cal OES does not expect any cloud CPE installations before early 2022 based on NG 9-1-1 testing and Go-Live



Item 5-8: SETNA Fund Condition Statement

LEGISLATIVE, JUDICIAL, AND EXECUTIVE

2020-21 STATE BUDGET — LJE 1

0690 Office of Emergency Services

FUND CONDITION STATEMENTS †

	2018-19*	2019-20*	2020-21*
0022 State Emergency Telephone Number Account[§]			
BEGINNING BALANCE	\$36,653	\$241	\$7,342
Prior Year Adjustments	10,971	-	-
Adjusted Beginning Balance	\$47,624	\$241	\$7,342
REVENUES, TRANSFERS, AND OTHER ADJUSTMENTS			
Revenues:			
4140500 Emergency Telephone User's Surcharge	54,045	126,274	192,410
4171100 Cost Recoveries - Other	1	2	2
4171400 Escheat - Unclaimed Checks, Warrants, Bonds, and Coupons	-34	2	-
Transfers and Other Adjustments			
Loan from the General Fund (0001) to the State Emergency Telephone Number Account (0022), per Item 0690-011-0001, Budget Act 2018 (AB 72)	10,000	-	-
Revenue Transfer from Prepaid MTS 911 Account (3266) to State Emergency Telephone Number Account (0022) per Chapter 885, Statutes of 2014 (AB 1717) Section 8 Revenue and Taxation Code 42023 (a)	2,603	1,408	-
Total Revenues, Transfers, and Other Adjustments	\$66,615	\$127,686	\$192,412
Total Resources	\$114,239	\$127,927	\$199,754
EXPENDITURE AND EXPENDITURE ADJUSTMENTS			
0690 Office of Emergency Services (State Operations)	13,021	20,416	21,442
0690 Office of Emergency Services (Local Assistance)	95,606	144,271	142,391
3540 Department of Forestry and Fire Protection (State Operations)	3,815	3,815	3,815
7600 California Department of Tax and Fee Administration (State Operations)	943	1,735	1,719
8880 Financial Information System for California (State Operations)	1	-1	-
9892 Supplemental Pension Payments (State Operations)	44	95	95
9900 Statewide General Administrative Expenditures (Pro Rata) (State Operations)	568	254	1,487
Less funding provided by General Fund (State Operations)	-	-50,000	-
Total Expenditures and Expenditure Adjustments	\$113,998	\$120,585	\$170,949
FUND BALANCE	\$241	\$7,342	\$28,805
Reserve for economic uncertainties	241	7,342	28,805



Item 5-8: 2021 SETNA Fee Calculation

- How the fee is set by Cal OES:
 - Revenue needed is determined by FY 2021-22 budget
 - Access Line Service Providers sent number of access lines to Cal OES
 - Cal OES calculated the surcharge based on the budget and number of access lines
 - Cal OES sent letter to CDTFA on September 29, 2020
 - For calendar year 2021, the recommend surcharge is \$0.30

Description	Amount
2020-21 Revenue Needed	\$207,048,613
Estimate number of Access Lines	57,883,663
Surcharge per month	\$0.30
Projected Monthly Revenue	\$17,365,099
Projected Annual Revenue	\$208,381,185



Item 6: Long Range Planning Committee

- The LRPC will brief out current LRPC activities
- The LRPC will take direction from 9-1-1 AB on future activities for the LRPC



Item 7: Agenda Items for Future Meetings

Board requests for matters to be placed on a future agenda

2021 Meeting Dates:

- AUGUST 18, 2021
- NOVEMBER 17, 2021



Item 8: Public Comment

Public Comment



Item 9: Adjourn

Thank you for attending this meeting of the California State 9-1-1 Advisory Board.

- **General Information:**

Sophia Munoz, State 9-1-1 Advisory Board Liaison, at
(916) 894-5016 or via email at sophia.munoz@caloes.ca.gov

- **Media Information:**

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