

TECHNOLOGY TRAINING MATTERS

When technology becomes second nature, telecommunicators can focus entirely on the caller instead of the console.

By Ryan Davis Solis

Every second counts when a 9-1-1 call is placed. Imagine you're in the middle of a major crisis — a chaotic traffic accident with multiple callers or a fire rapidly consuming a structure. The caller is screaming; their voice is breaking. Your focus should be entirely on gathering critical information and providing lifesaving instructions. But what if you can't?

What if you are forced to pause, fumbling with the computer-aided dispatch (CAD) system, searching through complex data or struggling through a multitude of map layers?

That momentary hesitation — that gap between knowing the protocol and executing the technical steps — is a critical, life-threatening delay. This friction is often not a human failure, but a training failure. Strategic technology training can transform your 9-1-1 center's performance, turning technological barriers into lifesaving reflexes.

THREE REASONS TO TAKE A CLOSER LOOK AT YOUR TECHNOLOGY TRAINING

1. Your quality assurance (QA) ratings could use improvement. QA in an emergency

communications center (ECC) focuses on reviewing recorded calls and radio communications to assess adherence to established protocols, including emergency medical dispatch (EMD), emergency police dispatch (EPD) and emergency fire dispatch (EFD). Lower scores can highlight areas where additional training, clarification or support may be beneficial.

Many protocol failures are not due to a lack of knowledge of emergency procedures, but rather to a failure to efficiently navigate and use the technology that executes those procedures.

A public safety telecommunicator might score low if they failed to document a critical update properly or couldn't quickly find the appropriate pre-arrival instruction (PAI)

in the protocol software or CAD. The technology training likely focused on what the buttons do, not how to integrate the technology seamlessly into high-stress, real-time protocol execution.

2. Your technology team doesn't know your technology curriculum. In some ECCs, there can be a disconnect in which the IT staff, who manage and troubleshoot the systems, are not involved in the creation, instruction or evaluation of the end-user training curriculum.

When these teams operate in silos, the training curriculum often lags behind current system updates, known bugs or newly deployed features.

A call-handling equipment (CHE) training manual might instruct a telecommunicator to use a specific button to rebid a location to narrow down the caller's location, but the center's transition to the Emergency Services IP Network (ESInet) has rendered the training obsolete. Newly hired staff would never know that a device's actual latitude and longitude were available in the automatic location identification (ALI) if the training



manual was written without collaboration with technical staff. Telecommunicators are ultimately taught incorrect information, and when that misinformation affects the outcome of a 9-1-1 call, the consequences of disconnected training and technology teams become immediately clear.¹

3. Call duration and time to dispatch metrics are longer than they should be. Call duration and time to dispatch are critical metrics for an ECC. Call duration measures the total time a telecommunicator spends on the phone with a caller. In contrast, time to dispatch refers to the interval between when a call becomes dispatchable and when the first unit is assigned. Extended times in either metric can delay emergency response and may signal opportunities to improve workflow, protocol application or technology use.

Longer times are often the result of fumbling with technology rather than focusing on the caller. If a telecommunicator has to repeatedly pause the question protocols to search for a menu, verify a drop-down selection or manually re-enter data that should have automatically imported into the CAD

using the proper function key, the clock keeps running.

If a trainee is not proficient with the automatic number identification ANI/ALI map interface, they may waste critical seconds manually correcting location coordinates that the system provides, delaying dispatch of the nearest unit.

THREE WAYS TECHNOLOGY TRAINING CAN IMPROVE YOUR ECC'S PERFORMANCE

1. Repetition allows for a calm demeanor during high-stress calls. Technical tasks should come naturally to a telecommunicator. When a telecommunicator uses technology so repetitively, frequently and correctly during training that the actions become subconscious, it frees up their ability to focus on non-technical tasks.

During a critical, high-stress call, such as an active shooter or fire, the telecommunicator's primary focus must be on interviewing the caller, managing emotional distress and making rapid decisions. If they have to consciously think about how to enter the address,

where to find the proper protocol or which command to enter, that hesitation detracts from their communication and decision-making clarity. Repetitive, realistic training minimizes clumsiness and allows the telecommunicator to maintain a calm and authoritative voice, which is vital for caller compliance and overall scene safety.

2. When a citizen can't answer a question, sometimes technology can. Training telecommunicators to fully leverage advanced technology features can fill critical information gaps left by callers. This includes features like text-to-9-1-1 rich data and real-time mapping layers.²

Callers are often injured, panicked or disoriented, and cannot provide a reliable location, cross-street or even a complete address. The technology is designed to bridge this gap, but only if the telecommunicator knows how to quickly access, interpret and validate the supplementary data.

A caller may only say, "I'm in a crash near a river." A well-trained telecommunicator will immediately check for additional location information to pinpoint the location

Successful technology adoption requires a multi-faceted training approach tailored to the content and environment.

based on the phone's GPS data, compare it to the CAD's geo-validation and potentially use the mapping system to identify nearby landmarks visible to the panicked caller.

3. Telecommunicators on night shifts don't always have to wait to resolve tech issues. Every telecommunicator who has ever worked an after-hours shift knows that it's hard to get the same level of mission-critical response as a day-shifter might receive. Fostering self-sufficiency and basic troubleshooting skills among telecommunicators helps them manage minor technical glitches without relying on immediate, often unavailable, IT support.

Night shifts often have minimal or no dedicated technical staff. A minor issue — like a frozen screen, a printer error or a broken headset — can turn into a major operational delay if the telecommunicator has to wait for additional guidance. Effective training should empower them to perform simple fixes or recognize how other technologies can be leveraged to band-aid the issue until technical staff can assess the problem.

Training should cover basic technology troubleshooting and commonly arising issues such as clearing a browser cache, restarting a specific application module (and knowing its login credentials!) or running a simple diagnostic command. Knowing these procedures allows the telecommunicator to resume operations within minutes, maintaining service continuity instead of escalating a minor issue and waiting hours for a resolution.

THREE METHODS TO INTRODUCE OR RE-INTRODUCE TECHNOLOGY TO YOUR TELECOMMUNICATORS

1. Hands-on, immersive training. This method involves dedicated, formal training sessions conducted in a controlled environment (often a classroom or training lab) and ideally in a simulated environment rather than a live one — often described as using a CAD or call-handling equipment (CHE) sandbox to deliver as-realistic-as-possible training.

For introducing a new system or a major system upgrade, hands-on training is

non-negotiable. Telecommunicators learn by doing without the pressure of live calls or the risk of impacting real operations. The immersive nature of sandboxes means the training is conducted in realistic scenarios that require telecommunicators to navigate a new system (or system feature) from start to finish (for example, answering the call, validating location, entering information, dispatching units and logging notes). The trainer can observe and correct errors immediately.

Sessions should be short enough to maintain focus (two to four hours maximum) and have a high instructor-to-student ratio to ensure individualized feedback.³

2. Roll call training. These brief, hyper-focused training sessions delivered at the start or end of a shift, typically last 5-10 minutes and are ideal for communicating minor updates, addressing recurring errors or reinforcing specific skills.

The ECC environment often operates with rotating shifts, making it difficult to pull staff for long formal classes. Roll call training is an efficient way to ensure consistent communication across all shifts regarding smaller technological changes.

A new button added to the CHE user interface (UI), or a recurring issue identified through QA, are good examples of minor items that can be addressed verbally or through a brief memo — sometimes even with a simple training aid or visual — during roll call. This type of training is focused, easy to absorb and immediately applicable to the shift ahead. Avoid information overload by focusing on one topic at a time and keeping it to a handful of key takeaways.

3. Peer-to-peer training. Leveraging experienced, highly proficient telecommunicators — chief technical officers (CTOs) or training staff — to train their colleagues, both formally and informally, can have an immense impact on the adoption of technical features at their consoles during operational hours.

Peer training provides real-time, contextual learning. When a specific scenario or technical challenge arises during a shift, the peer expert can immediately demonstrate the most efficient technical approach, making

the lesson highly relevant and memorable. It could even increase team trust since the training comes from someone who faces the same operational pressures as the telecommunicator receiving the instruction.⁴ This method is particularly useful for teaching the unwritten rules and technical shortcuts that experienced users develop.

The advantage of using a designated CTO is that they're formally vetted to ensure the information they share is accurate and consistent across the center; we wouldn't want the "unwritten rules" of dispatch to create issues with non-compliance for acting outside the center's protocols.

EFFECTIVE TRAINING VIA TECHNOLOGY

The core message is that technology is no longer just a tool in an ECC — it is a co-pilot that requires dedicated, continuous and integrated training if you want it to be effective.

Successful technology adoption requires a multi-faceted training approach tailored to the content and environment. Hands-on, immersive training is essential for proficiency with the new system. Roll call training ensures rapid, consistent distribution of minor updates across all shifts. Peer training provides immediate, relevant and trusted on-the-job mentorship, ensuring skills are applied correctly in real time. So the next time you sit down at your console to start a shift, will you consider which of your technical skills could use sharpening and which could be worth sharing? ●

Ryan Davis Solis is the 911 Deputy Director of Technology and Infrastructure for the City of Atlanta (GA) — a 9-1-1 center fully dedicated to breaking technology to build it back even better.

REFERENCES:

- 1 National Emergency Number Association (NENA). (2021). *NENA i3 Standard for Next Generation 9-1-1* (NENA-STA-010.3f-2021). Retrieved November 2025 from <https://www.nena.org/page/standards>.
- 2 Association of Public-Safety Communications Officials (APCO) International. (n.d.). *APCO Standards*. Retrieved November 2025 from <https://www.apcointl.org/services/standards/find-standards/>.
- 3 Knowles, M. S., Holton, E. F., III, & Swanson, R. A. (2020). *The adult learner: The definitive classic in adult education and human resource development* (9th ed.). Routledge.
- 4 Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson Education, Inc.

CDE EXAM #77091

1. According to the article's introduction, the "momentary hesitation" that causes a critical delay during a 9-1-1 call is often classified as what type of failure?
 - a. A human failure due to panic.
 - b. A technology hardware failure.
 - c. A training failure related to technical execution.
 - d. A protocol failure due to a lack of policy knowledge.
2. Which of the following is NOT listed in the article as a key performance metric that can be negatively impacted by poor technology proficiency?
 - a. Call duration
 - b. Staff turnover rate
 - c. Time to dispatch
 - d. Quality assurance ratings
3. The article states that a telecommunicator's low quality assurance score is frequently caused by:
 - a. A lack of funding for new technology.
 - b. A failure to efficiently navigate and utilize the technology to execute procedures.
 - c. The telecommunicator forgetting the basic emergency protocol steps.
 - d. A technical team not knowing how to use the CAD system.
4. A critical disconnect highlighted in the article regarding the technology team and the training curriculum is that the curriculum often:
 - a. Is too expensive to maintain.
 - b. Lags behind current system updates, known bugs or newly deployed features.
 - c. Is too basic for newly hired staff.
 - d. Fails to include hands-on training labs.
5. What is the direct benefit of a telecommunicator being able to execute technical tasks through repetitive training during a high-stress call?
 - a. It eliminates the need for a supervisor's assistance.
 - b. It automatically corrects data errors in the CAD.
 - c. It minimizes the need for expensive software licenses.
 - d. It frees up the telecommunicator's primary focus for interviewing the caller and managing emotional distress.
6. What method is emphasized in the article for quickly obtaining critical information when a citizen is panicked, injured or disoriented and cannot provide a reliable location?
 - a. Immediately transferring the call to a supervisor.
 - b. Leveraging advanced technology features like real-time mapping layers.
 - c. Calling back the citizen multiple times until a clearer signal is obtained.
 - d. Waiting for a law enforcement unit to arrive and confirm the location.
7. According to the article, why is it important for telecommunicators on the night shift to be trained in basic troubleshooting skills (e.g., clearing a browser cache)?
 - a. To keep their hands busy during slow hours.
 - b. To reduce the need for expensive system maintenance contracts.
 - c. To maintain service continuity and avoid operational delays when IT support is unavailable.
 - d. To practice for a future promotion to the IT team.
8. Which training method is described as using a "CAD or CHE Sandbox" with realistic scenarios to fully navigate a new system from start to finish?
 - a. Roll call training
 - b. Peer-to-peer training
 - c. Hands-on, immersive training
 - d. Formal classroom lecture
9. The article states that roll call training is an ideal method for communicating which type of information?
 - a. A complete change-out of the CAD system.
 - b. Minor updates, recurring errors or reinforcing specific skills over all shifts.
 - c. The entire training curriculum for new hires.
 - d. Negotiating a new collective bargaining agreement.
10. What is a key advantage of peer-to-peer training in an ECC, particularly for experienced users?
 - a. It replaces the need for formal training manuals entirely.
 - b. It guarantees that all telecommunicators will eventually become CTOs.
 - c. It allows for the sharing of "unwritten rules" and technical shortcuts in a relevant, trusted context.
 - d. It ensures the technology team's curriculum is always up to date.

FOR CREDIT TOWARD APCO RECERTIFICATION(S)

Each CDE article is equal to one credit hour of continuing education

1. Study the CDE article in this issue.
2. Answer the test questions online (see below for online exam instructions) or on the exam page from the magazine article (photocopies are not required).
3. Add/upload your CDE article information and certificate of achievement in the "My Classes Taken" section of APCO's Training Central at www.apointl.org/trainingcentral.

Questions? Call us at (386) 322-2500.

You can access the CDE exam online! To receive a complimentary certificate of completion, you may take the CDE exam online. Go to <https://www.training-apointl.org/> to create your username and password. Enter CDE in the search box, and click on the "Technology Training Matters," then click on "enroll me" and choose "**Technology Training Matters (77091)**" to begin the exam. Upon successful completion of the quiz, a certificate of achievement will be available for download/printing.