

PUBLIC SAFETY REPORT

COMMUNICATIONS SOLUTIONS FOR PUBLIC SAFETY

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Photo courtesy Nice Systems



Consolidation doesn't have to be a dirty word. PSAPs can connect virtually through an IP backbone without reducing staff or closing facilities.

By Jeff Robertson

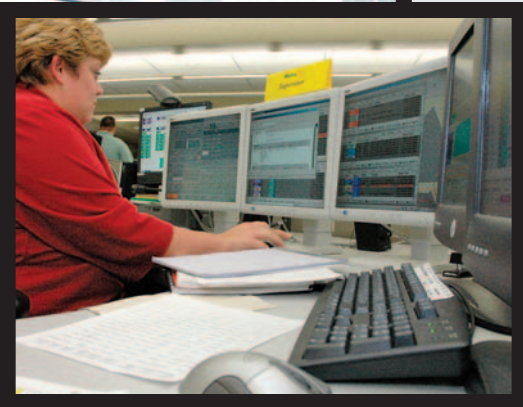


The topic of public-safety answering point (PSAP) consolidation has been around for years. For some, the notion of consolidation leads to the fear of job loss. Fortunately, with one type of PSAP consolidation — virtual consolidation — there is only a small likelihood of job elimination. Legacy technology has required every county to service all of its needs within the walls of each individual PSAP; however, current technology enables officials to eliminate those brick-and-mortar walls and provide — and receive — support from surrounding PSAPs. This ultimately saves time and money, creates jobs and saves lives.

In addition to saving more lives and streamlining operations, money is a key factor that should drive PSAPs to consider consolidation. Many consolidated PSAPs haven't moved a single call-taker, dispatcher or computer. They haven't closed five or 10 centers and moved into a centrally located center. Rather, they virtually consolidated the networks of five to 10 centers into one large virtual center, without physical change on a county level.

Virtual consolidation means that those answering

Photo courtesy city of Louisville, Ky.



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9-1-1 calls and the first responders in a given community — the people who know an area best — will not lose their jobs or have to drive 100 miles to work in a new, consolidated center. Virtual consolidation also means that employees will be connected “virtually” via a private consolidated network that allows them to share technical resources. This is the future of PSAPs. Sharing information across agencies and across city, county and state lines enables more lives to be saved and more emergency situations to be diffused. This will ultimately result in cost savings and the ability to allocate funds for other important community issues.

“There are a number of different approaches to consolidation — the consolidation of facilities, operations or technologies. One of these options, or a combination of them, is dependent on unique circumstances,” says Mike Fischel, vice president of business development for L. Robert Kimball & Associates. “If a facility’s consolidation is out of the question, a virtual consolidation is certainly a step in the right direction to more efficient operations and shared technologies.”

Consideration of consolidation begs the question: Does it make sense for a single county in the United States with multiple PSAPs to have multiple private branch exchange (PBX) phone systems, 9-1-1 answering software, CAD systems, records management systems (RMS), jail records systems, mapping software packages and networks? The cost of all these devices and software alone is significant,

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even before factoring in costs associated with service contracts and maintenance staff on hand to preserve day-to-day operations and keep essential servers and computers running. The cost of all these disparate systems is often overlooked when consolidation is discussed.

How many PSAPs do you need to make virtual consolidation worthwhile? Typically, it makes sense when four or more PSAPs are willing to connect and build a network in which, through consolidation, they are able to gain essential resources and share them across each of the partner PSAPs on the new network. For example, in a county with four separate PSAPs, the four can consolidate, sharing the cost of technology instead of each PSAP spending valuable dollars on new PBXs or phone systems for 9-1-1. This value grows exponentially when

2 Factors for Consolidation Success

1. Effective network engineering connecting PSAPs
2. Decision maker education and collaboration

updating and replacing slightly outdated and older PSAP technology with next-generation technologies capable of meeting new industry standards. The four separate PSAPs can pool the funds they would have spent on separate PBXs. With the combined budget, they will be able to purchase a single, up-to-date system that serves the needs of all four. This is more efficient and equitable than the alternative of each PSAP squeezing limited funds to purchase an outdated system that meets the basic requirements.

“Consolidation presents agencies with the opportunity to obtain and use the most full-featured and robust public-safety technologies available today,” says Reid French, executive vice president and chief operating officer (COO) of Intergraph.

Consolidation will result in both short- and long-term cost savings. Initially, money is saved on the capital purchase and again through redundancy in the network, which is built into a virtual consolidation project. The hardware, which is the physical representation of the consolidation, is located at a main center in addition to backup hardware that would have been an unfeasible expense without having the financial resources of multiple PSAPs. Consolidated centers have the capability to connect via a traditional, private, secure IP network that allows for increased data-handling capabilities, offering more useful and efficient information transfer.

Once consolidated, centers can share calls and recordings; they no longer have to use antiquated selective routers for “hook switch” transfers. A consolidated center can take a 9-1-1 call, record it and distribute the information to different jurisdictions that might need EMS or multiagency dispatch. With the transfer of the call on the new network, all of the details about that call, the location, even the call’s instant recall recording, is sent so the receiving PSAP can hear the original 9-1-1 emergency call. This information couldn’t have been distributed on a traditional 9-1-1 transfer.

Despite the fact that the necessary technology is readily available, many PSAPs are skeptical about the success a virtual consolidation delivers to participants. Call centers in business are spread across the country, and in many cases, are networked across borders. Many companies are networked overseas in India; the initial call is taken and transferred back to the business in the states.



Virtual consolidation connects PSAPs through an IP backbone.

In these cases, all of the sites work in conjunction with one another as if they were in a single call center, seamlessly transferring calls and data without the loss of valuable time and money. It is clear that reliable technology has been available for years in the business community. While businesses have been using it to their advantage and to improve customer service and save human and financial resources, the public-safety industry has fallen dangerously behind.

Why Does Consolidation Fail?

Two factors cause the failure of a PSAP consolidation. The first factor is a lack of attention and investment in the foundational network engineering that connects different PSAPs. Cutting corners to save on upfront costs isn't an effective way to consolidate. Failed consolidations don't sufficiently invest in network redundancy or bandwidth, and as a result, the needs of the community aren't met, call volumes become excessive and a project fails.

The second factor is politics. All matters come down to people. Decision makers worry that if connected, others will see their reports and are worried about how their agency will work with another agency. Cross-agency politics and the egos of agency leadership can derail a virtual consolidation. If a project can be planned correctly, explaining the benefits to all stakeholders from a financial and service-oriented perspective, the different "camps" usually can get over their issues and work for the betterment of the communities they serve. If key stakeholders are not educated on the benefits to their staff and are allowed to continue thinking they will lose control of their jobs or funding, virtual consolidation projects will never get on the right track.

When considering connecting together a group or region of PSAPs, it's imperative to get all the stakeholders in a room and discuss the pros and cons of consolida-

tion. Once everyone's fears and concerns have been addressed and there are viable financial numbers, the next step is to sell it to all the stakeholders. Often, a consultant can offer the essential information necessary for a consolidation. Your local vendor community can also be a great resource to help frame network architecture and provide estimated costs of virtual consolidation.

When all the PSAP directors, police chiefs, lieutenants, captains, fire chiefs and EMS directors are informed about the benefits to the community, consolidation becomes an easy sell. It's important to allow all decision makers to have equal say in the process and to understand why consolidation is beneficial. Improved service because of increased overflow capabilities, better transfer capability among agencies, and enhanced reliability and redundancy are all examples of the numerous benefits available.

The Network

The network is a source of confusion for many people in the public-safety sector because of the relatively new industry applications. The IP network is a traditional network that phone companies, cable companies and telecommunications providers have been implementing and perfecting for years. This is a private network, not a standard Internet connection, in which telecommunications providers connect each PSAP.

A logical question and concern is how an agency pays

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for an IP network. The thought is daunting, and because of current expenses there is barely enough money left at year's end. Many PSAPs have network elements that aren't being used to their full potential. By allocating these unused resources, each PSAP would have the funds to spend on an IP network and, in many cases, a high-quality broadband network can be engineered for around \$1,500 per month. With a minimal investment, a fractional T1 or full T1 of private IP data can connect a remote PSAP to the main center in the county where the consolidated equipment is located.

Local phone companies and other telecommunications providers would likely welcome the opportunity to help engineer the new network and provide competitive quotes or estimates for implementation. The quotes will show actual savings, and the findings should be shared

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with key decision makers. Perhaps the savings will allow local agencies to hire more staff, improve training or add a new mapping system to share and replace the antiquated current maps. In many cases, once the network is up and running, other PSAPs will want to join, which helps improve the economics.

Agencies that consolidate will be pleasantly surprised with the technology PSAP consolidation offers. The process is much less painful and far more rewarding than many think. If the right people are properly motivated

toward the allocation of time and resources, PSAP consolidation is no longer a pipedream, but a surefire reality. ■

Jeff Robertson is the executive director of the 9-1-1 Industry Alliance, which is dedicated to ensuring that public-safety organizations are prepared for the future demands to accept and dispatch public requests for help. He formerly was president and chief executive officer (CEO) and controlling shareholder of TCI and president and CEO of CML Emergency Services. E-mail comments to editor@RRMediaGroup.com.