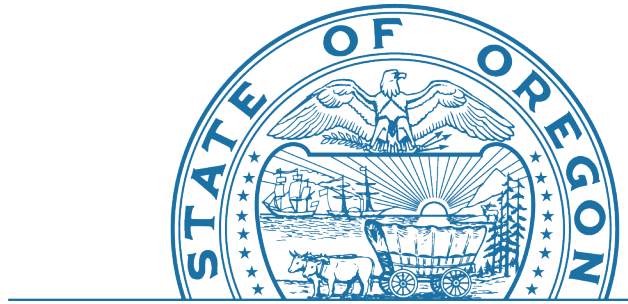


ENTERPRISE
information services

NG-911 and Statewide Interoperability

Vision

"Seamless, interoperable, and resilient emergency communications throughout Oregon"

Statewide Interoperability Program

Mission

The mission of the Statewide Interoperability Program is to serve the people of Oregon by supporting the SIEC, state agencies, tribal governments, public safety, and emergency managers throughout the state in achieving seamless, interoperable, and resilient emergency communications.

State Interoperability Executive Council (SIEC)

"Seamless interoperable emergency communications"

Interdisciplinary, whole community approach to interoperability.

Membership	•22 Members defined by statue •Public Safety and Communications Representatives •State, Local, County, Tribal Partners •Public Safety Practitioners, •Legislators
Committees	•Executive •Strategic Planning •Broadband •Technical •Partnership
Focus Areas	•Governance •Funding & Sustainment •Technology •Training & Exercise
Communications Ecosystem	•911 & Dispatch •Land Mobile Radio •Public Safety Broadband •Alerts, Warnings, & Notifications

SIEC Established in 2002 by Executive Order.
Codified in 2005 under OR 403.450

What's a SWIC?

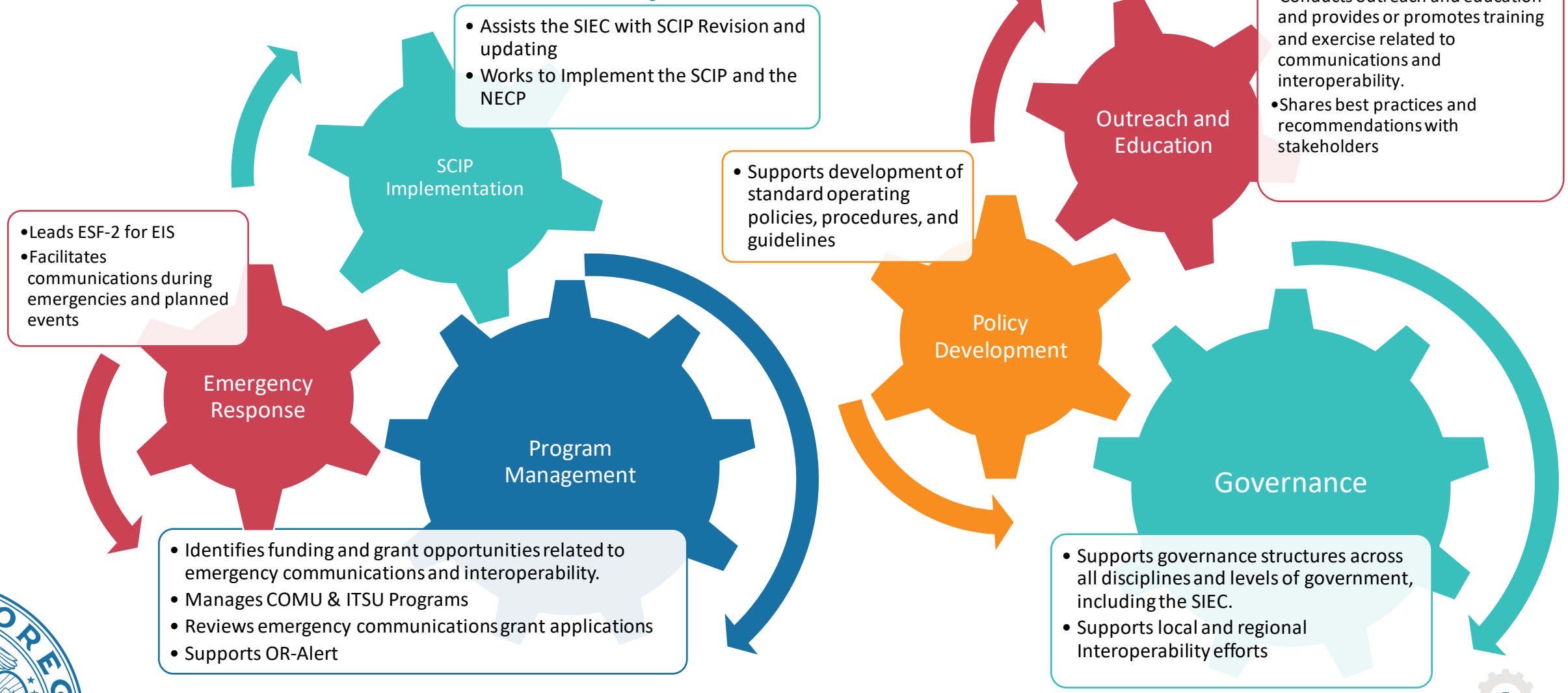
- Established under the State Chief Information Officer by ORS 403.460. (Previously OSP, OEM, and ODOT)
- Serves as the central coordination point for statewide interoperable emergency communications efforts.
- Supports the ***State Interoperability Executive Council*** (SIEC) and assists with the update and implementation of the ***State Communications Interoperability Plan*** (SCIP)
- May mediate disputes amongst public bodies.
- Serves as a member of the ***National Council of SWICs*** (NCSWIC)
  - Each state/territory has a designated SWIC.
- Administers the OR-Alert and COMU Programs

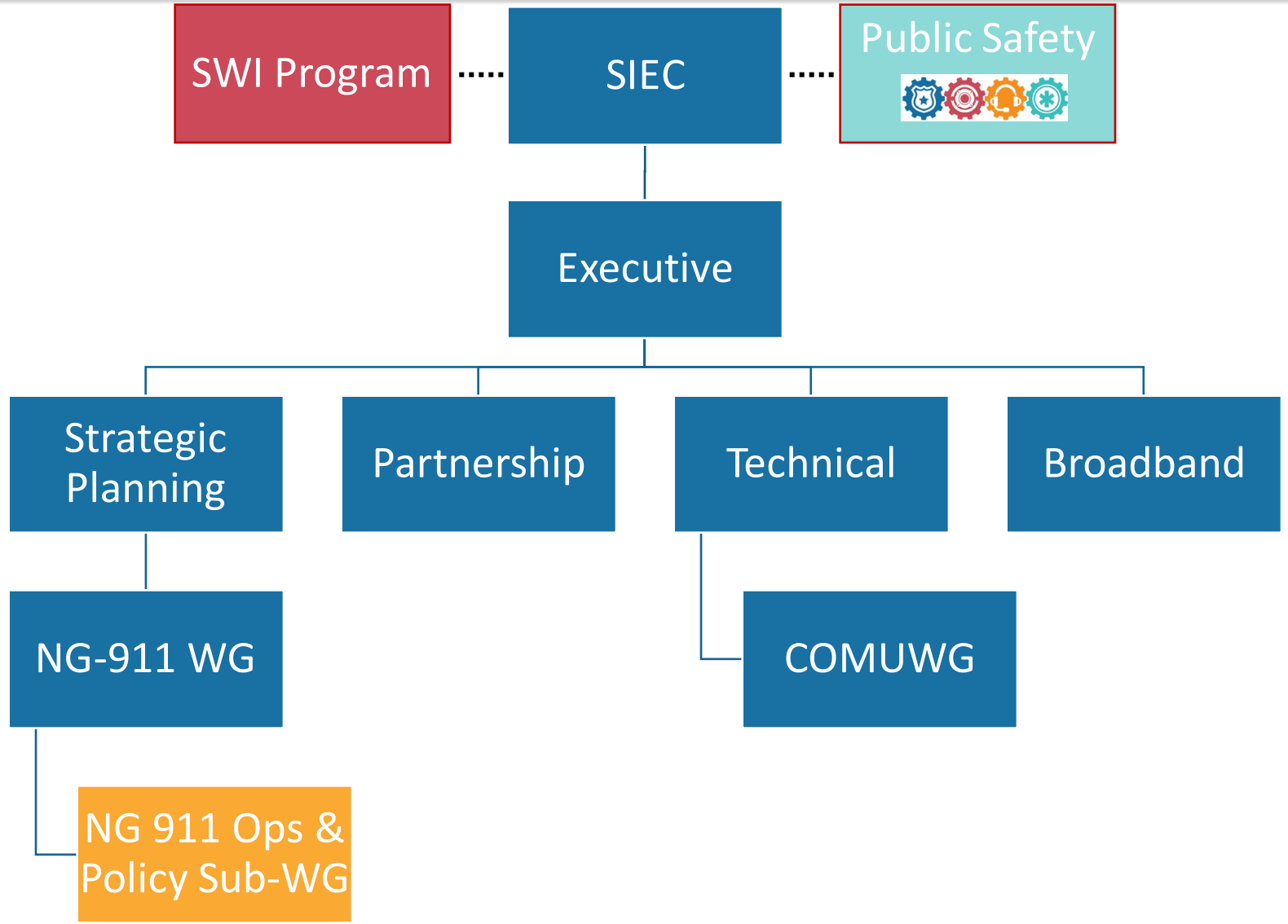
NCSWIC®

OR-Alert

StateWide Interoperability Coordinator

What does a SWIC actually do?




SWI Program
SIEC
Public Safety
Executive
Strategic Planning
Partnership
Technical
Broadband
NG-911 WG
COMUWG
NG 911 Ops & Policy Sub-WG

SIEC's NG-911 Working Group Membership

- *Region 1 PSAP Rep*
- *Region 2 PSAP Rep*
- *Region 3 PSAP Rep*
- *Region 4 PSAP Rep*
- *Region 5 PSAP Rep*
- *Region 6 PSAP Rep*
- *Region 7: PSAP Rep*
- *Region 8: PSAP Rep*
- *Region 9: PSAP Rep*
- *Tribal PSAP Rep*
- *SIEC APCO/NENA Rep*
- *SIEC Strategic Planning Committee Chair*
- *Statewide Interop. Coordinator*
- *OEM 911 Program Rep*
- *PDCC Rep*
- *OACP SIEC Member*
- *OSSA SIEC Member*
- *OFCA SIEC Member*
- *OEMA Rep*
- *APCO Legislative Liaison*
- *OGIC Rep*

SIEC Responsibilities

- Develop, annually update and monitor implementation of the Oregon **Statewide Communication Interoperability Plan**
- Recommend strategies to improve public safety communications interoperability
- Develop standards to promote consistent design and development of public safety communications infrastructures
- Identify immediate short-term technological and policy solutions to tie existing public safety communications infrastructures together
- Develop long-term technological and policy recommendations to establish a statewide public safety communications system
- Develop recommendations for legislation and for the development of state and local policies that promote public safety communications interoperability in this state.

Ref: ORS 403.455

SIEC Responsibilities (Cont)

Ref: ORS 403.455

- Recommend to the Governor, investments by the State of Oregon in public safety communications systems.
- Coordinate activities related to obtaining federal grants for support of interoperability and request technical assistance related to interoperability.
- Conduct and submit an annual update of the interoperability plan aligning the update with standards established in the National Emergency Communications
- Coordinate statewide interoperability activities among state, local and, as appropriate, tribal and federal agencies.
- Advise the State Chief Information Officer, the Governor and the Legislative Assembly on implementation of the interoperability plan.
- Serve as the Governor's Public Safety Broadband Advisory Group.
- Report to the Joint Committee on Ways and Means or to the Joint Interim Committee on Ways and Means, and to the Joint Legislative Committee on Information Management and Technology, on or before February 1 of each odd-numbered year, on the development of the interoperability plan and the executive council's other activities.
- Adopt rules necessary to carry out the executive council's duties and powers.

- The State Chief Information Officer (through EIS) directs, coordinates, and oversees, state information technology, and telecommunications technology
- Oversee information technology and telecommunications procurements
- Implements and maintains an information technology governance program for the executive department.
- Adopts rules, policies and standards for budgeting, planning, acquiring, installing, operating and overseeing telecommunications and information technology for the executive department.
- Oversee and coordinate the planning, budgeting, architecture and standardization, consolidation, acquisition and oversight of all information and telecommunications technology by state government and agencies of state government

State Chief Information Officer Responsibilities (Through EIS)

Ref: ORS 276A.203, 276A.206

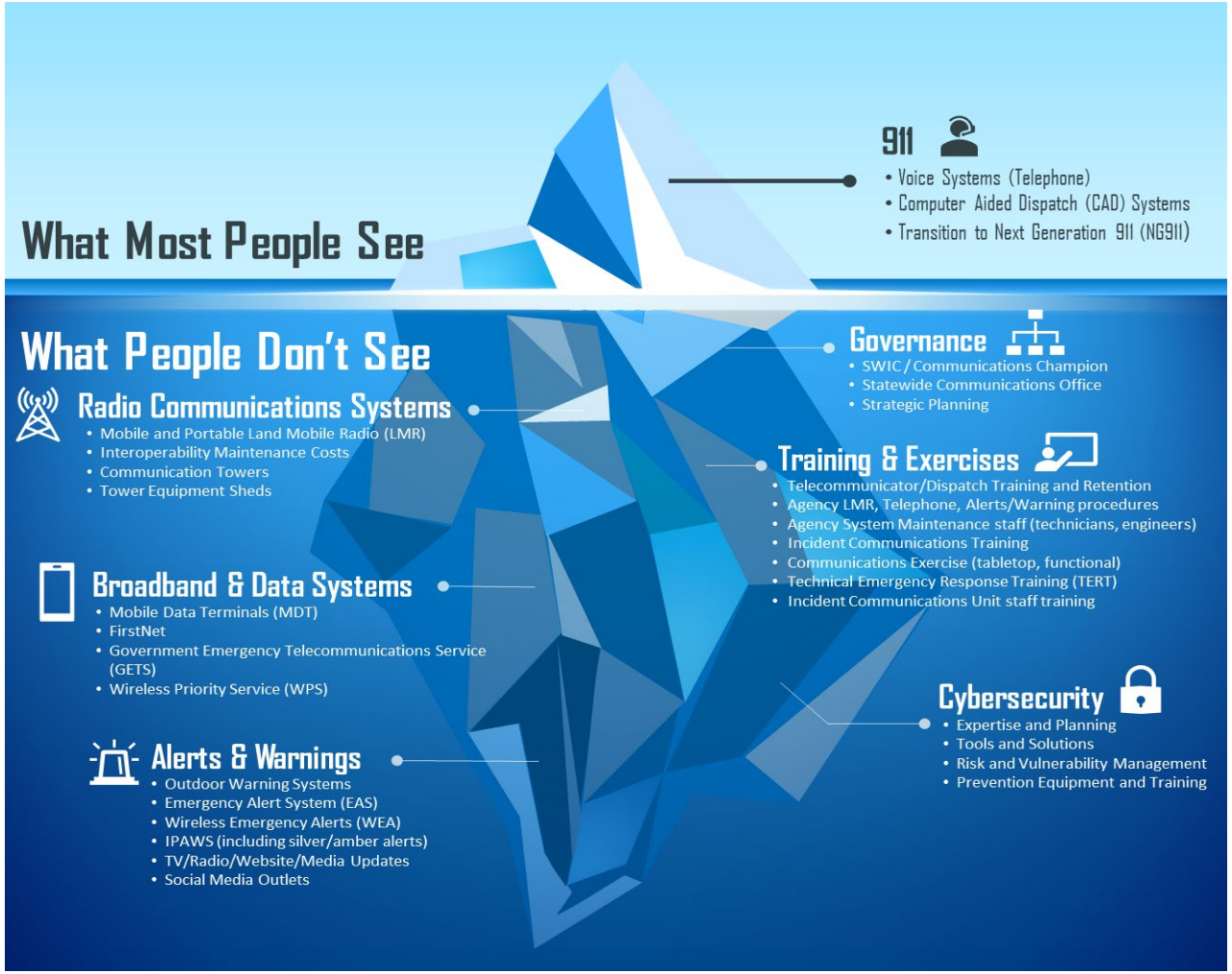
What is Interoperability?

Operability vs. Interoperability

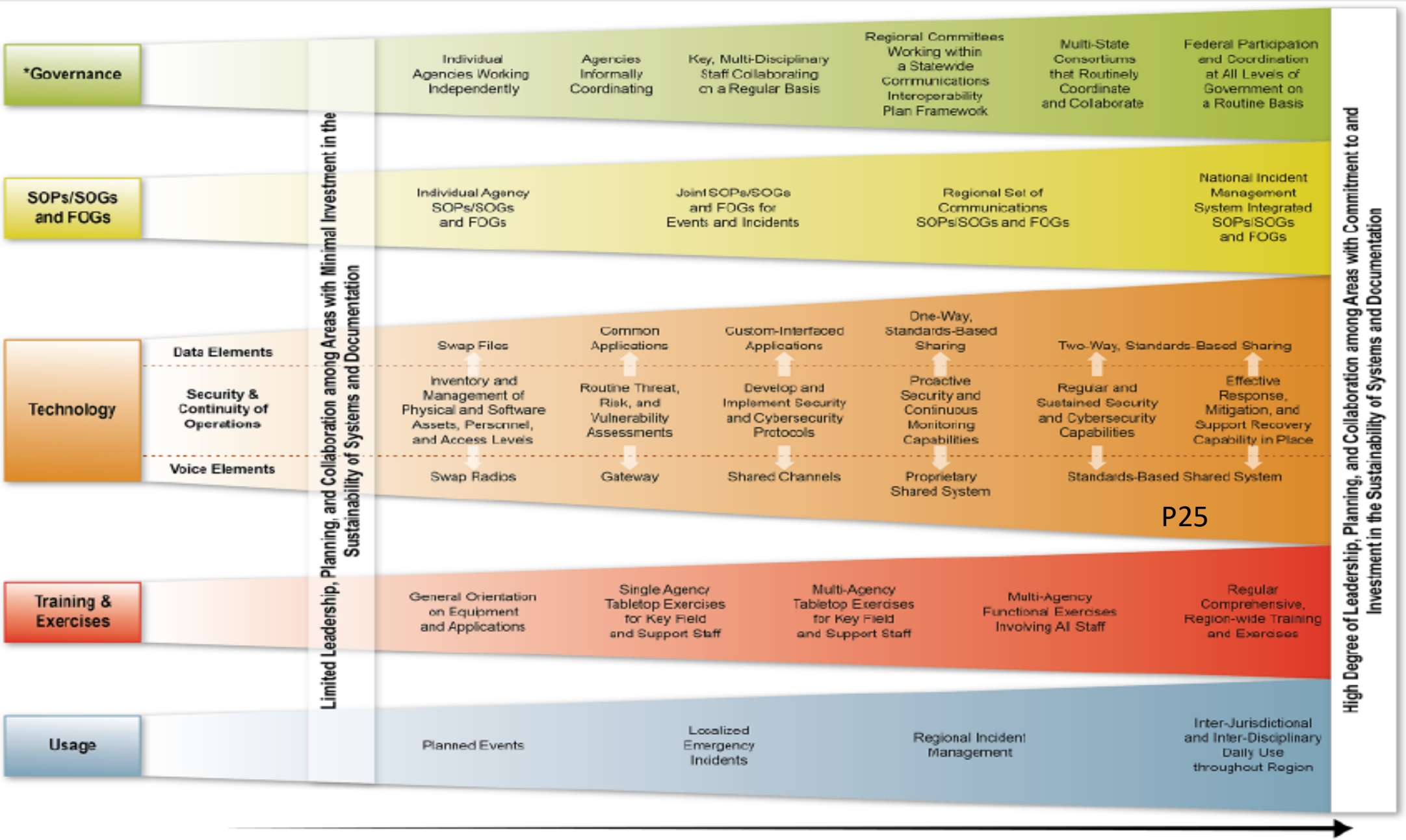
- **Operability** - Ability to provide and maintain reliable communications functionality throughout the area of responsibility.
- **Interoperability** – Ability of emergency response officials to share information via voice and data signals on demand, in real time, when needed, and as authorized, outside of day-to-day routine operations.

Emergency Comms Complexity

Although 911 is what most people think of when they hear emergency communications, there are various concepts that play critical roles in ensuring access to reliable, secure, and interoperable emergency communications every day in order to save lives, protect property and the environment, and stabilize communities.



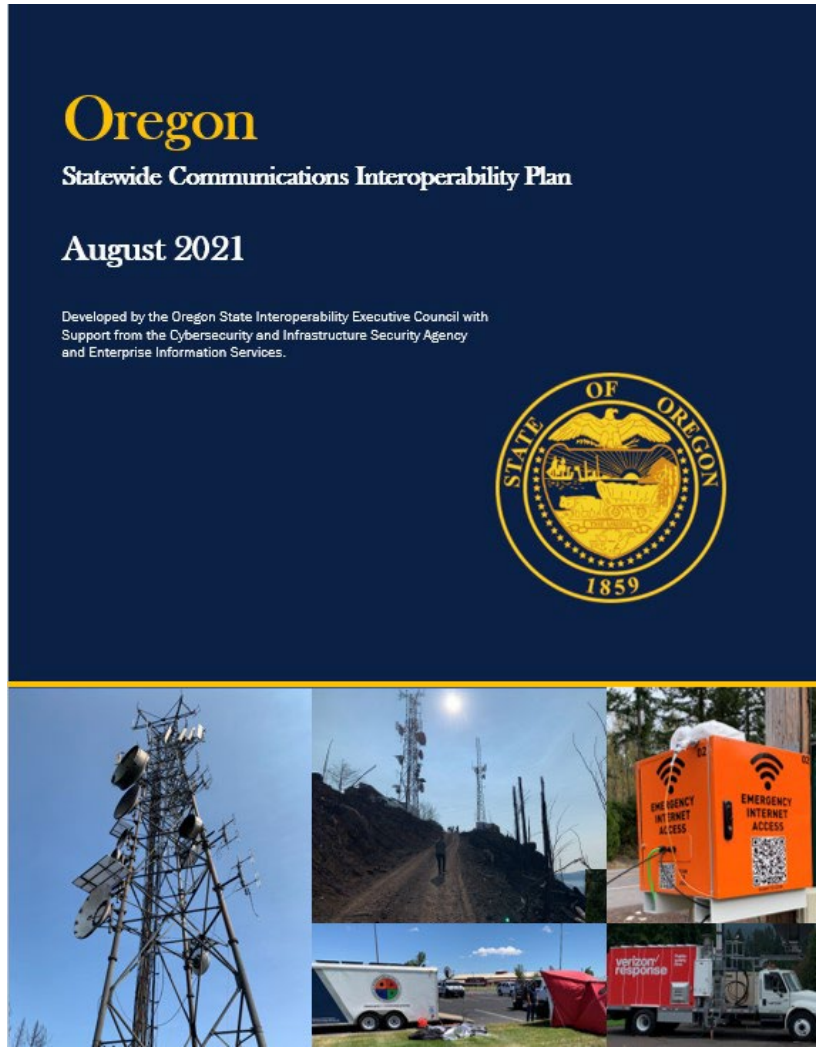
SAFECOM Interoperability Continuum



State Communications Interoperability Plans (SCIPs)

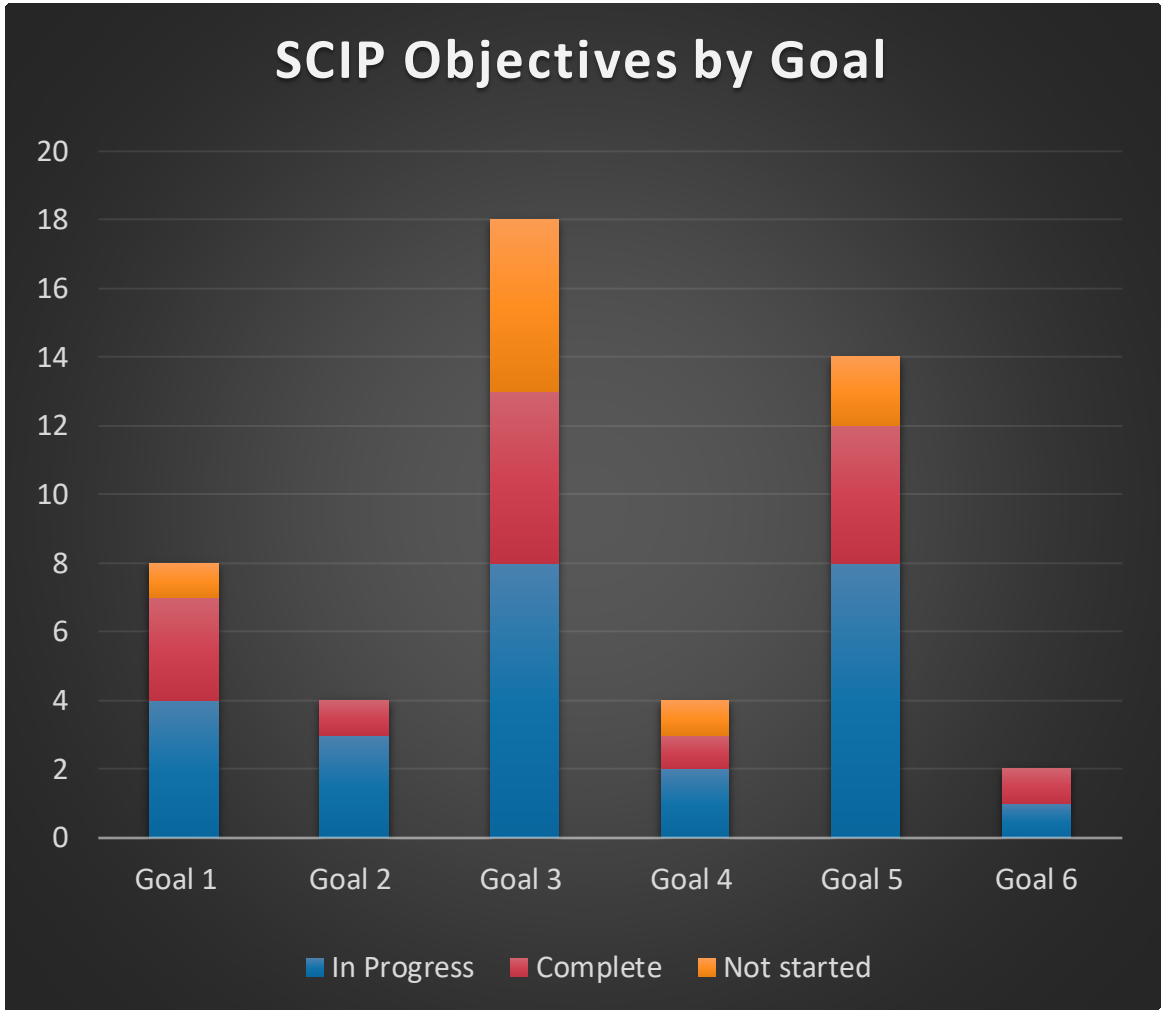
What's a SCIP?

- SCIPs are comprehensive plans which outline the:
  - Current and future interoperable and emergency communications environment;
  - Goals with specific steps for action (including owners and completion timeframes);
  - Defined mechanisms to measure achievements; and,
  - Process by which the state will record progress and challenges each year.
- SCIPs are:
  - Locally-driven
  - Multi-jurisdictional,
  - Multi-disciplinary
  - Applicable statewide
- The SCIP creates a single resource for all stakeholders and a unified approach for enhancing interoperable communications for public safety and officials at all levels of government. SCIPs define the current and future direction for interoperable and emergency communications within a state or territory.



Oregon's SCIP at a Glance

- Current and future desired state of Interoperability
- Includes Grant Guidance and Investment Priorities for communications projects
- Strategic Goals:
    1. Increase engagement and awareness of interoperable communications
    2. Modernize 911 in Oregon (Revised from "Adopt NG-911" in 11/2022)
    3. Develop and promote awareness of statewide guidance on interoperable communications.
    4. Document statewide LMR System of Systems
    5. Support COMU program and Improve Communications Response Capability
    6. Advocate for continued funding of the SIEC and the Statewide Interoperability Program



Oregon 2021 SCIP

Goals are strategic in nature, achieved through SMART Objectives.

1. Increase engagement and awareness of interoperable communications
2. Modernize 911 in Oregon (Revised from “Adopt NG-911” in 11/2022)
3. Develop and promote awareness of statewide guidance on interoperable communications.
4. Document statewide LMR System of System
5. Support COMU program and Improve Communications Response Capability
6. Advocate for continued funding of the SIEC and the Statewide Interoperability Program

Oregon also includes Grant Guidance and Investment Priorities for communications funding.

Oregon 2021 SCIP Goal 2 Revisions

2021 SCIP

2. Adopt NG-911 in Oregon	2.1 Complete roadmap of NG-911 Strategic Plan	NG-911 Working Group	August-21	December-21	Complete.	
	2.2 Develop a Strategic NG-911 Plan	NG-911 Working Group	August-21	June-22	In progress.	Delayed until November 2022.

2022 Revision

2. Modernize 911 in Oregon (Revised)	2.1 Complete roadmap of NG-911 Strategic Plan	NG-911 Working Group	August-21	December-21	Complete.		
	2.2 Complete OEM NG-911 Strategic Plan for standards based NG-911 Network and Core Services	OEM	August-21	December-22	In progress.		**R**
	2.3 Based on stakeholder input, develop a definition and a vision of NG-911.	NG-911 Working Group/911 Community	November-22	January-23			**N**
	2.4 Recommend a framework for statewide 911 Governance during the SIEC's Report to the Legislature	NG-911 Working Group/911 Community	November-22	March-23			**N**

What is NG-911?

- Inner Circle – Standards Based Technology
  - IP-enabled, broadband network
  - Data to store and manage location information
  - Applications that enable 911 services (Core Services)
  - Cybersecurity hardware/software
- Outer Circle – Operational Components
  - Stakeholder Driven Governance
  - Policies on how/why/when network is to be used and what applications can access
  - Center Operations/Training
  - Managed Services
  - Strategic and Transitional Planning

Defining NG-911

""NG911" services mean a secure, Internet Protocol (IP)-based, open standards system comprised of hardware, software, data, and operational policies and procedures that:

- *Provides standardized interfaces from emergency call and message services to support emergency communications.*
- *Processes all types of emergency calls, including voice, text, data, and multimedia information.*
- *Acquires and integrates additional emergency call data useful to call routing and handling.*
- *Delivers the emergency calls, messages, and data to the appropriate, public safety answering point [PSAP] and other appropriate emergency entities based on the location of the caller.*
- *Supports data, video, and other communications needs for coordinated incident response and management.*
- *Interoperates with services and networks used by first responders [and other 911 systems] to facilitate emergency response."*

- The NG911 description provided represents a definition that was mutually agreed upon by the National 911 Program and members of the NG911 NOW Coalition, the National Emergency Number Association, the National Association of State 911 Administrators, and the Industry Council for Emergency Response Technologies on January 12, 2018.

(https://www.911.gov/assets/Guidelines_for_Developing_a_State_NG911_Plan.pdf)

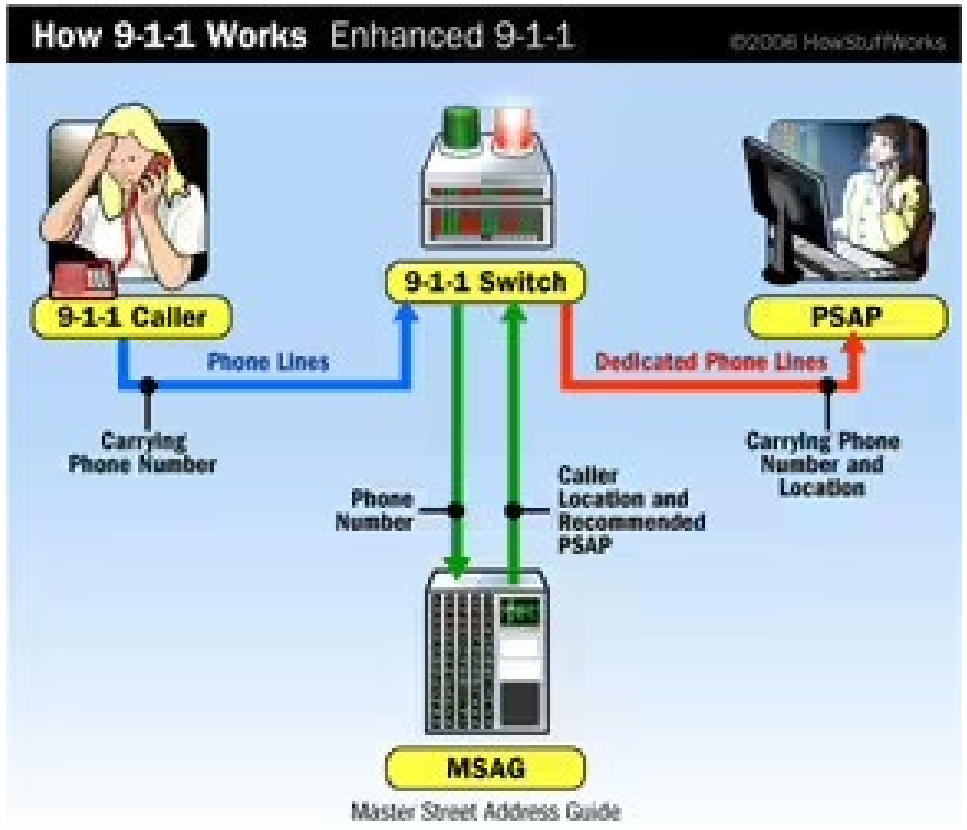
What's the tie to GIS?

GIS is an essential component of NG911 and improving public safety communications.
GIS capabilities enable:

- Call routing to the most appropriate ECC/PSAP based on the caller's actual location.
- The incorporation of evolving technologies including z-axis, 3D, and enhanced user interfaces.
- Mapping applications to use cell tower and network infrastructure data sources to improve location accuracy
- Improved situational awareness and response times for first responders

Bottom line: Location Matters.

Source: NCSWIC/SAFECOM Geographic Information System Lifecycle Best Practices Guide for Next Generation 911



Landline ANI/ALI Display

```
203
(520) [redacted]BUSN 09/06 00:42
AN[redacted]
   [redacted]     P#520-[redacted]
E  HIGHWAY 84

              342 00073
AZ ELOY
          TEL=QWSTC

PSAP=PCSO
PINAL CO SO
ELOY FIRE
ELOYEMS
```

```
207
(520) [redacted]RESD 08/29 14:08
[redacted], GREG
   [redacted]     P#520-[redacted]
W  2ND AVE

              342 00068
AZ SAN MANUEL
          TEL=QWSTC

PSAP=PCSO
PINAL CO SO
SAN MANUEL FIRE-MAMMOTH
TRI-CITY EMS-RURAL METRO
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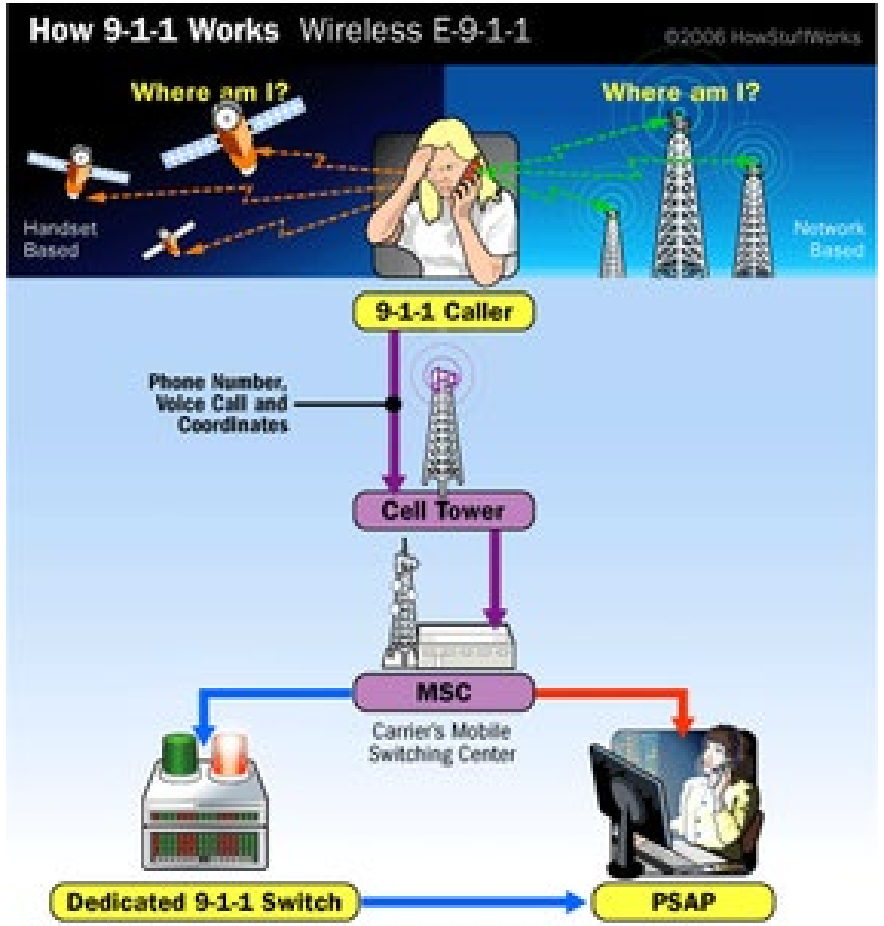


Cell Phone ANI/ALI Display

207
(480) [redacted] WPH1 08/29 15:05
SPRINT PCS 866-398-3284
8534 P#520-470-7949
E Jasper St SE

CALLBK=(480)[redacted] 342 00185
AZ 00020-2-002, Gold Canyon
TEL=SPPCS
+33.323153 -111.418040 4448
PSAP=PINAL COUNTY SO
WIRELESS 911 CALL
VERIFY POLICE
VERIFY FIRE
VERIFY EMS

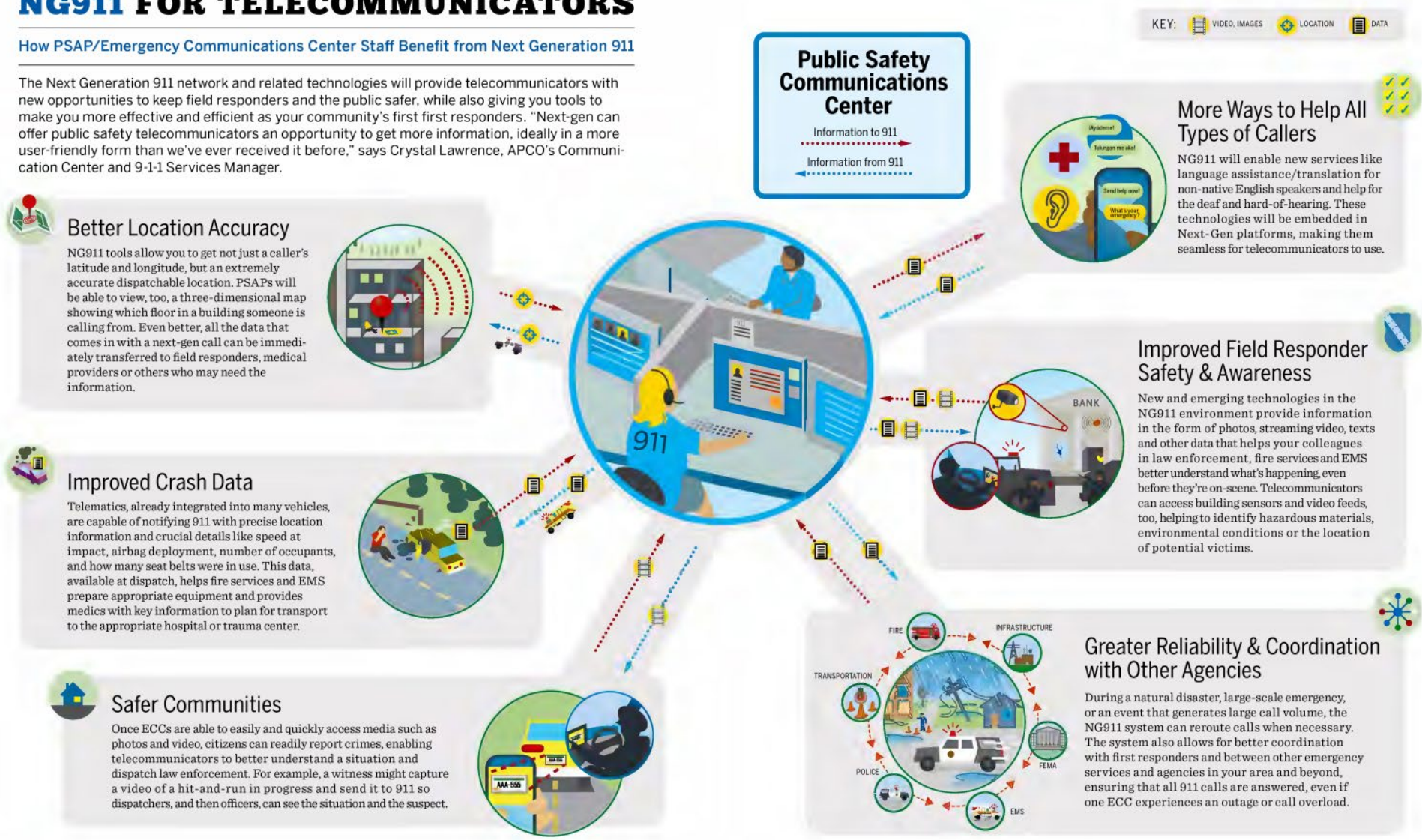
207
(602) [redacted] WPH2 08/29 14:54
Verizon WRLS 800-451-5242
P#520-709-2658
Sacaton Peak SE

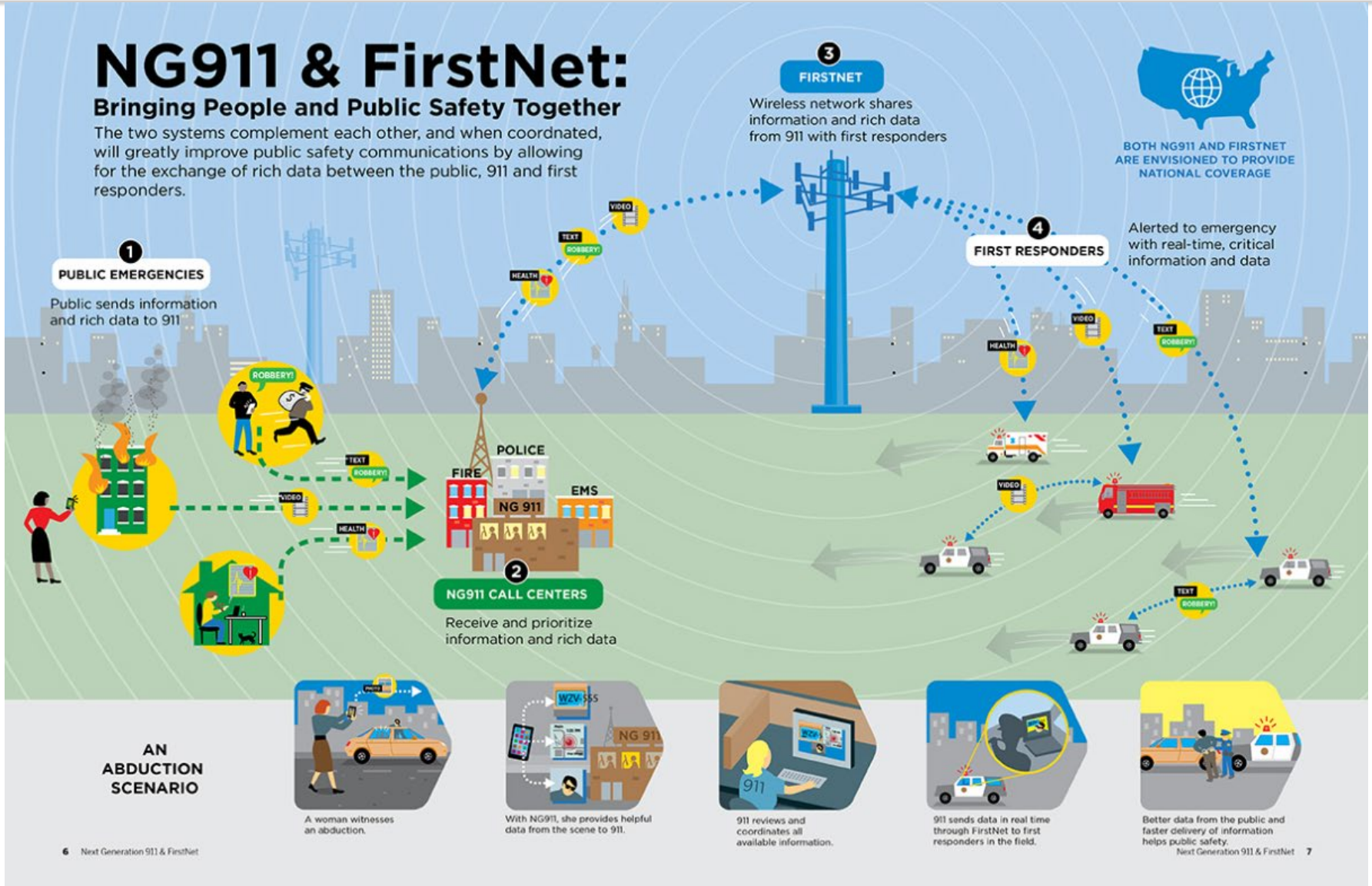
CALLBK=(602)[redacted] 342 00185
AZ 00146-2-003, Casa Grande
TEL=VZW
+32.938149 -111.676862 36
PSAP=PINAL COUNTY SO
WIRELESS 911 CALL
VERIFY POLICE
VERIFY FIRE
VERIFY EMS

NG911 FOR TELECOMMUNICATORS

How PSAP/Emergency Communications Center Staff Benefit from Next Generation 911

The Next Generation 911 network and related technologies will provide telecommunicators with new opportunities to keep field responders and the public safer, while also giving you tools to make you more effective and efficient as your community's first first responders. "Next-gen can offer public safety telecommunicators an opportunity to get more information, ideally in a more user-friendly form than we've ever received it before," says Crystal Lawrence, APCO's Communication Center and 9-1-1 Services Manager.




NG911 & FirstNet:
Bringing People and Public Safety Together
The two systems complement each other, and when coordnated, will greatly improve public safety communications by allowing for the exchange of rich data between the public, 911 and first responders.
1
PUBLIC EMERGENCIES
Public sends information and rich data to 911
3
FIRSTNET
Wireless network shares information and rich data from 911 with first responders
BOTH NG911 AND FIRSTNET ARE ENVISIONED TO PROVIDE NATIONAL COVERAGE
4
FIRST RESPONDERS
Alerted to emergency with real-time, critical information and data
POLICE
FIRE
EMS
NG 911
2
NG911 CALL CENTERS
Receive and prioritize information and rich data
AN ABDUCTION SCENARIO
A woman witnesses an abduction.
With NG911, she provides helpful data from the scene to 911.
911 reviews and coordinates all available information.
911 sends data in real time through FirstNet to first responders in the field.
Better data from the public and faster delivery of information helps public safety.
6 Next Generation 911 & FirstNet
Next Generation 911 & FirstNet 7