

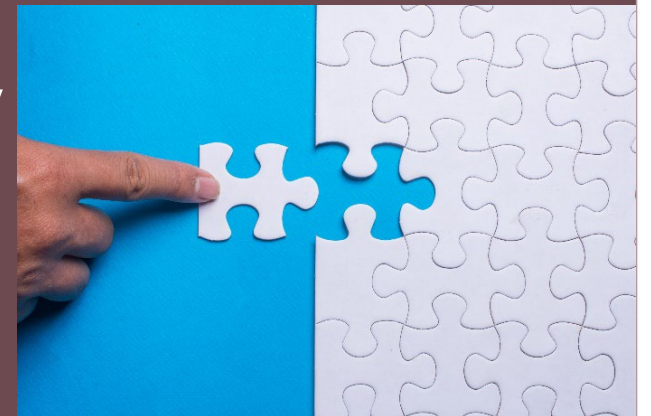
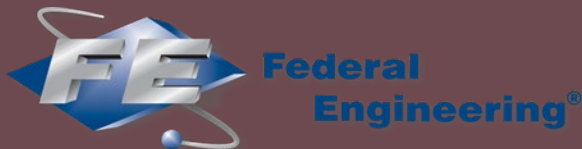


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Build or Join? Best Option for My Agency

Presented by Brad Barber
V.P., Special Projects



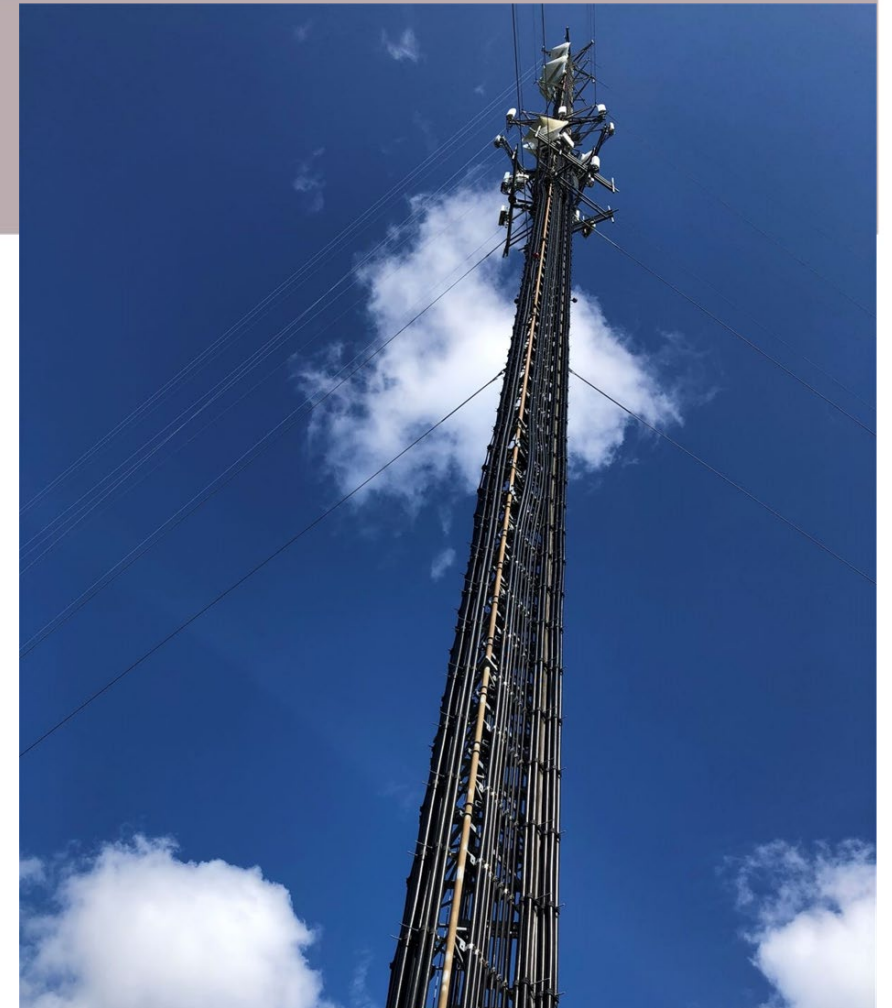
Introduction

- Brad Barber:
 - 38 years of public safety experience including public safety system management and support, & emergency communications consulting
 - 18 years as a public safety consultant
- Federal Engineering Inc:
 - Four decades of experience with emergency communications systems
 - Over 2,500 successful projects



Agenda

- Key Considerations & Process
- Join or Build Considerations
- Recap
- Q&A
- Closing



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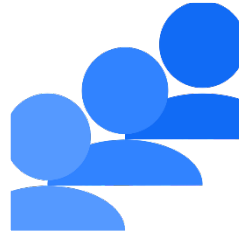
The Three C's



Coverage

Drives the number and location of sites

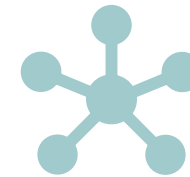
Impacts scope, schedule, budget, and performance



Capacity

Determines the number of channels needed

Impacts budget and performance

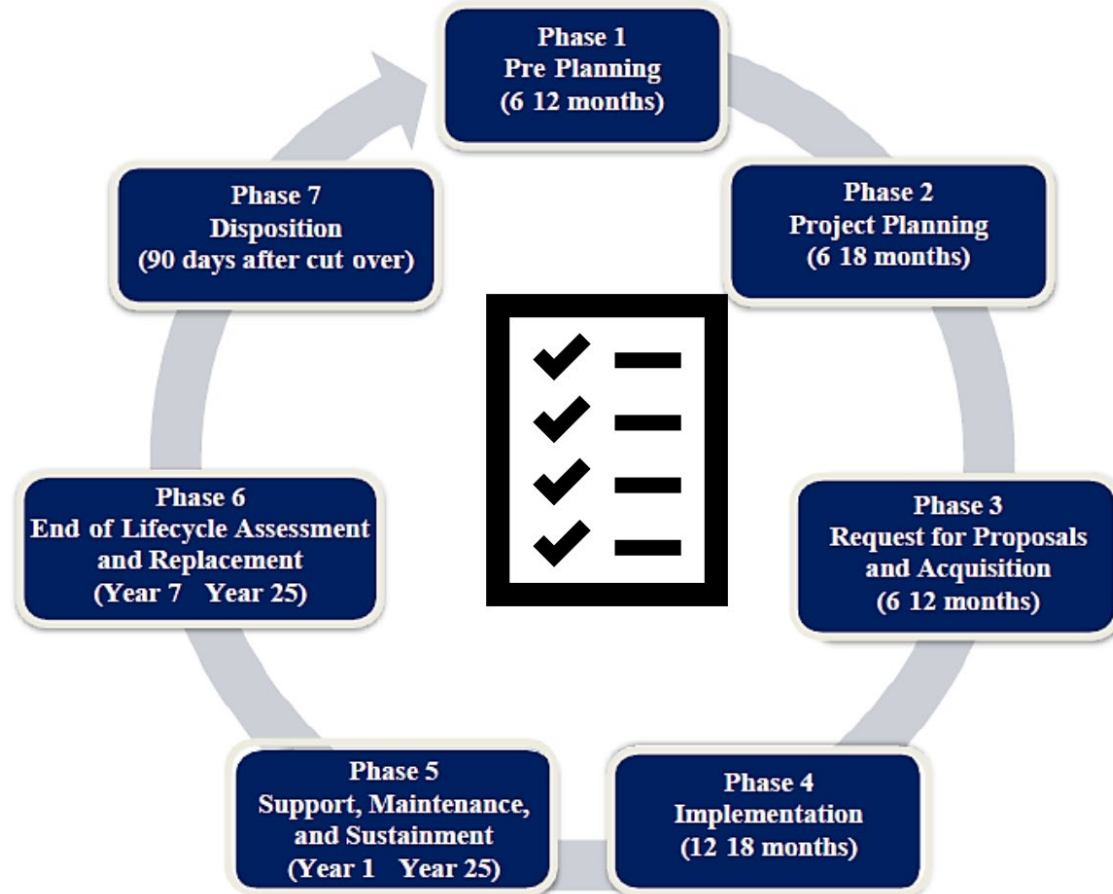


Complexity

Resiliency, security, features, etc.

Impacts scope, schedule, budget and performance

The Process



- *Emergency Communications System Lifecycle Planning Guide Compendium: Best Practices, Considerations, and Recommended Checklists*
DHS – 2018



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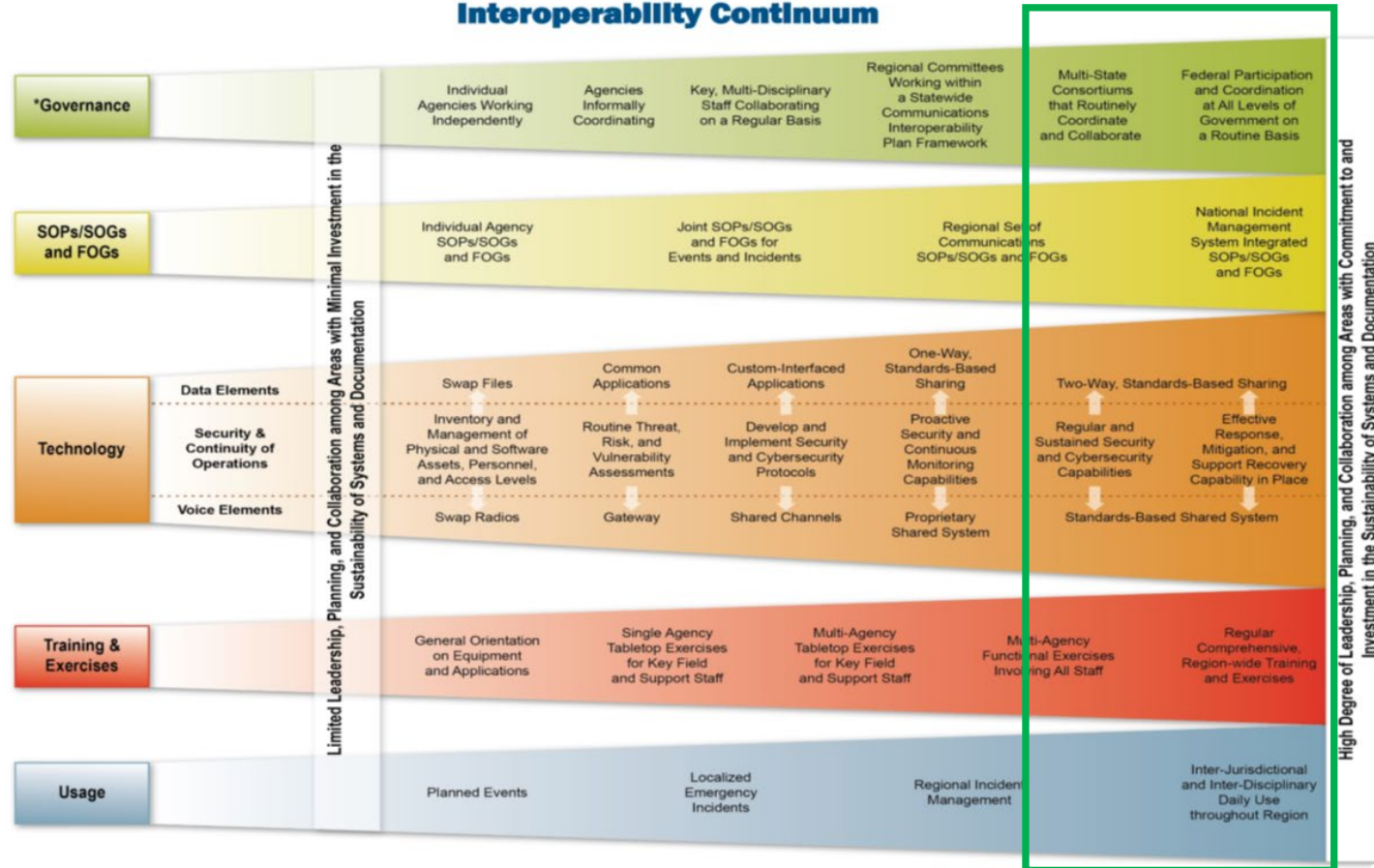
Join?

Typical Join Scenarios

- Local entity joining a regional or statewide system
- Requires MOU, Interlocal agreement, MOA, or similar agreement to define the terms of engagement, each party's responsibilities, technical requirements, costs, ongoing support, governance, etc.
- Local entity typically responsible for expanding or enhancing coverage, capacity, and capabilities of the host system
- Less control over system O&M and lifecycle support, but also lower costs (potentially) than standalone options

Join

Interoperability Continuum

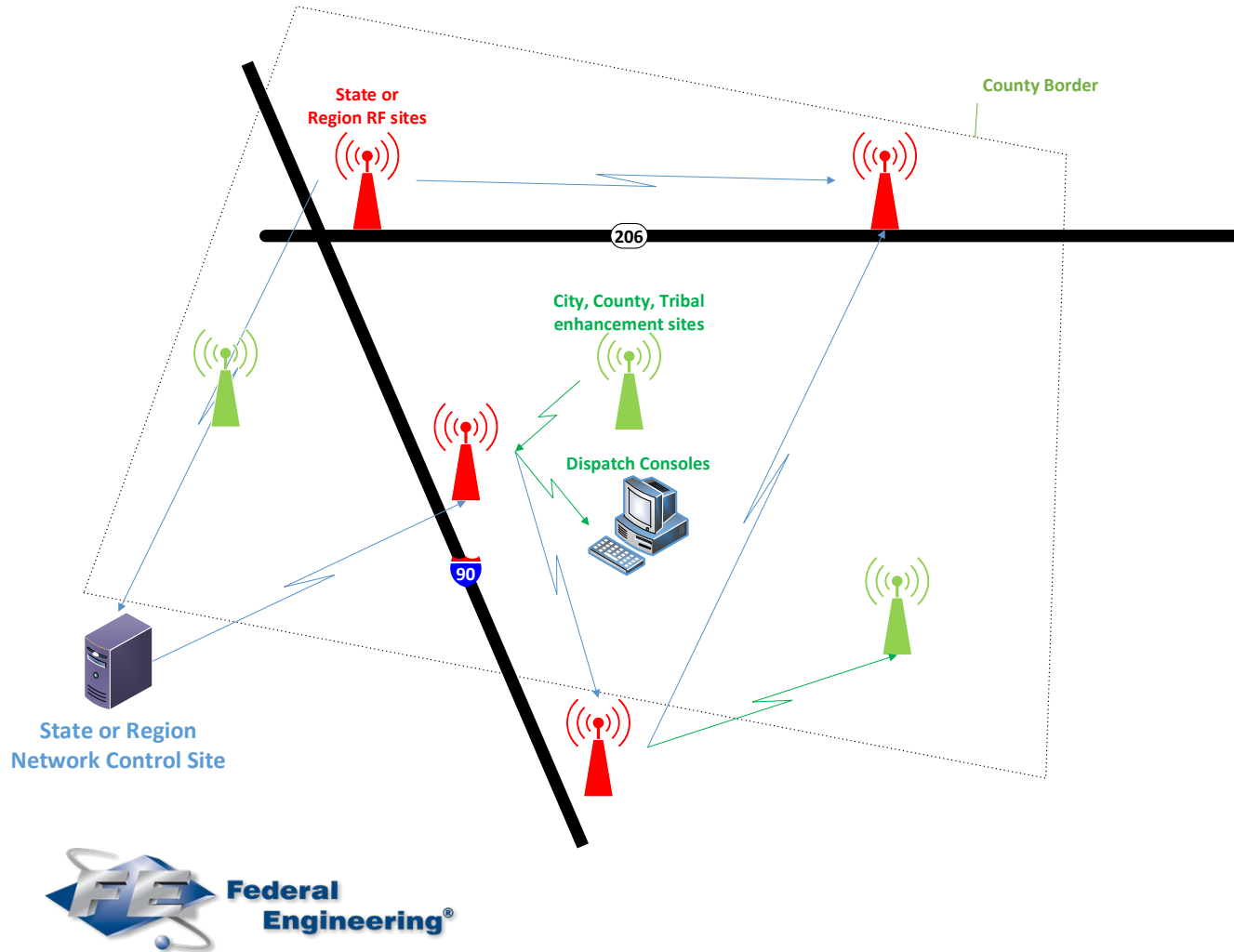


Regional shared systems are the optimal solution for interoperability. “...standards-based shared systems promote competitive procurement and a wide selection of products to meet specific user needs. An optimal technology solution can be provided with proper talk group architecture and capacity planning, and both operability and interoperability addressed by system design.”

DHS Interoperability Continuum Brochure 2021

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Join (Conceptual) System



- State or Regional system coverage focused on major roadways, mobile coverage
- Network control sites in another area
- Local coverage enhancement site backhaul may spur off the main network backhaul (limits resiliency)
- Must address backup operations if connectivity to network control site(s) is lost
- Interoperability with state or regional partners
- Governance process typically well defined

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Join - Challenges & Benefits



Build, design, and implement cycles may be longer due to additional coordination, consultation, and approval processes



May include features, functions, and capabilities that a local solution would struggle to fund and implement



Potentially more support from “local” resources familiar with needs in your area



Lifecycle support plans may not be consistent with local needs or plans

Technology upgrades require coordination with others



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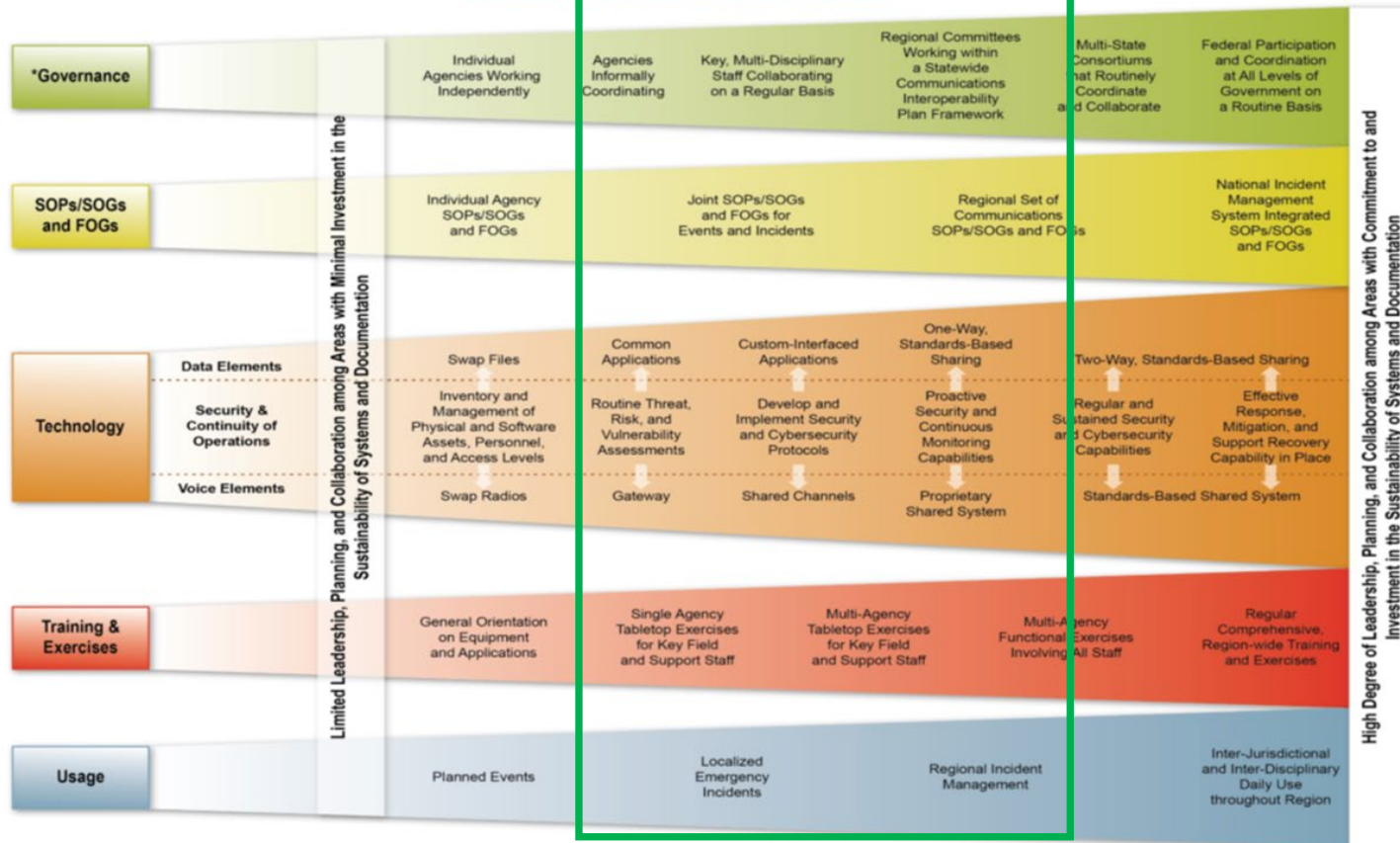
Build?

Typical Build Scenarios

- Local entity builds a standalone system
 - Less dependency on third-party timelines and requirements
- Interoperability must still be considered in design
- More direct control over system coverage, capacity, and capabilities
- More control over the system O&M and lifecycle support, but also higher (typically) costs

Build

Interoperability Continuum



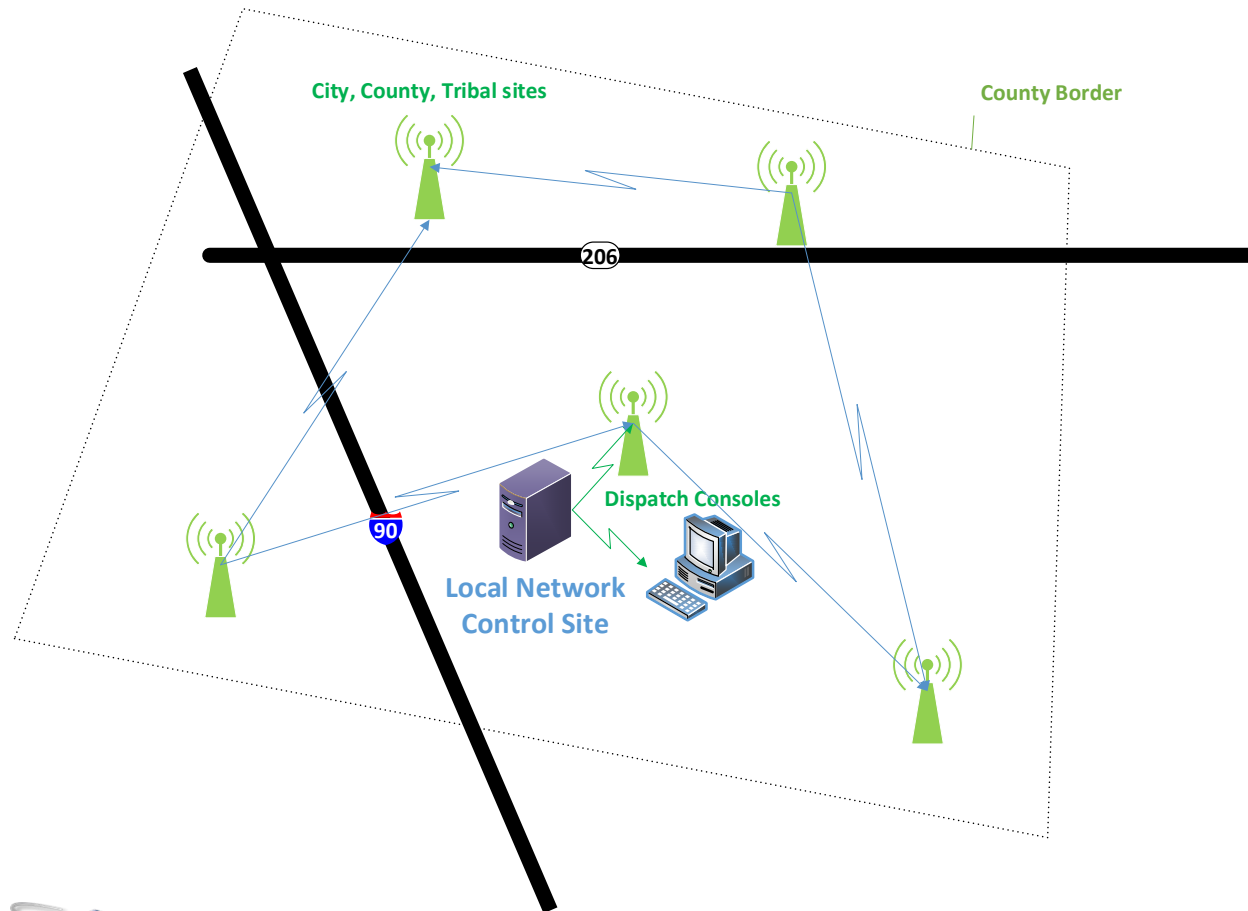
“Gateways provide an interim interoperability solution as agencies move toward shared systems.”

“A clear understanding of the nature and availability of interoperable(shared) communications channels in a given area is essential to prevent congestion, and to assure that shared channels and/or talk groups can be assigned quickly and to appropriate end users when needed.”

DHS Interoperability Continuum 2021

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Build (Conceptual) System



- Coverage focused on City, County calls for service, portable coverage
- Network control site(s) are local
- Backup operations connectivity is local
- Interoperability and capacity during events may be an issue
- Governance process may need to be developed

Build - Challenges & Benefits



Build, design, and implement cycles are only subject to local coordination, consultation, and approval processes



May not include all desired features, functions, and capabilities due to funding constraints



Vendor-based support may not be familiar with needs in your area



Lifecycle support plans designed for local needs or plans.

Technology upgrades do not necessarily require coordination with others

Recap

| System Characteristics | Build | Join |
|---------------------------------|-----------------------|------------------------|
| Coverage | Local area focus | Wide area focus |
| Interoperability | Local area focus | Wide area focus |
| Scalability | Local control | Regional/State control |
| Governance | Local control | Regional/State control |
| Sustainability | Internal dependencies | External dependencies |
| Costs (capital & operations) | 100% local | Shared |

Decision Points



Unique to each entity



Often driven by external and non-technical factors



Requires analysis, time, effort, and commitment



Needs stakeholder and sponsor buy-in and support



Must include both capital and operational costs!

A robust lifecycle support plan is a key requirement as technology and user needs are not static!

Resources

- DHS Guidance

- <https://www.cisa.gov/resources-tools/programs/emergency-communications-state-local-tribal-and-territorial-coordination>
- <https://www.cisa.gov/news-events/news/updated-2018-emergency-communications-system-lifecycle-planning-guide-release>
- <https://www.cisa.gov/resources-tools/resources/interoperability-continuum>
- <https://www.cisa.gov/safecom>
- <https://www.cisa.gov/safecom/encryption>
- <https://www.cisa.gov/safecom/project-25>

- Federal Engineering

- [Insights & Resources | Public Safety Communication | Federal Engineering \(fedeng.com\)](#)



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Q & A





Contact Info

Brad Barber

Vice President, Special Projects

Federal Engineering

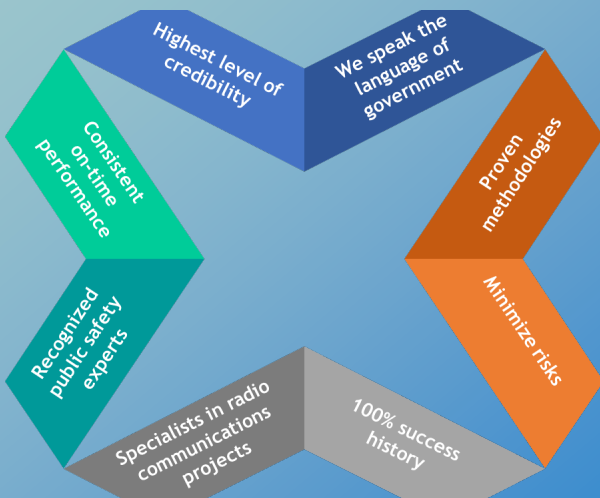
10560 Arrowhead Drive

Fairfax, VA 22030

Mobile: 850-377-7707

Email: bbarber@fedeng.com

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