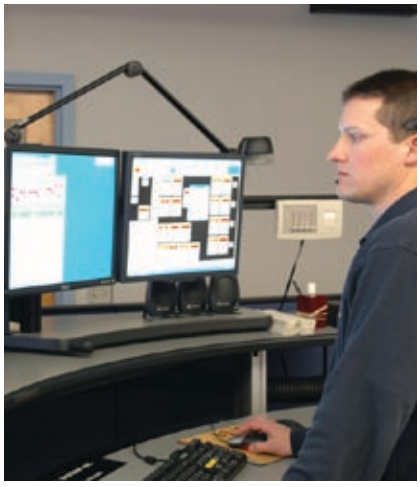

REGULATORY STEPS TO TAKE WHEN TRANSITIONING TO NEXT GENERATION 9-1-1

A white paper from FE/Kimball

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HIGHLIGHTS

One of the first steps in the NG9-1-1 transition should be conducting a regulatory review that ensures the legal environment will support the vision and particulars of NG9-1-1.

As the public safety sector begins to transition to next-generation 9-1-1 (NG9-1-1) systems, the tendency has been to focus on the technology. Building a broadband IP network, integrating servers and new databases, and selecting and installing applications all are essential steps on the NG9-1-1 roadmap—but they should not be the first steps.

An Essential Step in the NG9-1-1 Evolution: A Regulatory Review

Before choosing vendors and delving into technology, stakeholders in a NG9-1-1 system must undertake a regulatory review to ensure that nothing will limit or hinder them from proceeding. They should have a formal NG9-1-1 plan, and they must ensure that the legal environment will support the establishment of a governance structure that will enable the transition from their current 9-1-1 systems to a NG9-1-1 environment. Here's why: NG9-1-1, by definition, involves shared networks, shared databases and shared applications. In such an environment, PSAPs and local 9-1-1 systems are not separate and unconnected to neighboring systems. Because of the interconnected and shared nature of NG9-1-1, implementation is more complex and requires collaboration among all the stakeholders in a way that was not necessary in the past. Policy and governance issues cannot be addressed by individual PSAPs or individual 9-1-1 authorities. Clearly, the next generation of 9-1-1 requires establishing a collaborative governance framework that will enable such a shared, interconnected and interoperable system of systems to come into existence.

The NG9-1-1 team must fully understand the anticipated features and functions of NG9-1-1 and must clearly identify how existing legislation and regulation may limit or impede the implementation of NG9-1-1.

Who, What and How: The Governance Issue

Typically, some type of governance board is created—or an existing regional or state board assumes the duties—to formulate the agreements and rules among the agencies that will share the NG9-1-1 system. The governance structure examines such questions as:

- Who will participate in the system?
- How will the system guarantee that 9-1-1 calls and data receive priority?
- How will various jurisdictions and their individual interests be represented in the governing of the NG9-1-1 system?
- How will interoperability be established, with which agencies, and for what types of activities?

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State laws may require that 9-1-1 networks be single-purpose, closed systems used only for transmitting 9-1-1 calls and data. Under this circumstance, an ESInet would be illegal since it is an IP-based, multi-purpose and interconnected network.

- What will be the policies for operation of the system, and who will be responsible for implementing and maintaining them?

These issues may seem to be straightforward, but they are tightly intertwined with the laws and regulations that currently exist in counties and states that are considering NG9-1-1. Before a transition to the new system can move forward, communities and agencies must address some basic, and often troublesome, issues:

NG9-1-1 uses shared, multi-purpose interconnected networks.

- **Do state statutes allow NG9-1-1 to be implemented?** A close reading of existing legislation may show that a state's law actually prohibits NG9-1-1 operations. For instance, state or regional laws may not permit the building of an emergency services IP network (ESInet)—the core of NG9-1-1 network operations—in the way it is defined nationally. According to NENA, ESInets are IP-based, multi-purpose interconnected networks that support local, regional, state and national public safety communications in addition to 9-1-1. Whereas NG9-1-1 uses a shared, multipurpose network, state laws may require that 9-1-1 networks be single-purpose, closed systems used only for the transmission of 9-1-1 calls and associated data. Under such circumstances, an ESInet would be illegal, and new enabling legislation would need to be passed to allow for an IP backbone that is shared among multiple agencies.
- **Do telephone company tariffs or laws relating to 9-1-1 forbid 9-1-1 and public safety radio traffic to share the same network** that is used to transmit voice and data for public health, poison control and related agencies? The FCC and public utility commissions generally set down the rules for aspects of 9-1-1 operations relating to regulated telecommunications companies, and these tariff or regulatory issues may prevent next generation networks from developing. Furthermore, 9-1-1 customer premises equipment is sometimes provided by vendors through the telephone company that serves as the 9-1-1 system service provider. The 9-1-1 system service provider may not permit that equipment to be connected to a network that belongs to an entity other than itself. Communities must uncover, identify and overcome these kinds of barriers before starting down the path to NG9-1-1 from either a technology or operational standpoint.

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NG9-1-1 systems will be unable to be managed on a county-by-county basis and will require some level of statewide oversight.

- **How will NG9-1-1 be funded?** Today's 9-1-1 operations are supported primarily by a surcharge or tax on residential and business phone service. This type of fee usually applies only to the 9-1-1 system components—the network, database and terminal equipment – and not to radio dispatch and other elements of an integrated NG9-1-1 network. A fully utilized NG9-1-1 system comprises a number of stakeholders who share the IP backbone, so a way must be found to determine how each partner pays its fair share of the costs. Reaching and signing agreements and setting up the appropriate governance structure to reflect the interests of all parties can be complicated and may delay implementation while jurisdictional issues are worked out.
- **What scope of authority exists for those who operate 9-1-1 systems**—and how might that scope need to change in a NG9-1-1 environment? Most current 9-1-1 systems are administered at the local level, but NG9-1-1 cannot be managed on a county-by-county basis. By its nature, NG9-1-1 incorporates many jurisdictions, and managing the interconnections between regional NG9-1-1 systems requires appropriate oversight by an entity that has authority to do so statewide.
- **Does the state have a state-level 9-1-1 authority**, and, if so, what is the scope of the state entity's legal responsibilities? If the state has no state-level authority to coordinate or implement NG9-1-1 or no power to set and enforce standards, then the NG9-1-1 system will encounter a massive barrier to achieving compatible, interoperable emergency communications.

Confidentiality in a NG9-1-1 System

Of particular interest and sensitivity in the new era of 9-1-1 communications is the issue of confidentiality. The NG9-1-1 IP backbone may be the conduit for calls, messages, documents, photos, video and a multitude of other types of data from many sources. Those who participate in the network will need to comply with any policies, statutes, regulations or rules that define the information that can and cannot be shared among safety agencies, made public or used for purposes other than an actual response to an emergency. The governance and policies of the NG9-1-1 system must incorporate provisions relating to disclosure, data retention and confidentiality.

The regulatory review must include a state's existing open records laws and rules, as well as confidentiality provisions in 9-1-1 laws, regulations and tariffs. Many states' public records provisions exempt 9-1-1 call

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NG9-1-1 calls and associated data may be shared, transferred and archived in numerous locations. Maintaining confidentiality under this circumstance was not originally envisioned by applicable laws. Both liability and confidentiality must be considered and new provisions must be incorporated.

information (voice and data) from disclosure; but in NG9-1-1, what constitutes a 9-1-1 call or 9-1-1 data is not defined in the same way it is today. The US Department of Transportation's NG9-1-1 System Initiative project defined the term 9-1-1 call as "any real-time communication—voice, text, or video—between a person needing assistance and a PSAP call taker."[1] Consistent with the changing perspective on the nature of 9-1-1 communications, the Next Generation 911 Preservation Act of 2010 defines the term "emergency call" as "any real-time communication to a public safety answering point or other emergency management or response agency, including through voice, text, or video and related data and including nonhuman-initiated automatic event alerts, such as alarms, telematics, or sensor data, which may also include real-time voice, text, or video communications."

In addition to new types of 9-1-1 call information, the disposition of that information is likely to be different in an NG9-1-1 environment. Today, 9-1-1 call recordings and data are typically stored and archived at the PSAP that received and dispatched the call. The NG9-1-1 system architecture involves shared databases and provides for voice and data elements associated with a call to be shared, transferred, and perhaps archived in numerous remote locations. Maintaining confidentiality under those circumstances is not something envisioned by current local, state, and federal confidentiality, retention and disclosure laws.[2]

Liability issues must be considered as well. New providers of NG9-1-1 service and new originating service providers should be granted the same immunity that is offered to traditional telecommunications companies. Anyone who sends information or calls via the NG9-1-1 system or operates services within the network must be shielded from liability. If participants in the system believe they will not be protected legally, they will be less likely to participate.

The FE/Kimball View

FE/Kimball believes that a NG9-1-1 plan should include a mechanism for identifying and resolving all these transitional issues, including the establishment of an authority with all the legal rights it requires to build and operate a NG9-1-1 system (or coordinate the implementation and interconnection of multiple regional NG9-1-1 systems).

[1]U.S. Department of Transportation, Next Generation 9-1-1 (NG9-1-1 System Initiative: Concept of Operations), April 2007 version 2.0, page 5

[2]National Emergency Number Association Next Generation Partner Program, "Transition Policy Implementation Handbook" March 2010, page 18

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Use the checklist of questions provided by FE/Kimball as a guide when you embark on the NG9-1-1 transition.

FE/Kimball believes that to achieve statewide coverage and effect interstate connectivity these initial steps should include policies regarding how the participating agencies will use and operate the system and how procurement of hardware, software and integration services will be rolled out among the jurisdictions. Local, county and state governments will need to determine if they can handle this rollout with their own staffs or if they will need expert advice and assistance. Their basic operational decision must center on whether the publicly funded government agencies will build and run the NG9-1-1 system, i.e., whether they will own the IP backbone and any applications that are delivered over it and rely on their own employees, or hire a professional services company to manage and maintain the network through leased facilities.

FE/Kimball believes that, as participating agencies move through the transition to NG9-1-1, they will confront more questions that must be settled, including:

- ☑ **Will the system be run as a statewide network**, or will the state only facilitate interconnections among regional systems to achieve statewide coverage, filling the gaps in the network with state-level service?
- ☑ **Is a governing entity or state-level oversight authority in place** to manage the NG9-1-1 system, or must a separate governance structure be created? An existing state board, for instance, may have the authority to collect telecommunications taxes and provide funding for 9-1-1 services but no authority whatsoever to manage interconnections among local 9-1-1 systems to ensure statewide coverage. In that instance, a new governance arrangement may be required. Additionally, state law may dictate that a new governance tier be set up with individuals from the state, each region, responders and other stakeholders who share the IP network.
- ☑ **Will the rollout schedule be based on a geographical progression** or should some other criteria (population, funding, etc.) guide the schedule?
- ☑ **How will public safety agencies obtain guarantees from other stakeholders that 9-1-1 emergency traffic always receives top priority** within the IP network if that network is shared with non-emergency voice and data communications, other government services or even commercial interests?

HIGHLIGHTS

Evelyn Bailey is a senior public safety consultant. Evelyn leads FE/Kimball's government and regulatory services group, providing support and expertise to state and local public safety authorities, and FE/Kimball's executive and project management staff on matters related to public policy, legislative and regulatory affairs, fund management, and planning. Evelyn joined FE/Kimball in 2006 after more than 11 years as executive director of the Vermont Enhanced 9-1-1 Board, the state agency responsible for Vermont's statewide enhanced 9-1-1 system.

FE/Kimball believes that the best way to resolve all these considerations is to begin the NG9-1-1 planning process by assembling a collaborative organization of stakeholders to sort through all these issues. Early on, this planning group, which may or may not be part of the governance structure, should deliberate and make decisions about operational policies and procedures and the transitional steps required to move forward with NG9-1-1 implementation. When these stakeholders convene, their responsibility is to offer recommendations for an appropriate governance structure to deal with such questions as who has access to the system and when, who pays for what services and equipment, where funding comes from, and who will ensure that software to be placed on the system by one or more partners will not endanger the network.

"Day one" of a NG9-1-1 project, therefore, is a very long day indeed. Many issues must be resolved right at the beginning of the path to transition, but working to ensure that stakeholders will not encounter unanticipated barriers on the road ahead will make their next steps much more certain and productive.

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