



# **Key concerns about VoIP in the PSAP**

**Answers At-A-Glance**

This document provides a high-level overview of VoIP technologies and issues . For complete product details, please refer to the release documentation; contact CML by e-mail, [insidesales@cmls.com](mailto:insidesales@cmls.com); or phone 1-877-CML-2911.

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## **Key concerns about VoIP in the PSAP Answers At-A-Glance**

### *Readiness*

**Q: What does voice and data convergence mean to the PSAP?**

A: Convergence of voice and data traffic on a single network may or may not have 9-1-1 network cost savings depending on the state in which the PSAP resides, although it is usually more cost effective overall. VoIP does mean easier networking, requires one skill set for its management and support, and provides a platform to integrate 9-1-1 voice and data requirements.

**Q: Has VoIP been proven ready and safe for mission critical applications?**

A: Yes, it's widely and reliably used in the commercial world. Institutions like governments, banks and airlines are examples of the tightest Private Data Networks in the world. These organizations have a wealth of service capabilities that PSAPs can model.

**Q: With regard to VoIP, what is a carrier's obligation to provide E9-1-1 to the PSAP?**

A: The FCC and NENA are actively investigating the best means to ensure E9-1-1 service for VoIP callers. The FCC is weighing the decision to legislate or encourage E9-1-1 service capability by VoIP providers. Currently, there are no regulations in place.

**Q: When should the PSAP be upgraded to serve VoIP calls?**

A: VoIP is coming. NENA and the FCC are working today to better understand the intersection of the Internet and E9-1-1. We believe that PSAPs should follow their lead and be proactive. Start today and evaluate what resources, assets and priorities exist. The important issue is to be prepared.

### *Security*

**Q: Does VoIP put the PSAP at risk for virus attacks and/or denial of service?**

A: Nothing is ever guaranteed. However, with proper design and management – including organizational policies – a Private Data Network is unlikely to be at risk. Look at models that work, like banks and airlines where security and reliability is mission critical.

**Q: Is reliability an issue with VoIP?**

A: VoIP networks and IP technologies used for mission-critical applications are designed to be reliable and survivable with redundant servers, diverse routing, and Managed Private Networks. In fact, VoIP networks may be designed to support a variety of disaster recovery scenarios in a more cost effective and survivable architecture than available with traditional networks.

### *Internal Resources*

**Q: How will VoIP affect call takers and the investment made in their training?**

A: Nothing will fundamentally change. The emergency caller is still the call taker's first priority and their training – the principles, screens/technology and actions they'd take – remain the same.

**Q: How will VoIP affect support staff and the investment made in their training?**

A: Deploying VoIP to the PSAP and within the PSAP means there's one converged network and one technology to support. In fact, often the support staff already manage IP platforms for the associated 9-1-1 applications such as Mapping and CAD, and other information technology in the PSAP.

*Productivity***Q: How does VoIP make the PSAP more efficient during a call burst?**

A: Efficiency in the PSAP is the marriage of response time and accuracy, and the dynamic capacity that is inherent in VoIP increases productivity. In call bursts, other call takers can be notified to sign in, help clear the burst.

**Q: When a large-scale emergency hits, is VoIP going to be reliable?**

A: VoIP is emerging specifically because the issue of survivability has never been more important than now. The redundancy of VoIP introduces a new layer of protection. For instance, the PSAP can benefit from accessing disparate call takers. In the case of a large-scale emergency (hurricane), if one call taker is engaged, another call taker in a different location can answer emergency calls.

**Q: Using VoIP, will calls occasionally not make it through just like email sometimes doesn't get through?**

A: VoIP is not a store and forward server application, which is the case for email. VoIP calls are real-time connections made over Data Networks. Callers know immediately if there is a problem with their connection – just like standard telephone connections.

*Technology***Q: Can VoIP allow an emergency incident to be "reassembled"? In other words, is there an ability to re-make a call out of the bits?**

A: Instant Recall Recorders and Logging Recorders can be used to store VoIP calls as with other types of 9-1-1 calls. Also, in the near term expect to see end-to-end 9-1-1 call logging capabilities enhanced by the capability to transfer the previous recording with the voice call to a second destination – from call taker to dispatcher to emergency responder.

**Q: Will VoIP technology easily integrate with historical technology like PBXs?**

A: Yes. It builds on the foundation of telephony.

*For answers to your specific questions, contact CML Emergency Services at:*

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