

SONY



CUSTOMER STORY

How Fujifilm Digital Solutions Inc. created a modern occupational safety service in Japan with mSafety

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mSafety

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Fujifilm Digital Solutions Inc. ("FBDS") is a company based in Tokyo, Japan that provides a range of digital transformation solutions, such as electronic quality management systems (eQMS), enterprise resource planning (ERP), and Internet of Things (IoT). Now, to address growing concerns in Japan about the health and safety of workers, they have developed a safety monitoring service with mSafety smartwatches called SAFEMO.

SAFEMO can be used for a wide range of applications, including worker health management, worker safety management, fall detection, and heatstroke prevention. Companies that have employees conducting lone work, night shifts, or working in demanding work environments can use SAFEMO to monitor the safety of their workers, and if necessary, conduct targeted interventions supported by contextual data about their health and location.

mSafety helped FBDS bring their SAFEMO service to life. Continue reading to find out why they chose Sony's customizable smartwatch solution for SAFEMO, and the benefits they continue to get in their service because of mSafety.





THE CHALLENGE

Developing a service for heatstroke and workplace safety

FBDS wanted to provide a solution for occupational safety in Japan. Labor shortages and an aging population have made it more important than ever that workplaces are safe. Companies are looking for innovative ways to minimize injuries, operational malfunctions, and work incidents. In particular, FBDS identified a problem with heatstroke. In recent years, rising temperatures and the age of employees have made heatstroke a challenge. According to the Japanese Ministry of Health, Labour, and Welfare, there were 1,045 recorded cases of heatstroke resulting in four or more days of absence in 2023 alone, including 28 deaths.* When categorized by industry, approximately 40% of these cases occurred in the construction and manufacturing sectors

How do you mitigate the risk of heatstroke in factories and warehouses? It is first important to understand the Wet Bulb Globe Temperature of the workplace—a metric to describe how temperature affects humans by combining other factors like humidity and radiant heat. But equally important is the ability to initiate alerts before incidents occur. FBDS understood the type of solution they wanted to create: A safety monitoring service called SAFEMO that let employers keep a closer eye on the Wet Bulb Globe Temperature, the health of workers, and alert employees if the environment was unsafe.

However, FBDS was missing a way to monitor health data and communicate with workers. This is why they faced challenges while developing SAFEMO. The first challenge was that they wanted to avoid relying on a smartphone, which adds complexity for workers. They also struggled with integrating their service with third-party devices. For instance, they knew they wanted a custom, dedicated application for their service, but this was difficult on third-party smartwatches. In addition to that, they wanted their solution to integrate well with third-party sensors for temperature and humidity. To solve all these problems, they chose mSafety.

*1 "Preliminary Report on Heatstroke-Related Injuries and Fatalities in the Workplace for Fiscal Year 2023."

THE SOLUTION

How they used mSafety from Sony

FBDS added mSafety smartwatches to their SAFEMO service to accurately monitor health data, including the user's location, heart rate, and activity levels. The mSafety smartwatches also connect with external sensors that monitor temperature and humidity levels, to measure the workplace's Wet Bulb Globe Temperature. All these parameters can be viewed by workplace supervisors in real time through a control center interface.

With SAFEMO, workplace supervisors can detect the risk of heatstroke early and proactively prevent incidents. During moments of high risk for heatstroke, employers are made aware of it instantly. They can then choose to send warning messages directly to the mSafety smartwatch screen. Even if an accident occurs, fall detection in the device lets employers know. Or, if it was not an accident, workers can send a confirmation message of a false alarm.

Top three reasons Fujifilm Digital Solutions Inc. chose mSafety for their SAFEMO service:

Customers don't have to pair devices: FBDS had previously tried to offer SAFEMO without relying on a smartphone or gateway device that connects wearables to the internet. mSafety helps them avoid this entirely thanks to LTE-M communication. mSafety smartwatches enable constant network connectivity, so FBDS's customers don't have to prepare and pair devices at all. This makes SAFEMO an easy service for customers to implement.

As if it were their own wearable device: The ability to customize applications on mSafety smartwatches was a big reason FBDS chose mSafety. Not only that, but they could also seamlessly integrate the data they collected with mSafety into their existing SAFEMO service. This gave them flexible control of collected data, as if it were their own wearable device.

It works as a highly scalable IoT platform: mSafety has NFC reading and tagging capabilities, as well as the ability to connect with external sensors such as temperature and humidity sensors via Bluetooth. For this reason, mSafety serves as a gateway for centralized management of various data. This makes it a highly scalable IoT platform.

"It's as if it were our own wearable device."

– Fujifilm Digital Solutions Inc.

THE OUTCOME

A successful safety service in Japan

FBDS now offers SAFEMO to clients in Japan. Their successful occupational health and safety service is helping a range of companies increase their level of proactive health and safety, especially around the issue of heatstroke. Here are a few of the companies benefitting from SAFEMO—and the mSafety smartwatches included in the service.

Bandai Namco Craft

Bandai Namco Craft Inc., a toy and daily goods manufacturer, implemented SAFEMO to prevent heatstroke among warehouse workers, and office staff that assisted with warehouse deliveries. Despite existing safety measures, workers had different levels of awareness of health risks. This made it necessary to create a standard for safety. SAFEMO gave them that standard through personalized health alerts, department-wide notifications, and detailed vital data analysis—helping managers detect and respond to potential health issues more effectively.

“The heatstroke alerts based on workers' pulse rates and environmental data are promptly communicated to managers. This makes timely interventions possible, such as health checks and hydration breaks. In addition, the location screen allows for immediate awareness of current work locations, helping us communicate better not only in emergencies but also in regular interactions.”

– Workplace supervisor at Bandai Namco Craft



Kirishima Green Village

Kirishima Green Village Inc., a division of Kirishima Holdings Group, offers services for green space maintenance and cleaning. As their workforce grew, it became harder to monitor everyone, and delayed detection of health issues posed serious risks. They introduced SAFEMO to protect workers from heatstroke during outdoor work in extreme heat. The SAFEMO device offered precise location tracking, frequent health monitoring, and real-time data on heart rate and heat stress, helping managers keep workers safe without constant on-site checks.



"The location screen allows for immediate awareness of workers' work locations, facilitating smooth communication. In case of sudden thunderstorms, we can remotely check if workers have evacuated to safe locations."

– Workplace supervisor at Kirishima Green Village

Fujifilm Manufacturing Company

Fujifilm Manufacturing Co. Ltd. introduced SAFEMO at its Suzuka plant to improve worker safety during solitary night shifts. Previously, managers made hourly phone check-ins, but these didn't ensure workers' physical well-being, and many employees began to consider these phone calls a burden. To fix this, they adopted SAFEMO. SAFEMO provides real-time safety monitoring without adding extra workload, and the device's cellular connectivity made it easy to implement right away.

"Site managers can check data in real time, and automatic alerts are sent in case of abnormalities, significantly alleviating concerns for both workers and managers."

Workplace supervisor at Fujifilm Manufacturing Company

About Fujifilm Digital Solutions Inc.

FBDS has supported the promotion of Digital Transformation (DX) by leveraging technology for group affiliates and many customers. They aim to become a DX partner that provides various solutions and services based on the know-how cultivated through this experience, supporting our customers' productivity improvements.



All the features you need

Every mSafety smartwatch comes with a wide range of health sensors, an accessible design for onboarding all levels of digital literacy, and durable materials suitable for the toughest of jobs.

Panic alarm: Let workers send an immediate signal of distress.

Fall detection: Get alerted the moment a worker has fallen.

Heart rate monitoring: Pick up on deviations indicating critical conditions.

Activity levels: Manage fatigue and prevent risks with activity monitoring like step count.

Two-way messaging: Receive updates, send protocols, or alert workers of danger.

Geo-fencing: Trigger an action when a worker enters or leaves an area.

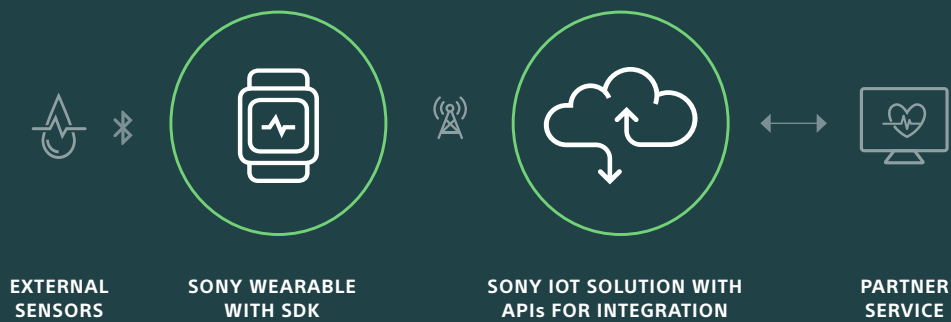
Location-based alerting: Alert workers if they are near danger.

Real-time location: Find a worker even if they are unresponsive.

About mSafety from Sony

mSafety is a dedicated smartwatch for worker safety applications that we program for you—so you can offer tailor-made services that address the needs of a specific industry or role. We aim to create the most simple, cost-effective, and customizable wearable for dedicated lone worker protection services, so that your service is always within arm's reach.

Find out more about mSafety on sonynetworkcom.com/msafety.



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