

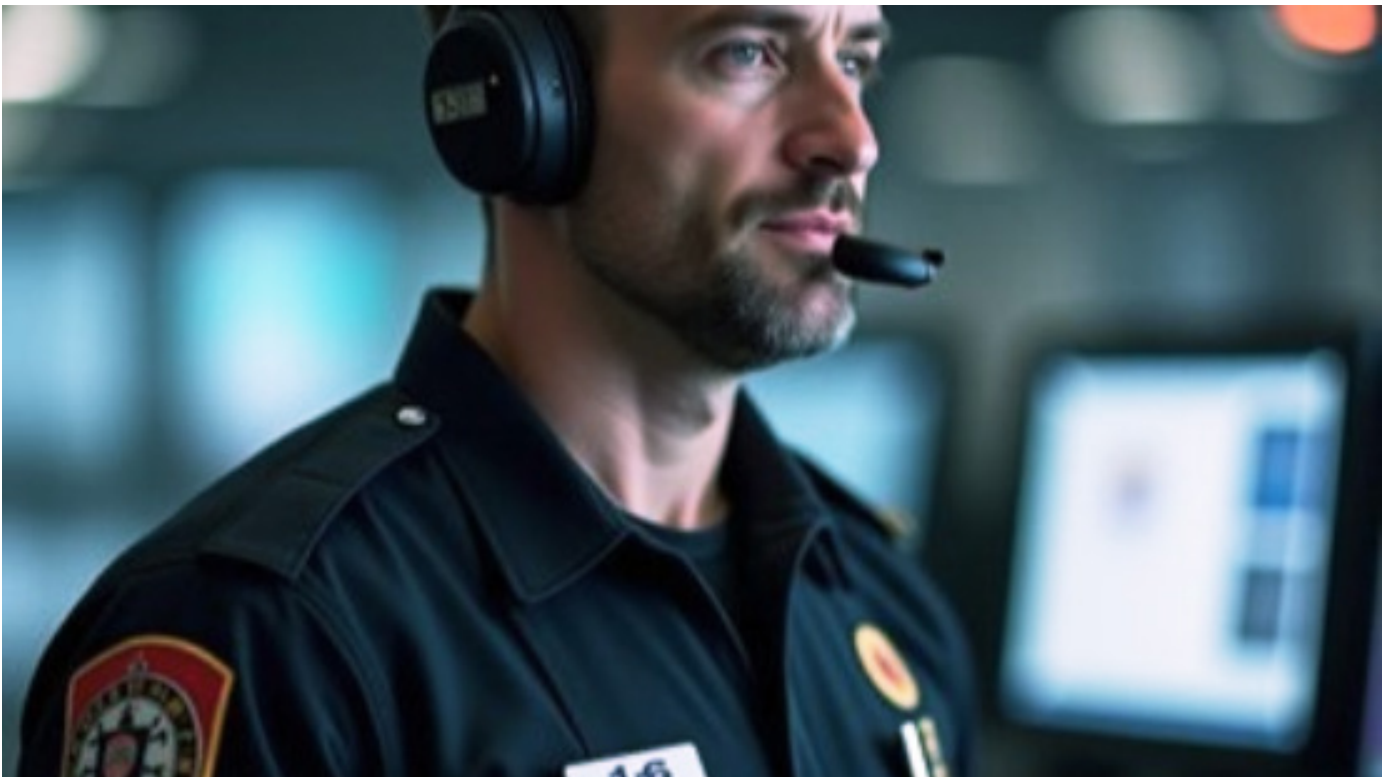


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Rethinking 9-1-1 Technology Adoption: From Utilization to Autonomous Engagement

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In the world of technology deployment, especially within SaaS-driven enterprises, the term *adoption* is often used too narrowly. Typically, adoption is understood simply as the rate at which a purchased tool is used. But today, I'd like to propose a broader, more strategic definition, one rooted not just in utilization, but in sustained engagement, learning, and value creation.

Defining Adoption (and Its Limitations)

Traditionally, when a 9-1-1 dispatch center buys a SaaS solution, adoption is measured by how many users log in, how frequently they use features, and whether the tool is "in use."

Analytically, many define adoption as "the process in which a user becomes a regular user of a product and makes it part of their life." Others define it as the transition from signup to active and valuable use. Industry glossaries often state that user adoption occurs when users integrate the tool into their daily work routines after initial exposure.

While these definitions are helpful, they fall short of what truly separates high-performing deployments from those that are merely "live but barely used."

The First Step: Set Goals (The Toughest Step)

Before measuring adoption, the first, and often hardest step is defining what successful adoption means within your context. What behaviors and outcomes should the tool drive?

For example:

- **GIS deployment:** is success simply that users click the map tool, or that they interpret spatial data to locate callers faster, reduce response times by measurable margins, and identify repeat call hotspots for proactive intervention?

- **Protocol system deployment:** is success merely that emergency dispatchers launch the tool, or that they apply protocols accurately and achieve measurable increases in compliance and call-handling consistency?
- **CAD deployment:** is success that emergency dispatchers enter calls correctly, or that they leverage automation to improve unit selection times, reduce emergency dispatcher cognitive load, and cut 90th percentile dispatch times?

When we fail to define such goals up front, we end up measuring what is easy, not what truly matters.

A New Definition: Adoption as Autonomous Engagement

As a former Customer Success executive, I propose expanding the meaning of adoption. It isn't merely "users use the tool." True adoption occurs when users engage with the tool because they *want* to learn and improve autonomously. They see its value, explore its features, and evolve their usage without external pressure.

In this sense:

- Adoption becomes **proactive rather than reactive**. Users explore even when not required.
- Adoption becomes **self-driven learning rather than passive utilization**. Users view the tool as part of their professional growth.
- Adoption becomes **culture-shifting rather than transactional**. The tool becomes embedded in a mindset of continuous improvement and shared purpose.

In a 9-1-1 centre, this could look like emergency dispatchers revisiting protocol modules voluntarily, analyzing QA feedback trends, or sharing CAD shortcuts that improve accuracy during high-call volume events. These users engage in refresher training, explore advanced capabilities, share insights with peers, and integrate the tool

into their daily rhythm. The tool evolves from being something they use to something they improve with.

Why This Matters: Benefits and Implications

When adoption is defined as autonomous engagement, the implications for strategy, measurement, and deployment shift significantly.

1. Measurement Changes

Move beyond tracking logins or clicks. Instead, measure **signs of autonomous learning** and how often users complete optional refreshers, explore advanced features, or initiate peer-led sessions. In a 9-1-1 context, engagement metrics may include:

- Reduction in protocol deviation rates or QA variances.
- Increase in self-initiated micro-trainings completed.
- Percentage of users contributing to internal “tips” repositories.
- Feature expansion rate (e.g., percent of users leveraging analytics dashboards or integrated GIS overlays).

2. Implementation Focus Changes

Replace “go-live” thinking with a **continuous learning environment**. Training becomes ongoing. Peer learning, communities of practice, gamification of advanced usage, and internal recognition of “protocol champions” reinforce engagement.

3. User Targeting Changes

Focus on the **daily user experience**, not just the first 90 days. Many emergency dispatchers log in but never explore the full depth of their tools, similar to how most of us use only a fraction of our phone’s capabilities. The goal is to close that engagement gap so tools evolve alongside user mastery.

4. Outcomes Become Richer

Instead of “tool used,” you achieve:

- “Tool used *creatively*,” as when emergency dispatchers use mapping layers to anticipate resource strain during weather events.
- “Tool used *to solve new problems*,” as with QA teams identifying training gaps through data visualizations.
- “Tool used *to drive mission success*,” where improved accuracy, faster call processing, and reduced transfers directly enhance citizen outcomes.

The Vendor’s Role: Designing for Autonomous Engagement

This new definition of adoption doesn’t rest solely on users. It challenges vendors to design technologies that *promote* autonomous engagement. If a product requires external prompting to drive learning, its design is incomplete.

For instance, waiting days or weeks for QA personnel to provide feedback on calls is quickly becoming obsolete. Imagine instead a system that delivers immediate, intelligent insights where within minutes of a completed call, the emergency dispatcher can view automated feedback, review their protocol performance, and receive smart prompts to revisit specific standards or training modules.

Such an environment transforms feedback from a delayed compliance exercise into an *instant learning opportunity*. The system itself becomes a mentor, pointing users toward relevant policies, recent changes, or best-practice reminders in real time. This not only accelerates skill development but reinforces a self-sustaining learning loop that deepens mastery and accountability without external enforcement.

When technology invites curiosity, delivers actionable feedback instantly, and integrates learning

seamlessly into daily workflows, adoption naturally becomes autonomous and enduring.

Putting It into Practice: A Roadmap for Adoption 2.0

- **Define Success Goals First:** Clarify what excellent adoption looks like and what measurable behaviors signify mastery and value.
- **Design for Autonomy:** Create frameworks that encourage self-learning through peer groups, internal champions, and micro-learning modules.
- **Track Beyond Logins:** Establish KPIs that reflect learning behavior, peer engagement, and feature exploration, such as optional retraining completion rates or peer knowledge shares.
- **Engage Daily Users:** Focus on front-line emergency dispatchers and supervisors who rely on the tools daily; equip them with continuous growth opportunities.
- **Celebrate Evolvers:** Recognize users who go beyond standard usage, those who teach others, discover new features, or improve workflows that reduce call-processing variance.
- **Embed Culture:** Make tool mastery part of the organizational identity. Emphasize how technology usage contributes to broader outcomes and public safety impact.
- **Iterate and Evolve:** Adoption doesn't end at rollout. As the tool evolves, so should its users. Support continuous improvement through feedback loops and adaptive learning design.

Conclusion

In many technological deployments, especially in emergency communications, defining adoption solely as utilization overlooks its deeper potential.

By reframing adoption as autonomous engagement and continuous learning, organizations can move beyond a checkbox mentality of “Are they using it?” to a culture of excellence asking, “Are they mastering it, evolving with it, and creating value through it?”

Likewise, by designing tools that empower users to learn autonomously, through instant insights, guided reflection, and embedded knowledge, vendors become catalysts for transformation, not just providers of technology. The future of 9-1-1 adoption belongs to those who build, and those who use, with a shared commitment to growth that happens in real time.

References

1. **APCO International.** *Best Practices for Next Generation 9-1-1 Technology Adoption.* Association of Public-Safety Communications Officials International. (2023).
2. **NENA (National Emergency Number Association).** *Standards for 9-1-1 Data, GIS, and CAD Integration.* NENA-INF-017. (2022).
3. **Gartner.** *The SaaS Adoption Curve: From Utilization to Value Realization.* Gartner Research. (2024).
4. **Forrester Research.** *Redefining Adoption Metrics in the SaaS Economy.* Forrester Consulting White Paper. (2023).
5. **IDC (International Data Corporation).** *Digital Transformation in Public Safety: Measuring Adoption and Engagement Beyond Go-Live.* (2022).
6. **GovTech.** “Public Safety Innovation: Building a Culture of Continuous Learning in 9-1-1 Centers.” *Government Technology Magazine.* (2024).
7. **Customer Success Association.** *The New Metrics of Adoption: Engagement, Mastery, and Retention.* (2023).
8. **Center for Digital Government.** *Operational Intelligence and Real-Time Feedback Systems in Emergency Communications.* (2024).
9. **Kiron, D., Prentice, P., & Ferguson, R.** *From Tools to Transformation: The Role of Learning Autonomy in Technology Adoption.* MIT Sloan Management Review. (2023).
10. **Microsoft Public Sector.** *Designing for Continuous Learning: The Next Evolution in SaaS Adoption.* White Paper. (2024).