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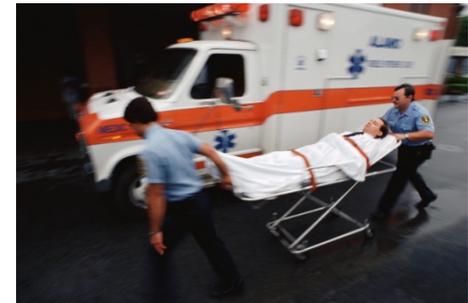
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TARGETED RESULTS.

EXPERTLY MANAGED.

# State of Ohio NG911 Project

August 30, 2016



# The Kimball Team

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- Kimball will develop RFP for statewide NG 9-1-1 network
- Include a core services component
  - Based on cost/needs of PSAPs
- Core services important to PSAPs
  - Border Control Functions (BCF)
  - Emergency Services Routing Proxy (ESRP)
  - Policy Routing Function/Policy Store
- Geographic Information Systems (GIS) Data
  - More critical role within the NG 9-1-1 environment
  - GIS-enabled call routing requires accurate data
  - Synchronizing GIS data with MSAG
  - Proper data standards and data maintenance needs to be implemented

## ➤ Network

- All 88 counties must have access to the state ESInet
- OARnet as the backbone
- PSAPs connect to different service levels
  - State core services and hosted CPE from State
  - State core services with PSAP owned CPE
  - Interoperable State core service to regionally owned core services
  - i3 capable core services and i3 capable CPE

# Economic Impact and Funding Analysis

- Current Statute/Regulations Wireless surcharge distribution
  - 97% 9-1-1 Government Assistance Fund for disbursement to counties
  - 1% Wireless 9-1-1 Administrative Fund for tax commissioner for carrying out ORC 128
  - 2% 9-1-1 Program Fund defray costs of steering committee to carry out duties under statute
  - Wireless carriers retain 2% as a billing/collection fee

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# Economic Impact and Funding Analysis

➤ Current surcharge collected from 5 top ILECs in Ohio

– Frontier	\$0.24
– AT&T	\$0.12
– Windstream	\$0.20
– CenturyLink	\$0.18
– Cincinnati Bell	\$0.12

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- Revenue generated from wireline is estimated at \$5,322,240
  - Aggregate wireline subscriber count latest FCC report-2,464,000
  - Rate mean average of \$0.18 across these five carriers
- Revenue generated from wireless is \$25 million
- Cost approximately \$30 million for the current 911 system

# Economic Impact and Funding Analysis

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- State 9-1-1 program costs for NG 9-1-1 System
  - Network and Core Services (state will own equipment in data centers)
  - Hosted Remote CPE
  - Maintenance and equipment for network and core services

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# Economic Impact and Funding Analysis

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## ➤ Costs to PSAP

- Last mile and circuits to NG 9-1-1 network and core services

## ➤ Depends on level of service PSAP chooses:

- State core services and hosted CPE from State
- State core services with PSAP owned CPE
- Interoperable State core service to established regionally owned core services

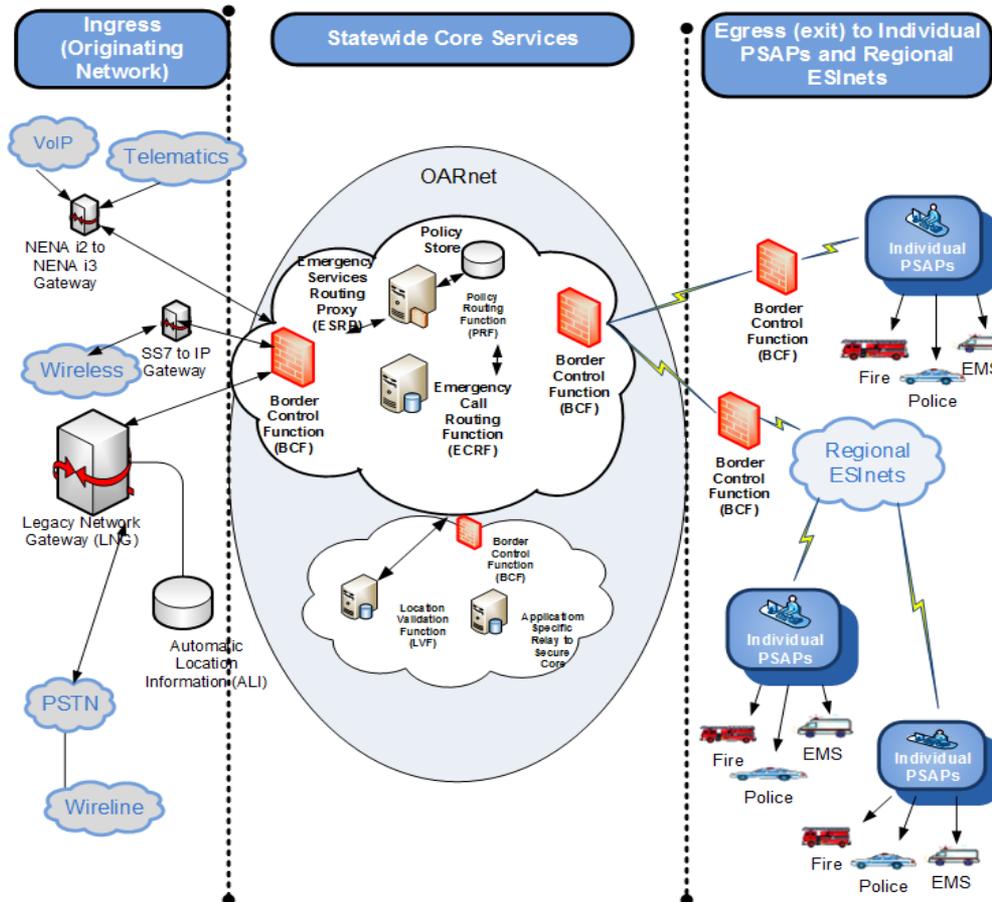
## ➤ State will develop the guidelines on what state will cover vs PSAP responsibility

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# DRAFT Preliminary Design and Operational Requirements

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State of Ohio Providing NG 911 Core Services to Independent PSAPs or Independent Regions



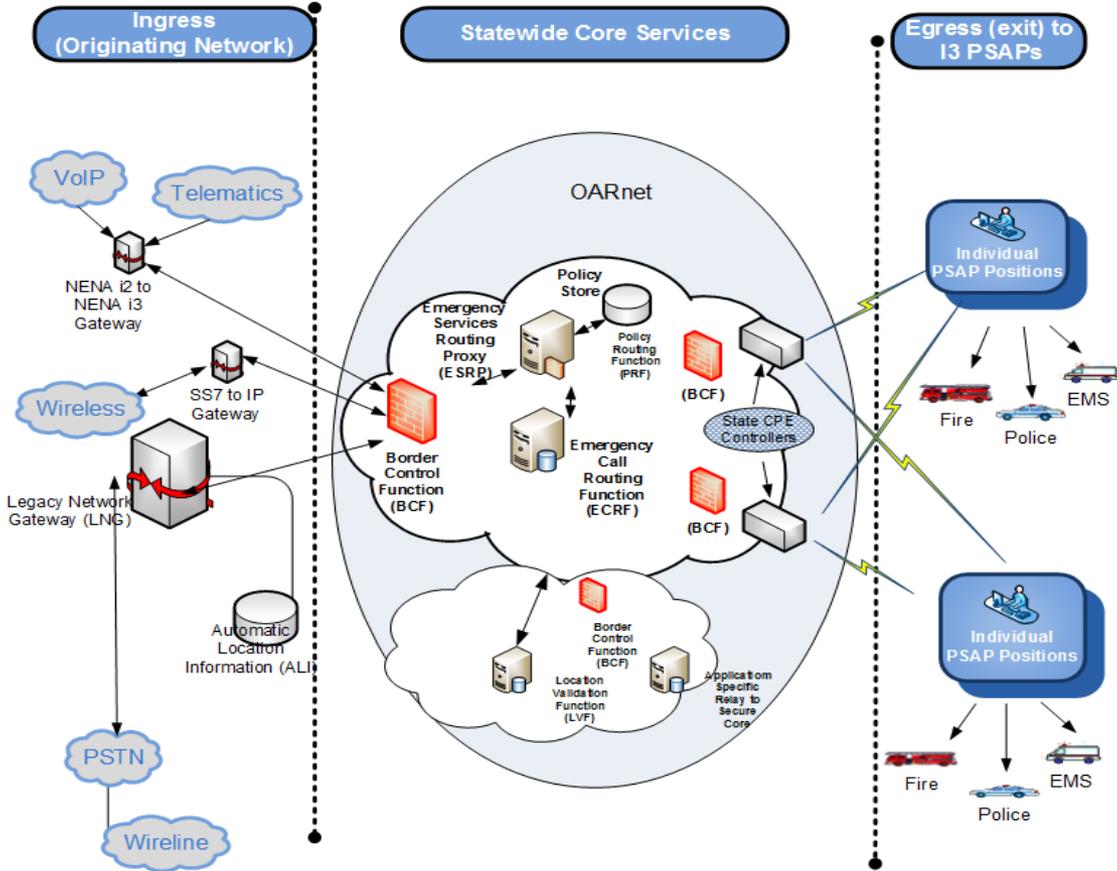
## State provides Core Services for Independent PSAPs & Regional ESInets.

- Ingress – originating to ESInet
  - Wireline, Wireless, VoIP, Telematics, Text
  - Legacy Network Gateway(LNG)
  - ALI Database
  
- Core Services – Call Processing Domain
  - Emergency Call Routing Function (ECRF)
  - Policy Routing Function (PRF), Policy Store
  - Emergency Services Routing Proxy (ESRP)
  - Border Control Function (BCF)
  
- Egress – terminating to Regional ESInets & i3 capable PSAPs

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# DRAFT Preliminary Design and Operational Requirements

State of Ohio Providing NG 911 Core Services and CPE



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## State provides CPE, Core Services, for Independent PSAPs & Regional ESInets.

- Ingress – originating to ESInet
  - Wireline, Wireless, VoIP, Telematics, Text
  - Legacy Network Gateway(LNG)
  - ALI Database
  
- Core Services – Call Processing Domain
  - Emergency Call Routing Function (ECRF)
  - Policy Routing Function (PRF), Policy Store
  - Emergency Services Routing Proxy (ESRP)
  - Border Control Function (BCF)
  - State provided Hosted CPE
  
- Egress – terminating to remote PSAPs from hosted controllers

## **Proposed OARnet Backbone Availability.**

- 10 designated ESInet points of presence(POPs)
- Negotiated agreements with network providers for PSAPs not serviced by designated POPs. Last mile connectivity.
- SLAs for Jitter, Reliability, Delay, and Reliability.
- Monitoring for designated POPs

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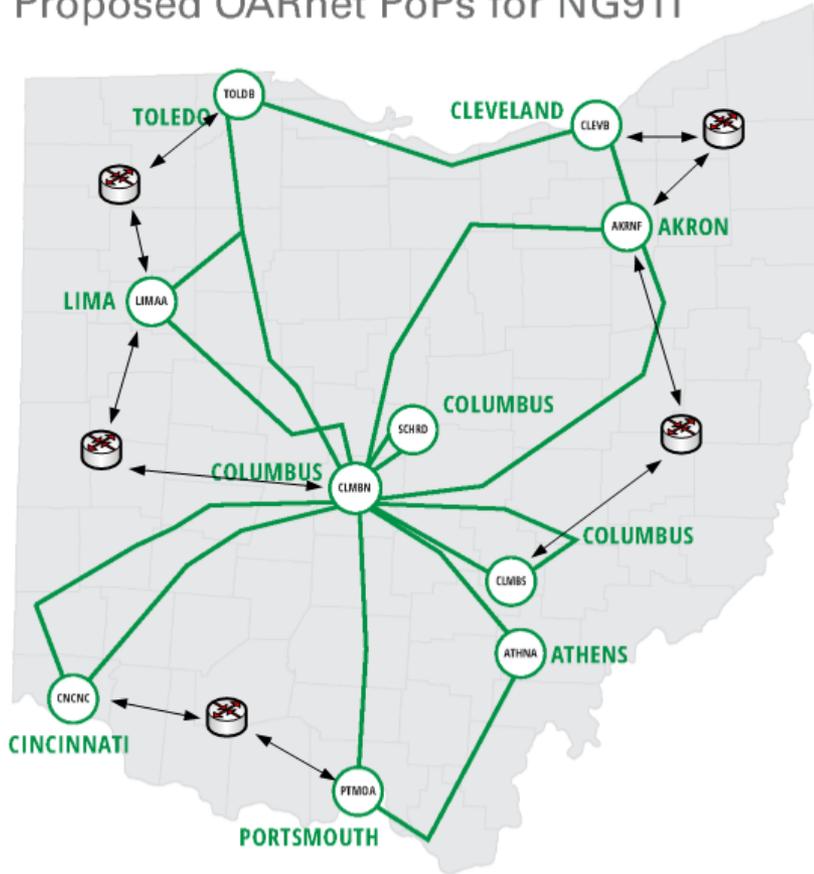
# DRAFT Preliminary Design and Operational Requirements



**OARnet**  
An OH-TECH Consortium Member

08/18/2016

## Proposed OARnet PoPs for NG911



### Proposed 2017 deployment

akrnf	Akron First Communications 1 Cascade Plaza Akron OH 44308 (Suite #900)
athna	Athens Zayo 160 W Union St Athens OH 45701 (Ste 179A)
cncnc	Cincinnati Windstream 635 W Mehring Way Cincinnati OH 45202
clevs	Cleveland BlueBridge 1255 Euclid Ave Cleveland OH 44114 (FI 5)
schrd	Columbus Cologix Data Center 535 Scherers Ct Columbus OH 43085
clmbn	Columbus Neilston 251 Neilston St Columbus OH 43215 (B)
clmbs	Columbus SOCC 1320 Arthur E Adams Dr Columbus OH 43221
limaa	Lima AEP 1688 N Sugar St Lima OH 45801 (Rm 305A)
ptmoa	Portsmouth AEP 800 Gallia St Portsmouth OH 45662 (FI 5)
toldb	Toledo Buckeye 481B Angola Road Toledo OH 43615



# DRAFT Preliminary Design and Operational Requirements

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- **Proposed OARnet Backbone Availability with Gateways & Monitoring from 3<sup>rd</sup> party.**
- 10 designated ESInet points of presence(POPs) connected to redundant gateways throughout the state.
- A statewide network provider using local providers provisions, configures, and provides end to end monitoring for Last mile connectivity.
- SLAs for Jitter, Reliability, Delay, and Reliability. Core-Core, NAP – Remote, Host – Host, etc.....
- Provides one point of contact for Last Mile issues.

# Economic Impact and Funding Analysis

- Economic history of funding methodologies
  - Ohio predominately collects by telephone numbers
  - Property taxes
  - Sales tax
  - Special Assessments
  - User Fees
  - Next Generation IP networks is changing environment to any device with an IP address

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# Economic Impact and Funding Analysis

- Two alternative funding models
  - Both models include migrating to a single statewide all device fee
  - No changes to bill and keep
- Twenty-five cent single statewide all device fee
  - Estimated 19,808,868 devices capable of connecting to 911 in Ohio
  - Generates \$59,426,604 annually
  - Uses current collection and distribution in ORC 128
- Twenty cent single statewide all device fee
  - Estimated 19,808,868 devices capable of connecting to 911 in Ohio
  - Generates \$47,541,283 annually
  - Reduces current wireless surcharge by \$0.05
  - Uses current collection and distribution in ORC 128

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# Economic Impact and Funding Analysis

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## ➤ Economic Impact of each model:

- \$0.25 single device fee
- Generates an additional \$34 million in revenue annually
- Based on estimated 19,808,868 devices
  
- \$0.20 single device fee
- Reduces surcharge by \$0.05 per subscriber each month
- Generates \$47.5 million in revenue annually
- Based on estimated 19,808,868 devices

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# Next Steps

- Finalize implementation design and operation requirements
- Develop draft RFP specifications
- Review and revise RFP specifications
- Prepare final RFP for release



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# QUESTIONS AND ANSWERS

