Blackline GPS Helps Companies Keep Workers Safe with Google Maps

blacklinegps

At a Glance

What they wanted to do
- Integrate highly-accurate maps into its real-time employee safety monitoring system
- Enable Blackline users to instantly pinpoint the location of employees in distress or danger
- Allow Blackline customers to layer their own data, such as employee names, on top of maps

What they did
- Fully integrated Google Maps Engine into BlackLine's web and mobile monitoring apps
- Layer data such as device signal strength and battery power on top of maps for added safety
- Provide a pinpoint map location of any device that sends an active or passive alert

What they accomplished
- Created world-leading employee monitoring system used by thousands of workers every day
- Integrated Google Maps to pinpoint employees' locations, so help arrives quickly
- Provided companies like AltaGas Utilities Inc. with life-saving location-based safety monitoring

Organization

Blackline GPS is a Calgary-based wireless technology company that provides products for worker safety monitoring, covert surveillance, and business applications such as vehicle and logistics tracking. Blackline's proprietary location-aware hardware, coupled with easy-to-use web and mobile interfaces, allows organizations to keep workers safe and track important assets. Blackline's main product is the Loner® safety monitoring device, worn by employees working out of sight and sound of others or in dangerous environments. Loner automatically detects if an employee has fallen or is motionless for a period of time, indicating they may have suffered an injury, health incident, or physical threat. Loner devices pin-point the person's exact location on an interactive, clickable map so emergency personnel can respond quickly.

Challenges

Blackline's main goal is 100% employee safety. The company's Loner safety monitoring device is worn by thousands of workers across diverse industries, including oil & gas, utilities, manufacturing, construction, and natural resources. Loner automatically detects if a person has fallen, is motionless, or has not responded to a regular 'check in', but it also allows employees to call for help by pulling an emergency latch during emergency situations. For example, if a field service technician is accidentally blasted by pressurized gas and becomes unconscious, the employee's Loner device would detect the fall and lack of movement, and notify safety monitoring personnel automatically, in seconds.

All alerts are automatically communicated in real-time via a cellular or satellite connection to Blackline's main safety monitoring infrastructure. Monitoring personnel, either in-house at an employer or through Blackline's Loner 24/7 central monitoring service, see the safety alerts on an interactive, clickable Google Map and then attempt to reach the employee to validate the situation. Because monitoring personnel can visualize exactly where an alert has originated, they can direct nearby coworkers or emergency responders to the employee's precise location when required.

Because every minute counts in emergency situations, interactive, highly visual maps are a core component of Blackline's Loner platform. Blackline not only wanted to pinpoint each employee's location on a map, but also to provide rich visual details about the location, such as zoomable street and satellite views.

Solution

Blackline chose to work with Google Maps Engine to integrate the most accurate, real-time maps for into its platform. Google Maps Engine interfaces directly with BlackLine's web and mobile app, allowing customers to interact with the maps via any device.

"Since all the data is stored in the cloud with Google Maps, our customers can click on and zoom in on maps in real-time from desktop or mobile devices," said Brendon Cook, CTO of Blackline.
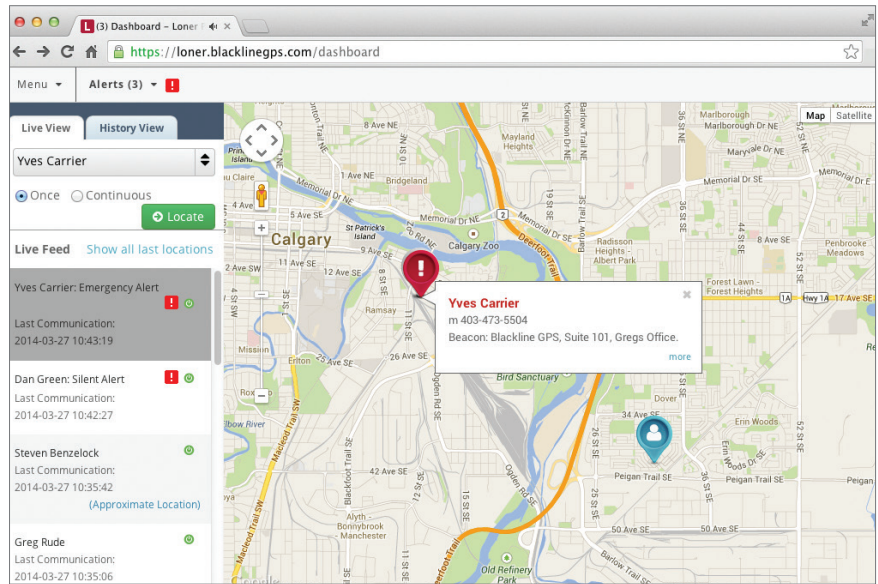
"With Google Street View and Satellite View, Blackline customers get a clear view of the terrain where each worker is located, spotting buildings, roads, and other landmarks that might help responders find an employee more quickly in an emergency," said Cook.

Full integration of Google Maps Engine with the Blackline app allows customers to easily layer their own data on top of the maps, adding employee names, locations, roles, territories, and tasks. That way, when customers monitor employees on the map, they get a quick visual snapshot of what each employee is doing, where, and why. Blackline also layers other critical data onto the maps, including information on the battery power and signal strength of each device, as well as the location of nearby employees.

Inside buildings, Blackline provides 'location beacons' that can be installed to provide precise positioning of employees where GPS does not reach. Soon, customers will be able to upload their interior building floorplans into the Loner safety monitoring app so they appear on the Google Maps interface, achieving full situational awareness to keep employees safe even when working indoors.
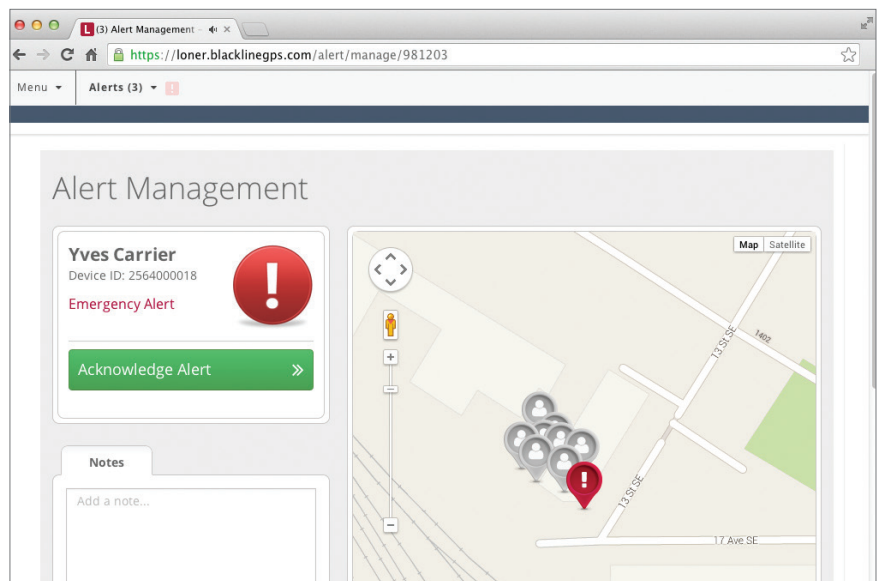
About Google Maps API

Google Maps API provides a range of "application programming interfaces", which allow developers to build with relative ease:

- location-based applications
- mobile apps that work on multiple mobile devices
- applications that enable users to bring data to life by visualising and interacting with geospatial data
- customised maps, incorporating and highlighting data and imagery specific to their organisations' needs

Google Maps API provides developers with a platform that has the flexibility and power to leverage maps and geospatial data in new and truly innovative ways.

For more information, visit
google.com/enterprise/maps

About AltaGas Utilities Inc.

AltaGas Utilities Inc. is a public utility distributing natural gas to over 74,000 residential, rural and commercial customers in over 90 communities across Alberta. We employ a staff of approximately 220 energetic and capable individuals, each holding safety as their primary core value.

Results

As part of the Loner safety monitoring platform, Google Maps can quite literally help save lives. AltaGas Utilities Inc. issues Blackline Loner devices to field operations workers. Every worker who works 'alone', from meter readers to technicians, carries a Loner device. AltaGas Utilities Inc. deployed the devices three years ago, and currently has 146 in use.

Dave Koopman, Manager, Environment, Occupational Health and Safety at AltaGas Utilities Inc., says the visibility provided by Google Maps within the Loner safety monitoring application is critical when it comes to keeping workers safe.

"If the Loner device sends out an alert for any reason, our team is immediately notified via text message and email, and those messages contain a clickable Google Map and URL," says Koopman. "Wherever I am, whatever device I'm using, I can just click the link to see a map with a green dot on the exact longitude and latitude of the individual's location."

Though AltaGas Utilities has, thankfully, yet to receive an alert for a life-threatening emergency, Koopman says they are fully prepared to respond if they did.

"With Blackline and Google Maps, we can not only see with precision where a person is located, but can zoom in on Google Maps street view to get visibility into surrounding landmarks and buildings, so we can tell emergency responders where to go and what they might encounter when they arrive," says Koopman. "We can even visualize where the closest fire and police departments are located in relation to the worker in potential distress."

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