

Enhanced criteria-based guidance for 9-1-1 emergency calls

Using IBM Watson allows faster access to precise information

Imagine a world where 9-1-1 telecommunicators are able to promptly respond to citizens' calls, with customized guidance that best fits the emergency situation due to the embedded continuous learning of their guidecard system.

The Association of Public-Safety Communications Officials (APCO) International and IBM have announced that APCO International's new guidecard software called APCO IntelliComm™, uses IBM® Watson Analytics™ and Watson Speech-to-Text, to help significantly enhance the criteria-based guidance used by 9-1-1 emergency telecommunicators nationwide.

APCO's criteria-based guidecard system provides telecommunicators, who are responsible for dispatching emergency services, with access to precise information for specific emergency call types. It helps ensure that telecommunicators provide rapid, consistent and customized instructions so callers receive the most appropriate information they need – and expect – in an emergency.

APCO fully integrates selected IBM Watson™ capabilities, all on the IBM Cloud, into its new IntelliComm software that was piloted at five selected Public Safety Answering Points (PSAPs) of various sizes for initial user acceptance. Through the user testing and dozens of online demonstrations to agencies of the new functionality, APCO IntelliComm has garnered much positive feedback and interest in participation.

Significant features include electronic guidecards that each agency has the flexibility to adjust, based on their call center priorities. The APCO IntelliComm application also involves minimal screen navigation to respond effectively to a caller, and intelligent workflow that offers the agency a

faster turnaround in training telecommunicators and savings in the overall training budget. The API for Computer Aided Dispatch vendors is straightforward and helps streamline the onboarding process. Finally, Watson Analytics has created better access for the supervisor, but more importantly has positioned the APCO IntelliComm application well to take advantage of future cognitive abilities like speech-to-text and other machine learning capabilities.

“This augmented call taking and reporting will better inform directors on how the actual conversations between callers and telecommunicators unfold which will allow agencies to iteratively modify training materials to better meet callers' needs.

And since Watson is able to understand and learn more context over time through machine learning, it can also help to reduce call times, provide accurate triage information, and help expedite time-sensitive emergency services.”

— Bill Josko, IBM GBS Public Safety Practice Leader for the U.S.





“APCO IntelliComm supported by IBM Watson Analytics is a game-changer for our profession. Its extensive capabilities and unique analytic features will enable public safety communications professionals to improve response times and the quality of care on the scene while enhancing post-action data that’s key to continuous improvement at the PSAP. The ultimate result saves lives.”

– Derek K. Poarch, APCO’s Executive Director and Chief Executive Officer

Future plans to expand capabilities

In the future, APCO IntelliComm plans to use Watson Speech-to-Text and other Watson and machine learning capabilities to help telecommunicators assess the actual context of the emergency calls, in real time, along with suggested next best action. This information will be aggregated and then using Watson Analytics, agency directors can readily analyze the conversations and compare them to pre-scripted content. This analysis will enable call center directors with critical feedback on call effectiveness, in near real time, so they may modify training or response communications accordingly.

Future capabilities can also include real-time tone and sentiment analysis of callers and call takers, so if a call starts to escalate or deteriorate in a dangerous direction, the system will automatically alert a supervisor to listen in—currently, this is done manually.

APCO IntelliComm has the flexibility to grow as an agency’s capabilities expand under NG9-1-1. For example, APCO IntelliComm will be capable of being deployed on tablets and other mobile devices in future versions. This could simplify pushing critical information to help improve situational awareness for police, fire and emergency medical responders in the field, thus greatly enhancing the ability to save lives.

Watson solutions are being built, used and deployed in more than 45 countries and across 20 different industries. APCO IntelliComm, using Watson, is a new addition to a growing community of solutions that can help truly change lives.

