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California Public Utilities Commission

MLTS E9-1-1 Caller Location
Information Proceeding (R.10-04-011)
Public Workshop

July 27, 2010

California 9-1-1 Office

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- CA 911 Office VoIP E911 Deployment
- Requests for PBX Requirements
- FCC Best Practices for Reliable 9-1-1 and E9-1-1
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California VoIP E9-1-1 Deployment Description

Voice over Internet Protocol (VoIP) is becoming an alternative to traditional phone service and the goal of the CA E9-1-1 VoIP Deployment is to get the registered location information of a VoIP user to the most appropriate public safety answering point (PSAP) via statewide standards using the 9-1-1 network.

The California 9-1-1 Emergency Communications Office (9-1-1 Office) is the primary contact to coordinate the deployment in accordance to the Federal Communications Commission (FCC) mandate 05-116A1 issued 5/20/2005. Specifically, VoIP i2 specifies that VoIP Service Providers (VSPs) shall route their calls into the 9-1-1 network and send the registered user location information to a designated PSAP.

Most VSPs will work with a database provider known as a Voice Positioning Center (VPC) and have access to the 9-1-1 network via an Emergency Services Gateway (ESGW). VPCs are used to store and update registered user location information and then provide the information to the PSAPs when a 9-1-1 call is made. ESGWs are those entities, typically Competitive Local Exchange Carriers (CLECs), that provide the connection interface into the 9-1-1 network.

Our mission, together with the local exchange carriers, PSAPs, VSPs, VPCs, and ESGWs, on this deployment is to implement the best "comparable E9-1-1" service for the VoIP user that calls 9-1-1 in California and keep the network reliable and dependable.

For questions specific to the VoIP deployment, email Donna Pena at donna.pena@state.ca.gov or contact her at (916) 657-6116.

<http://www.cio.ca.gov/PSCD/Services/911/VoIP.htm>

Requests for Requirements

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- **Network Engineer:** I would like to find a source of legal requirements as well as suggested guidelines/best practices from the E9-1-1 community's point of view.
- **School:** I am hoping to get information about 911 and how it pertains to public schools.
- **Consultant:** I have been searching the web for regulations concerning private organizations responsibility to identify 911 calls to floor and office of a building. Is there any law that requires private organizations to identify 911 by floor and office within a building, or, is it sufficient to identify the correct address?
- **County:** We wish to ensure that we meet the minimum requirements as set forth by the FCC and CPUC for 911 reporting.

Requests for Requirements

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- **Medical Provider:** Are we required to implement E911 that would ensure the correct physical address goes vial caller ID when calling 911?
- **NENA:** I've browsed CA's 9-1-1 legislation and do not find where there are any MLTS requirements. If my findings are correct and there is no existing MLTS legislation in CA, are there any plans to put together any legislation that would require MLTS customers to provided specific location information and callback for each station?
- **Supplier:** If there is a document that states there are no E911 requirements for private businesses I would like to have a copy. The reason I'm asking is because we have an E911 server at one of our branches and would like to get rid of it because of resource managing issues. Just need to make sure we aren't violating any codes.

Requests for Requirements

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- **Private Company Security Coordinator:** “We are inquiring on whether there is a requirement for a company owned VoIP PBX system to allow direct dial 911 calls from within the PBX. In simple terms, does a caller need to be able to dial 9-1-1 without requesting an outside trunk number(i.e... "9") first from the PBX system? Due to issues of liabilities and at the direction of our legal team, we are looking for an official stipulation on the requirements or lack there of, in allowing direct dial verses trunk requested initiations of a 9-1-1 calls.
- **VoIP Positioning Centers:** If you have guidelines, we can provide references for the service providers.
- **Hospital:** I have been searching the web for regulations concerning private organizations responsibility to identify 911 calls to floor and office of a building.

Requests for Requirements

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- **Network Engineer:** I want to make sure we're complying with any regulations in our VoIP implementation.
- **Solution Provider:** Do you know what the current status of private PBX E-911 legislation is for businesses? Does California require businesses to have E-911 in place (capability of sending both the ANI and ALI from a multi-line switch)?
- **Insurance:** I am trying to find out if our business in California is required to have E-911 service. In the State of Illinois if a private business that has a PBX telephone system and occupies 40,000 sq. feet office space is required to have E-911 service. Would you please advise what the California Laws are regarding this matter.

General Responses

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- In regards to compliance, California does not have MLTS (multi-line telephone system/PBX) legislation for 911.
- It is up to each business/entity to determine their scope of requirements/liability. It is important to determine what your business needs for your employees in case of emergency.
- Where do you want the ambulance to go? It is important to accurately provision the address and locations.
- It is important for you to perform acceptance testing before you sign off on the installation.
- If you would like to perform some test calls, especially for a campus environment please contact the appropriate 911 County Coordinator or PSAP.
- We would much rather test up front, instead of having the unfortunate possibility of a misrouted 9-1-1 call.

FCC CSRIC

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- The Communications Security, Reliability and Interoperability Council's (CSRIC) mission is to provide recommendations to the FCC to ensure, among other things, optimal security and reliability of communications systems, including telecommunications, media, and public safety.

Public Safety and Homeland Security Bureau

FCC – CSRIC 4A Charter

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- Working Group 4A – Best Practices for Reliable 9-1-1 and E9-1-1
- Section 101 of the New and Emerging Technologies 911 Improvement Act (codified at 47 U.S.C. § 615a-1(h)) requires the FCC to develop several best practices related to the implementation of 9-1-1 service for IP-enabled voice service providers, commonly known as VoIP Providers. A significant set of this information may already be available.
- Working Group 4A will investigate and evaluate currently available 9-1-1 related VoIP standards and best practices related to Enhanced 9-1-1 (E9-1-1) for completeness and identify any gaps, including challenges related to implementation of such standards by VoIP providers within the E9-1-1 system.

FCC CSRIC 4A – Best Practice

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□ **VSP Campus Testing – Issue/Gap:**

When campus or enterprise systems convert to VoIP, the customer address provisioning performed by installers can be inaccurate and result in misrouted E9-1-1 calls. As such, WG 4A recognizes a need to update or create applicable documents to promote best practices for VoIP that are similarly used for legacy PBX environments, and encourage VoIP service and equipment providers to perform additional testing for large or higher risk environments. We recommend that VPCs include additional testing. The BP should recognize that the Campus end user customer is an important stakeholder in this effort, and should encourage them to participate in testing with the VSP and equipment providers.

The BP could be based on this example:

VPCs can require additional testing for environments that have a high user capacity. This immediately reduces the risk of misrouting a block of callers at a particular facility and in turn reduces the liability for entities.

Single Reference Point

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- Guidelines
- Education
- Web location
- Benefits
- Ensure the user has access to 911 with the accurate location provisioned and is displaying at the PSAP.

Bottom line

Where do you want the ambulance to go?