Global Real-Time Monitoring & Equipment Maintenance

Challenge

A research company based in the United States developed a "Black Box" smart tracking system for firearms that instantly notifies the relevant enforcement authorities in the event of a discharge. However, in order to retrieve seamless updates of secure and highly sensitive information, data must be aggregated in real-time and funneled back to law enforcement authorities and military operations for instant notification and action. Our team was tasked with managing the flow of information from each individually deployed unit to the relevant authorities. As a result, each time an individually deployed unit is discharged, data is instantly recorded facilitating real-time observation of a hostile situation. Moreover, information relating to the frequency of weapon usage, replacement of unit parts and overall durability enables efficient weapon maintenance and servicing.

Process

Our team of software experts worked closely with the client's research team, law enforcement authorities and the military to fully understand both the functionality of the "Black Box" tracking system and the necessary parameters considered vital for accurate weapons tracking, monitoring, and maintenance. We focused on tackling the following concerns:

- **Bridging of Data Collection:** To match the requirement for collecting data in real-time, Arcstone deployed the infrastructure required to facilitate the instant transfer of information between the "Black Box" and the relevant authorities. By doing so, in the event of a gunshot being fired, data is channeled back in milliseconds enabling authorities to act quickly.

- **Enhancing Flexibility & Precision:** Each team leader is equipped with an arc.ops™ enabled tablet solutions that constantly collects data from each individual user in the squad. In addition, Arcstone's custom built receiver funnels the information back to independent headquarters enabling quicker response times.

- **Synchronization of Information:** Law enforcement headquarters were equipped with an interactive dashboard enabling real-time visibility of a firearm discharge situation taking place ensuring location, timing and fire direction is immediately known.

- **Exerting Full Control:** Utilizing arc.ops™ proactive maintenance push-notifications, law enforcement agencies and individual users are instantly notified of details relating to the life cycle of a weapon and its components. As a result, information concerning the number of gunshots fired, replacement of parts, duration of usage and previous maintenance records enable real-time maintenance management.

Result

The client benefited from an effective data aggregation management system utilizing Arcstone's platform solutions. The core advantages of utilizing arc.ops™ to this client include the following:

- Utilizing arc.ops™ maintenance Smart Alerts enables law enforcement authorities and military personnel the ability to monitor the deterioration of each individual weapon. By doing so, relevant departments are able to enhance the longevity of a weapon by establishing continuous maintenance scheduling reducing replacement costs and ensuring the weapon is in top condition when their use is required.

- Deployment of a customized arc.ops™ dashboard enables full visibility of a hostile situation taking place. Data is funneled back in real-time in milliseconds from the time a weapon has been discharged. As a result, law enforcement authorities and military personnel are equipped with the ability to provide a "bird's-eye view" support system. Therefore, actions can be taken immediately and dealt with promptly.

- Each team member is equipped with an arc.ops™ enabled tablet solution. As a result, cohort leaders are able to track the exact position and orientation of each personnel on the ground, enhancing the ability to execute better informed tactical decisions.

About ARCSTONE

Arcstone was founded to revolutionize the way data is utilized in enterprises. Giving purpose and meaning to data is fundamental in bringing an enterprise closer together. We provide management and workers an intuitive and powerful solution for running their day-to-day operations while also being able to forecast and plan for future growth.