

MOBILE APPLICATIONS FOR LONE WORKER SAFETY

What's the Risk?

With increases in automation and leaner staffing models in modern industrial settings, lone worker practices are becoming increasingly common in the workplace. These workers often face similar hazards to those in comparable industries; however, when operating alone, they become increasingly responsible for their health and safety, relying on their own decision making rather than outside support from colleagues or supervisors. Furthermore, lone workers often operate during nontraditional hours or in environments where emergency personnel are not readily accessible, which can delay critical assistance in the event of an injury or medical emergency.

Cordia, a leader in sustainable energy services across the United States, recognized this risk within its organization. Here, lone workers are primarily responsible for the monitoring and maintenance of energy systems during off-hours, including routine inspections, equipment checks and troubleshooting to address faults or emergencies. These duties present a range of hazards, from slips, trips and falls to potential intruder threats and sudden health emergencies.

Initially, Cordia equipped workers with wearable lone worker devices, which provided essential safety features including fall detection and emergency panic buttons. However, operational challenges became apparent over time, with some finding the stand-alone devices cumbersome and prone to falling off or triggering false alarms.

In parallel with its Mobile Device Management (MDM) initiative, Cordia identified an opportunity to streamline and improve its lone worker safety practices by transitioning to the Becklar *WorkerSafety Pro* mobile application. This technology works by delivering real-time safety monitoring through integrated features, including fall detection, no-motion alerts and an SOS function that connects directly to its in-house monitoring service, ensuring immediate responses to worksite emergencies.



Impacts

The introduction of the *WorkerSafety Pro* application has had a significant positive impact on safety and productivity for its workers, including:

- **Positive Employee Engagement:** By integrating the app into the familiar interface of company-issued iPhones, employees found the system significantly more user-friendly and reliable. This integration not only eliminated the need for a secondary device but also addressed issues related to devices falling or triggering false alarms.
- **Versatile Lone Worker Monitoring:** The mobile application offers a range of services to safeguard lone workers, including customizable check-in schedules, no-motion alerts, fall detection and an integrated panic button. Becklar also provides 24/7 monitoring, ensuring rapid response times to emergency situations. Consequently, Cordia was able to transition from a wearable device to a more streamlined and cost-effective mobile application without compromising safety.
- **Customizable Check-Ins:** Cordia gathered input from workers regarding their daily routines and environmental conditions to identify the optimal times for routine check-ins. Through this feedback, they were able to identify times when noise and vibrations were at a minimum to avoid missed check-ins and reduce interference with their work.
- **Enhanced Safety and Efficiency:** The *WorkerSafety Pro* application optimized workplace efficiency by balancing operational demands with worker protection. With reliable lone worker safeguards in place, certain operations can be done safely with only a single operator while maintaining high safety standards overall. Notably, Cordia has maintained an exemplary safety record, with no reported incidents among its lone workers. The application serves as a proactive safety measure rather than a reactive response to worksite incidents, ensuring that vital support can be deployed to workers in the case of an incident or emergency.

At the time of this case study, Cordia is continuing the implementation of Becklar's lone worker application across its facilities nationwide. It is considering expanding the use of the system to maintenance teams working off-site at customer locations, extending the benefits of the technology further within the organization.

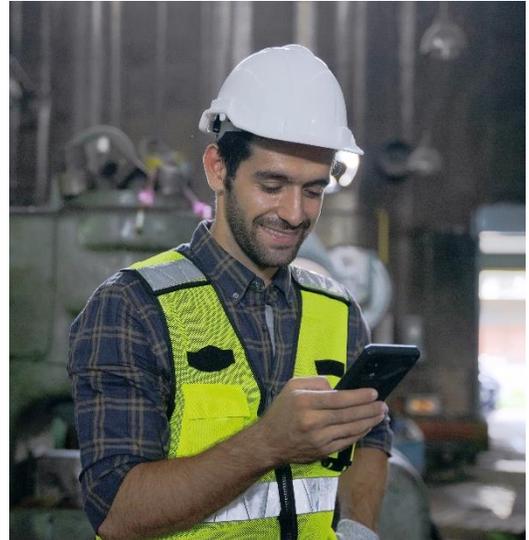
Lessons Learned

Cordia's experience offers several key insights for organizations interested in considering similar solutions, especially small- to medium-sized businesses with limited resources. These include:

- **Engage Employees Early and Often:** From the outset of the implementation process, Cordia actively involved frontline employees, ensuring that their feedback shaped key decisions. The transition from wearable devices to mobile applications was driven, in part, by employee feedback on the old system.

By integrating the application into company-issued iPhones that employees were familiar with, Cordia facilitated a more streamlined and user-friendly approach to lone worker monitoring. Feedback sessions and discussions also helped adjust the technology to better fit the workers' needs, such as identifying the optimal time for check-ins to avoid interruptions or false alarms. Engaging workers early in the technology implementation process ensures the chosen solution is practical, user-friendly and tailored to their real-world needs, leading to higher adoption rates and more effective outcomes.

- **Leverage Existing Resources:** Technology, especially complex or robust systems, can be costly and resource-intensive which may not be realistic for businesses with limited resources. Cordia recommends exploring technologies already being used in the workplace and how they can be repurposed or expanded. For example, by transitioning from an external wearable to a mobile application, Cordia was able to streamline the number of devices needed and save money without compromising on safety. Additionally, if workers are already familiar with the technology, it can streamline the training process and increase compliance, reducing the potential interruptions associated with implementation. Cordia also suggests looking into subscription-based or pay-as-you-go models, which typically offer pricing flexibility and the potential for scalability without large up-front costs.
- **Involve IT Early:** Technologies often require IT configuration to integrate seamlessly into existing systems. For organizations with a dedicated IT team, Cordia recommends consulting with them as early as possible to ensure that all technical requirements and security protocols are addressed, reducing the potential for disruptions or security compromises. For those without IT teams, leveraging the expertise of the selected technology vendor can help fill some of these gaps. Engage in these discussions with the vendor to clarify what support they can offer, what you will need to manage on your own and any potential costs involved. This will help you plan effectively and allocate resources where they are most needed.
- **Don't Justify Additional Hazards with Technology:** In sharing its experience with safety technology, Cordia made it clear that the introduction of lone worker monitoring systems was not intended to justify assigning more hazardous tasks or increasing the risks faced by its employees. The primary goal of the



technology is to enhance safety and ensure the well-being of workers without altering the existing risk profile or expectations of their roles. Cordia was deliberate in reinforcing that technological tools are meant to provide an additional layer of protection and support, not to replace established safety protocols or push employees into situations that would otherwise be deemed unsafe.



Cordia

Cordia is a comprehensive energy solutions provider specializing in district energy, combined heat and power and microgrids. With operations spanning multiple regions across the United States, it delivers reliable, sustainable energy solutions to a diverse range of sectors, including education, healthcare, residential, commercial, industrial and government. Cordia is headquartered in Phoenix, AZ, and employs roughly 300 individuals nationwide.



Becklar

Headquartered in Ogden, UT, Becklar is a leader in providing SMART Critical Event Monitoring and Connected Safety solutions. The company specializes in a wide range of services and technologies aimed at enhancing the safety and security of people, property and workers through its Smart Protection platform. Becklar's Digital PPE solution delivers the most comprehensive and customizable solution to protect people who work alone, at height or in other dangerous environments.

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