NG 9-1-1 and Emergency Communications
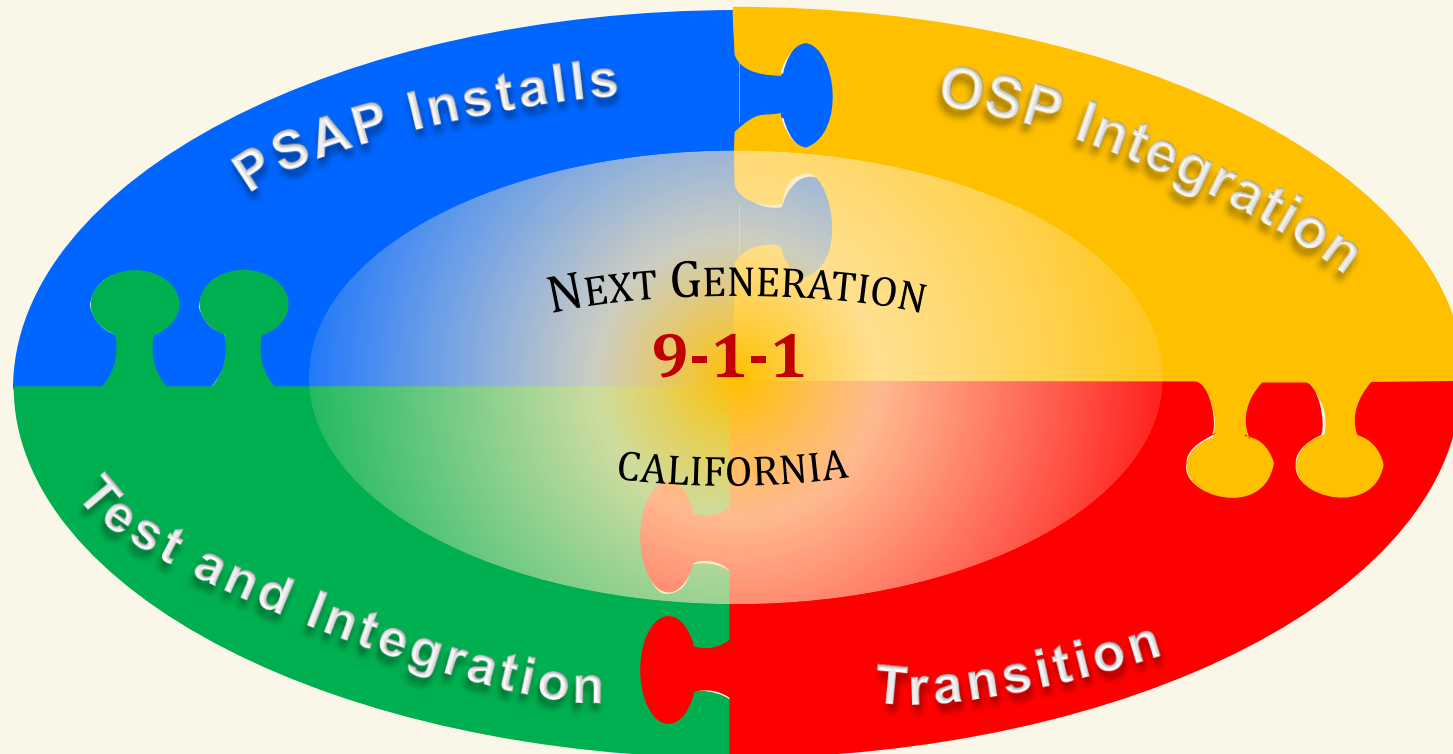## NAPCO August 2021

Discussion Overview

- NG 9-1-1 Update and Overview

- Outage Reporting

- NG 9-1-1 Alert and Warning Update

- Emergency Communications – How does Cal OES work with local agencies?

Next Gen 9-1-1 Update

Next Gen 9-1-1 Deployment

SYNERGEM technologies
The next generation of 9-1-1

Northern Region
169 PSAPS
7,000,000 Calls / Year

AtoS

Statewide
All 450 PSAPS
27,000,000 Calls / Year

Los Angeles Region
78 PSAPS
8,000,000 Calls / Year

NGA 911

Optimistic Deployment Timeline
First PSAP Goes Live – **Sept 2021**
All Carriers have been transitioned **Dec 2022**
Selective routers services replaced – **2022**
Major schedule shift due to CPE limitations, COVID, and process improvements

Central Region
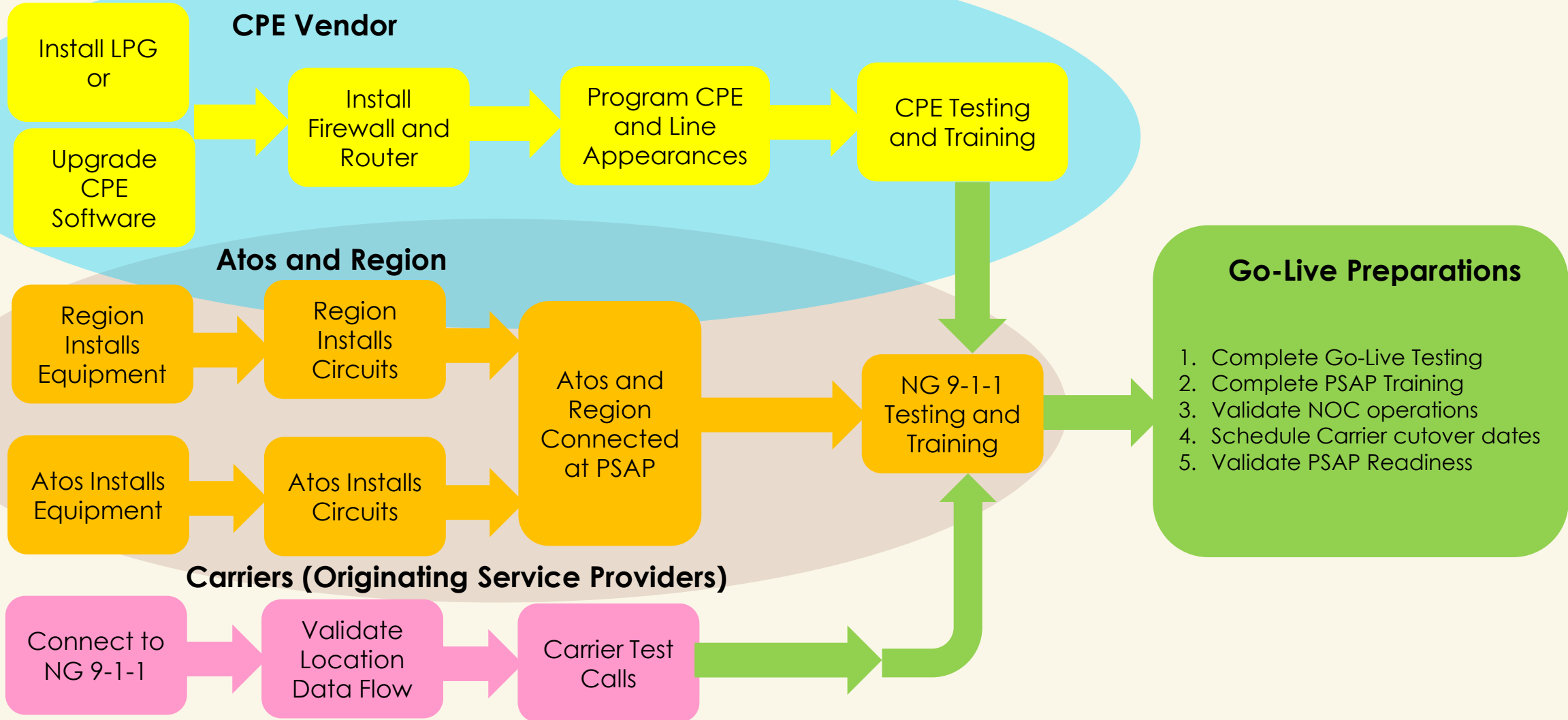**112 PSAPS**
5,000,000 Calls / Year

NGA 911

Southern Region
91 PSAPS
7,000,000 Calls / Year

LUMEN

PSAP Installs
Preparing for NG 9-1-1 Go-Live

CPE Vendor

Install LPG or

Upgrade CPE Software

Install Firewall and Router

Program CPE and Line Appearances

CPE Testing and Training

Atos and Region

Region Installs Equipment

Region Installs Circuits

Atos Installs Equipment

Atos Installs Circuits

Atos and Region Connected at PSAP

NG 9-1-1 Testing and Training

Carriers (Originating Service Providers)

Connect to NG 9-1-1

Validate Location Data Flow

Carrier Test Calls

Go-Live Preparations

1. Complete Go-Live Testing
2. Complete PSAP Training
3. Validate NOC operations
4. Schedule Carrier cutover dates
5. Validate PSAP Readiness

Item 5-4: PSAP Install Status

- NG911 Deployment PSAP Dashboard Technical Information

https://www.caloes.ca.gov/PublicSafetyCommunicationsSite/Documents/DashboardInfo.pdf

- NG911 Deployment PSAP Dashboard

https://calema.maps.arcgis.com/apps/dashboards/edccc14f232640c4b53a65e946880568

- Live Demo

Go-Live Validation

1. Period of 2 weeks with no network or system changes

2. Validation by dispatchers in each of the PSAPS in the transfer cluster that CPE can answer, transfer, and display NG 9-1-1 calls properly

3. PSAP training completed and verified

4. Validation of the PSAP "Alternate Route" process

5. Validation of the trouble ticket and Network Operation Center activities

6. Validation of ability to deliver test calls from carrier

7. Validation of ability to send ANI / ALI or Location data to CAD

Go-Live Schedule

- There has been a delay in the Go-Live Schedule due to:

  1. CPE is unable to support all NENA i3 functions

  2. NGCS providers have had to develop code changes for CPE

  3. NGCS providers have been completing "Day 2 Support" activities

  4. Impacts on supply chain and resources due to COVID-19

  5. Delivery of location information needed to support operations and CAD

  6. An NG 9-1-1 project of this scope and scale has never been attempted

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 Dec of 2022

Legislative deadline is Dec 2022

Lesson Learned: Working with PSAPs to Support the Testing Process

- 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 Tuesday – Thursday 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

August 12, 2021

Statewide Cloud-Native CPE

- All new CPE sales have been suspended until CPE passes contract compliance, current barriers include, but may not be limited to:

    - 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

    - Element state and queue state in native NENA i3, which are needed to support dynamic policy routing

    - Inability to support Real Time Text (RTT)

    - Inability to support conferencing, using REFER

    - 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

- Your CPE vendor is required to support the existing ANI/ALI spill to CAD and CDR

August 12, 2021

Statewide Cloud-Native CPE

- **Full NG 9-1-1 implementation will require PSAPs to move to Cloud Native / Data Center CPE using the vendors on the new CPE contract**

- The recommendation is to wait to upgrade your CPE until cloud CPE solutions are available
  - AT&T reselling Rapid Deploy Cloud, Motorola Cloud, Viper Cloud, and Viper Data Center
  - Atos - GEMMA Cloud
  - Carbyne Cloud
  - Carousel reselling Motorola Cloud
  - Lumen 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 cloud CPE
  - RapidDeploy Cloud
  - Zetron Data Center

- Cal OES is working to complete the cloud CPE testing for those highlighted in yellow

Text to 9-1-1 Deployment

Text to 9-1-1 Status	Quantity
PSAPs deployed with Web Based OTT	302
PSAPs pending deployment of Web Based OTT	0
PSAPs deployed with Integrated Text	134
PSAPs pending deployment of Integrated Text	1
Total PSAPs deployed (99% completed)	436
Total PSAPs	437

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

Contact Cherise Bartlett @ 916-894-5030 or chereise.bartlett@caloes.ca.gov

Location Accuracy and Validation Project

- All PSAPs are active with RapidDeploy
- **<u>All Over the Top text PSAPs must start using RapidDeploy to ensure familiarity with the platform</u>**
- 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.
- Any questions, Cal OES Project Manager:

  Curt Guillot @ 916-894-5035 or curt.guillot@caloes.ca.gov
- For RadiusPlus access, Customer Success Manager:

  Mel Bland Melven.Bland@rapiddeploy.com

SB 670 Outage Reporting

- Staff on call 24/7/365 CA911outages@caloes.ca.gov

- Approved regulations are posted on Cal OES website

  - www.caloes.ca.gov/sb670

- Cal OES is notified via email when:

  - 100 or more users in single ZIP Code or 50% if under 100 per ZIP Code have an outage (Wireline and VoIP)

  - 50% or more coverage degradation in an ZIP Code (Wireless)

- Data is made available to PSAP, Sheriff and Emergency Managers

Alert and Warning

- Atos is working with subcontractor (Everbridge) to deploy an Alert and Warning solution

- Atos demonstrated compliance with contract in July of 2021

- The deployment process will begin in August of 2021

  - Priority is being given to those agencies with expired contracts, and those agencies in Tier 3 and Tier 4 fire areas

  - Contact Michael.Elder@caloes.ca.gov for further information

Emergency Support Function #2 – Communications (CA-ESF2) Overview

- CA-ESF2 coordinates status of communication systems and facilitates providing resources needed to sustain and restore the public communications infrastructure

  - Assists State, tribal, and local governments with emergency communications (TACCOM Deployable Comm Assets)

  - Assists with restoration of public safety communications systems and first responder networks

  - Informs local and state agencies to affect sound decision making

- All information requests are urgent unless otherwise indicated

- Contact Information:

  EF2@caloes.ca.gov   Activated in SOC   24/7/365 CSWC
                       916-845-8546   916-845-8911

August 12, 2021   17

Any Questions

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