

# Enterprise Resiliency and Severe Weather



# Agenda

- Building Enterprise Resiliency
- Impact of Severe Weather Events
- Planning for Weather Events
- How Technology Can Help

# Business Resilience is No Longer Optional

“...the ability to deliver on your mission and vision regardless of any kind of crisis or disruption, be it extreme weather, political upheaval, cyberattack, or the next disease outbreak — will become a **competitive advantage** for those that embrace it as a core principle.”

*Forrester Blog, Business Resilience Is No Longer Optional, by Stephanie Balaouras – May 12, 2020*

**70%**

**CEOs will mandate a culture of organizational resilience to survive coinciding threats from COVID-19, cybercrime, severe weather events, and political instabilities**

*Gartner Prediction by 2025*

# Enterprise Resilience is a Journey

The *more time and insight* you have, the *more options* you have and the *less expensive* those options are

## Reactive Resiliency Posture

- More business interruption
- Potential for loss of life
- Execs dealing with crisis communications
- Supply Chain disruptions
- Avoid certain market opportunities
- Slower recovery from critical events



## Proactive Resiliency Posture

- Avoid shutdowns altogether
- People avoid danger areas
- Avoid negative PR
  
- Meet production goals
- Grow into new markets
- Recover faster from a critical event

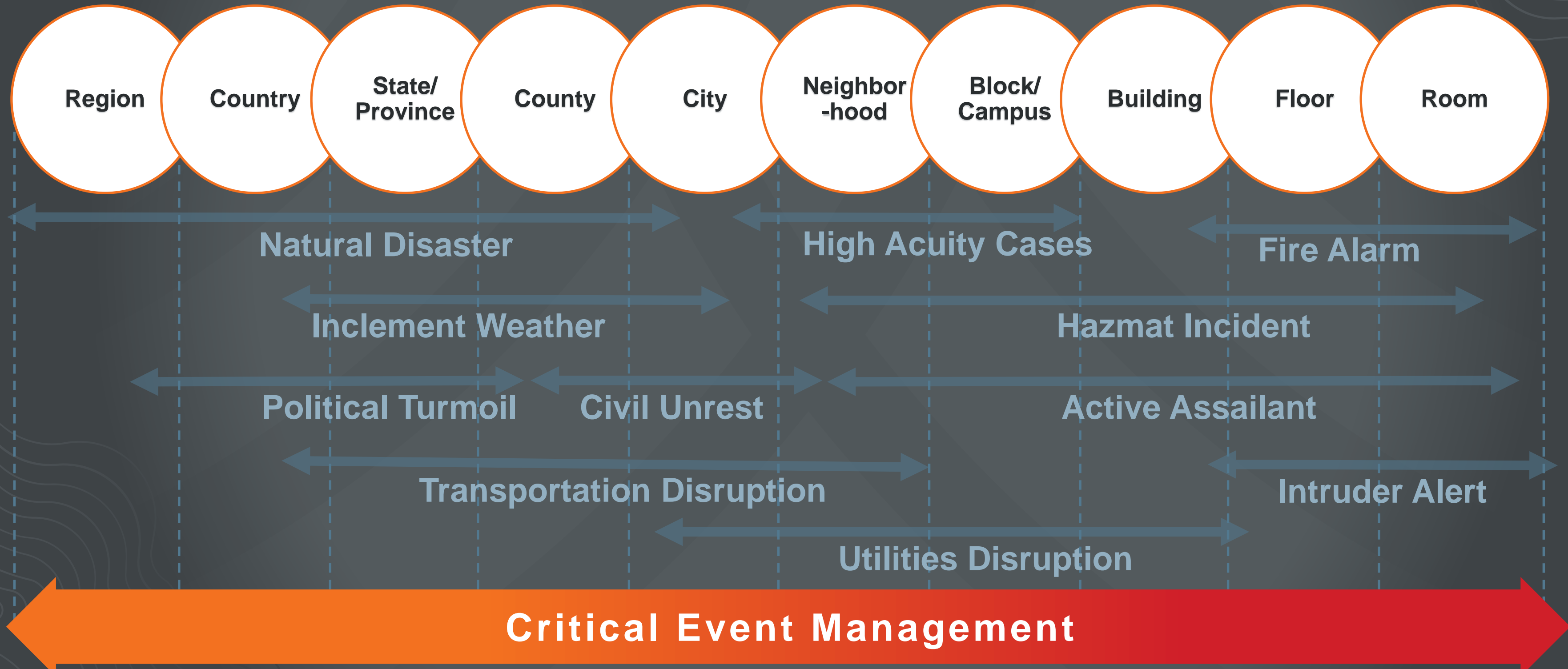
# What's Needed..

**Streamline critical event response and accelerate resolution**



# Outside-In: Looking Beyond the Traditional Four Walls

## Coordinated Real-time Response Across the Organization



# Traditional Barriers



*Your People*

HR | BCM |  
Compliance

**SILOED  
TEAMS**



*Your Places*

Physical  
Security | BCM

**COMPLEX  
PROCESSES**



*Your IT*

IT | Technology

**DISPARATE  
SYSTEMS**



*Your Operations*

Technology | Supply,  
etc...

# Impact on Business of Severe Weather

**40% Increase in weather-related events since 2019 causing \$80B in insured losses**

## Natural Catastrophe Losses In The United States By Peril, 2020

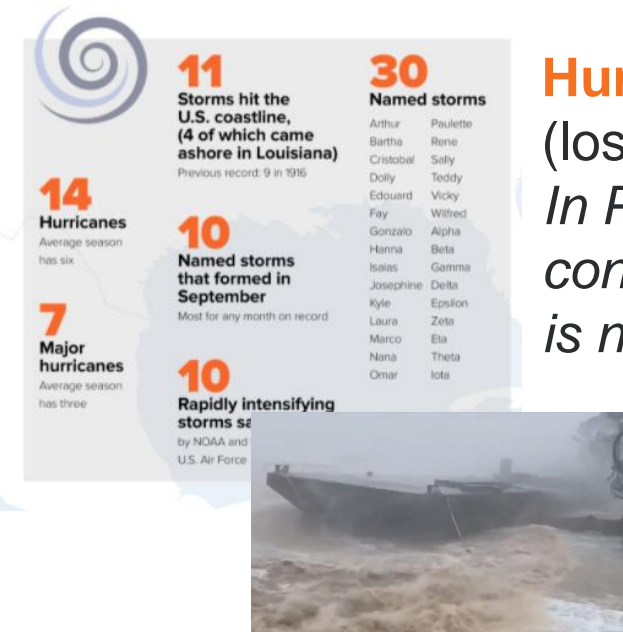
	No. of events <sup>1</sup>	Fatalities	Economic losses <sup>2</sup>	Insured losses <sup>3</sup>
Severe convective storm/tornado	51	106	\$49,323 M	\$35,000
Tropical cyclone/hurricane	12	73	\$40,059 M	21,600
Wildfire, drought, heatwave	19	43	\$22,959 M	13,900
Flooding	4	8	\$5,292 M	2,200
Winter storm	4	6	\$1634 M	930
Earthquake	4	0	\$152 M	58
<b>Total</b>	<b>94</b>	<b>~250</b>	<b>\$119,000</b>	<b>\$74,000</b>

(1) Natural disasters that cause at least \$25 million in insured losses; or 10 deaths; or 50 people injured; or 2,000 filed claims or homes and structures damaged. Includes Puerto Rico and the U.S. Virgin Islands.

(2) Includes any direct physical damage or direct net loss business interruption costs.

(3) Includes losses sustained by private insurers and government-sponsored programs such as the National Flood Insurance Program. Subject to change as loss estimates are further developed. As of February 23, 2021.

**Tornados** - 689 tornados in first 6 months of 2021 (on track with 2020). Losses totaled over \$10B per year and 73 lives lost.



**Hurricanes** - Hurricane Laura est. \$8 - \$12B in damages (lost operations)  
*In Pensacola Beach, Florida, Hurricane Sally pushed construction barges into the Pensacola Bay Bridge and it is now closed for repairs until March*

**Wildfires** - 2020 Season - over \$20B in business impact  
PG&E rolling blackouts

Current National Statistics



86 Incidents  
Total Number of Large Fires



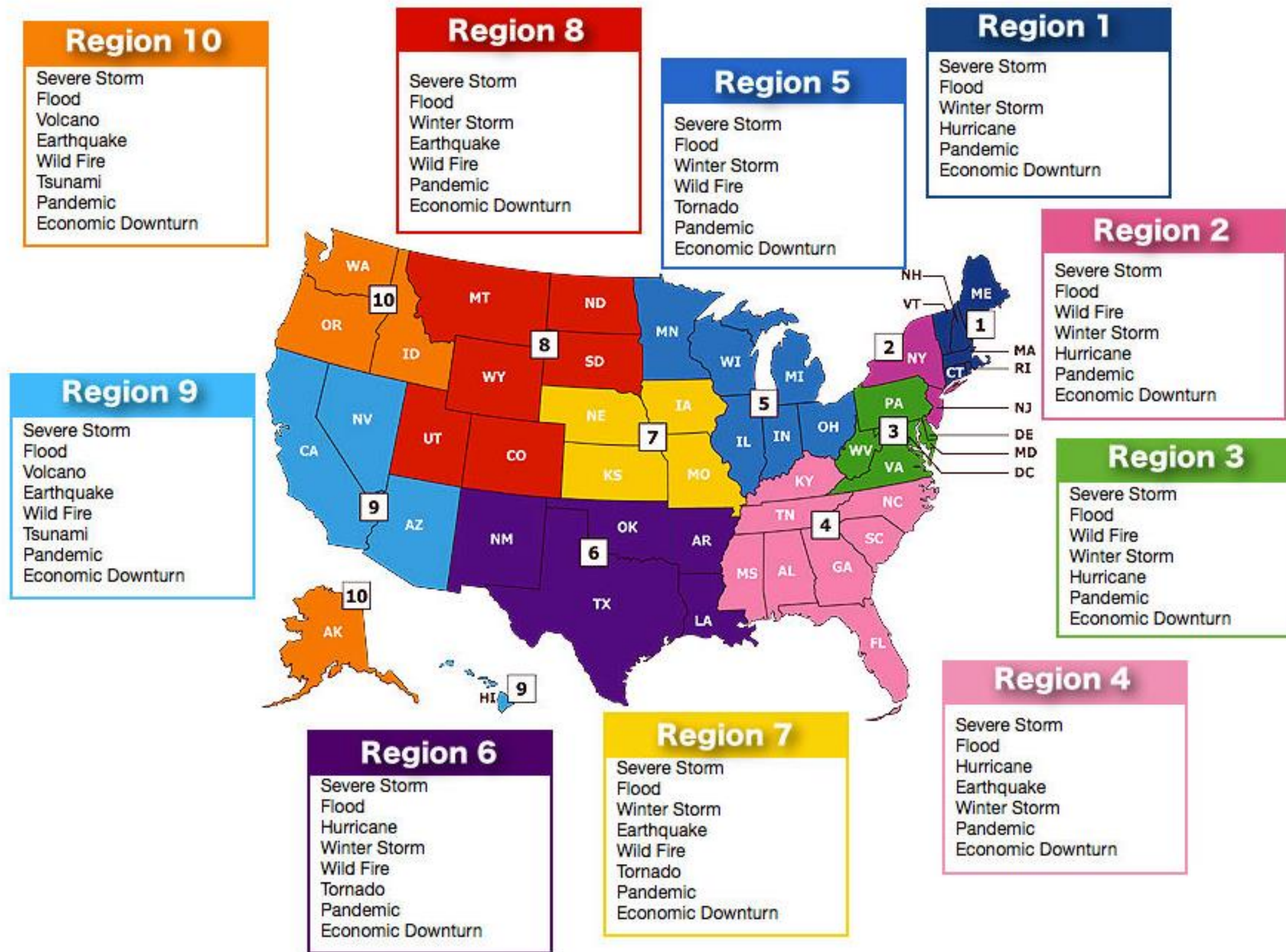
1,498,205 Acres  
Acres Burned on Large Fires



**Winter Weather** - Winter Storm Uri costing the state between \$195 billion and \$295 billion



# Typical Weather Seasons



- Tornados (severe Spring/Summer)
  - + May – June, Southern Plains
  - + Gulf Coast, Early Spring
  - + June – July, Northern Plain
- Hurricanes (June 1- Nov 30)
- Wildfires (all year)
- Winter (Nov – March)

# How can you prepare

- Review Business Continuity Plans Quarterly
  - + Ensure you have plans for weather (identify events most relevant)
  - + Consider impact on your direct employees/sites as well as vendors/partners/suppliers
  - + Consider secondary impacts (e.g. bridge going down)
  - + Ensure you have a post-event plan (e.g. EAP, claims filing, etc...)
  - + Have cross-department governance
  - + Assume multiple events occurring at the same time (e.g. weather + COVID or cyberrisk)
  - + Are there ways to automate/enhance response
- Monitoring and Preparation
  - + What sources of information will you use to stay current with weather (and other) risks to your people and places?  
What about your vendors/partners?
- Communicate & Practice
  - + Ensure you proactively communicate and reinforce plans to all employees and team leads
  - + Ensure you have means to reach all employees and team leads during an event
  - + Test your plan in exercise(s)



# How technology can help

**Visual Command Center**

**130** Affected Assets

**3** Building

**104** Employee

**23** Contractor

**Forest Fire**

LASD - Crescenta Valley Station, Los Angeles County Sheriff  
818-248-3454

Contact

External Link  
[View in Nixle](#)

Title  
Mandatory Evacuation Ordered in the Upper Big Tujunga Canyon Area Due to The Bobcat Fire

Summary  
An evacuation order has been issued in our jurisdiction due to the Bobcat Fire. Anyone who is in the following areas is ordered to evacuate:

- South and West of Upper Big Tujunga
- East of Angeles Forest Hwy
- North of Angeles Crest Hwy

For more information, please see the attached flyer and visit the following websites:

- InoWeb: [inoweb.nwog.gov](http://inoweb.nwog.gov), search 'bobcat'
- Angeles National Forest Facebook page: [@angelesnationalforest](https://www.facebook.com/angelesnationalforest)

Assets

Risk Events

Custom Risk Events

Context

US-101 @ Colego Ave - SOUTH  
Monday, September 28, 2020 08:36:04 PDT

US-101 @ Wilfred Avenue - SOUTH  
Monday, September 28, 2020 08:34:03 PDT

US-101 @ CA-116 - SOUTH  
Monday, September 28, 2020 08:33:03 PDT

**i** A wildfire is reported near your corporate campus in California. It grows rapidly to cover several hundred acres. With real-time monitoring, you are able to quickly understand that your corporate campus, 2 manufacturing sites, and just over 100 employees and travelers in the fire zone or where it might spread.

**Visual Command Center**

**Critical Event: Forest Fire**

**Forest Fire: Bobcat**

**WILDFIRE CRITICAL EVENT PLAN**

**Facility Evacuation (Fire)**

**Tasks: 1 / 4 Completed**

Status	Task Name	Assigned To	Started	Updated	Action
Needs Attention	Scan Building for Firearm	Greg Munnich	9/28/2020 11:53a	9/28/2020 11:53a	View
In Progress	Evacuate Fire Suppression (Plant)	Greg Munnich	9/28/2020 11:53a	9/28/2020 11:53a	View
Done	Announce Evacuation Rally Points	Greg Munnich	9/28/2020 11:53a	9/28/2020 11:53a	View
Not Started	Ensure Fire Suppression (Extinguishers)	Greg Munnich	9/28/2020 11:53a	9/28/2020 11:53a	View

**Affected Assets**

AHARONIAN, VARTKES Employee	AHN, JAY Employee	ALADADYAN, ROMINA Employee	ALCAZAR, CLAUDIA Employee
ALDANA, ANDREA Employee	ALDAPE, CHRISTINA Employee	ALEBYAN, ANNA Employee	ALMANZA, CECILIA Employee
ALVARADO, GIOVANNI Employee	ALVAREZ GARCIA, JUAN Employee	ANDRVE, ADRIANA ALICIA Employee	ARARADIAN, ANITA Employee
ADNETT, LISA	ADMON, SETH	ADRIANIAN, EDY	ADDINI, AMANEA

**Task Lists**

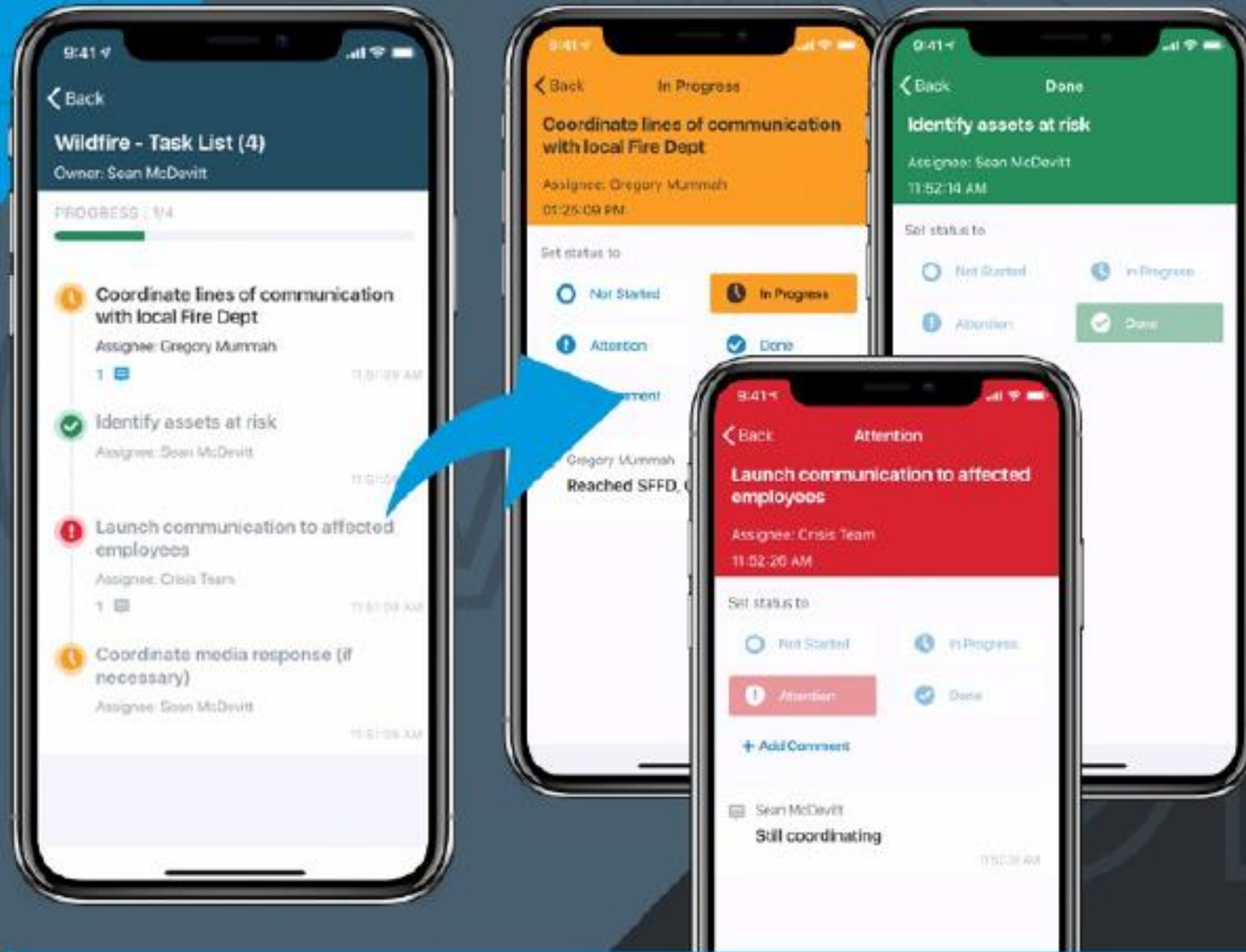
Status	Task Title	Owner
Launch	EOC Activation	Erin Yin
Launch	Facility Evacuation (Fire)	Facilities Manager
Launch	Facility Manager Tasks	Facilities Manager
Launch	Incident Response Team	
Launch	Initial Emergency Evacuation Warning	
1/4	Wildfire - Task List	Sean McDermott

**Incident Communications**

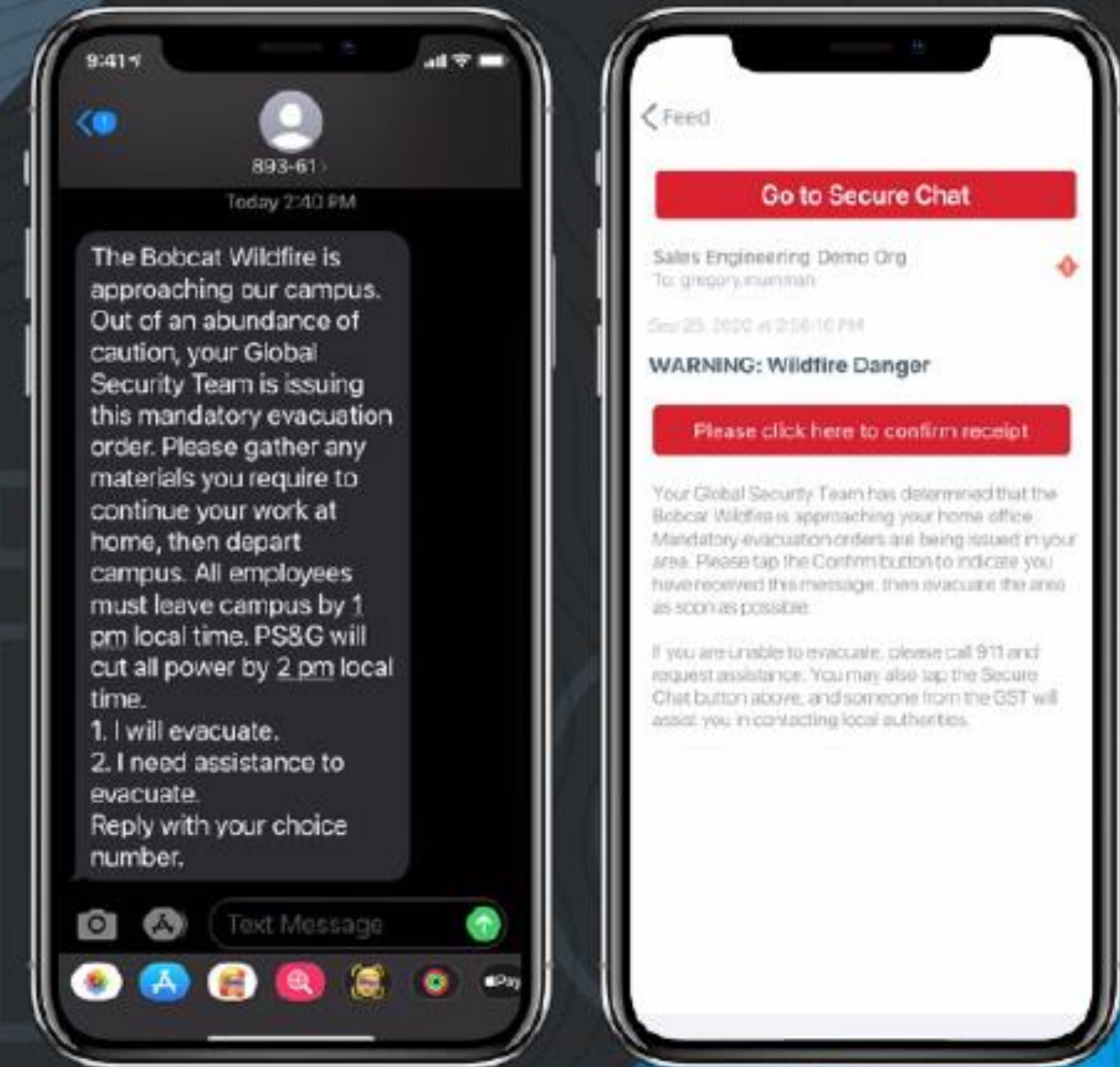
Status	Incident Template Name	Opened By	Location	Created On
Launch	Incident Chat			
Launch	Utility Emergency			
Launch	VCC Wildfire			
Active	VCC Job Launch Notice	Greg Munnich	In	just now

**i** Your security team activates your wildfire critical event plan. The system notifies responders across all departments of the activation and their immediate assigned tasks.

## CRISIS MANAGEMENT TEAM TASKS



## EMPLOYEE GUIDANCE

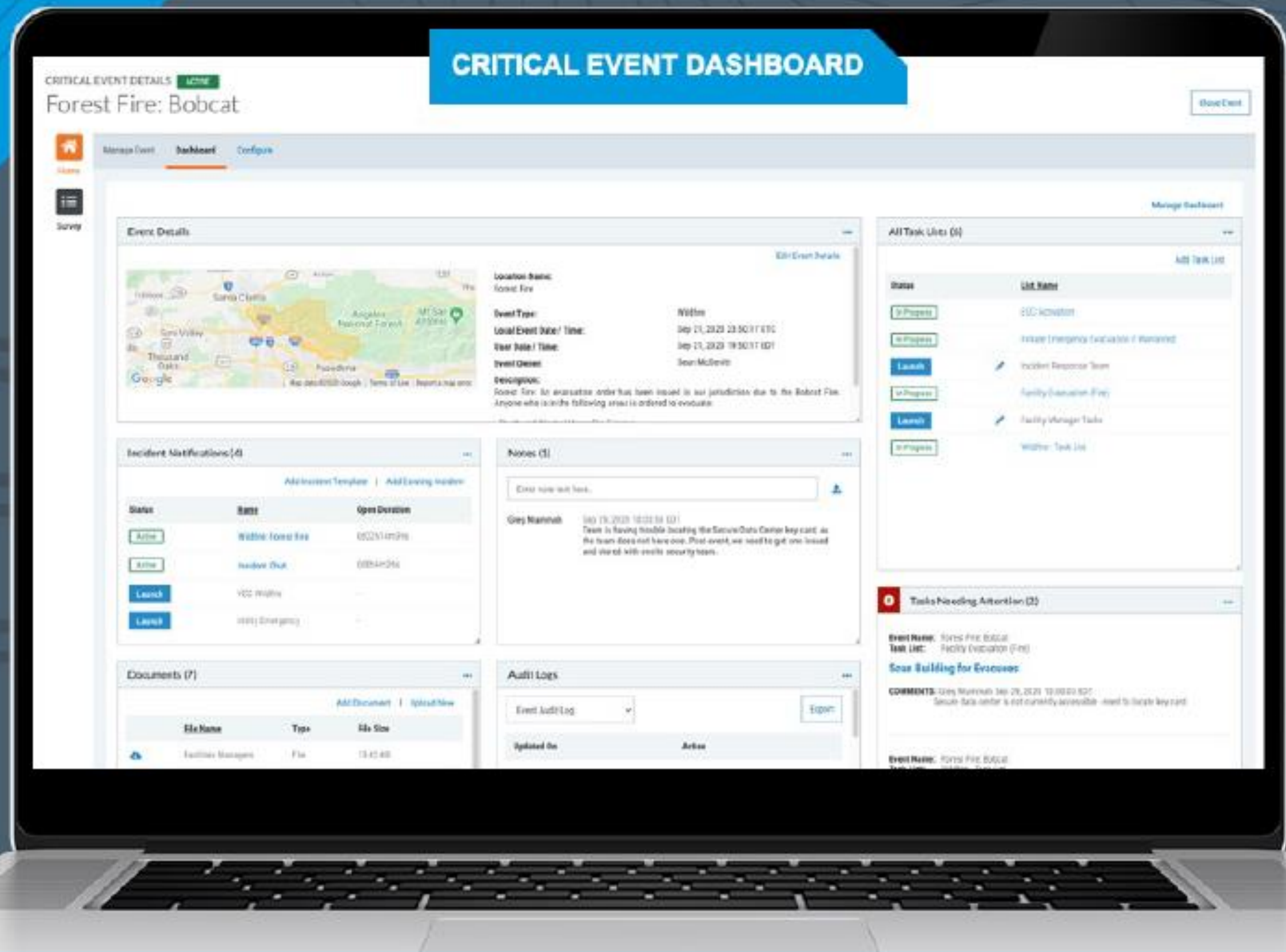


**Based on your plan, security begins evacuation of impacted facilities and the corporate campus. Operations expands capacity at a non-impacted site and reroutes supplies to that facility.**

**HR reaches out to employees who work at the impacted sites informing them not to come to work and offering shifts at the open facility. They also contact employees living in the zone about assistance needs**

## CRITICAL EVENT DASHBOARD

## MOBILE VERSION



**i** Senior leadership expects to be kept informed during the shut-down. To address this, your team creates an event dashboard. Leaders can access the dashboard via laptop or mobile device. The dashboard refreshes automatically as your shut-down tasks are completed.





Everbridge Suite

Everbridge Inc (Organization Admin) Logout

Dashboard Universes Notifications Critical Events Incidents Contacts Reports Settings Access

Events Critical Event Details Surveys Survey Details Survey Submission

## Damage Assessment Survey

Structure Type, Location, Damage and Estimated Loss | Type and Category of Work | Owner/Occupant Information | Insurance Information | Inspector Information

Assessment Type: Commercial Building

Type of Structure: Other

Facility Type: Building

If other, please specify: Parking Garage

Full Address: 198 W Center St, Yuba, CA 95901, USA

SFS Location: 41.715113, -121.423204

Damage Assessment Survey

Expires: Mar 5, 2021 05:00 CST | PWR: Damage Assessment | Send No. 1 | Editable | Creatable | Viewable

CHARTS

Assessment Type

Cause of Damage

Extent of Damage

Facility Type

DATA LIST

ASSESSMENT ID	Assessment Type	Cause of Damage	Extent of Damage	Facility Type	Type of Structure	If other, please specify:	SFS Location
1	Commercial Building	Fire	None	Building	Other	Mail	40.687541, -122.164804
2	Public Facilities	Fire	Affected	Bridge	Other		28.5805, -121.3063
3	Commercial Building	Fire	Destroyed	Building	Other	Medical Center	41.218645, -122.121173
4	Commercial Building	Fire	None	Building	Other	Bank	41.711217, -121.426406

### DOCUMENT DAMAGE

Back Done

Photograph the damage to the facility.

Assignee: Gregory Mumma  
08:41:12 AM

Set status to:

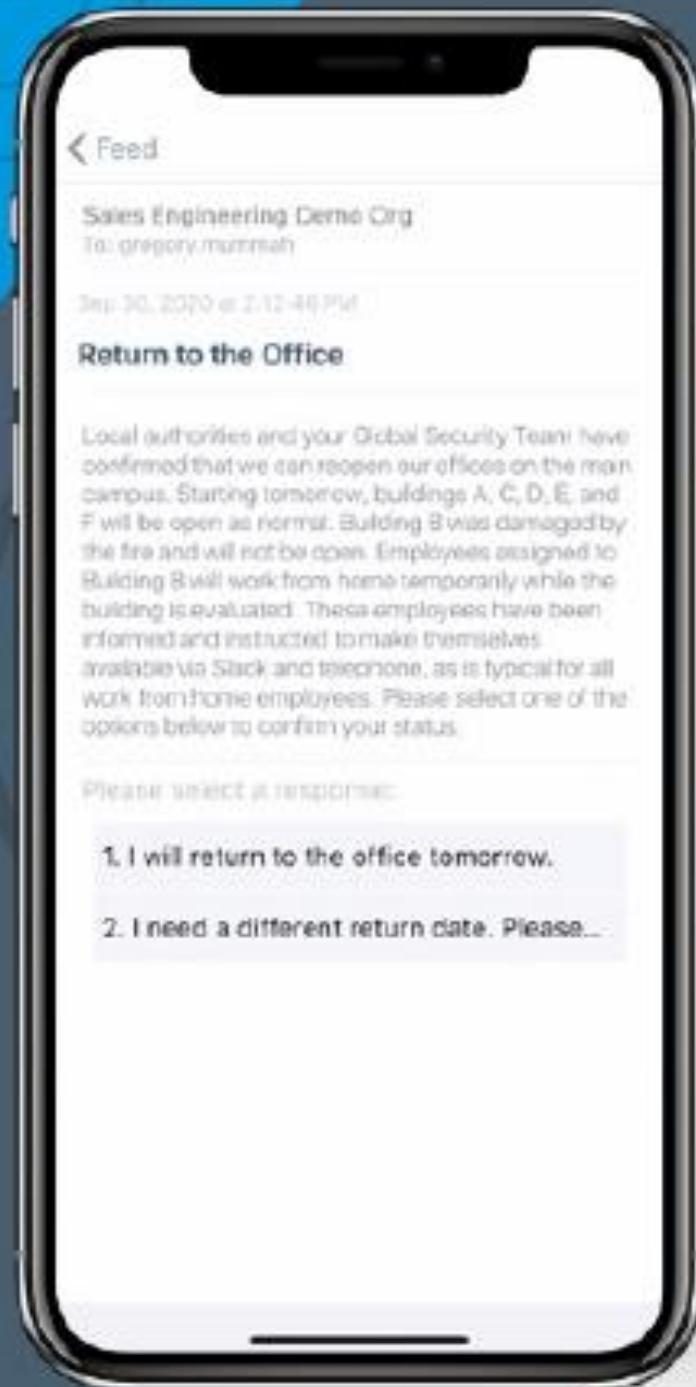
Not Started In Progress

Attention Done

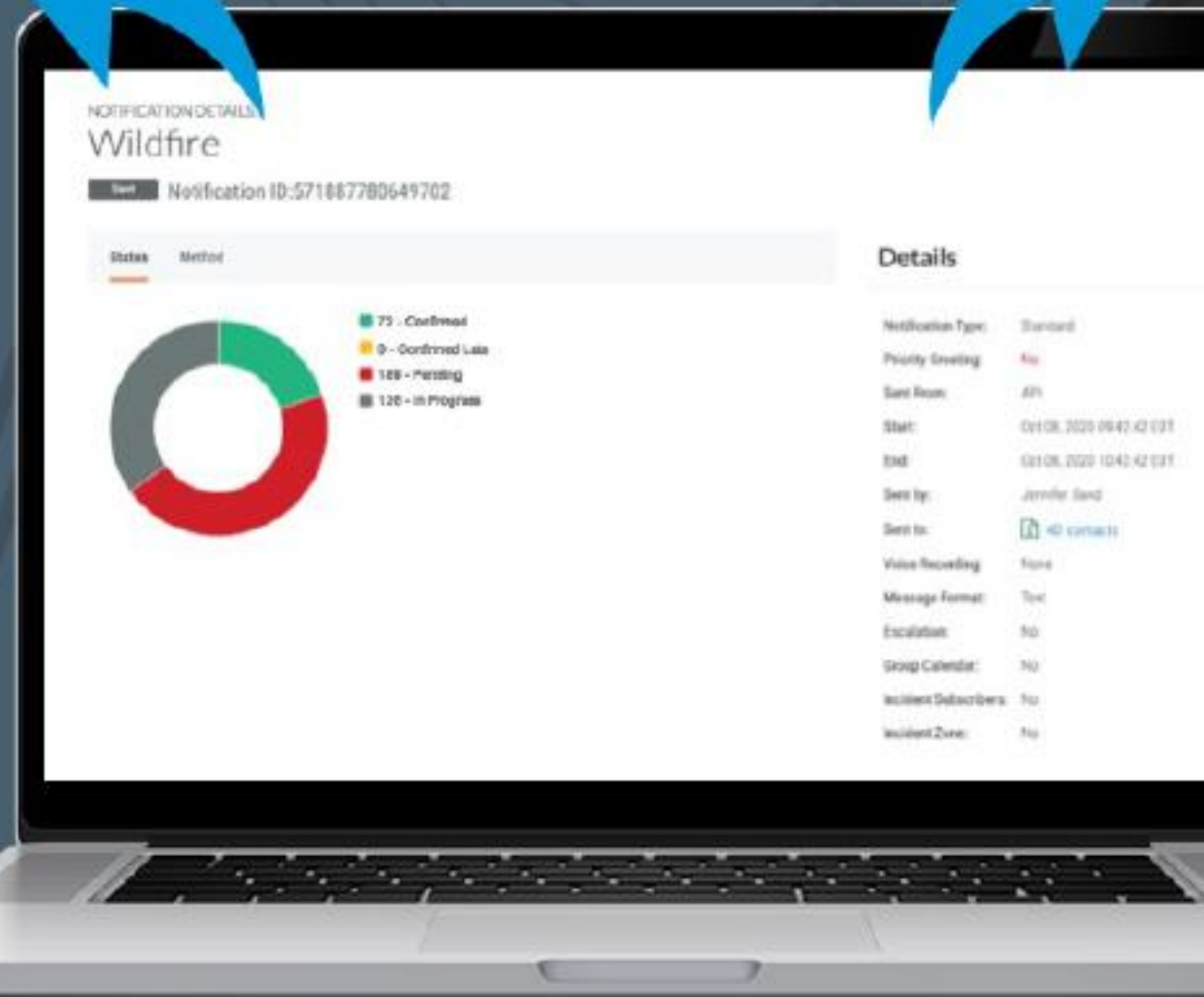
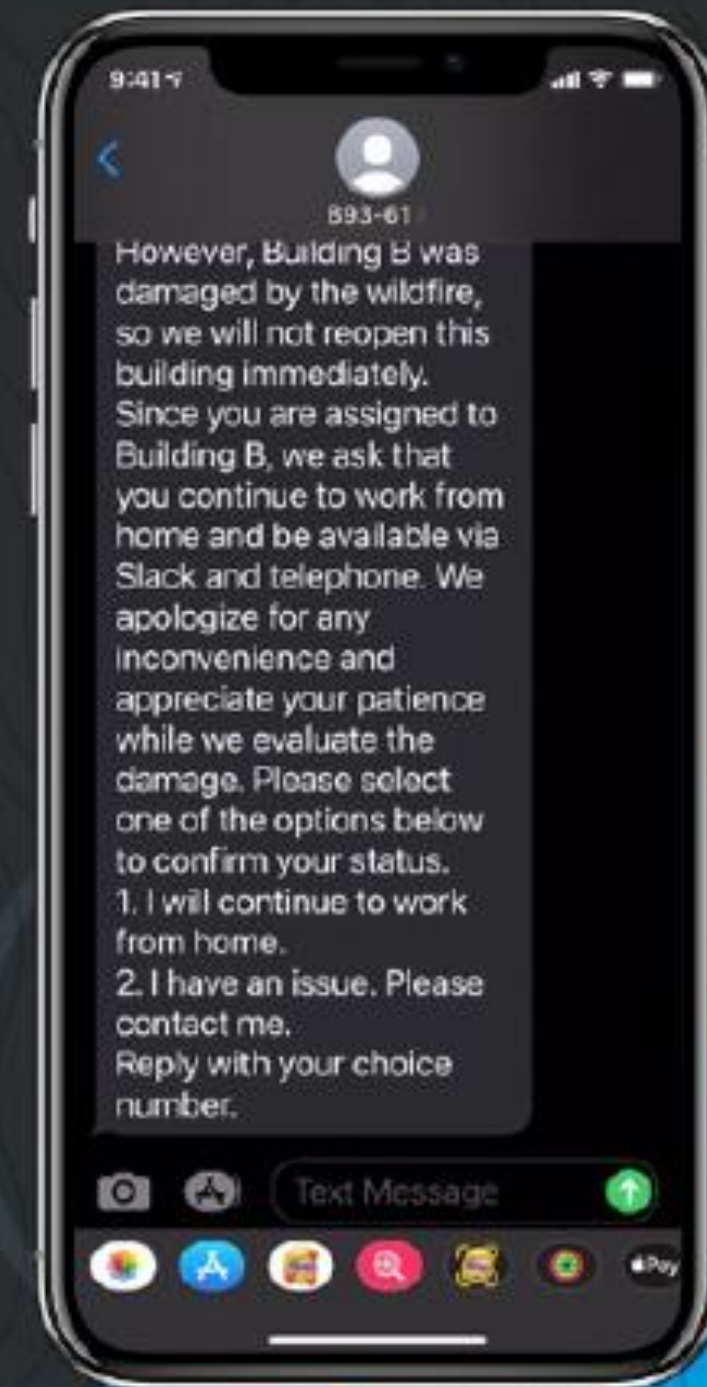
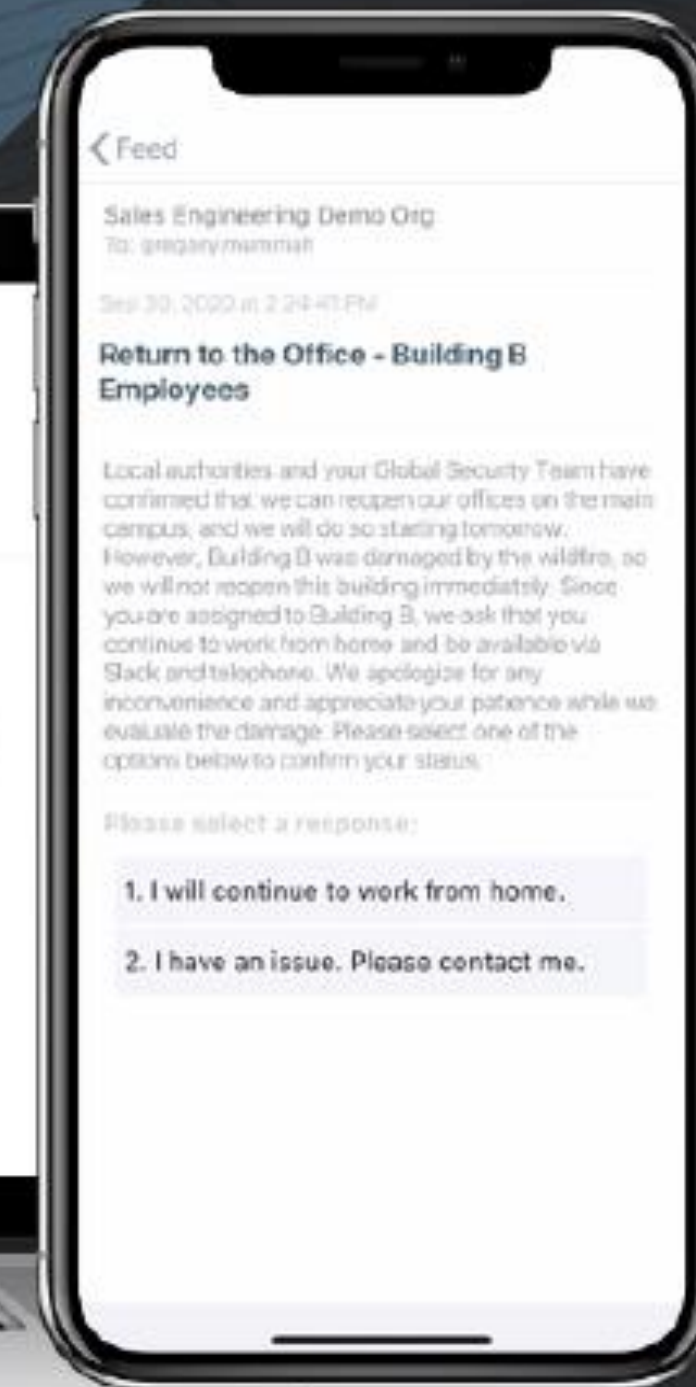
+ Add Comment

**i** As the fire is contained near your facilities, your security team is allowed into the area to assess damage. The team photographs and documents the damage, including major damage to the second manufacturing site and a parking structure on the main campus. Both structures are deemed unusable at this time.

## BACK TO CAMPUS



## WORK FROM HOME



The security team gives the OK to reopen the rest of the campus. Power is restored to all buildings except the second manufacturing site and the parking structure.

## CEM Capabilities by Event Phase



- Alert on the wildfire and show the perimeter and all assets potentially at risk
- Validate the wildfire is happening and its location with cameras other contextual tools
- Re-assess continually as the wildfire perimeter changes
- Post-event, assess the damage



- Corporate campus in California in relation to the fire perimeter
- Work-from-home employee locations as well as select employee homes
- Travelers, partners, and other relevant assets in the area
- Responders as they evacuate campus and again when they return for damage assessment



- Communicate with stakeholders and all employees, including work-from-home employees
- Evacuate the campus and inform all employees as the threat evolves
- Keep management informed for the duration of the wildfire
- Post-event, document damage and decide what facilities can reopen



- Review crisis management plan execution and logs and identify any gaps
- Review communications strategy execution and logs and identify any gaps
- Leverage after-action report data to perform tabletop exercises and address wildfire response plan gaps
- Adjust alert severity and distance thresholds according to updated risk tolerance

# Leveraging technology to manage Enterprise Resiliency

*Walgreens*

*Throughout the 2018 hurricane season, Walgreens' SOC leveraged Everbridge to conduct **hundreds of safety and wellbeing checks** on impacted team members" to keep employees and staff safe.*

Life Safety & Continuity



Major  
Pharmaceutical  
Chain

*By using CEM one pharmacy was able to coordinate with the state to fly medications into Beaumont, Texas during Hurricane Harvey, ensuring over 13,000 clients with pre-packaged medications received access."*

2017

Life Safety & Continuity



Major  
US Bank

*"[Our] Bank utilized Everbridge, to send polling notifications to all 18,100 employees via the Everbridge Mobile App, asking if they have COVID symptoms and following up directly if answered YES."*

2017

Life Safety & Continuity

A close-up photograph of a hand with the index finger pointing towards the right. The hand is in sharp focus, while the background is blurred, showing other people's hands in a similar gesture, suggesting a group or audience.

# Questions

The background is a long-exposure photograph of a multi-level highway interchange at night. The lights from the vehicles create long, colorful trails in shades of white, blue, yellow, and red. The scene is illuminated by streetlights, and the overall atmosphere is dynamic and modern. The image is framed by abstract geometric shapes in blue, orange, and red at the corners and sides.

# Next Steps