Google Cloud

City of Los Angeles: Using Google Maps to inform and empower citizens

City of Los Angeles Information Technology Agency uses Google Maps to visually share with citizens the latest need-to-know information regarding mudslides, wildfires, and other events.

ITALA

Industry: Government
Location: United States

Results

- Shares critical information with citizens using familiar Google Maps interface
- Develops and posts informational Google Maps within one hour
- Focuses on developing tools and features rather than having to manage security

Products

- Google Maps
- G Suite
- Calendar
- Gmail
- Docs
- Drive
- Sheets
- Sites
- Hangouts Meet
- Chrome
- Chromebooks

Enables residents to map critical resources in disasters

Overview

Among its many responsibilities, the City of Los Angeles Information Technology Agency (ITA) is tasked with deploying technology to share critical information with the sprawling city's four million residents during emergencies.

Before 2016, ITA conveyed urgent information to residents in the traditional way, text on the city's website. To communicate geographically relevant information, ITA posted PDF maps, which residents would need to download from the City of Los Angeles website. Website traffic was low and the relevance of the city's website during an emergency was also low.

"It was classic, old-school government, in which large amounts of text and static maps were published, often on channels that weren't easy to access. So, we weren't always getting the word out like we needed to," says Ted Ross, General Manager and Chief Information Officer for City of Los Angeles Information Technology Agency. Because the PDF maps had to be manually created and distributed, they might not be up-to-date during emergencies. And residents had to find their own location on the map—which wasn't ideal during an emergency, especially for those away from home or in unfamiliar surroundings.

A more effective strategy was required for communicating vital information to the diverse communities throughout the city. The opportunity to try something new came in early 2016, as Southern Californians braced for the "Godzilla" El Niño—a powerful storm system that threatened to bring one storm after another like a conveyor belt.

Sharing information visually

"While we can publish lists of resource information on the web and push all sorts of text messages out to people, it's much easier to convey information visually," says Ted. "I felt one of the best ways to prepare residents for storms was to bring the essential information together into one picture—a map. Then, add layers like evacuation shelters, sandbag stations, local hardware stores, and real-time weather."

"By only offering the essential key layers of information on Google Maps and making it easy for residents to access, we can deliver what people need to know, when they need to know it."

Ted Ross, General Manager and Chief Information Officer for City of Los Angeles Information Technology Agency

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Using Google Maps as its platform along with data from Google business databases, The National Weather Service, and other sources, ITA published layers of information on the City of Los Angeles El Niño Watch page. The page features a Google Map of the region. Residents can selecte information layers to display on the map. For example, on a map, residents could view public alerts, flooded streets, landslides, power outages, and traffic, plus get turn-by-turn directions to needed resources, such as evacuation shelters.

"For our El Niño map, we leveraged additional non-geographic information from Google, like the locations of local hardware stores," Ted says. "We put ourselves into the shoes of homeowners. What they would want to prepare for the rains, such as stocking up on sandbags, caulking, wood, and other supplies, as well as, what resources they would need during a heavy rainstorm, including evacuation shelters for people, animals, and so on."

3.5 million views in 36 hours

Late last year, a completely different climate-related event, epic wildfires, swept across the metro area. Los Angeles grappled with the worst fire season in California history. The Creek and Skirball fires required the quick evacuation of more than 150,000 people.

The City of Los Angeles was prepared. Using a Google Map on an ITA-produced web page for residents, Angelenos could quickly locate the wildfires and nearby evacuation centers and other resources and navigate to those resources. The traffic spoke for itself. The Skirball Fire map alone received 3.5 million views within 36 hours of going live.

"Government websites often have a difficult time getting attention," Ted says. "The heavy volume of traffic we received in such a short time told us we were pushing out useful information in a highly consumable way."

More recently, as rainstorms threatened to cause post-wildfire mudslides and flooding, ITA developed and posted a new Storm Watch web page within one hour. Similar to the El Niño page, Storm Watch uses a Google Map interface with clickable layers of information.

"By only offering the essential key layers of information on Google Maps and making it easy for residents to access, we can deliver what people need to know, when they need to know it," says Ted. "We considered other mapping systems but chose Google Maps because of its wide public acceptance. We wanted to give residents a familiar map that they could access on a wide variety of devices to get the information they needed."

Innovation out of the box

In 2009, the City of Los Angeles became one of the first governments to use Gmail and Calendar. Currently, the city has about 30,000 users of G Suite including Google Drive and Hangouts.

"As the CIO of a large government organization, I need to find ways to innovate," Ted says. "G Suite is innovation right out of the box. For users, it offers a very personal experience. It's their calendar, their inbox, their storage drive. It lets them create a document right away, whether they're working on-site or remotely. They can collaborate with colleagues in real-time on the same document. And they can do this independently of IT."

"City departments ranging from human resources to emergency planning have created robust, terrific-looking sites using Sites that didn't require IT involvement," Ted says. "We can focus on programming, and employees are empowered to generate good content as needed."

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Ted Ross, General Manager and Chief Information Officer for City of Los Angeles Information Technology Agency

Hangouts Meet is also a critical tool for city employees. The City of Los Angeles has about 48,000 employees located in various spots across the city's 469 square miles. With Hangouts Meet, employees can meet with colleagues without having to drive 20 or more miles through Los Angeles' constantly clogged traffic. Along with playing its part in reducing Los Angeles congestion, the city is leveraging Hangouts Meet for communications in case of a disaster. "Using data to communicate via Hangouts Meet is more effective than cell phones, as wireless carrier network circuits tend to get overwhelmed during an emergency. It also allows us to get messages out faster," says Ted.

Most recently, the City of Los Angeles launched a homeless shelter map that leverages Google Maps and Sheets. Using the map, police officers can locate the nearest shelter. Clicking on the shelter's blue dot on the map tells them if beds are available at that location, to prevent police officers from sending the homeless to shelters that can't accommodate them.

"For an organization of our size, the ease of use of Google tools is opening up tremendous opportunities," says Ted. "We can try new things and rapidly deliver information or new digital services in a matter of hours."

The city has also standardized on Google Chrome because of its integration with G Suite. Some employees are beginning to use Chromebooks, too. "Chromebooks are highly mobile, they boot up immediately, and they give us the ability to roll out functionality that's browser-based and highly secure," says Ted. "Chromebooks get to the heart of how people are working in a modern environment—by accessing applications and digital services from a browser."

As with any large organization, security is always top of mind at ITA. "With G Suite, our email, forms, and docs are hosted in the Google Cloud, which has highly robust security built in," Ted says. "It allows us to be more focused on how we connect and interact and less focused on securing applications and servers. We can rely more on Google for that."

Virtual assistants and digital Olympic Games

ITA has been exploring the use of virtual assistants, such as Google Assistant in smartphones and Google Home speakers, as a channel for interacting with citizens. Further down the road: In 2028, Los Angeles will once again host the Summer Olympic Games (as it did in 1984). "We'll aggressively be promoting 5G connectivity," Ted says. "We should have autonomous vehicles by then to help people get to events. Virtual reality and augmented reality could be extremely important to the Olympic Games experience. It will be the most digital Olympic Games yet."

About City of Los Angeles Information Technology Agency

The City of Los Angeles Information Technology Agency (ITA) develops the IT infrastructure and applications that serve and inform the 4 million residents of Los Angeles. ITA has been instrumental in earning Los Angeles honors as the top digital city of 2017 and 2016 from The Center for Digital Government, and recognition for its data-driven city initiative in February 2018 from The Bloomberg Foundation.